

The Scale, Structure and Benefit Analysis of Real Estate Investment in Jiangning District, Nanjing

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ABSTRACT

As an important part of fixed assets investment, real estate investment has an extremely important impact on economic development. Based on the economic census data from 2014 to 2018, this paper analyzes the investment scale, structure and benefits of real estate enterprises in Jiangning District, Nanjing. The analysis shows that the number of enterprises and the total investment of real estate industry in Jiangning district are expanding in the process of development. At the same time, due to the government issued relevant policies to regulate and control, the commercial housing sales in Jiangning District decreased in the past two years, and the phenomenon of real estate speculation was effectively controlled. The development of real estate industry in Jiangning district has also brought good social and economic benefits. However, Jiangning district real estate industry also has some problems, such as the rapid growth of housing prices, too much credit into the real estate market. Therefore, we should carry out the destocking policy reasonably according to the specific situation, maintain a reasonable scale of development, and strengthen the management of commercial housing structure planning, so as to promote the better development of the real estate industry.

Keywords: Real estate enterprises, Investment scale, Investment structure, Investment benefit

1. INTRODUCTION

As an important part of the national economy, the real estate industry not only plays a huge role in promoting GDP growth, but also improves the urban layout and people's life, and promotes the common development of upstream and downstream industries. At present, China's real estate industry is transforming from a stage of high-speed development to a stage of high-quality development. The relevant measures of supply-side structural reform deployed by the central government have effectively adjusted the unhealthy growth of the real estate industry. The Government of Jiangning District united and led the people of the whole district to earnestly implement the relevant policies, actively promote the reform of the real estate industry, and gradually dissolve the real estate inventory. In the face of various contradictions and problems in the economic operation, the government actively rectifies them and constantly standardizes the market, which effectively promotes the sustainable development of the real estate industry.

Based on the preliminary summary data of the 2018 economic census, this paper analyzes the scale, structure

and benefit status of real estate investment in Jiangning District, Nanjing.

2. JIANGNING DISTRICT REAL ESTATE INVESTMENT SCALE ANALYSIS

2.1. Enterprise scale

2.1.1. The number of real estate development enterprises increased

By the end of 2013, there were 338 legal entities in the real estate industry in Tibet. By the end of 2018, it had grown to 844. The number has increased by 506 over the past five years, 2.5 times that of 2013.

2.1.2. The total amount of enterprise assets increases

By the end of 2013, the total assets of real estate development enterprises in The region reached 92.907 billion yuan, averaging 275 million yuan per enterprise; By the end of 2018, the total assets of enterprises reached 353.051 billion yuan, 3.8 times that of the end of 2014. An average of 418 million yuan per enterprise.

2.1.3. The paid-in capital of the enterprise has been continuously enriched

Paid-in capital is the operating capital invested by investors into enterprises and can be used as long-term turnover. By the end of 2014, the paid-in capital of real estate development enterprises in The region was 11.36 billion yuan, with an average of 124 million yuan per enterprise. By the end of 2018, the paid-in capital of enterprises reached 31.06 billion yuan, 2.7 times that of the end of 2014. An average of 248 million yuan per enterprise, an increase of 124 million yuan compared with the end of 2014, a double increase. The number, total assets and paid-in capital of real estate enterprises in Jiangning District from 2014 to 2018 are shown in Figure 1.

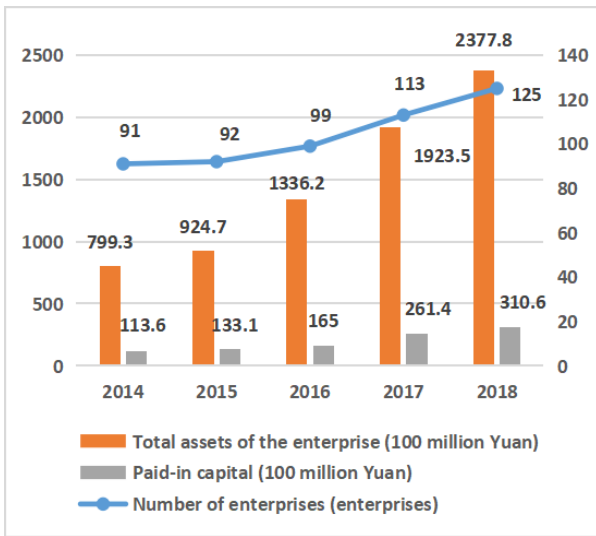


Figure 1 The number, total assets and paid-in capital of real estate enterprises in Jiangning District from 2014 to 2018

