Research on the Impact of Real Estate Investment on Economic Growth in Anhui Province

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Abstract
As an important part of China’s fixed asset investment, real estate investment plays an indispensable role in China’s national economic growth. This paper analyzes the development status of real estate investment and economic growth in Anhui Province from 2010 to 2019. Both of them maintain a stable and good growth in the past ten years, and have a strong positive correlation. This paper uses linear regression model to empirically test the data from 2010 to 2019, and accurately calculates the promotion effect of real estate investment on economic growth. Every 100 million yuan of real estate investment can increase the GDP of 53549 million yuan. In addition, combined with the current situation of Anhui’s economic development, this paper explores the impact mechanism of real estate investment on economic growth. Although real estate investment has positive effects on promoting investment, promoting the development of related industries and providing employment, it also has obvious crowding out effect, real estate investment bubble inhibition and market risk. In view of these problems, this paper puts forward some policy suggestions, such as balancing the development of real estate industry and strengthening market supervision, in order to better play the role of real estate investment in promoting economic growth.

Keywords
Real Estate Investment; Economic Growth; Linear Regression; Influence Mechanism.

1. Introduction
Real estate is a more comprehensive concept, generally refers to land and buildings and other related objects, including real estate and real estate, is a combination of physical objects, rights and interests and location, generally also known as real estate. When real estate exists in the market in a larger amount and more forms, it gradually forms the real estate industry. The real estate industry has been developing and maturing for more than 20 years, and now it has become one of the pillar and strategic industries of our national economy. Real estate investment refers to investors in the balance of income and risk, the investment in the real estate industry, in order to obtain future uncertain returns. With the further development of the financial market, the forms of real estate investment are more diverse, including real estate development investment, real estate investment trust funds and so on. Since the reform of commercial housing in 1998, the real estate industry has developed rapidly, the proportion of real estate transactions in commercial transactions is increasing, and the proportion of investment in fixed assets has gradually increased. Fixed assets investment is one of the three driving forces of national economic growth. Real estate investment involves a wide range of industries, from real estate enterprises to use capital to develop economic activities such as building residential or commercial real estate, to real estate developers through sales, leasing and other ways to obtain more funds, and then the next round of investment. In this cycle, real estate financing is involved in the financial sector, and real estate construction affects the construction industry, building materials industry and logistics and transportation industry.
From the perspective of residents, because real estate is of great significance in the traditional concept and is an indispensable demand for Chinese residents, real estate consumption is the core part of residents’ consumption, which also makes real estate prices continue to rise rapidly. Real estate investment gains excess profits, further prompting more capital to pour into the real estate market. In order to maintain the sustained and healthy development of the real estate industry in Anhui Province, gradually improve the relevant policies and stimulate the vitality of real estate investment, the development of the real estate industry has also contributed a great deal to the economic growth of Anhui Province. This paper studies the relationship between real estate investment and economic growth in Anhui Province, analyzes the role of real estate investment in economic growth and the existing problems, and puts forward some suggestions in combination with the current development situation of Anhui Province. In order to make Anhui Province economy sustained healthy, stable, high-quality development.

2. Current Situation of Real Estate Investment and Economic Growth in Anhui Province

Driven by the continued improvement of the macro environment and constant market demand, investment in real estate development in Anhui Province continues to grow steadily. The sales of commercial housing are getting better. Between 2010 and 2019, Anhui real estate development investment rose from 225.18 billion yuan to 667.048 billion yuan, the increase was as high as 196.23. In this decade, with rapid economic growth, real estate investment grew faster between 2010 and 2013, and then, as the government regulates house prices, a series of restrictions, as a result of the suspension of growth from 2013 to 2016. But since 2016, a new round of reform, the real estate industry attaches importance to high-quality development and financial markets are gradually improving, faster growth in real estate investment, the four-year increase reached 44.90. At the same time, the GDP of Anhui Province has continued to develop rapidly in this decade, steady forward, from 123.5333 billion yuan in 2010 to 371.1398 billion yuan in 2019, the increase was 200.29 per cent, the prosperity and development of economy provide a good development environment for maintaining the vitality and innovation ability of economy and society. Anhui Province from 2010 to 2019 GDP and real estate development investment growth as shown in figure 1. As of 2019, Anhui Province real estate development investment accounts for about 17.97% of the GDP, it shows that real estate investment has become an important part of the GDP of Anhui Province, real estate investment plays an important role in economic growth.

