

Analysis of Factors That Affect Real Estate Price

—Taking Linyi city as an example

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Abstract—Stable and healthy real estate industry is the first choice for China's economy today. Taking the real estate market of Linyi as the research object, this paper studies the supply and demand factors of the housing market price, such as land price, investment, market sales, the number of residents and the income, and so on. Through qualitative analysis and quantitative analysis, the real estate market Factors on the impact of housing prices, put forward to protect the residential land, to promote the urbanization of foreign workers and to meet their housing needs, to protect the housing rights of urban residents and other stable real estate market recommendations.

Keywords—housing price; factor; analysis; linyi city

I. INTRODUCTION

The real estate market is the rapid development in China. Real estate prices as a whole rising, in some areas of the real estate market overheating phenomenon, irrational supply structure, investment growth too fast, housing prices rose too much and other issues, these issues seriously affected the healthy development of the real estate industry. [1] The rapid rise in housing prices in large cities not only aroused the potential buyers, the central government, local government concerns, but also attracted academic attention, Qiao Dai that: real estate prices can be divided into two aspects of demand and supply, from the market demand and supply point of view , Analysis of the current reasons for China's real estate prices, [2] Zhang Yuanyuan through the integration of data analysis, that in a short period of time, the relationship between housing price and land price is complicated, the demand for commercial housing is an important factor affecting the effect of land price changes, land prices will also affect the housing prices, land prices will drive prices up;[3] Liu analysis model through the use of data analysis tools and the establishment of mathematical model of measurement, the main factors affecting the real estate prices are: per capita GDP, per capita income of real estate investment, regional situation, domestic loan scale;[4-5]

The study on the real estate market in Linyi City, analysis method for the effect of the residential real estate market prices in Linyi city the main factors in the changing trend in recent years using a combination of qualitative and quantitative, and compared with the same period the trend of real estate market in Linyi City, the housing price changes, revealing the Linyi real estate market, investment and other factors, land supply the

number of residents and income, factors of purchasing desire demand impact on housing prices, the exploration strategy of the stable and healthy development of the real estate market in Linyi.

II. RESIDENTIAL MARKETS IN RESEARCH AREAS

Linyi city is located in the south of the province of Shandong. The GDP of Linyi is 402 billion 700 million CNY in 2016. The first industrial added value is 35 billion 900 million CNY; second industrial added value is 173 billion 600 million CNY; third industrial added value is 193 billion 200 million CNY. Linyi city is the famous "logistics" and "market city", Linyi mall market turnover of 378 billion 350 million CNY in 2016. The total volume of logistics is 582 billion 600 million CNY, and the amount of e-commerce transactions is 94 billion 200 million CNY. The main city center for five Lanshan District, Luozhuang District, Hedong District, high-tech zones, economic and Technological Development Zone. The urban population of linyi is 2,050,000 people in 2015. The built-up area is 213 km² of Linyi city.

Linyi City real estate market rapid development, Linyi City real estate development investment in 2001 is 1 billion 180 million CNY, in 2015 increased to 12 billion 300 million CNY; 2011 to 2015, residential sales area of 3510000 m², annual sales of about 22 billion CNY over the same period; Linyi city residential real estate prices relatively stable, steady rise, in 2011, The housing average price in Linyi in 2011 is 3989 CNY per square meter, The housing average price in Linyi in 2011 is 4603 CNY per square meter. [6]

III. FACTORS AFFECTING HOUSING PRICES

Real estate prices are the real estate market supply and demand sides of the formation of the price, that is, both real estate developers and buyers together to form. Housing supply is by the government, developers, development capabilities and development will co-influence, are indispensable. From the perspective of marketing, the market is the purchaser, the purchasing power and the desire to buy the collection, that is, the effective market demand is from both purchasing power and consumer desire to form the buyer, residential demand is also by the buyers and potential The buyers of the economy, the purchase intention and other factors. Based on the actual situation of Linyi City, this paper analyzes the factors that affect the price of housing, such as the land cost of the

developer, the supply factor of the real estate developer market and the factors such as the buyers and potential buyers.

A. Land Prices

Land is the carrier of the house; the land is the most important constituent elements of real estate. The supply of land, the supply price, and the form of its supply directly affect the cost of housing. China's land market is monopolized by the government, real estate developers need to bid through the acquisition of land use rights and to the district government to pay a certain amount of land transfer payments.

Linyi residential land market volume and price showed steady growth. 2011, Linyi residential floor price average 755 CNY / square meter; in 2013, the residential floor price average 960 CNY per square meter, the highest 2200 CNY per square meter. 2015 residential floor price average 1560 CNY per square meter. Linyi's housing costs in 2015 were 2.05 times the cost of housing in 2011.

B. Real Estate Developers on the Market Expectations

Real estate developers of real estate development investment has the most important economic benefits, real estate developers on the real estate market is expected to directly affect their product pricing strategy, real estate development investment is the developer of the real estate market is expected to an important indicator of the future.

