The impact of changes in housing prices on China’s economy

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Abstract:
China’s housing prices have experienced significant fluctuations over the years, with some cities experiencing rapid increases and others showing signs of stabilization. Similarly, China’s GDP growth has been a topic of interest, with the country maintaining robust economic expansion. This paper will start with the background of Chinese housing prices. A theoretical analysis will be conducted on the dynamic changes in China’s housing prices and GDP. Subsequently, I will analyze the impact of housing prices on economic growth and conclude that a steady increase in housing prices benefits economic growth. In contrast, a rapid rise in housing prices is not conducive to economic growth. Finally, I will provide a relevant policy recommendation regarding China’s current housing price issues.

Keywords: House, China, Economy, GPD

1. Introduction
China’s GDP has grown remarkably over the past few decades, propelling it to become one of the world’s largest economies. The Chinese government has implemented various strategies to maintain this growth, including industrialization, urbanization, and investment in infrastructure.

According to data from the National Bureau of Statistics, China’s GDP index has been steadily increasing from 2000 to 2007, with an index of 108.5 in 2000 and 114.2 in 2007, reaching a historical peak. China has successfully taken on the historical opportunity of world manufacturing transfer, and at the same time, the demographic dividend of our country has emerged during this period. During this period, China relied on the three major driving forces of investment, exports, and consumption to promote economic growth and create a miracle in China’s economic development.

However, in 2008, China’s Gross Domestic Product Index plummeted to 109.7, possibly due to the weakening of China’s population dividend during this period and the impact of the US subprime crisis on China’s economy. Although the GDP index increased slightly in 2010, China’s GDP has been in a slow decline since 2013, indicating that the economy has entered a new routine and relying solely on rising housing prices cannot drive long-term economic growth.

Regarding housing prices, China’s real estate market has experienced significant fluctuations. Many cities have witnessed rapid price increases driven by urbanization, housing demand, and investment. However, concerns about housing affordability, speculative bubbles, and potential risks to financial stability have also been raised.

2. The relationship between China’s housing prices and economic growth

2.1 Factor analysis
As consumption and investment are two of the three factors driving China’s economic growth, I will analyze the impact of housing prices on consumption to indirectly analyze the relationship between housing prices and economic development.

2.1.1 The impact of housing prices on consumption
2.1.1.1 Wealth effect
When real estate prices change, the impact on everyone’s income is known as the wealth effect. Analyzing it can clarify that it can be divided into two types: unrealized type and realized type.

The first analysis can clarify that unrealized wealth is formed when the property owner does not transfer the property in the current period. When real estate prices rise, homeowners do not receive an increase in income. Assuming permanent payment, the permanent income of homeowners can be increased through future income growth. Therefore, current consumption will increase, and current savings will decrease, thereby promoting economic development.

The second analysis can clarify that when the homeowner transfers their property in the current period, they will form realized wealth. That is, when the real estate price rises, homeowners do not receive an increase in income. Assuming permanent payment, the permanent income of homeowners can be increased through future income growth.

Therefore, for homeowners, current consumption will increase, and current savings will decrease, thereby promoting economic development.

2.1.1.2 Substitution effect
When the real estate price changes, the impact on the current wealth of the homebuyer is called the substitution effect. Analyzing it can clarify that when the real estate price is raised, by transferring the house, the financial
level of the assignor can be improved, which will lower the wealth level of the assignee. Therefore, the current savings scale of the homebuyer will decrease, and the current consumption scale will drop.

It should be clarified that the transfer of a house is an immediate act, as it will offset its impact on the current income level of society due to the substitution effect and corresponding wealth. In practical operation, because these two utilities cancel out each other, they will not affect the total social wealth but will redistribute the proportion of wealth among populations.

### 2.1.2 The impact of housing prices on investment

#### 2.1.2.1 Tobin Q effect

Analyzing the Tobin Q value can clarify that it refers to the ratio of the market value of an asset to its replacement cost. When investors invest, they will analyze and study this value. Increasing credit supply will increase real estate’s price, increasing its market value. When enterprises’ external financing costs decrease, the cost of new real estate construction will be reduced. So, on this basis, it will increase the Tobin Q value and significantly increase the probability of new real estate construction.

