Research on The Development of Real Estate Market Based on Population Change in China

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Abstract. China is a populous country, and population problem is always one of the key factors restricting the development of national economy. From the beginning of the founding of the people's Republic to now, the population policy has been changing constantly, and the population structure has also undergone remarkable changes. At the same time, the real estate industry, as a new growth point in the national economy, to a large extent, has promoted the development of the national economy, and has become a pillar industry in the national economy. In recent years, some scholars consider the change of population structure when studying the change of real estate market, but less consider the macro factor of population quantity behind the change of real estate market. So this article will pass through the short term in the future The influence of population change trend on real estate market in China is studied and discussed.

1. Introduction
At present, the real estate market in China is gradually changing from a rapidly expanding "incremental market" to a market with both stock and increment. Both in theory and in reality have important significance. This not only can have a wider understanding of the population and population structure of our country, but also can grasp the real estate market macroscopically based on these considerable housing demand variables. Among the various factors involved in China's real estate market, the population factor will play an important and long-term role. Moreover, the research on population factors and housing market demand of some scholars in China is limited to the research on the change of individual population factors and housing market demand, especially on the relationship between age structure and housing market demand, especially in the age structure and housing market demand on the relationship between the research is still few. Therefore, this paper will consider and study the development of real estate in the medium and long-term population change in China.

2. The current population of our country
The data are obtained from the National Bureau of Statistics of the people's Republic of China, the Statistical Yearbook of China and census data. The following analyses and studies of the different data and content, each choosing a different starting year, with a view to providing an accurate and more
detailed analysis of the various parts of the data, will provide a projection of the size of the population in the short term in the future. At the same time, the prediction results are compared and revised according to a large number of related documents.

2.1 Population size and its changing trend in China

China is the largest developing country, and the large population base is the most remarkable characteristic. According to the official website data of the National Bureau of Statistics of the people's Republic of China, can be listed as follows. According to the data of table 1 and the trend chart of figure 1, it can be concluded that the population of our country will continue to increase.

| year | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|------|------|------|------|------|------|------|------|------|------|------|
| Total population / 10,000 | 132802 | 133450 | 134091 | 134735 | 135404 | 136072 | 136782 | 137462 | 138271 | 138271 |

Fig. 1. Trends in the number of China's total population 2008-2017.

2.2 An unstoppable trend of ageing

Population aging refers to the phenomenon that the proportion of the elderly population is too large in the total population. China is a large country with large population. In recent years, the population policy has been adjusted and perfected, but because of the long-term implementation of family planning, its lag makes the aging trend of the age structure. According to the standards of the United Nations, for a country or region, as long as the people over 60 years old reach 10 percent of the total population, or over 65 years old people account for 7 percent of the total population, it means that they have entered an aging age. According to the data of the National Bureau of Statistics of the people's Republic of China, the number of the population aged 65 and above and the proportion of the elderly population in China in the past ten years are as follows (Table 2).

| year | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|------|------|------|------|------|------|------|------|------|------|------|
| Population aged 65 and over / 10,000 | 10956 | 11307 | 11894 | 12288 | 12714 | 13161 | 13755 | 14386 | 15003 | 15831 |
| Population aged 65 and above /% | 8.25 | 8.47 | 8.87 | 9.12 | 9.39 | 9.67 | 10.06 | 10.47 | 10.85 | 11.45 |
According to the above data, the number of the elderly population in China has been increasing in recent years, and the proportion of the population aged 65 and above is the lowest 8.25% in recent years. So we can infer that at least ten years ago, our country has entered the stage of aging society, then in the following long period, our country will still be in the stage of aging development. On the other hand, it also shows that the size of working-age population in China will continue to decrease, and the ratio of working-age population will always be in a state of decline in the first half of the 21st century, which will have a great impact on the number of house-buying people of the appropriate age in our country.

2.3 Trends in the changing population of young children
In any country, the number of children's population will change obviously as a result of the adjustment of the corresponding policies. In China, both the implementation period of family planning and the successive implementation period of one-child policy and comprehensive two-child policy in recent years will reduce or increase the number of births in the short term. Therefore, the number of births in our country will meet a significant peak in the near future. The data of 0-14 years old population of the National Bureau of Statistics of the people's Republic of China are analyzed and forecasted in the past ten years. From the results of figure 2, it can be seen that the number of children and children in our country has been on the rise. Specifically, the number of children will meet an obvious small peak in the short term after population policy adjustment, which coincides with the previous study on the birth rate of the same law. Therefore, for a long time, the growth trend of Chinese children's population will decline slowly in the fluctuation.