2.2. Investment scale

2.2.1. Investment completed rose steadily, but the growth rate slowed

From 2014 to 2018, the investment in real estate development in the whole region has maintained a growing trend, and the investment scale has steadily expanded. By 2018, the investment in real estate development in the whole region has reached 31.453 billion yuan, 2.3 times that of 2014. But in 2018, the annual increase was smaller and the growth rate dropped sharply. In 2016, the total amount of real estate investment in the whole region increased by 7.789 billion yuan compared with 2015, with a year-on-year growth of 44.42%. In 2017, the increase was 4.128 billion yuan, with a year-on-year growth of 16.30%. In 2018, the increase was only 1.643 billion yuan, with a year-on-year growth of 6.8%. The investment of real estate development enterprises in Jiangning District from 2014 to 2018 is shown in Figure 2.

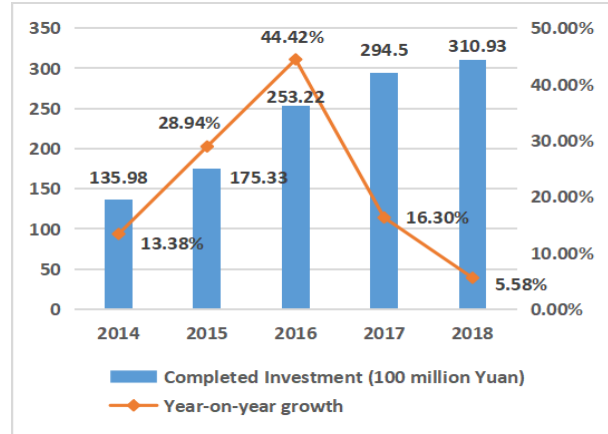


Figure 2 Investment completion of real estate development enterprises in Jiangning District from 2014 to 2018

2.2.2. The proportion of real estate investment in fixed investment continues to fluctuate

The index of investment in real estate development / investment in fixed assets reflects the proportion of investment in real estate development in all social resources, and is a basic index reflecting whether the social investment structure is reasonable. Objectively speaking, the real estate development investment/ fixed asset investment index should have a reasonable proportion range. If the proportion is too low, it indicates that the development is too cold; if the proportion is too high, it indicates that the development is too hot [1]. In developed countries, real estate investment generally accounts for 20%~25%; As a pillar industry of the national economy, the proportion of China's real estate industry can be slightly larger [2].

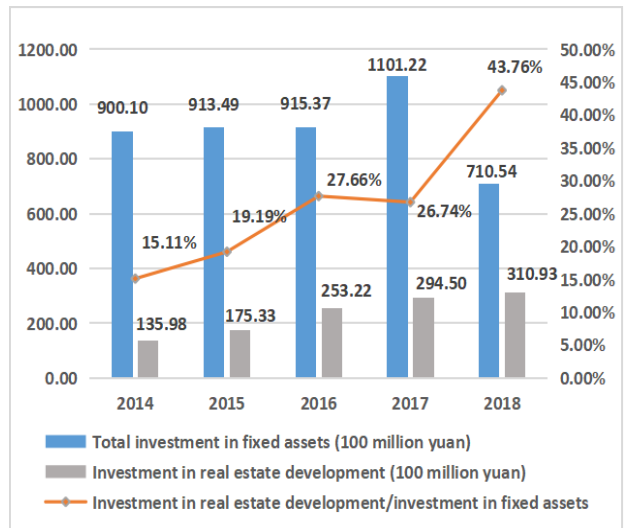


Figure 3 Investment completion of real estate development enterprises in Jiangning District from 2014 to 2018

2.3. Development scale

2.3.1. The total area under construction increased

From 2014 to 2018, the area under construction in Jiangning District showed an overall upward trend, and slightly decreased in 2015. In 2014, housing construction area was 8.616,700 square meters, which rose to 12.698,900 square meters in 2018, 1.5 times that of 2014. The housing construction area of Jiangning District from 2014 to 2018 is shown in Figure 4.

