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# Empirical Study on the Financial Development to Promote the Urbanization Process in China: A Case of Hubei Province

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Additional information is available at the end of the chapter

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## Abstract

As the central province, Hubei is a typical area of urbanization in China. Analysis of Hubei economic development has a certain representation in the process of urbanization. Since 1990s, research on 25 years of data and practices in Hubei shows that three major finance industries in Hubei, including banking, securities, and insurance, have played an important role in the process of urbanization. In the aspects of agricultural industries, urban construction, and industrial structure, the development of finance has promoted the process in agricultural industries, population urbanization, and industrialization.

**Keywords:** financial development, urbanization, statistical description, empirical study

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## 1. Introduction

### 1.1. Significance of the topic

China is actively promoting the reform and opening-up policy and modernization, which including urbanization, information, new-type industrialization, and agricultural modernization. As one of the new “four modernization,” urbanization has become an important and indispensable component of China's socialist modernization process. For this purpose, China issued the “National plan on New urbanization”, which pointed out that China's urbanization rate of the population should reach 60% by 2020. The urbanization rate in 2014 was 54.77%, and the annual urbanization rate should be increased by 1 percentage point or so in future. In fact, China's urbanization rate presented a slowing trend, so it is difficult to accomplish the

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urbanization index of “Thirteen Five Plan”. Hubei province being as an important economic hub of the Yangtze River and as a more developed economic province of China's central area, which plays an important role in promoting the urbanization construction process.

Financial development is a very important driving force in the process of urbanization, especially for financial institutions that can provide the financial support to the process of urbanization. Meanwhile, urbanization can promote the financial system to be more perfect in return, so there is a close relationship between financial development and urbanization. Therefore, the study of financial development based on Hubei province has a great practical significance in promoting the process of urbanization.

## **1.2. Domestic and foreign research literature review**

### *1.2.1. Foreign research*

A famous American scholar Kuznets [1] described urbanization as a process of migration from rural to urban. Goldsmith [2] proposed the concepts of financial structure and financial interrelations ratio (FIR). Stopher [3] believed that financial development can provide strong financial support to the development of land resources in the process of urbanization.

### *1.2.2. Domestic research*

Yinli [4] studied the relationship between the process in the financial industry and urbanization, and she thought that there was reciprocal causation of each other, the latter can be driven by the deep development of the former, and the latter also can be further developed to strengthen the former. Guo Jiang Shang [5] found that both the development of the financial industry and the process of industrialization can promote the process of urbanization, meanwhile development of the financial sector would promote the process of industrialization, and the financial development of urbanization utility is greater than utility of the industrialization.

A study on the interaction between financial development and urbanization of an area is done. Zhiwei [6] uses the panel data of 17 prefecture level cities in Henan Province as an example to study the influences of financial development on urbanization in the period 2001–2012, and he found that financial development significantly inhibited the advance of urban employment, but it significantly promoted the household population urbanization process in the short term. So it is not obvious for it to support the lifestyle urbanization and urban construction of urbanization.

### *1.2.3. Briefly reviewed*

Both foreign and domestic scholars believe that there was a reciprocal causal relationship between financial development and urbanization, but in the actual situation of a certain region of our country, on account of the degree of economic development and urbanization in each region are not identical, and the data selected to be studied are also different, so the conclusion will also have differences. Viewed from present research current situation, whether financial development or urbanization development has a more mature theoretical system, but most of the research is done at the national level, and the current analysis of the Hubei

area alone is relatively scarce. Thus the author takes local areas to study the specific relationship between them, in order to make up for some deficiencies of the research field.

## 2. Research design and methods

The paper with the following three methods helps to expand research in three steps:

1. *Statistical analysis method*: to analyze development and urbanization in Hubei financial key indicators, analyze the banking, securities, and insurance industry developments and financial indicators of FIR reflecting the financial situation, to use a population urbanization rate reflecting the process of urbanization.
2. *Comparative analysis method*: to compare the differences of urbanization process of Hubei and developed identity (Zhejiang) and entire country, to discuss the lagged problems of urbanization in Hubei.
3. *Production function analysis method*: to study the situation of financial development promoting the process of urbanization in Hubei, including three aspects: first, agricultural loans reflecting that financial support the urbanization of agricultural and industrialization level; second, infrastructure investment reflecting the financial support of urbanization on urban construction level; third, financial investment in the second and third industries reflecting the urbanization of the industrial structure optimization level.

