A Marginal Comparative Study on Cultural Consumption of Chinese Urban and Rural Residents

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Abstract: This paper uses the data of per capita cultural consumption and per capita disposable income of urban and rural residents from 2000 to 2020 to study the marginal tendency of cultural consumption of urban and rural residents in my country through the dummy variable model. Empirical research shows that both urban and rural residents' cultural consumption and income show a significant positive correlation. By comparison, it can be found that the rural residents in China are significantly backward than urban residents in such respects as total cultural consumption volume, proportion of cultural consumption in their incomes, and the consumption ability related to cultural marginal propensity. Therefore, when formulating corresponding policies, it is particularly necessary to formulate appropriate policies to promote the development of rural cultural undertakings in accordance with the actual conditions in rural areas of China.

Keywords: Urban and Rural Residents; Cultural Consumption; Marginal Propensity to Consume

1.Introduction

The cultural industry has become an important pillar industry in the economic development of many economically developed countries. In particular, the output value of the American cultural industry has far exceeded that of other industries, accounting for more than 25% of the total GDP. The export of American cultural industries has reached 60% of the export industries. The proportion has promoted the growth of U.S. exports. At present, the U.S. cultural industry has basically completed the development of intensification and mega-scale; the output value of Japan's cultural industry reached 1107.0 billion U.S. dollars in 2015, accounting for more than 15% of the GDF that year; the cultural industries in many countries not only pushed the economic development of their country, but also created a lot of employment opportunities.

Since the Fifth Plenary Session of the 15th Central Committee of China first proposed to vigorously develop the cultural industry in 2000, my country's cultural industry has developed rapidly, and the output value of the cultural industry has occupied a larger the proportion in China's economy as time goes by. It has also promoted employment. In 2015, the Ministry of Culture released a plan to double the cultural industry during the "13th Five-Year Plan" period. The plan proposes that by 2020, the added value of the cultural industry will be doubled on the basis of 2015. At the same time, the country will also introduce and improve corresponding policies and measures to promote the development of the cultural industry. China's cultural industry will usher in a period of historical opportunity for rapid development.

Chinese scholars have conducted various and in-depth studies on the cultural industry from theoretical and empirical aspects. Ma Biao (2007) analyzed that the potential cultural demand of China cannot be realized[1]. On the other hand, there is a large amount of ineffective product supply, so in terms of the supply of cultural products, it provides products that residents need. Tong Ruqiong (2010) believes that residents' disposable income, consumption

hotspots and consumption environment have an important influence on cultural consumption, and put forward relevant suggestions[2]. Li Mingyu et al. (2014) found that through empirical analysis， the development of China's rural cultural industry is constrained by many internal and external factors, so it is necessary to create favorable conditions to promote the development of rural cultural industry based on actual conditions[3]. Zhang Ying (2013) analyzed that the disposable income of Chinese urban residents and the supply of cultural products are the main factors affecting cultural consumption, and believes that increasing the disposable income of residents can promote the development of cultural industries[4]. Cai Chunwang (2013) researched that my country's cultural consumption is determined by residents' income level, leisure level and education level[5].

In the existing literature research, most of the studies have concluded that there is a positive correlation between cultural consumption and income. At the same time, relevant literature analyzes the current situation and existing problems of rural cultural development, and puts forward corresponding suggestions. There are relatively few literatures on cultural consumption propensity, and there is no research on whether the difference between urban residents and rural residents' cultural marginal propensity to consume is significant. This paper quantitatively analyzes the marginal propensity of cultural consumption of urban and rural residents in China, and uses dummy variables in the model to compare whether there is a significant difference in the marginal propensity of cultural consumption of urban and rural residents. This is of certain importance for the development of China's cultural industry and formulation of targeted policy recommendations.

2. Research Design

2.1 Model design

The article uses disposable income as an indicator of urban residents' income, and net income as an indicator of rural residents' income. We use the per capita entertainment service expense of urban residents as the proxy variable of the per capita cultural consumption expenditure of urban residents, and use the average entertainment consumption expenditure of rural households as the proxy variable of the per capita cultural consumption expenditure of rural residents.

According to consumption theory, we establish the following models for cultural consumption and disposable income of urban residents, cultural consumption of rural residents, and net income of rural residents:

Rural resident:

$$Y_i = \alpha_1 + \alpha_2 X_i + \mu_{i1} \quad (1)$$

Citizens:

$$Y_i = \beta_i + \beta_2 X_i + \mu_{i2} \quad (2)$$

Here Y represents residents' income and X represents cultural consumption. Through model (1) and model (2), the marginal propensity of urban residents and rural residents' consumption can be obtained respectively.