#### 2.1.2.2 The correlation effect of the real estate industry

Analyzing the correlation effect of the real estate industry can clarify that it can reflect the driving impact of the real estate industry on downstream industries. If investment in real estate is increased, it will drive downstream sectors, encouraging investors to invest in these downstream industries. As a pillar of China’s economy, the upstream and downstream real estate industries are closely related. On the one hand, upstream industries can provide production factors for the real estate industry, enabling its smooth development. On the other hand, downstream enterprises can obtain the production factors they provide through the output of the real estate industry.

Research on downstream real estate enterprises can clarify that they include industries such as electrical appliances, home decoration, and credit. Research on upstream real estate enterprises can explain that they have industries such as chemical engineering, metallurgy, and recognition.

Research on its upstream and downstream sectors reveals a unique drive in the upstream and downstream industries. The development of the credit industry can promote the increase of real estate, and after the rise of real estate, it can promote the development of the credit industry.

#### 2.1.2.3 Hollow effect of industrial capital

When the real estate industry increases prices and leads to widespread capital withdrawal, it is called the hollowing-out effect of industrial capital. When the real estate industry prices increase, this effect will be reflected. One is that when real estate prices continue to rise, it will result in a higher return rate than other industries. At this time, a large amount of funds will flow into the industry, leading to the divestment of funds from other industries. This will lead to the industry being in a state of speculation with money, resulting in a large amount of funds being concentrated. There is a lack of funds in other industries, which will affect the development of these industries, allowing investment to be affected and resulting in adverse effects on the economy.

The second is that when real estate prices continue to rise, inflation expectations will increase. To avoid the impact of inflation, economic entities will choose to reduce risks by purchasing real estate, thereby causing housing prices to rise again. In this self-strengthening process, the real costs of other industries will increase, affecting their profits. Many companies will reduce their investment behavior in other industries to reduce losses.

### 2.2 Summary analysis

Housing prices are a double-edged sword. On the one hand, the rise in housing prices drives the development of related industries and promotes economic growth. On the other hand, the rise in housing prices exceeds the speed of people’s income increase, leading to insufficient purchasing power, increasing the vacancy rate of houses, and slowing capital recovery. At the same time, it also affects the investment returns of developers, ultimately leading to a downturn in the real estate industry and suppressing economic growth. Therefore, a moderate increase in housing prices benefits economic growth, but a rapid increase will suppress economic growth. To clarify the impact of housing prices on economic growth, the following is an analysis of the relationship between China’s housing prices and per capita GDP based on time series data from 2000 to 2017.

### 3. The impact of changes in housing prices on economic growth

#### 3.1 Empirical research

Some scholars believe that rising housing prices will
promote economic growth. Chirinko analyzed relevant data from 13 developed countries in Europe and America, constructing an SVAR model to study the relationship between housing prices, regional GDP, and household consumption. The conclusion shows that for every 1% increase in housing prices, household consumption increases by 0.75%, and regional GDP increases by 0.4%. Moreover, in these countries, the real estate industry has a more significant driving effect on the economy than the capital market. Claessens S et al. analyzed relevant data from 44 countries, and the results showed that during the economic recovery, the positive impact of rising house prices on economic growth is more significant than that of other assets.

Some scholars also believe that rising housing prices will suppress economic growth. Gelain P et al. used relevant data from some industrial countries as research samples. They constructed a DSGE model to analyze the relationship between real estate price fluctuations and household debt. The empirical results showed that rising housing prices can optimize household debt, and the demand for real estate will significantly increase. Affected by the supply and demand system, housing prices will inevitably continue to rise. In this situation, the continuous rise in housing prices will result in the unreasonable allocation of resources and inhibit economic growth.

3.2 Conclusion

3.2.1 A stable rise in housing prices is beneficial for economic growth.

3.2.1.1 Many real estate-related industries drive investment and promote economic growth.

The moderate rise in housing prices gives investors and consumers confidence in the future. In this case, investment in real estate development will increase, and residents’ consumption for buying houses will also increase, which is conducive to the prosperity of the real estate market. Li Yujie and Wang Qingshi analyzed the comprehensive consideration of the demand and supply effects of the real estate industry on other related industries through direct and indirect means. The total driving effect is the sum of forward and backward complete correlations. According to relevant data, every 100 million yuan increase in investment in residential real estate in China will drive an increase of 150 million yuan in investment in other related industries, with over 60 direct or indirect industries being driven. In addition, the increase in investment in real estate development has also driven consumption growth in various industries, such as the building materials, chemical, and decoration industries. So, the rise in housing prices has driven the development of related industries and economic growth.