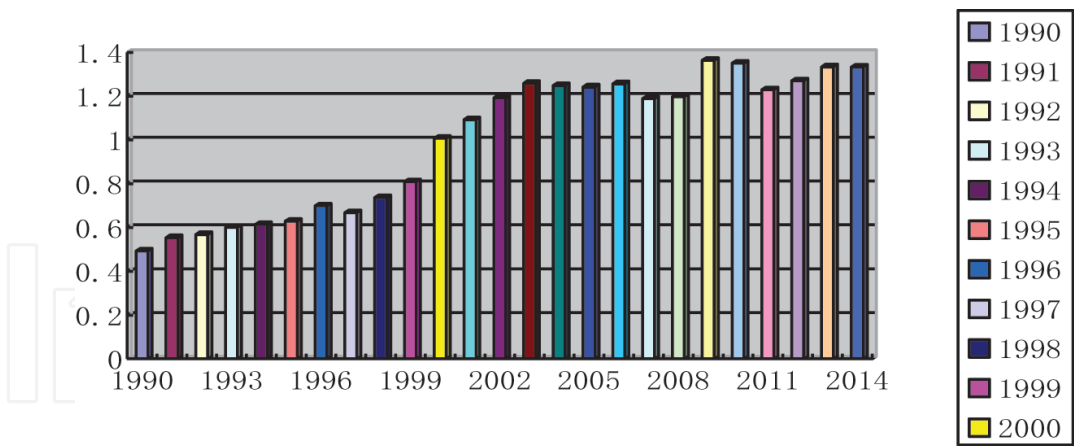
## 3. The general statistical analysis of financial development and urbanization process in Hubei

### 3.1. Financial development in Hubei

Since the establishment of the financial markets in 1990, China's financial industry has become the core strength of the national economy. This paper respectively selects the data of 25 years from 1990 to 2014, analyzing the current situation of Hubei's financial development in three aspects, including banking, securities, and insurance industry.

#### 3.1.1. Banking

Overall, the total deposits and loans of banking institutions in Hubei show a rapid upward trend, from 406.56 billion and 732.77 billion in 1990 to 36494.82 billion and 25289.82 billion in 2014, both have a substantial growth. GDP growth is particularly rapid. From **Figure 1** bar chart, the FIR rose from 0.4932 to 1.3335 in nearly 25 years. There appears to be slight fluctuations between 2007 and 2008 due to the impact of the financial crisis, but the trend is upward, which indicates that there is progressive development of the financial market in Hubei. This paper uses the FIR which was proposed by DE Smith to reflect the ratio between one region that comprised values of financial assets and the country's or the region's total economic activity; in this way, it judges the scale of financial market and the ability to absorb the savings in this region. In this paper, the financial related rate is concluded by calculating the proportion of deposit balance in GDP (**Figure 1**).