In 2011, the real estate investment in linyi was 12 billion CNY, which increased to 21.9 billion CNY in 2013, residential construction investment in 2011 1.8 times; 2015 housing construction investment increased to 29.5 billion CNY, The housing construction investment in linyi was 2.44 times that of 2011.

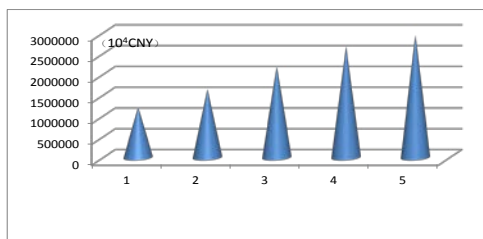


Fig. 1.Linyi City's real estate investment changes (2011—2015)

C. Urban Population and Income of Urban Residents

The rigid demand of urban housing is mainly due to the increase of urban population and the increase of urban residents' income. When the number of urban population increases, the number of residential demand also increases, if the number of residential capacity cannot keep up with the increase in the demand for housing will appear in the commodity often said the relationship between supply and demand changes, when the consumer demand is greater than the supply , The price will rise here is the rise in housing prices, on the contrary, if the number of residential residents is greater than the demand, oversupply, house prices fell. The increase in income from urban dwellers can lead to an increase in demand

for rigid homes and an increase in demand for improved homes, which in turn result in reduced demand for rigid homes and reduced demand for improved homes.

Linyi City to green development, the characteristics of development, integration and development of the principle of development ideas and the overall framework, around the "four new four", modern logistics, modern agriculture, information industry, high-end equipment manufacturing 10 key areas in the city floor, city With the continuous expansion of the area, the population of Linyi City is increasing. In 2011, the population of Linyi City is 1.85 million. By 2015, the population of Linyi City will increase to 2.05 million, and the urban population will grow by about 50,000. Linyi City, a substantial increase in income of urban residents, of which, in 2011, Linyi City residents per capita disposable income of 21440 CNY. 2014 per capita disposable income of urban residents 26620 CNY; Linyi City in 2015 urban residents per capita disposable income 28,627 CNY, 33.5% higher than in 2011.

D. Abbreviations and Acronyms

Housing purchasing desire refers to the motivation, desire and demand of consumers to purchase houses, and is a necessary condition for transforming the potential purchasing power of consumers into the actual purchasing power. Many factors affect the desire to buy houses, such as the real estate market environment, financial policy, the existing housing conditions of residents' income, and so on, therefore, reflect the desire to buy residential index, it can not only provide the survey respondents obtain the desire to buy data, can also be used to refer to the relevant statistical data of residential purchase desire, such as residential market sales situation.

Linyi city residents housing purchase intention rising, resulting in the sale of Linyi city residential area, residential sales and residential sales price continued to rise in 2015, sales of residential area, residential sales and residential sales price increase of 40.45% compared with 2011, 62.07%, 15.39%; the North District of housing sales price rose by 150% than of 2011, the housing market has become hot residents in Linyi city.

TABLE I. RESIDENTIAL SALES IN LINYI IN 2011 - 2015

year	sales area (m ²)	Sales volume (10 ⁴ CNY)	Average selling price(CNY/m ²)
2011	3496346	1394741	3989
2012	3506676	1453377	4144
2013	3986649	1740280	4365
2014	3953036	1814376	4589
2015	4910779	2260487	4603

IV. IMPACT OF PRICE FACTORS

The factors influencing the housing price changes impact on housing prices, qualitative analysis of positive and negative correlation of them, at the same time we need to analyze from the quantitative point of view, to determine the impact of relevant variables on the housing price of housing price index explained by these factors influence the size of the aforementioned housing prices are positively related to the rise

in housing prices, the following are mainly from a quantitative point of view.

A. Housing Prices Rose Weaker Than the Same Period Premium Increases

The cost of land is one of the most important cost of residential products, generally accounted for 25% of the total cost of 40%, some people think that land prices will lead to higher prices, and the price of land increases, the corresponding cost will be greatly increased, will cause prices to rise. Taking into account the real estate development cycle is generally greater than one year, then the cost of land purchased at least one year after you can be included in the house price, so the use of Compound Annual Growth Rate (CAGR) for comparative analysis. Linyi, 2011 - 2015 CAGR housing price is 2.90%; CAGR is 15.62% over the same period of land prices, housing prices rose far less than the land price increase, this is an indirect proof of residential prices generally do not use the cost oriented pricing method.

B. Developers and Property Buyers Are Expected to Be Higher Than Residential Housing Market

Property developers' expectations for the future will affect the level of developers' willingness to supply. Generally speaking, the future of real estate developers is expected to be more optimistic, and their willingness to invest will rise and the investment will rise sharply, which will lead to higher housing prices and promote housing prices. The residential investment CAGR is 19.53% in Linyi city in 2011 - 2015; the housing prices CAGR in Linyi city in 2011 - 2015 was 2.90%; but the same period residential sales area of CAGR is 7.03%; CAGR of residential market sales is 10.14%. Developers are optimistic about the housing market, and residential market performance is almost flat with expectations.