3.2.1.2 Suppressing excessive consumption of housing has a moderating effect on economic growth.

Rising housing prices can constrain excessive consumption of housing. Assuming that people’s demand for housing remains unchanged, higher housing prices will cause a decrease in demand for housing. Therefore, the rise in housing prices has a significant restraining effect on residential consumption. The rise in housing prices has a moderating effect on economic growth. The rise in housing prices will have a direct impact on investment in real estate development, which in turn will have a direct impact on economic growth. When the economy is relatively sluggish, a moderate increase in housing prices can increase investment in real estate development, promoting economic growth. Conversely, irrational increases in housing prices can be used to suppress real estate investment and slow economic growth.

3.2.1.3 Adjusting industrial structure and increasing employment opportunities.

Moderate growth in housing prices can drive the development of many related industries, provide more employment opportunities, and optimize industrial structure. The rise in real estate prices directly drives the rapid development of many fields, such as housing construction and real estate sales. It indirectly promotes the prosperity of some industries, such as property management and real estate brokerage, creating more job opportunities.

3.2.2 Excessive growth in housing prices is not conducive to economic growth.

3.2.2.1 Triggering a real estate foam and inhibiting economic growth.

The rapid rise of house prices will lead to the influx of funds from real estate development companies and a large number of investors into the real estate industry, which will lead to the continuous rise of house prices and the rising vacancy rate of houses, which is very likely to lead to the foam problem of real estate. Due to the large number of related industries in the real estate industry, excessive real estate investment will be magnified under the multiplier principle. In the short term, it will inevitably hurt the development of China’s economy, causing huge fluctuations. The economic fluctuation caused by the real estate foam seriously damages economic growth and hurts economic aggregate and industrial structure. At the same time, when real estate investment leads to rapid economic growth, because of the huge scale of real estate investment and the long production cycle of real estate, once a foam appears, it will have a huge impact on the
economical growth of a region or a country, and even lead to the economic decline of a region or a country after several years.

3.2.2.2 Destroying industrial structure and increasing unemployment rate
The rapid growth of real estate prices in China has absorbed a large amount of social funds and bank loans, and land prices have also increased rapidly, leading to increased production costs for small and medium-sized enterprises while facing financing difficulties. At the same time, it attracted many peripheral industries that entered the real estate industry for profit. In the short term, small and medium-sized enterprises will improve their competitiveness under real estate pressure. However, in the long run, many small and medium-sized enterprises have difficulty completing technological upgrades and are tragically eliminated due to a shortage of funds. The irrational prosperity of the real estate industry has suppressed the development of China’s industry, resulting in hollowing out of the industry, increasing unemployment rates, and damaging the industrial structure.

3.2.2.3 Increasing personal living costs and increasing enterprise investment costs

[5]The rise in housing prices has driven up the prices of a series of goods, increasing people’s living expenses and commercial costs. Under the joint action of two aspects, it is extremely unfavorable for a region or country to attract foreign investment and introduce foreign enterprises. It may even lead to the relocation of some enterprises, ultimately damaging the industrial chain of a region or country, dispersing the gathered industrial belt, and ultimately leading to the loss of competitiveness of such industries. In addition, due to the increase in living costs, the living costs of talents have also correspondingly increased, resulting in the inability to retain talent.

4. Policy recommendation
Promote the reform of property tax.
Promoting China’s real estate tax policy reform, especially focusing on implementing vacancy tax. As is well known, a very obvious driving factor for the skyrocketing housing prices in China is the influx of speculative or investment-oriented real estate speculators into the real estate market, constantly squeezing hard demand. It is common for two, three, or even more than ten sets of housing to be hoarded among a few high-income individuals. Still, most people in society cannot afford a house, cannot afford a house, and there is a large number of vacant houses. Implementing differentiated real estate tax and vacancy tax on homebuyers, where those with more houses collect more tax, those with fewer houses collect less tax, those with longer vacancy time collect more tax, and those with shorter vacancy time collect less tax, forcing hoarders with multiple houses to reflow their surplus commodity houses back into the market due to bearing high real estate tax and vacancy tax, to regulate the overall demand and supply of the real estate market.

5. References cited