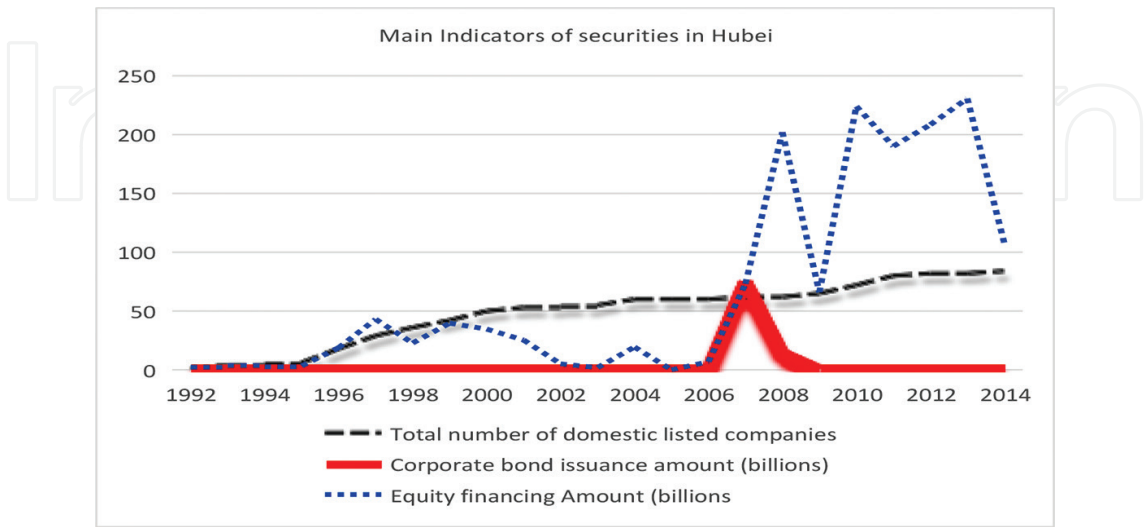


**Figure 1.** Financial related rate (FIR) of Hubei in 1990–2014. *Source:* Based on Hubei’s 1990–2014 Statistical Yearbook data.

3.1.2. *Securities industry*

In recent years, the rapid development of China’s securities market making increasingly more enterprises have more opportunity to choose the way of direct financing to raise funds. It can be seen from **Figure 2**, during the period of 1992–2014, the number of listed companies in Hubei has been increasing under favorable market situation. While in the part of corporate bond issuance, it can be seen through the table data that there are only a handful of enterprises to issue bonds, which indicates that the development of bond market is lagging behind in Hubei.

Overall, listed companies’ amounts of share funding (SA) have fluctuated a lot in Hubei, there were even no domestic listed companies in some years, and corporate bond issuance amount (BA) was negligible. Security industry’s development of Hubei has some influence on the urbanization process, but the influence is relatively weak compared with the banking sector. The paper will use the ratio between the amount of BA + SA and the total amount of assets to replace the financial structure, in order to reflect the degree of development of financial system in Hubei.



**Figure 2.** Main indicators of securities of Hubei in 1992–2014. *Source:* China Securities Regulatory Commission and deep statistical data of Flush.

### 3.1.3. Insurance

With the gradual development of the economy, the degree of market opening of China's financial deepening, and people's awareness of insurance has gradually increased, which brought a lot of space for the development of insurance industry in Hubei. According to the statistics of Hubei, there were 67 insurance companies in 2014, annual premium income reached 700.23 billion yuan (RMB), which increased 19.2% compared with the previous year. Life insurance companies and property insurance companies each had income of 21.937 billion yuan and 48.085 billion yuan, up 20.6% and 18.6%. It also increased more than 20% apparently in the payment of the indemnity (**Figure 2**).

Data from **Table 1** show that the insurance industry developed rapidly in Hubei since the twenty-first century. Premium income increased to 70 billion in the past 15 years, turned more than 10 times. The average annual growth rate of premium growth is about 20%, even more than 63% in 2008. It also reflects the rapid development of the financial sector and its role in promoting the development of urbanization to a certain extent.

Year	Premium income (billions)	Growth rate (%)
2000	60.67	6.9
2001	70.06	15.6
2002	91.38	30.3
2003	106.26	16.3
2004	122.54	15.3
2005	144.48	17.9
2006	160.80	10.8
2007	193.73	20.5
2008	317.15	63.7
2009	372.42	17.4
2010	500.33	34.3
2011	549.77	10.3
2012	595.41	8.3
2013	712.12	19.6
2014	700.23	19.2

Source: The Statistical Yearbook of Hubei.