C. Population Growth and Household Income Gains Are Closely Related to Rising House Prices

The increase of urban residents' income and the improvement of living standards with the large-scale growth of Linyi's population. It has brought new opportunities for the development of real estate. From 2011 to 2015, the urban population CAGR is 2.07% in Linyi, which is similar to the increase in housing prices; from 2011 to 2015, the income of urban residents in Linyi is 5.95%, and the growth of residents' income CAGR is higher than the increase in prices in the same period.

V. PROPOSAL

At present, China's real estate market is stable and healthy developments directly determines the macroeconomic stability and realize the healthy development of the real estate market is the need for the healthy development of the macro economy, but also for deepening the reform and structural adjustment to create conditions for the time.

Linyi city is a period of rapid development of city urbanization, rapid city to city brought a lot of new population, urban area gradually expanded, this stage is accompanied by a city of old city transformation and infrastructure reconstruction

based update process. Therefore, the Linyi real estate market have increased greatly in size and quality, the supply of real estate market just to fill the release for the real estate development land and real estate demand, therefore, the Linyi real estate market housing prices rise slowly, 2011 ---2015 housing price in Linyi is only CAGR 2.9%. The steady development of Linyi's real estate market still needs to be maintained.

A. Ensure the Supply of Residential Land

Their per capita housing construction area is 36.6 m² in 2016 the urban residents of China; their per capita housing construction area of 45.8 m² in 2016 the country's urban residents. Urban and rural residents in Linyi in 2016 the use of per capita housing area reached 27.9 and 34.5 m² of urban residents to improve the type of housing demand is still a large increase in space, analysis of urban residents to improve the type of housing demand survey, Linyi City scientific forecasting; plan land supply of residential land supply, residential, residential stability market price.

B. Meet the Housing Needs of the New Urban Population

The new "urbanization" of new urbanization is human urbanization. Xi Jinping pointed out: the new urbanization construction should be based on the urbanization of people". Urbanization is not only the urbanization of things, but also the urbanization of people. The development of cities and towns must depend on people, for people, and for human beings. It is the essence of urban construction and development. Linyi city to expand the city area, improve the existing urban residents of the residential environment, but also to promote foreign industrial workers live and work in peace, the increase of city population, therefore, to fully meet the housing needs of the population in the new residential construction in Linyi city planning.

C. Strengthening Housing Security

Shantytowns is guided by the government through the market operation of the housing projects, the majority of private property ownership, have many effects of improving people's livelihood, steady growth, shantytowns scale can be appropriately expanded; the renovation of dilapidated buildings into shantytowns policy; the support way, from the physical security to physical security and money both subsidies. In the protection object, we can gradually integrate foreign workers into the public rental housing and low rent housing applications, and promote the urbanization process with the concept of production city integration, and bring more new population for urban development.

VI. CONCLUSION

The housing price level is steadily increasing in Linyi City, there are many factors influencing the housing price in Linyi City, with the land supply plan based on the residential market, basically meet the original urban population of the housing demand, so the price of land developers, investment and housing prices are positively correlated but the sensitivity was low, and the new residential district the demand and housing price is the most sensitive population.

This paper focuses on the price of land, residential investment, and the number of residents disposable income of residents, residents of the purchase intention and other aspects of the analysis of the main factors affecting housing prices, the factors influencing the choice is limited; Linyi city housing price and price increase has great regional differences and structural differences, and the average value, CAGR so, shielding the hot spots, hot housing price and the rise, the research methods can be used for medium city, similar to the small city, also has its limitations.

After the real estate market "Gold ten years", the regional real estate market differentiation in China, the demand of consumer first-tier cities housing prices will remain strong; second city Lengrebujun; three or four lines inside the city "differentiation" will also exist, the real estate market in Linyi city is the case of the three or four line of the city's real estate market. Has the obvious regional characteristics, similar to the

city is only rarely with some reference value, but the research methods for reference.

REFERENCES

- [1] Qiao Dai. Study on the formation mechanism of real estate prices [D]. Beijing: Capital University of Economics and Business, 2011:3-5 In Chinese
- [2] Wang Lei. Speculation, monopoly pricing and real estate prices [D]. Nanjing: Nanjing Agricultural University.,2010:5-6 In Chinese
- [3] Zhang Yuanyuan. Analysis and empirical test of influencing factors of commercial housing market [J]. Journal of Liaoning Normal University. 2007.30 In Chinese
- [4] Jiang Xinxin, Zhang Qiang. Study on econometric model of commercial housing prices in Jiangsu province [J]. business culture. 2008 (9): 142-143. In Chinese
- [5] Liu Hui. Empirical analysis of influencing factors of real estate prices [J]. economist, 2012 (1): 22-24 In Chinese
- [6] Linyi Statistics Bureau.2015 Linyi housing market [Z].2016 Yearbook, 2016:119-125 In Chinese