The Research on Several Relations between Real Estate Industry and Economic Development in Fujian

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Abstract. In this paper, the data of Fujian province is taken as an example to explore the relationship between the development of real estate industry and economic development, and the Eviews7.2 software is used for empirical analysis. This paper selects different indicators, based on the data of different years, explore the real estate industry of Fujian province and the city of the relationship between fiscal revenue and the relationship with the local economy, and finally puts forward the countermeasures and suggestions to promote the development of Fujian real estate industry to promote the economic development of the corresponding.

Introduction

As the cornerstone of the national economy, the real estate industry in promoting the task of economic development in this position plays a decisive role, it is like a radiation to open a large network, closely linked to all walks of life. China's real estate industry since the 80s of last century began to develop, but now only 20 years time, but also met numerous times the climax and low. In this paper, Fujian Province, for example, the use of statistical and econometrics in the empirical analysis of the method, hoping to expose the real estate development and economic development of a number of internal relations, and finally for the problems found, so as to provide some views on government policy.

Empirical Analysis

The higher the degree of urbanization, the more able to gather capital, technology and other social factors of production, the more able to promote economic growth, it can be said that urbanization and economic development there is a close relationship. Similarly, only the level of economic development, social wealth can accumulate, so that can make the local government revenue growth continues, local fiscal revenue and economic development is closely related. GDP is an important measure of economic development.

Therefore, this paper divides the economic development into three parts: urbanization, fiscal revenue and local economic development, and makes an empirical study on the relationship between real estate and the three.

An Empirical Analysis of the Relationship between Real Estate Development and Urbanization

Urbanization is divided into two forms: population urbanization and economic urbanization. The urbanization rate and GDP are chosen as the indicators of these two levels respectively. The statistics in this section are from the statistical yearbook of Fujian in 2015.

Using Eviews7.2 to perform the ADF test on the non-equilibrium error sequence $\hat{e}_1$ and $\hat{e}_2$, the results are as follows:
Table 1. The ADF Unit Root Test Results of Lngdp and Lnri's Non-Equilibrium Error $\hat{e}_t$.

<table>
<thead>
<tr>
<th>Variable</th>
<th>ADF statistic</th>
<th>P value</th>
<th>1%level</th>
<th>5%level</th>
<th>10%level</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\hat{e}_t$</td>
<td>-2.752466</td>
<td>0.0108</td>
<td>-2.792154</td>
<td>-1.977738</td>
<td>-1.602074</td>
<td>stable</td>
</tr>
</tbody>
</table>

Table 2. The ADF Unit Root Test Results of lnUR and lnRI's Non-equilibrium Error $\hat{e}_{12}$.

<table>
<thead>
<tr>
<th>Variable</th>
<th>ADF statistic</th>
<th>P value</th>
<th>1%level</th>
<th>5%level</th>
<th>10%level</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\hat{e}_{12}$</td>
<td>-3.619118</td>
<td>0.0019</td>
<td>-2.792154</td>
<td>-1.977738</td>
<td>-1.602074</td>
<td>stable</td>
</tr>
</tbody>
</table>

Through the cointegration test of lnGDP and lnRI, lnUR and lnRI, it can be concluded that the regional GDP, urbanization rate and investment amount of commercial housing development in Fujian Province are all non-stationary time series, but the regional GDP and the urbanization rate of real estate development investment, respectively, there is a linear combination of a stable sequence, there is a long-term equilibrium relationship, and that lnRI each increase (decrease) 1%, will lead to lnGDP increase (decrease) 0.6184%, driven lnUR Increase (decrease) 0.1210%. Therefore, it can be concluded that the fluctuation range of real estate investment is obviously larger than that of urbanization rate and regional GDP, and the impact of real estate investment on regional GDP is obviously greater than that on urbanization rate.

**An Empirical Analysis of the Relationship between Real Estate Development and Financial Revenue**

As the Fujian Statistical Yearbook only published local public revenue after 1995, this chapter selected the data from 1995 to 2014 for analysis. This chapter selects Fujian province local fiscal revenue (LF), commercial housing sales price (HP), commercial housing sales area (HS) as the sample data, the empirical analysis on the relation between the fiscal income of Fujian province and the real estate market. The statistics in this section are from the statistical yearbook of Fujian in 2015.

Using Eviews7.2 to perform the ADF test on the non-equilibrium error sequence $\hat{e}_t$ and $\hat{e}_{12}$, the results are as follows:

Table 3. The ADF Unit Root Test Results of Lnlf and Lnhp's Non-Equilibrium Error $\hat{e}_t$.

<table>
<thead>
<tr>
<th>Variable</th>
<th>ADF statistic</th>
<th>P value</th>
<th>1%level</th>
<th>5%level</th>
<th>10%level</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\hat{e}_t$</td>
<td>-3.052105</td>
<td>0.0043</td>
<td>-2.692358</td>
<td>-1.960171</td>
<td>-1.607051</td>
<td>stable</td>
</tr>
</tbody>
</table>

Table 4. The ADF Unit Root Test Results of lnLF and lnHS's Non-equilibrium Error $\hat{e}_{12}$.