**Table 1.** Main indicators of Hubei's Owners Insurance in 2000–2014.

## 3.2. The urbanization process of Hubei

### 3.2.1. Urbanized history in Hubei

Chinese urbanization process has become the epitome of an era, and Hubei is a typical province in central China. Overall, the process of urbanization in Hubei is consistent with the other

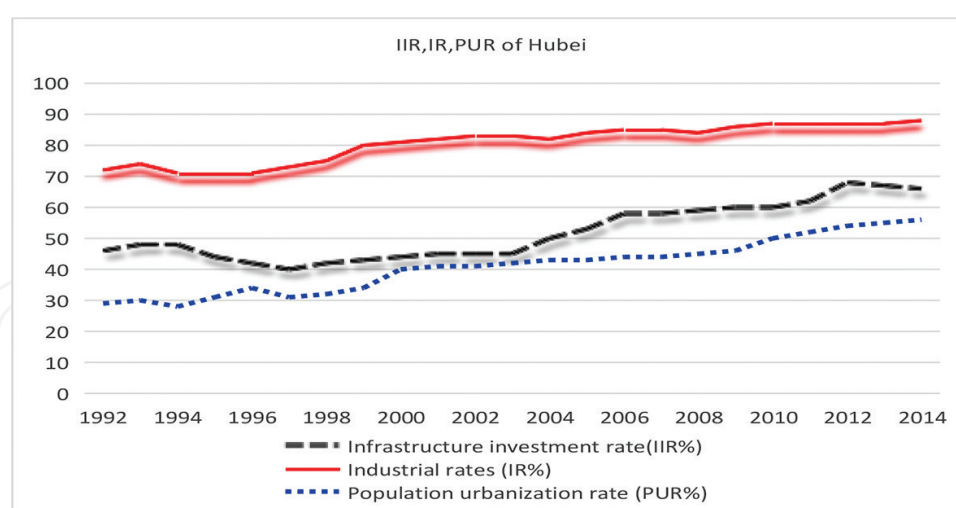


China's major provinces, roughly divided into three stages: (1) rapid development stage in 1949–1957; (2) in the last 1960s and 70s, the level of urbanization had a recession due to some historical causes; (3) since the reform and opening up in 1978, due to the effective implementation of government policies, urbanization has gradually went into the normalization process, showing the trend of rapid growth, which can be seen from the joint action of performance of government and private voluntary's promotion and the flow of rural population to the cities every year.

### 3.2.2. Statistical analysis of urbanization in Hubei

Since the new century, Hubei's economic and finance have achieved rapid development, and urbanization development has entered a new stage.

It can be apparently seen from **Figure 3** that the urbanization process has made tremendous progress in 1990–2014 and the urbanization rate (PUR) increased from 29 to 56%, an increase of 93%. Both in 1999 and 2000, the growth rate is prominent. The urbanization level is usually divided into three parts, namely the early, mid and late. When the urbanization rate is equal to or less than 30%, it is the initial stage. When the urbanization rate is in the range of 30–70%, it is the mid-stage. When the urbanization level is greater than or equal to 70%, it is the late stage. Up to 2014, the level of urbanization in Hubei has reached about 56%, and based on the division we can consider that Hubei has entered the middle stage. The urbanization rate (PUR) referred in this paper is the proportion of non-agricultural population in the total population (**Figure 3**).



**Figure 3.** IIR, IR, PUR of Hubei in 1990–2014. *Source:* The Statistical Yearbook of Hubei.

Under the influence of reform and opening-up policy and development of the Yangtze River economic belt and other favorable factors, the development trend of urbanization in Hubei is rapid, and the urbanization rate is higher than the national average level. Although a lot of progress has been made, what can be seen in **Table 2**, Hubei still falls behind by 10 percent-

age point compared with the eastern Zhejiang province, and the data illustrate that it still has many problems in the process of development of urbanization in Hubei. For example, there is the problem of uneven regional development in Hubei. Except for a few cities which have rapid economic development, like Wuhan and Yichang, due to the smaller town size, weaker economic strength and lack of pillar industries, the urbanization development of most other regions is relatively lagged.

Year	2010	2011	2012	2014
Hubei	49.72	51.83	53.50	55.67
Zhejiang	61.62	62.30	63.20	64.87
Nation	49.95	51.27	52.57	54.77

*Source:* Consolidation of statistics data from National Bureau.