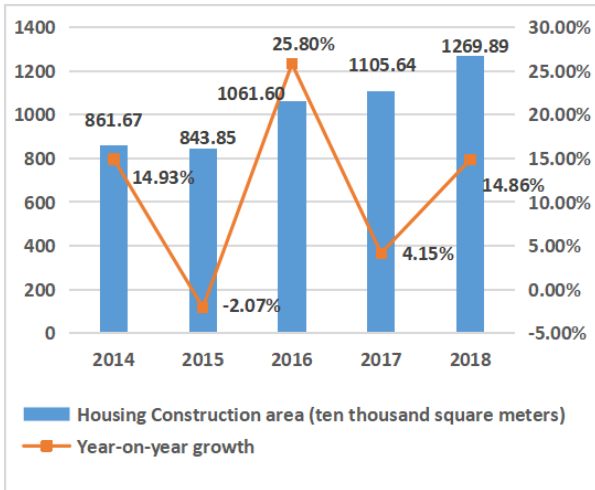


Figure 4 Housing construction area in Jiangning District from 2014 to 2018

2.3.2. Fluctuation of completed housing area

From 2014 to 2016, the completed area of houses in Jiangning District fluctuated slightly. It plummeted to 688,500 square meters in 2017. In 2018, there was a significant increase of 1,599,900 square meters. The completed area of housing in Jiangning District from 2014 to 2018 is shown in Figure 5.

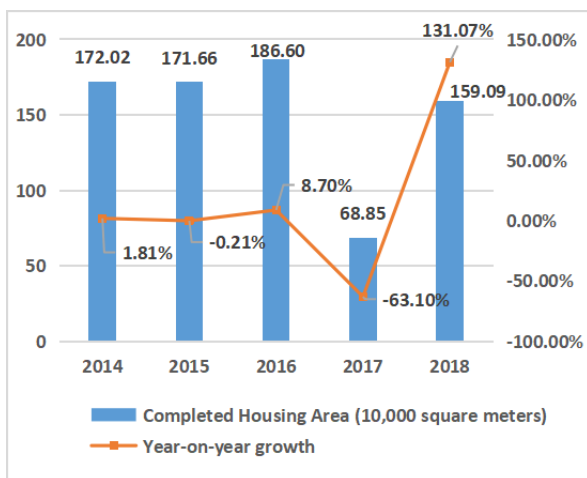


Figure 5 Completed housing area in Jiangning District from 2014 to 2018

2.3.3. Land purchase area presents an upward trend

In 2018, 504,100 square meters of land was purchased for real estate development, an increase of 88,200 square meters over 2017. The main reason is that while sales are slowing down and inventory continues to fall, real estate enterprises are not pessimistic about the future and have increased the purchase of land.

The increase of land purchase area will affect the scale of the real estate market in the next two years. First, according to the cycle from land purchase to the completion and sale of houses, it will affect the supply of commercial houses in the next two years. Inventory will continue to build over the next two years, and there is likely to be some oversupply, meaning prices could gradually recover going forward.

2.4. Market size

From 2014 to 2016, the area of commercial housing sales in the whole region has been growing steadily. In 2016, it was the largest, which was 2,543,600 square meters. In 2017 and 2018, it continued to decline, falling to 1,115,200 square meters. The sales area of commercial housing in Jiangning District from 2014 to 2018 is shown in Figure 6.