<table>
<thead>
<tr>
<th>Variable</th>
<th>ADF statistic</th>
<th>P value</th>
<th>1%level</th>
<th>5%level</th>
<th>10%level</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\hat{e}_{12}$</td>
<td>-1.812461</td>
<td>0.0673</td>
<td>-2.692358</td>
<td>-1.960171</td>
<td>-1.607051</td>
<td>stable</td>
</tr>
</tbody>
</table>

By using the cointegration test of lnLF and lnHF, lnLF and lnHS respectively, we can conclude that the long-term elasticity coefficient of lnLF is 0.6667, and the long-term elasticity coefficient of lnLF on lnHS is 1.0792, which means that each increase (decrease) Will increase lnGDP increase (decrease) 0.6667%; lnHS for each increase (decrease) 1%, will lead to lnLF increase (decrease) 1.0792%. Indicating that fluctuations in HP and HS will cause LF to change in the same direction.
An Empirical Analysis of the Relationship between Real Estate Development and Local Economic Development

As the Fujian Statistical Yearbook only announced the sale price of commercial housing after 1991, this chapter selected the data from 1991 to 2014 for analysis. According to the analysis of the previous section, the prices of commercial housing sales (HP), regional gross domestic product (GDP), urban residents’ disposable income (DI) and total retail sales of social consumer goods (SC) were selected as the sample data to analyze the relationship between economic development and real estate industry in Fujian Province. This section of the statistics are from the "Fujian Statistical Yearbook 2015".

It has been proved that the four time series variables of lnHP, lnGDP, lnDI and lnSC are first order monotonic sequences and satisfy the cointegration test condition. The results of the Johansen cointegration test using Eviews are as follows:

Table 5. Johansen Cointegration Test Results for lnHP, lnGDP, lnDI, lnSC.

<table>
<thead>
<tr>
<th>Hypothesized</th>
<th>Unrestricted Cointegration Rank Test (Trace)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of CE(s)</td>
<td>Trace</td>
</tr>
<tr>
<td>None *</td>
<td>0.919202</td>
</tr>
<tr>
<td>At most 1 *</td>
<td>0.760557</td>
</tr>
<tr>
<td>At most 2</td>
<td>0.252908</td>
</tr>
<tr>
<td>At most 3</td>
<td>0.116818</td>
</tr>
</tbody>
</table>

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Normalized cointegrating coefficients (standard error in parentheses)
<table>
<thead>
<tr>
<th>LNHP</th>
<th>LNGDP</th>
<th>LNDI</th>
<th>LNSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.000000</td>
<td>1.61793</td>
<td>1.35088</td>
<td>1.44549</td>
</tr>
</tbody>
</table>

As can be seen from Table 5, at the 5% significance level, the p values of None and At most1 are both less than 0.05, reject the original hypothesis; At most2 p value is greater than 0.05, accept the original hypothesis, indicating that there are two cointegration vectors at this level of significance. Regional GDP coefficient is 1.6179; disposable income coefficient is 1.3509; total retail sales of social consumer goods coefficient is 1.4455, three are greater than 1, with greater flexibility, indicating that the total GDP, disposable income and total retail sales of social consumer goods is the impact of real estate prices, and the largest coefficient of GDP, indicating that GDP on the real estate market is the biggest role.

Conclusions and Policy Recommendations

Conclusions

This paper draws the following conclusions and finds out some problems existing in the real estate industry in view of the related reports and data, combined with the results obtained from the empirical analysis.

From urbanization. Fujian is in a rapid urbanization process, which for the real estate industry is the opportunity and challenge coexist. In this process, the real estate industry exposed the unreasonable supply structure of the phenomenon of urban development brought about by the new residents are facing high prices, low prices in the supply of housing difficulties.

From the perspective of fiscal revenue, real estate-related taxes are the main source of
government revenue. According to the 2013 data, this part of the tax revenue for the local government to contribute more than 50% of revenue. It can be seen that local finance presents an over-reliance on the real estate industry. Once the real estate industry situation is not good, may lead to greater impact on the financial.

From the local economic development point of view, "Fujian real estate white paper" shows that with the deep development strategy of the Hercynian, the province's GDP to maintain a total of more than 10% of the steady rise, corresponding to the real estate development investment also showed an upward trend.

**Policy Recommendations**

In response to the above questions, the following policy recommendations are made:

- The government vigorously develop the characteristic industry and reduce the dependence on the real estate industry. First of all, we can make use of the local characteristics of our province, such as abundant tourism resources, and set up industrial groups conducive to economic development. Secondly, we should focus on helping high-quality industries, adjusting the structure, and developing into an intensive industry with high added value. In addition, the government can also maintain close attention and control over the flow of funds, and guide the flow of funds and resources to the real economy.

- Increase the intensity of multi-level housing supply system. On the one hand, the government should ensure that the housing needs of middle and low income families, improve the market supply structure unreasonable phenomenon. On the other hand, the government should control high-grade housing construction in various ways.

- Fiscal policy should support the housing security system. Through the transfer of land revenue subsidies, and encourage social donations and other ways to establish a stable dedicated housing security funds. For low-income people, the government should create jobs, reduce farmers' taxes, and encourage entrepreneurship to boost their household income.

- Carry out the construction of local main tax in Fujian Province. The new local subject tax can provide the local government with long-term stable and sustainable development of tax revenue, which can effectively reduce the local government's reliance on the current land transfer income, so that the future government income structure and scale is more standardized and healthy.

- To determine the real estate industry accounting indicators and procedures. The government should improve the real estate registration system, the past left to fill the gaps, so not only better for the country to develop relevant policies to provide the basis, but also can effectively combat the hoarding and real estate behavior.

**References**