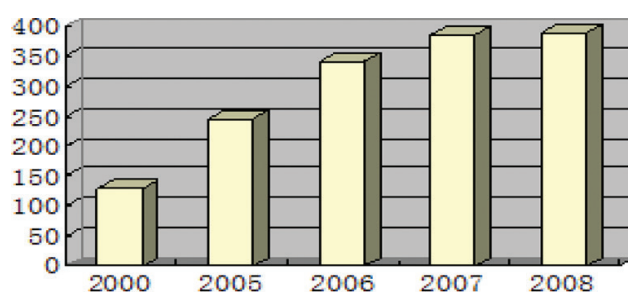
**Table 2.** Hubei Province, Zhejiang Province and the nation's urbanization rate in 2010–2014.

## 4. The empirical analysis of financial development to promote the urbanization process in Hubei Province

This paper analyzes the following three aspects of financial development's promoting the urbanization process: (1) using the agriculture loan amount to show the supports of agriculture industry by the financial institutions. (2) Using the investment to the basic constructions to show the supports of the construction of cities and towns by finance. (3) Using the investment to the second and third industry and the second and third industrial added-value to show the supports of optimization and upgrade of the industrial structure by finance.

### 4.1. Hubei financial supports for the development of the agricultural industry

Agricultural modernization is often developed along with the development of urbanization. The development and upgrading of organization, industrialization and marketization are the main features of agricultural modernization. In this process, the agricultural demand of modern science and technology and economic management methods, which cannot be separated from the support of financial capital. Therefore, the financial sector of government should guide and allocate financial capital, in order to play a positive role in promoting the development of modern agriculture (**Figure 4**).



**Figure 4.** Hubei financial support for the agricultural funds during 2000–2008.



Since 2005, Hubei has issued a series of measures in succession including the use of risk prevention cash to promote the whole province's reform of rural credit cooperatives. According to statistics, 38 branches of them are smoothly combined and transformed into rural commercial banks or cooperative bank. By the end of 2014, compared to early 2014, great progress are made by the data obtained, in which loans reached 300 billion yuan, an increase of 53.3 million yuan. Agricultural loan balance is 225.6 billion yuan, an increase of 38.5 billion yuan, accounting for more than 80% of the total number of financial institutions in Hubei.

According to data of the Agricultural Bank of Hubei branch at the end of 2014, the Agricultural Bank had put 972.56 billion yuan loans to the poor areas. Since the reform of poverty alleviation and discount in our country in 2008, agricultural credit has developed rapidly. As far as the Agricultural Commercial Bank (ACB) is concerned, it has given out 69.96 billion yuan loans for poverty alleviation and discount. At the end of 2014, the loan balance is about 41.5 billion yuan, an increase of about 78% compared with the beginning of that year. About 269.84 billion yuan were put into poor areas of energy, electricity, water and transportation and other infrastructure areas.

So it can be illustrated that rural credit cooperatives and ACB and other financial institutions are playing a positive role in the development of agricultural industry in Hubei.

#### **4.2. The supports of Hubei financial development to the construction of cities and towns**

Urban construction involves many aspects, not only including airports, bridges, water resources, urban drainage and gas supply, providing intangible products or serves in science, education, culture and hygiene, but also every side of the lives of residents. So it is important material base of national production and life. In this paper, we mainly study the representative investment of infrastructure construction.

In the following table we can see that in the process of urbanization, the investment in infrastructure construction is in an increasing trend, the infrastructure investment rate(IIR) increased by 0.39 in 1990 to 0.66 in 2014, accounting for more than half of the total investments. The step-down growth rate of investment in the past two years may be related to the gradual saturation of infrastructure, but in general, infrastructure investment is in a rising trend. In the following the proportion of the infrastructure investment in total fixed investments will be set as infrastructure rate (PUR) and it is one of the indicators of measuring the level of urbanization (**Figure 3**).

#### **4.3. The support of Hubei financial development to the optimization of industrial structure**

From **Figure 3** we can intuitively see that during the period from 1990 to 2014, there had a rapid growth of the second and third industry investment in Hubei, of which the proportion of the third industry investment accounted for the largest. This showed that Hubei has been committed to optimizing the allocation of funds, the industrial structure is more reasonable through the transfer of funds between the three sectors and it had laid a good foundation for the development of new urbanization.

At present, more and more of the rural labor has turned into the second and third industry which bring them more abundant labor force and higher economic growth and this is the same as the trend of increases of the second and third industry (**Figure 3**).