Figure 1. Growth of investment in GDP and real estate development in Anhui Province, 2010-2019
3. Empirical Study of Real Estate Investment on Economic Growth

3.1. Selection of variables and data processing
Using Eviews 9 software to measure and analyze the real estate investment and GDP in Anhui Province from 2010 to 2019, using X to represent the real estate investment in Anhui Province, and Y to select the time series data from 2010 to 2019 on behalf of Anhui Province. Data from China’s statistical application support system provincial data.

3.2. Correlation analysis
Using Eviews 9 software to describe the scattered plot of X and Y, and to find out the correlation coefficient, it can be seen from the track of point 1 in figure 1 that the direction of change of real estate investment and GDP is consistent in general, and there is a positive correlation. Table 1 shows that the value is very close to 1, indicating that the positive correlation between the two is very high and there is a significant correlation.

![Figure 2. LNX and LNY scatterplots](image)

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3.3. Regression analysis
Economic relationship between real estate investment and GDP can not be explained in detail only from correlation analysis, so we need to use regression model to analyze the influence of real estate investment on GDP in detail. The basic settings of the model are as follows:

\[ Y = a + bX \]

By substituting the data from 2010 to 2019 and using the least square method to estimate the parameters, the following equations are obtained:

\[ Y = -389.1685 + 5.3549X \]

Examination of the model, R² of which is 0.9506, the goodness of fit of the model is very high, the F statistic is 153.8922, the parameters pass the test, and accord with the economic significance test. The equation obtained from the model can be seen that the real estate investment in Anhui
Province has a high correlation with the gross domestic product. For every 100 million yuan increase in real estate investment, the gross domestic product will increase by 535.49 million yuan. With the increase of investment, real estate industry involves many other industries in the development of national economy, so smaller real estate investment will produce larger output of national income.

4. Analysis of the impact mechanism of real trading on economic growth

4.1. The role of real estate investment in promoting economic growth

1. directly drive investment. Because of its large volume, real estate investment has always occupied a considerable proportion in the national economic system. On the supply side, this is directly reflected in all aspects of real estate industry production, including land development, procurement of building materials, transportation logistics, construction and so on. With the increase of real estate investment, the supply volume increases, and the supply of related industrial products increases. For example, the construction decoration industry needs to provide a lot of cement and steel. Glass, etc. Real estate investment not only has the effect of improving investment, but also can effectively promote the development of related industries. Every link in the real estate industry requires a lot of manpower and capital, which will provide more jobs and funds are scattered in every link, which requires huge input and corresponding social and economic output. Because of the hot housing market in recent years, house prices are rising rapidly, land and other related industries are rising, property appreciation is much faster than GDP, which makes real estate investment highly profitable and attracts more capital, which will directly promote the rapid development of the national economy.

2. promote the development of related industries. The increase in real estate investment has also led to the development of related industries. In the process of real estate production, a large amount of wood, cement and steel are needed, which is conducive to expanding domestic demand and solving the problem of overcapacity. At the same time, the government stipulates that it should adhere to high-quality development, encourage innovation and support the use of high-tech, such as new construction technology, decoration materials, which will have a profound impact on the production and manufacturing industry. In addition, real estate investment can drive the development of downstream financial services industry, real estate development investment, real estate investment trust funds and other financial services will be more conducive to the building of people's livelihood, better serve the society, and give full play to the inclusive effect. As an important part of the tertiary industry, the real estate industry plays an important role in promoting the tertiary industry. The sustainable and healthy development of real estate investment is conducive to the optimization and upgrading of the industrial structure. To meet the people's growing needs for a better life also plays an indispensable role.