Since 2016, the decrease in the sales area of commercial housing is mainly due to the resumption of the "930" purchase restriction policy in 2016, since which the regulation policies of the real estate market have been introduced frequently [3]. Under these control policies, Jiangning district commercial housing sales area has fallen since the high for more than two years.

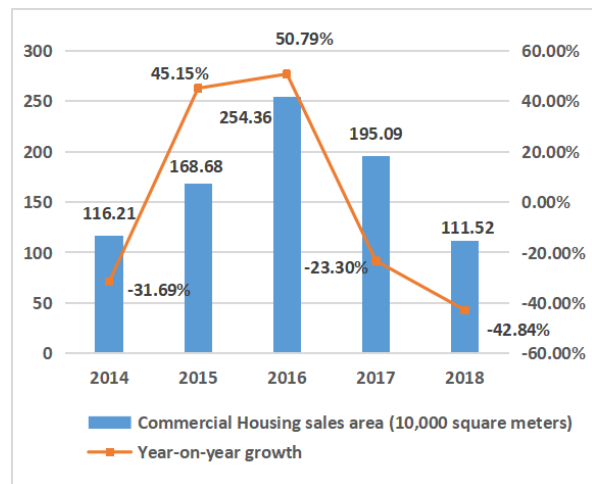


Figure 6 Commercial housing sales area in Jiangning District from 2014 to 2018

3. JIANGNING DISTRICT REAL ESTATE INVESTMENT STRUCTURE ANALYSIS

3.1. Investment structure

3.1.1. Commercial housing is the focus of investment, but the proportion of investment has decreased

By comparing the product structure of commercial housing development investment in Jiangning District from 2014 to 2018, it can be found that residential housing is always the focus of real estate development investment. The proportion of investment in 2018 decreased from 78.62% of total investment in 2014 to 69.17%. In recent years, investment in office buildings has increased significantly, with a year-on-year growth of 31.54% in 2018 compared with 2017, 18.82% in commercial business space in 2018 compared with 2017, and 32.13% in other projects. The product structure of real estate investment completed in Jiangning District from 2014 to 2018 is shown in Figure 7.

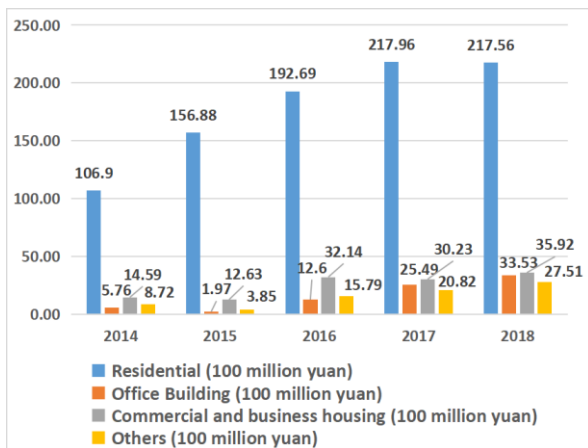


Figure 7 Product structure of real estate investment completed in Jiangning District during 2014-2018

3.1.2. The investment ratio of residential houses of less than 90 square meters decreased, while the ratio of residential houses of 90 to 144 square meters increased

For residential housing investment, 144 square meters of ordinary residential housing is the focus of investment. In 2018, investment in residential buildings of less than 144 square meters accounted for 78.23% of all residential investment. From 2014 to 2018, the investment ratio of residential houses of less than 90 square meters has been declining. In 2018, residential houses of less than 90 square meters accounted for 32.69 percent of all residential houses. The investment ratio of residential houses of 90-144 square meters has increased significantly. In 2018, residential houses of 90-144 square meters accounted for 45.54% of all residential houses, exceeding those of less than 90 square meters,

indicating that residential houses of 90-144 square meters are more popular among residents in recent years. The details are shown in Figure 8.