We can draw a conclusion that the second and third industry added value are increasing steadily and industrial ratio also showed a rising trend. In this paper, the second and third industry divide GDP industrial ratio (IR) are used to show the level of the industrial structure optimize in Hubei, which is representative of one of the indicators of urbanization development. The third industry based on the service field, its development can promote employment furthest, and absorb more labor force from the rural labor force. That will undoubtedly sustain additional fund, only give full play to the function of optimizing the allocation of funds of government finance and financial system can better promote the adjustment of industrial structure in Hubei.

## 5. Conclusions and suggestions

### 5.1. Conclusions

Statistical analysis shows that the financial development of Hubei, urbanization and the role of the latter to promote the former. According to the results of statistical analysis:

1. From the perspective of financial development: during 1990–2014, Hubei's bank industry deposit and loan balances and GDP has a great growth. In addition, the securities industry is also gradually improving and developing, direct financing channels are also increasingly becoming more and more enterprise's financing options. The amount of financing of stocks and bonds have a certain growth, the number of listed corporation has reached 84, ranking first in the country's middle area. The insurance industry's income has increased rapidly, turning over a few times in 14 years from the beginning of the twenty-first century till now. Overall, the development trend of the financial industry in Hubei is more positive, there is a lot of room for development in the future.
2. From the perspective of the process of urbanization: Hubei has made great progress in the process of urbanization, the urbanization rate has increased to 55.67%, and the process of urbanization is in a high-speed development period. In addition, the industrial structure of the three major industries are gradually optimized and upgraded, due to the development of agricultural modernization, resulting in more rural surplus labor force, and these labor force transfers to the second and third industry gradually. From the current view of the process of urbanization in Hubei, already exceeded the national average level, but compared with the more developed eastern provinces, there are still a lot of differences.
3. From the perspective of the role of financial development to promote the process of urbanization. In the past 10 years, the amount of investment in the three major industries increased year by year, and the three industries have a certain degree of optimization. Its support for the second industry and the third industry is higher than the first industry,

which will make the industrial structure more reasonable. The two industries accounted for the proportion of the national economy is also gradually improving.

4. From the view of the function route of financial development on promoting the process of urbanization. Hubei's finance has promoted the process of urbanization in agricultural industry, urban construction and industrial structure optimization, and this specific path is driving wheel: financial development does not only promote urbanization, but also promote the industry of urbanization.

## 5.2. Suggestions

1. To accelerate the reform of the financial system in order to improve the level of financial services. Financial system reform may involve the process of urbanization in the financing and allocation of funds. According to the statistical yearbook data of Hubei, the resource of current funding for the construction of the town of Hubei is mainly from financial market funds, the government's financial support is very small. Therefore, on the one hand, the financial market mechanism should be improved to push the market allocate the financial resources efficiently to the urbanization field; On the other hand, the government should give more policy support, and pay attention to the advantages of "the function of policy finance", to strengthen the government's policy support. Using the policy finance of low interest rates and large financing welfare and high executive ability to prompt ACB, rural credit cooperatives (RCC) and other financial intermediaries to lower the loan threshold, the local government may provide more convenient financial services for the urbanization construction.
2. To establish a multi-level capital market system in order to broaden the financing channels. Urbanization is complex system engineering, which needs more diversified financial support, so it is necessary to rely on a multiple market including the first, second, third and fourth edition markets in order to meet the demand of funds. We mainly do well in two aspects: first, we should establish a multi-level capital market system, expand the total amount of financial capital, and improve the development of financial market; second, we must introduce private capital to participate in the financial market activities, give full play to the positive role in the private financial capital in the process of urbanization.
3. To optimize the industrial structure in order to promote the process of urbanization. Upgrading of the industrial structure is an important aspect of the development of urbanization; with the progress of urbanization process, the industrial form is also transformed from labor-intensive industry to capital- and technology-intensive industrial fields. In the process of development, we should use financial support to meet the needs of different types of enterprises, especially the new type of enterprises. We also have to increase the support to industrial parks, low carbon industry, and the characteristic industry, and relax the financing of SMEs to promote their growth and development, so as to achieve a diversified industrial development.

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