According to the population figures for the year 2016, there has been a relatively large increase in the number of children, but since 2017, the number of births has shown a decreasing trend. It can also be inferred that the increase in the number of two-child births in China has not met expectations. Perhaps the number of one-child births is also on the decline.

3. The relationship between population change and real estate market
In terms of the family structure of our country, our country pays more attention to the traditional way of thinking. There are the following specific problems in the demand for housing. Generally speaking, when the children grow up, they will require the replacement of new housing or the preparation of their own housing for their children. In order for children to marry in the future, life needs, this will affect the number of housing; At the same time, the larger the family population, the larger the housing area needed, and the more diverse and complex the housing requirements are. Therefore, the increase in population will have a positive impact on housing demand, which will stimulate the economic development of the real estate market and promote the secondary consumption of housing. However, as mentioned above, the fertility policy is constantly being adjusted and perfected, and the growth rate of China's population will also be in a slow growth trend for a longer period of time. In addition, our country has entered an aging and developing period at least ten years ago, so in our country, Demand for housing will also show a relatively short period of growth, then decelerate, so the impact on the real estate market will also be from a large to a small.
3.1 Impact of old-age dependency ratio and child-rearing ratio on housing needs
According to the data of Fig. 3, the following conclusions can be drawn: in recent years, the elderly dependency ratio, the child dependency ratio and the total dependency ratio in China are all on the rise, and the rising trend of the old age dependency ratio is obviously higher than that of the child dependency ratio. Therefore, under the dual influence of child dependency ratio and old age dependency ratio, the total dependency ratio in China will continue to climb rapidly in the first half of the 21st century, and its impact on housing demand will further increase. On the other hand, the impact of old-age dependency ratio will reach the highest level.

Figure 3. Trends of change in China 2008-2017.

3.2 Impact of slowing population growth on housing demand
Through the analysis of the data from 2011-2017 cited from the national database, it is concluded that during this period, the number of housing sales units of real estate development enterprises in China has been showing a slow growth trend, and has been continuously adjusted by the fertility policy between 2013 and 2015. First, the birth rate has risen, and the real estate market has changed significantly. In addition, the population growth rate in 2016 is the highest, which coincides with the huge development of our real estate market in 2015-2016. This further indicates that a large increase in the number of people in the short term will stimulate the sale of homes to a greater extent, thus promoting the development of the real estate market. It can also be seen from figure 4 that housing sales trend to grow slowly in 2016-2017, so the demand for housing is closely related to the changing trend of population over a long period of time. From this Figure can speculate that the slow growth of population will certainly stimulate the increase of housing sales, which will be conducive to the healthy development of the housing market.

Table 3. Number of residential sales packages of Chinese real estate development enterprises 2011-2017.

| year | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  |
|------|-------|-------|-------|-------|-------|-------|-------|
| Real estate development enterprise housing sales set (set) | 9139672 | 9446424 | 11046279 | 10104351 | 10578898 | 12822565 | 13361411 |
| Total population / 10,000 | 134735 | 135404 | 136072 | 136782 | 137462 | 138271 | 138271 |
Figure 4. change trend of housing sales sets in Chinese real estate development enterprises from 2011 to 2017.

4. Deficiency
The first is the reliability of the data, which will have an impact on demographics or projections. The future development of society is full of uncertainty and uncontrollable factors, and census as a reliable method of population data measurement, there will be underreporting, less registration and other phenomena.

5. Conclusion
With the development of economy, the transformation of society and the adjustment and perfection of fertility policy, the number and scale of Chinese population will change in the coming decades. In order to promote the steady and healthy development of China's real estate industry, people must pay attention to this key factor of population. According to the development trend of the future population, the housing regulation and control policy should be formulated ahead of time, and the change of family concept should be guided at the same time. In order to promote the development of China's real estate market, the government should take certain compensation measures, such as personal tax reduction and economic subsidy policy.

Acknowledgements
Fund Project: Shaanxi Provincial Department of Education key scientific research plan "labor transfer on the impact of farmers' energy consumption mechanism" (15JZ037); The Important Project of Prosperous Philosophical Society from Xian University of Science and Technology "Under the background of labor transfer the household life, energy consumption and wellbeing of the older adults" (2018SZ01).

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