3. improve the level of employment. The real estate industry is a capital-intensive and labor-intensive industry. In every link of the real estate industry, more jobs are provided, such as water supply, power supply, heating, decoration, greening and other departments, which need relatively more manpower, solve a large number of social employment problems and relieve some of the employment pressure. At the same time, the development of real estate investment will also improve the income level of the real estate employment personnel, and then enhance the consumption ability of these groups, make the social consumption demand increase rapidly, indirectly promote the national economic growth.

4.2. The restraining effect of real estate investment on economic growth

1. extrusion effect is obvious. Extrusion effect refers to the large amount of social funds entering the real estate industry, which leads to the reduction of investment in other departments, which
is not conducive to the overall balanced development of economy and society. Because the real estate market is hot, the investment in the real estate industry is growing rapidly, and its return rate and return cycle are higher and shorter than other industries, which further urges the social capital to invest in the real estate industry. From a technical point of view, the real estate industry has absorbed a large amount of capital and reduced capital liquidity, which leads to the reduction of profits in other industries, thus neglecting or giving up technological innovation and reducing the scientific research ability of enterprises, which is not conducive to the long-term and stable development of the national economy.

Excessive investment caused bubbles. In recent years, because the real estate market is hot, because the return rate is far higher than other industries, real estate investment is growing rapidly, investment demand is rising, resulting in rising house prices, and high prices make most residents unable to afford real estate prices. And then reduce housing rigid demand, so there are a lot of empty real estate phenomenon. This unhealthy consumption situation will certainly damage the healthy development of the national economy and does not accord with the people-oriented economic construction. The unbalanced supply and demand structure and the continuous hot investment will lead to the real estate market bubble, which will be a disastrous blow to the national economy.

5. Conclusions and recommendations

Real estate investment plays an important role in China's national economic development, making full use of the positive impact of real estate investment on economic growth, giving full play to the role of real estate industry in driving other related industries, and preventing the overheating development of real estate industry and economic bubble. In order to promote economic growth and ensure the healthy development of the market, the following suggestions are put forward:

5.1. Balanced development of the real estate industry and moderate promotion of economic growth

Real estate investment is still an important part of China's fixed assets and plays an indispensable role in China's economic growth. Therefore, it is necessary to continue to develop the real estate industry, but it is necessary to develop in an all-round and balanced manner. And lead to other industries difficult to develop normally. Give full play to the driving role of real estate, promote the sustained and rapid development of related industries and downstream financial services industry. At present, the economy of our country is changing from the stage of high speed development to high quality development, the economic growth rate is slowing down, and the downward pressure is increasing. It is necessary to make good use of the real estate industry to provide jobs and attract social investment to promote economic growth.

5.2. Strengthen supervision and control of real estate market risks

In order to ensure the sustained and healthy development of real estate, we should strengthen the supervision and control of the real estate market, severely punish illegal acts such as malicious land use, land storage and land speculation, and severely crack down on the publication of false market information and speculation, which cause market chaos. We should strengthen the construction of indemnificatory apartment and low-rent housing, increase the supply of housing, reduce the cost of using housing for residents, prevent the house prices from overheating continuously due to the shortage of supply, and give full play to the role of affordable housing in solving people's livelihood and stabilizing house prices. We will broaden the financial channels for real estate investment, improve relevant laws and regulations, continuously supervise the real estate investment market, gradually promote the modernization of real estate investment, and eliminate the real estate market bubble. To
establish a social credit system, it is necessary to strictly examine or prohibit the blacklisted dishonest personnel and enterprises from entering the real estate market, standardize the market order, and control the risks of the real estate market.

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