

# **ECONOMETRIC ANALYSIS ON THE INFLUENCING FACTORS OF RURAL RESIDENTS' CONSUMPTION BEHAVIOR**

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Investment, export and consumption are the troika of economic growth, in which consumption is the fundamental driving force of economic growth, an important part of the social survival process, and the basis of realizing the virtuous cycle of the national economy. According to statistics from relevant departments, the growth rate of China's foreign direct investment and GDP continues to decline, while the contribution of consumption to economic growth is far lower than that of investment and exports, further making the country's economic growth too dependent on external demand. So, that the emergence of trade friction between countries, is not conducive to the steady growth of the national economy. At this time, the study of consumption as one of the three carriages of economic growth and its impact on it Factors are of great significance. By using the consumption theory of modern economics, describing statistics and econometric model analysis, combining static analysis with dynamic analysis, this paper deeply analyzes the evolution course of residents' consumption behavior, taking Chinese rural residents as the research object. From the micro and macro aspects, this proposal makes a deep and systematic study on the factors affecting the consumption behavior of the residents, and forecasts the future development of the rural economy, and puts forward reasonable countermeasures for further perfecting the consumption structure of the residents.

Therefore, based on the consumption demand, this proposal studies the consumption behavior of Chinese rural residents. Using the time series data from 2009 to 2018, the proposal analyzes the CPI, GDP, Engel coefficient of rural residents', savings, disposable income and consumer price index. The proposal makes an empirical analysis of the per capita tourism expenditure, analyzes the proportion of each influencing factor, and finds out the key influencing factors, and puts forward the corresponding countermeasures and suggestions.

The level of resident consumption refers to the degree that residents reach in the process of consumption of material products and services to meet the needs of people's survival, development and enjoyment. It is reflected in the quantity and quality of the material products and services consumed. The factors that affect the residents' consumption behavior are as follows:

➤ The impact of gross domestic product on consumer behavior (GDP) reflects the total economic activity of a country or region, and per capita GDP is usually used to evaluate a country's affluence. Usually we regard GDP as a representative indicator of the level of economic development. And a country's economic development level and the resident consumption behavior has the very big connection.

➤ According to the traditional and modern consumption theory, the influence of per capita income on residents' consumption behavior is closely related to income. Therefore, income is the most important factor affecting the consumption behavior of Chinese residents.

➤ The influence of resident savings on residents' consumption behavior; the

residents' consumption and savings affect each other; if saving increases, the actual consumption will decrease, the saving will decrease, and the real consumption will increase.

➤ The influence of inflation on residents' consumption behavior in recent years, the price of our country increases greatly, which directly affects the living standard and quality of life of the residents' families. What's more, inflation's expectations for residents' consumption are also expected. Have an impact. The continuous increase in consumer prices has weakened the consumption desire of urban residents to a certain extent.

➤ The influence of social security on the consumption behavior of residents in China means that the level of social security refers to the extent to which social members of a country (region) enjoy social security within a certain period of time. Its main measure is the total social security expenditure as a percentage.

According to the analysis of relevant economic theories, we set the household consumption expenditure as the explanatory variable  $Y$ ,  $X1$  represents rural residents' savings,  $X2$  represents household disposable income,  $X3$  represents the consumer price index, and  $X4$  represents GDP,  $X5$  represents travel costs, and we attribute all other factors to the random perturbation term  $\mu$ .

The models based on the above data are as follows:

$$Y = \beta_1 + \beta_2 * X1 + \beta_3 * X2 + \beta_4 * X3 + \beta_5 * X4 + \beta_6 * X5 + \mu$$

Since there are many variables in the economy with invisible correlations, many aspects of economics have subtle connections. For example, people's demand for a certain product will be affected by the price of the product, the price of the substitute

product, the income level of the residents and so on. However, because there are too many unknown factors, we cannot all be attributed to the model, so we use the random perturbation term  $\mu$ .