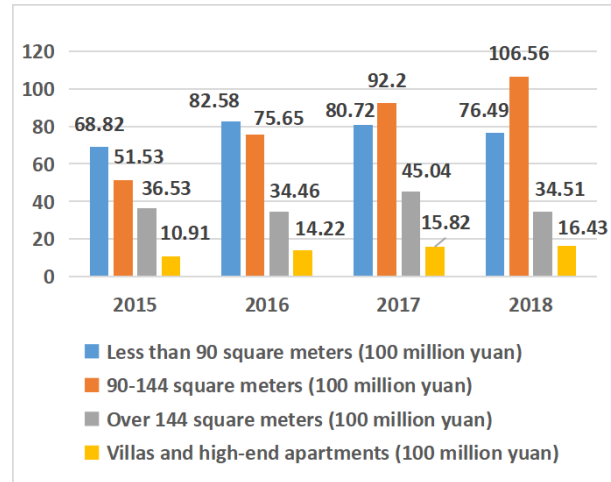


Figure 8 Structure of completed investment of residential houses in Jiangning District from 2014 to 2018

3.1.3. In 2018, land purchase cost exceeded construction investment and became the most important investment

According to the composition of real estate investment, real estate investment can be divided into construction project investment, installation project investment, equipment and tools purchase and other costs, other costs in the land purchase costs occupy the main share. In 2018, the investment in real estate development was 12.510 billion yuan in construction projects, accounting for 39.77%, and 1.251 billion yuan in installation projects, accounting for 3.91%. Equipment and appliances purchased 332 million yuan, accounting for 1.06%. Other expenses totaled 17.380 billion yuan, of which 16.211 billion yuan was for land purchase, accounting for 51.54% of the total. In recent years, the proportion of construction investment has declined, and the cost of land purchase has continued to rise. The completed investment composition ratio of Jiangning District from 2014 to 2018 is shown in Figure 9.

Although various administrative and financial policies inhibited the rapid growth of demand, the destocking policy stimulated the growth of demand. As a result, sales slowed down while inventories continued to fall. This phenomenon affects the investment decisions of real estate enterprises. Although real estate enterprises are pessimistic in the short term, they are not necessarily pessimistic in the medium and long term. Therefore, these real estate enterprises increase land purchase and hoarding while reducing investment in construction and installation^[3].

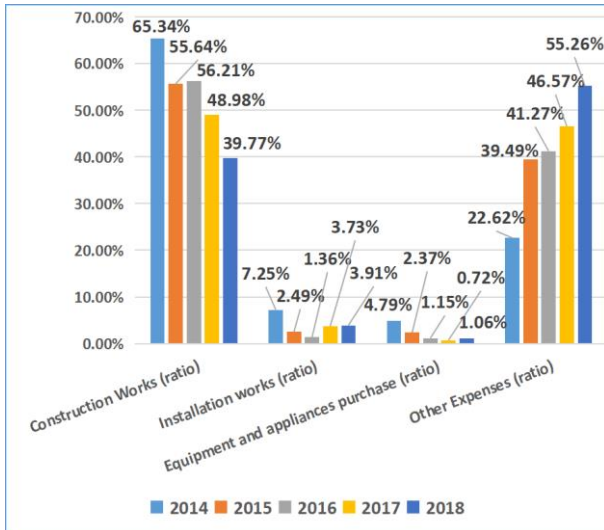


Figure9 Completed investment composition ratio of Jiangning District from 2014 to 2018

3.2. Financial structure

3.2.1. The main sources of funds are deposit and advance payment

The research finds that the capital structure of real estate development investment in Jiangning district is constantly adjusting. The most important part is always the deposit and advance payment, accounting for the largest proportion, but the proportion has fluctuated in recent years, accounting for 36.44% in 2018. In 2014, deposits and prepayments were 7.973 billion yuan, rising to 22.21711 billion yuan in 2018, with an average annual growth rate of 44.66%.

In 2018, self-raised funds of enterprises reached 15.415 billion yuan, accounting for 25.28% of the total funds. Domestic loans were 16.422 billion yuan, accounting for 26.94% of the capital source, making it an important source of capital for real estate development enterprises.