Comparing the possible results of the above two models, one of the following four situations may occur:

$1= 1$，$2= 2$, means that the intercept and slope are the same, and the regression results of the two equations are exactly the same.

$1\ne 1$，$2= 2$, means the slope is the same, and the difference of the equation regression is that its intercept is different.

$1= 1$，$2\ne 2$, means the intercept is the same, and the difference in regression of the equation is its slope.

$1\ne 1$，$2\ne 2$, means the slope and intercept are different, and the regression of the two equations is completely different.

Therefore, model 1 and model 2 can be merged into one model by introducing the dummy variable , and the coefficient estimated according to the dummy variable D can achieve the expected purpose. The combined model is:

$$Y_i = \beta_0 + \beta_1 X_i + \beta_3 D_i + \beta_4 (D_i X_i) + \mu_i \quad (3)$$

The research object of this article is only urban residents and rural residents, so only the dummy variable D is introduced, and the value of rural residents is 1. Then:

$$E(Y_i | D_i = 0, X_i) = \beta_0 + \beta_1 X_1 \quad (4)$$

$$E(Y_i | D_i = 1, X_i) = (\beta_0 + \beta_3) + (\beta_1 + \beta_4) X_i \quad (5)$$

Model 4 and Model 5 respectively represent the consumption function of urban residents and the consumption function of rural residents. In the significance test, if the hypothesis that is equal to 0 is rejected, it means that the cultural consumption of rural residents is different from that of urban residents; if the hypothesis that is equal to 0 cannot be rejected, it means that the cultural consumption tendency of urban and rural resident is the same.

2.2 Data source

In this paper, the research mainly collect the data from the following sources: the data on per capita disposable income of urban residents in China, the data on per capita disposable income of rural residents, and the data on per capita net income of rural residents in this article are all from China National Statistics and Wind Financial Database. And the sample interval is from 2000 to 2020.

3. Empirical analysis

3.1 Stationarity test and cointegration analysis

First, the unit root test method is used to test the stability of urban residents' per capita disposable income, rural residents' per capita net income, and cultural consumption expenditures of urban residents and rural residents. The results are shown in Table 1:

Table 1 Stationarity test result

Variable	ADF	1%	5%	Is it stable
Per capita disposable income of urban residents	2.7433	-3.9591	-3.081	unstable
Per capita net income of rural residents	4.1032	-3.9591	-3.081	unstable
Per capita cultural consumption of urban residents	2.7518	-3.9591	-3.081	unstable
Per capita cultural consumption of rural residents	1.0149	-3.9591	-3.081	unstable

It can be seen from Table 1 that the per capita disposable income of urban residents, the per capita net income of rural residents, and the cultural consumption expenditures of urban residents and rural residents are all unstable. Through regression of model 1 and model 2, and the stationarity test of the residuals, they are significant at 5% and 10% respectively, which shows that there is a long-term balanced and stable relationship between variables, so model 3 can be used for analysis and research.

3.2 Parameter estimation results

From the regression results in Table 2, it can be seen that the decision coefficient is 0.9792, the adjusted decision coefficient is 0.9774, and the F value is 564.4081, indicating that the model fits well and the explanatory variables can explain the variables well. The intercept of rural residents' cultural consumption is 54.5644. The coefficient of the intercept term D is 36.6712, which indicates that the difference in independent cultural consumption of urban residents is not significant. The marginal propensity of rural residents' cultural consumption is 0.0541, the t value is 5.7031, and the coefficient is significant at the 1% level. The coefficient of D*X is 0.0291 and significant at the 1% level, indicating the marginal propensity to consume urban residents' cultural consumption. It is 0.0291 higher than that of rural residents, and there is a significant difference in the marginal propensity of cultural consumption between urban residents and rural residents.

Table 2 Parameter estimation result

variable	coefficient	Standard error	t	P
C	54.5644	36.1801	1.5081	0.1402
X	0.0541	0.0095	5.7032	0
D	36.6712	49.6548	0.7385	0.465
D*X	0.0291	0.0099	2.9401	0.0057
R-squared	0.9792	Adjusted R-squared		0.9774
Log likelihood	-229.6269	F		564.4081

4. Conclusions

Through empirical analysis, the article concludes that there is a positive correlation between cultural consumption and income of urban residents and rural residents in China. At the same time, rural residents in my country are significantly backward in terms of total cultural consumption, cultural consumption's share of income, and consumption ability related to marginal propensity. For urban residents, when formulating national policies and measures to promote the development of cultural industries, it is necessary to formulate corresponding policies and measures based on the current development of rural cultural industries. The development of the cultural industry is of great significance to China's economic restructuring, industrial upgrading and economic development.

5. References

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