**Table 1. Data collection and parameter estimation**

Year	Savings	Income	CPI	GDP (Tera)	Travel expenses	Consumer spending
2009	195408	5153	99.7	1.16	295.3	3661
2010	22619.2	5919.01	103.6	1.57	306.4	4381.8
2011	26239.4	6977.29	105.8	1.6	471.4	5221.1
2012	30353.8	7916.58	102.5	2.57	491	5908.0
2013	34283.5	9429.6	102.8	2.9	754.6	7485.1
2014	37127	10488.9	101.8	3.73	859.5	8382.6
2015	39725.7	11421.7	101.3	3.9	969.3	9222.6
2016	43090	12363.4	101.9	4.69	1070.3	10129.8
2017	46311.5	13432.4	101.3	5.4	1171.3	10945.5
2018	52123.6	14617	101.9	6	1365.5	14617

(Source: China Statistical Yearbook (Unit:CNY))

By using the above data, the relationship between the consumption level of Y residents and the explanatory variable X is carried out, and the general trend is observed, which is convenient for the analysis of model variables.

The preliminary regression model is as follows:

$$Y = -5578.888 - 0.0052978 X_1 - 2.627716 X_2 + 149.5443 X_3 + 2682.124 X_4 + 19.66388 X_5$$

$$t (-0.38) (-1.27) (0.49) (1.89) (1.56) (-0.15)$$

$$R\text{-squared} = 0.9836; \quad \text{Adj } R\text{-squared} = 0.9632; \quad F(5, 4) = 48.06$$

T-test: look at  $T_1 = 0.38$ ,  $T_2 = 1.27$ ,  $T_3 = 0.49$ ,  $T_4 = 1.89$ ,  $t_5 = 1.56$ ,  $t_6 = 0.15$  the threshold value of t-bilateral test with freedom of  $10 - 6 = 4$  is 1.2011 at the level of 5% significance. Then we know that the coefficient t-test of some explanatory variables is not significant and cannot pass the test. From the regression results, we can see that the regression coefficient of residents' income is negative, which indicates that the explanatory variables have multiple identities; It is found that there

are some commonalities between residents' income and GDP in multiple regression, so we re-regress by eliminating GDP as an explanatory variable.

As a conclusion, consumption is one of the most important driving forces for economic growth. How to fully tap the consumption potential and exert the economic driving role of consumption has become an important factor affecting the sustainable development of China's economy. This paper mainly analyzes the consumption behavior of rural residents, and analyzes and summarizes the consumption behavior of rural residents from the consumption factors: income, household savings, CPI, GDP and other important factors affecting consumption. This paper uses the macroeconomic data of the Statistical Yearbook 2009-2018 to establish a relatively comprehensive rural household consumption measurement model, and proves that the income of residents is a key factor affecting the consumption expenditure of rural residents through measurement test. It is found that the consumption expenditure level of rural residents is low, the consumption structure is unreasonable, and the consumption gap between urban and rural areas is widening gradually. Although the income level of rural residents has been improved rapidly, the income level of rural residents is still relatively low, the source of income is single, the income structure is unreasonable, and the income gap between urban and rural areas is enlarged. At the same time, on the basis of summarizing the consumption behavior of rural residents, the paper puts forward four policy suggestions: guide the rational transformation of consumption concepts and optimize the consumption structure of rural residents; speed up the construction of modern agriculture and increase the operating income of rural households; strengthen the construction of rural financial institutions and

broaden the income channels of rural residents; improve rural social security and improve the risk response ability of rural residents to optimize and improve the consumption behavior of rural residents.

## Reference

1. Duesenberry, J.S. *Income, Savings and the Theory of Consumer Behavior* [M]. Cambridge (Mass), Harvard University Press, 1949
2. Farrell, M.J. The new Theories of the Consumption Function [J]. *The Economical Journal*, 1959(69):678-694
3. Dirk Krueger, Fabrizio Perri. Does income inequality lead to consumption inequality? Evidence and theory [J]. *The Review of Economic Studies*, 2006, 7: 157-179.
4. Zhang Bangke, Deng Shengliang. Theoretical hypothesis and empirical test of consumption function of urban and rural residents in China [J]. *Nanjing Social Science*, 2012 (1): 17 -23
5. Xu Lumin. Government transfer spending on Rural consumption: extrusion or crowding-GMM Analysis based on dynamic Panel Model [J]. *Jiangxi Social Science*, 2013 (2): 53 -56
6. Tan Hongye, Xu Xiaolong. Study on the influence of income from different sources on consumption behavior of rural residents [J]. *Contemporary economy*, 2015 (16): 44 -46
7. Tan Hongye, Xu Huiqi. Study on consumption behavior of rural residents under shortsighted characteristics [J]. *Agricultural economy and Management*, 2015 (4): 59 -68