3.2.2. The asset-liability ratio of foreign-invested enterprises is on the high side

Generally speaking, the asset-liability ratio between 40% and 60% belongs to a reasonable range. However, due to the large amount of investment in the early stage of the real estate industry, the asset-liability ratio is generally higher than that of other industries. Therefore, we believe that the asset-liability ratio of the real estate industry is within the normal level of 80%.

The average asset-liability ratio of real estate enterprises above designated size was 78.3 percent. Among them, the asset-liability ratio of enterprises invested by Hong Kong, Macao and Taiwan was the lowest, at 62.18 percent. The asset-liability ratio of domestic enterprises was in the middle, 79.19%. The

asset-liability ratio of foreign-invested enterprises was the highest at 89.58%.

The average asset-liability ratio of real estate enterprises above designated size was 70.19%. Among them, the asset-liability ratio of enterprises invested by Hong Kong, Macao and Taiwan was the lowest at 58.12%. The asset-liability ratio of domestic enterprises was in the middle, at 70.42%. The asset-liability ratio of foreign-invested enterprises was the highest at 92.15%.

It can be seen that the asset-liability ratio of foreign-invested enterprises is at a high level. Excessive asset-liability ratio may lead to short-term capital risks and insolvency of enterprises, which should be controlled according to the actual situation.

4. JIANGNING DISTRICT REAL ESTATE INVESTMENT BENEFIT ANALYSIS

Under the condition of market economy, the real estate investment benefit is directly related to the development of the real estate industry. In fact, whether the scale and structure of real estate investment are reasonable is ultimately reflected by the benefit. It can be evaluated from social benefit and economic benefit.

4.1. Analysis of social benefits

4.1.1. Residents' living conditions have been improved

The expansion of investment in the real estate industry has provided society with a considerable housing stock and significantly improved living and working conditions for residents. In 2018, there were 51,487 commercial houses completed by real estate development enterprises in Jiangning District, including 567 villas and high-end apartments, 4,877 houses of 90 square meters or less, and 1,337 houses of 144 square meters or more. The completed commercial residential area is 1,471,700 square meters, including 147,600 square meters of villas and high-end apartments, 487,300 square meters of houses with 90 square meters or less, and 285,700 square meters of houses with 144 square meters or more. A large number of fully functional, well-equipped and elegant residential areas have been built, greatly improving the living environment of residents. At the same time, office buildings and commercial barracks have also been completed, promoting the improvement of the working conditions of units and individuals.

4.1.2. Social employment channels have been broadened

In 2018, the number of people employed in the real estate industry in Jiangning District reached 19,104, greatly expanding the number of jobs. In addition, real estate development and investment are achieved through the production and construction of construction

enterprises. In 2018, the annual average number of construction employees in Jiangning District reached 110,547, and a considerable part of the labor force absorbed by construction enterprises was indirectly caused by investment in real estate development. It can be seen that the real estate industry plays an important role in expanding social employment in Jiangning District.

4.2. Economic benefit analysis

4.2.1. Sales of real estate developers fell and prices rose steadily

The area of commercial housing sold in 2018 was 1.115 million square meters, down 42.84 percent year on year. The vast majority of them were commercial residences, with sales area of 866,900 square meters, down 43.33 percent year-on-year. The demand of commercial housing is reflected centrally in commercial

housing. The average selling price of commercial housing in the whole region continues to rise. From 14,047 yuan per square meter in 2014 to 23,927 yuan per square meter in 2018.

In 2018, the sales of commercial housing in the whole region decreased by 27.59 percentage points

year-on-year. The sales area of commercial housing dropped 42.84 percentage points year on year. Commercial residential sales fell 24.11 percent year on year. Commercial housing sales area dropped 43.33 percentage points year on year. Due to the macro control in 2017, the real estate industry has stepped into a stage of stable development. The number of people buying houses has been effectively controlled, and the phenomenon of real estate speculation has improved, which is one of the reasons for the sharp drop in sales and sales area of commercial housing in the whole region. The real estate sales in Jiangning District from 2014 to 2018 are shown in Table 1.

Table 1. Real estate sales in Jiangning District from 2014 to 2018

Year	Sales (ten thousand yuan)	Residential House sales (ten thousand yuan)	Sales area (10,000 square meters)	Residential Housing sales area (10,000 square meters)	Average selling Price (yuan)	Average Selling Price of residential Houses (yuan)
2014	1632354	1450270	116.21	106.50	14046.59	13617.56
2015	2209182	2038706	168.68	158.17	13096.88	12889.33
2016	4337892	4051364	254.36	238.42	17054.14	16992.55
2017	3685047	2846113	195.09	152.96	18888.96	18606.91
2018	2668290	2159907	111.52	86.69	23926.56	24915.30

Data source: Jiangning District Statistics Bureau

Since 2015, the average sales price of commercial housing in the region has been on the rise. Year-on-year growth of 30.22% in 2016. In 2017, under the influence of macro-control, housing price growth slowed down, with a year-on-year increase of 10.76%. In 2018, housing price growth picked up again, with a year-on-year increase of 26.67%. The average residential selling price fluctuates more than the average selling price. In 2018, the average residential sales price increased 33.90 percent year on year.

The reason for the continuous and rapid rise of real estate price is the result of the combined action of the residents' housing demand, the change of land transfer mode, the rise of land price, the change of real estate

structure, the rise of building materials price, and the improvement of the quality of the house itself.

4.2.2. The real estate industry plays an important role in the national economy, and its development will slow down in the future

Commercial housing sales /GDP reflects the contribution rate of real estate to GDP, and also reflects the position of the real estate industry in national economic development and the future development situation of the industry.

The sales revenue of commercial housing in Jiangning District declined in 2017 and 2018, and increased in the remaining years compared with the

previous year. The decline is mainly due to the macro-control policies introduced by the government in recent years, which restrict the housing purchase behavior of residents. From 2011 to 2018, THE GDP of Jiangning District has been showing a relatively uniform upward trend, with an increase of 23.58%. The evolution trend of commercial housing sales revenue and GDP in Jiangning District is shown in Figure 10.

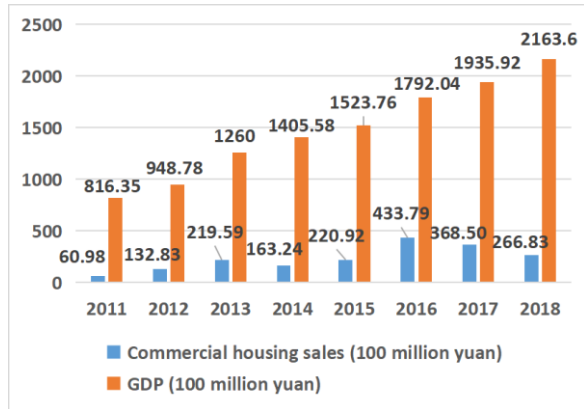


Figure 10 Schematic diagram of evolution trend of commercial housing sales income and GDP in Jiangning District

The study found that the commercial housing sales /GDP showed significant fluctuations from 2011 to 2018. The ratio of commercial housing to GDP rose steadily from 2011 to 2013. The index fell in 2014, but resumed its upward trend in 2015 thanks to effective government regulation. In 2015 and 2016, the proportion of commercial housing sales in GDP continued to rise, and commercial housing sales became an important part of GDP. Compared with the GDP growth rate, the growth of commercial housing sales was more rapid, especially in 2016, the ratio of commercial housing sales to GDP was as high as 24.21%. In 2017, the index declined and sales showed negative growth. The main reason is that in 2017, the government introduced relevant policies to "limit the purchase", and the sales of commercial housing began to decline. However, the overall GDP is less affected by it. Although the growth rate slows down, it has been growing steadily, and GDP still achieved an increase of 8.03% in this year. This trend intensified in 2018, with the final commercial housing sales /GDP falling to 12.33%.

5. CONCLUSION

5.1. Research Conclusions

The research conclusions are as follows:

First, in terms of scale, (1) enterprise scale: 1. The number of real estate development enterprises increases. 2. The total amount of enterprise assets increases. 3. Paid-in capital of enterprises has been continuously enriched. (2) Investment scale: 1. The amount of completed investment increases steadily, but the growth rate slows

down. 2. The proportion of real estate investment in fixed investment continues to fluctuate. (3) Development scale: 1. The total construction area of the house increases; 2. The completed housing area fluctuates; 3. Land purchase area presents an upward trend. (4) Market size: The sales area increased first and then increased, indicating that the purchase restriction policy was effective.

Second, in terms of structure, (1) investment structure: 1. Commercial housing is the focus of investment, but the proportion of investment has decreased. 2. The ratio of residential investment of less than 90 square meters decreased, while the ratio of residential investment of 90 to 144 square meters increased. (2) Financial structure: 1. The main source of funds is deposit and advance payment. 2. The asset-liability ratio of foreign-invested enterprises is too high.

Third, in terms of benefits, (1) social benefits: 1. The living conditions of residents was improved; 2. The channels for employment have been broadened. (2) Economic benefits: 1. The sales volume of real estate development enterprises declines and the housing price rises steadily. 2. The real estate industry plays an important role in the national economy, and its development will slow down in the future.

5.2. Problems

However, there are still some problems in the real estate market.

1. The rapid rise of housing prices makes it difficult for middle - and low-income residents to buy a house

The real estate economy not only promotes the rapid development of the overall economy, but also shoulders the important responsibility of improving people's production and life. In Jiangning District. The average sales price per square meter rose from 13,617.56 yuan to 24,915.30 yuan between 2014 and 2018. The difficulty of buying a house will be further increased. It also makes the residents who buy real estate face greater risk of credit payment, and their life happiness will also decline.

2. Excessive inflow of social funds, especially credit funds, into the real estate market

At present, the diversified financing channels of enterprises are still insufficient, and the proportion of self-raised funds of real estate development enterprises in Jiangning District is not high. Funding sources rely mainly on loans to Banks and non-bank financial institutions, as well as the buyers of the advance payment, mortgage. Asset-liability ratio is higher. Once the commercial housing sales situation is bad, the risk of real estate enterprises will be passed on to the commercial Banks and buyers. Real estate bubble may burst.

3. Commodity housing turnover declines, developers fund recovery difficulties

On the one hand, the regulation policy has effectively curbed the phenomenon of real estate speculation, but on the other hand, due to the restriction of the regulation policy on the mortgage loan of the buyers, the buyers in demand are still in a wait-and-see state. The decrease in the trading volume of commercial housing makes it difficult for developers to recover funds, thus affecting the progress of development. This will be a great challenge for small and medium-sized housing enterprises with relatively weak capital chain.

5.3. Suggestions

1. Maintain a reasonable scale of development, and strengthen the management of commercial housing structure planning

We need to adjust the structure of housing supply to address the problem that housing prices are rising too fast and the structure of housing supply is unreasonable. Relevant departments also need to formulate and implement housing construction plans and put forward specific proportion requirements for the structure of new housing. In addition, the government should make full use of tax revenue to regulate the structure of commercial housing.

2. Promote rental housing and land supply^[4]

On the one hand, individual owners can be encouraged to rent empty houses through tax incentives and financial subsidies, so as to increase the number of houses available for rent in the market. On the other hand, the government can renovate urban villages and shantytowns to improve the living environment and increase resource utilization, thus increasing the supply of affordable housing and public rental housing.

3. Implement the destocking policy in light of specific conditions

The government should carefully implement policies and measures to reduce inventories and make them more practical, targeted and sustainable. Attention should be paid to preventing the continuous accumulation of real estate bubbles and the formation of systemic financial risks.

AUTHORS' CONTRIBUTIONS

Chunxiao Liu contributed to data cleaning and data analysis, performed charts and tables and contributed to specific analysis content.

Hao Zhang helped perform the analysis with constructive discussion.

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