

A Preliminary Study on the Impact of Social Security on Rural Residents' Consumption

Yijia Zhang

China Agricultural University Yantai Institute, Yantai, China
917750336@qq.com

ABSTRACT. At present, China is in a critical period of economic development and it is necessary to vigorously develop domestic market and expand domestic demand. Through research, it is found that there is a negative correlation between the uncertainty of Chinese residents' education, housing and medical expenditures and there is an insignificant positive relationship between social security and residents' consumption expenditures. Under the current economic situation, the government wants to increase the coverage of social security and make every attempt to improve the living standards of residents at the same time, which can promote the vertical development of society and improve the consumption capacity of rural residents.

KEYWORDS: Social security, Rural residents' consumption, Impact

1. Introduction

Resident consumption can drive the economic development. At present, China's economic development is in a transition period. Social security is an important part of the social security system, which has a profound impact on the lives of residents. The incomplete social security system has a great impact on residents' consumption. The research on the relationship between social security and residents' consumption and even the development of macroeconomics has important theoretical value. This paper first analyses the impact of education expenditures and medical expenditures on consumption in combination with the current characteristics of China [1]. Through the economic analysis, we obtain the functional relationship of current social security and consumption levels in China. This paper studies the relationship between social security and consumption and puts forward corresponding suggestions.

2. The Relationship between Social Insurance and Residents' Consumption: Model Building

2.1 Research Model Setting

The income earned by residents after retirement. Assume that the resident retires in the n th year. After retirement, there is only pension insurance in social security, and the amount of pension insurance is θr , then the value of residents' disposable income after retirement is: $W_i = \theta r$.

Residents do not have income from disability and unemployment during work. The government should collect corresponding insurance and set the collection rate as μ , then the value of disposable income obtained at this stage is: $W_i = (1 - \mu) \times Y_i$. [2]

If a resident has income from disability and unemployment at work, the resident does not have the corresponding working ability, he needs to rely on social security for survival, assuming the amount of social insurance compensation is θu . Then the value of residents' disposable income at this time is: $W_i = \theta u$.

The resident income budget constraint function is: $\sum [S_i / (1+r)^i + C_i / (1+r)^i] \leq \sum [W_i / (1+r)^i]$. Among them, S_i refers to resident savings; r refers to the discount rate; $S_i / (1+r)^i$ refers to the present value of the savings in each period of the resident's life cycle; C_i refers to resident consumption; $C_i / (1+r)^i$ refers to the present value of consumption expenditure in each period, W_i refers to the wealth of residents, and $W_i / (1+r)^i$ refers to the present value of wealth in each period of the residents' life cycle. When $i \leq n$, the residents are not unemployed, so the wealth of the residents is the salary minus the social security costs, ie: $W_i = (1 - \mu) \times Y_i$; $i > n$, when the residents are disabled or unemployed, the wealth of the residents is the salary minus The cost of going to social security, plus the cost of medical

insurance, namely: $W_i = (1-\mu) \times Y_i + \theta u$; when $i > n$, the resident is not disabled or unemployed, the wealth of the resident is the salary minus the cost of social security and pension, ie: $W_i = (1-\mu) \times Y_i + \theta r$; when $i > n$, the residents are disabled or unemployed, the wealth of the residents is the salary minus social security plus pension, medical and other expenses, ie: $W_i = (1-\mu) \times Y_i + \theta r + \theta u$.

Resident objective function. Because residents want to get the maximum effect, the objective function is: $\sum [U(C_i)/(1+r)^i]$. Among them, $U(C_i)$ is the value consumed by the current period; $U(C_i)/(1+r)^i$ refers to the present value of the utility value obtained by consumption in each period of the residents' life cycle.

Savings S. According to the traditional Keynesian consumption function, there is a linear relationship between household consumption and savings. At the same time, there is a substitution relationship between social security and savings. At present, most of the consumption of residents is to deal with unexpected situations, so it is necessary to consider the problem of savings.

Constraint condition: $\sum [S_i/(1+r)^i + C_i/(1+r)^i] \leq \sum [W_i/(1+r)^i]$.

Establish Lagrange function: $\sum [U(C_i)/(1+r)^i] + \lambda \{ \sum [W_i/(1+r)^i] - \sum [S_i/(1+r)^i + C_i/(1+r)^i] \}$. When W_i takes different values, residents' marginal propensity to consume and marginal saving propensity are different. Let $P(x)$ be a probability function. When $P(x) = P_0$, the resident is disabled during the working period; when $P(x) = 1 - P_0$, the resident does not occur during the working period. Disability.

Based on the above analysis, we conclude that $C_i = f(INS, S_i, \mu, P(x))$.

That is to say, in other words, the utility of residents' consumption is related to the payment of insurance money, the collection of social insurance, and the uncertainty of savings. And this can basically be regarded as the main factor affecting consumption.

2.2 Research Variables

Uncertainty of income. Beginning in the mid-1980s, state-owned enterprises carried out system reforms and gradually implemented the labor contract system. Unemployment of employees became an inevitable phenomenon, which led to uncertainty about the future income of residents. In general, the greater the volatility of income growth, the more people will lower their income expectations. When income grows rapidly, people will doubt whether it is accompanied by inflation; in this paper, the standard deviation of the amount of income growth is σ_0 . In addition, inflation is measured using CPI.[3]

Uncertainty of education expenditure. After the economic reform, except for compulsory education, all other education has to pay, and the cost of higher education is constantly increasing, the pressure of university graduates will be greater and greater, and the residents' investment in children's education will also increase, Using the standard deviation of the growth share of education expenditure as the relevant indicator, set as σ_{edu} .

Uncertainty of medical expenditure. Although medical reforms have been carried out, the overall system is still imperfect, and the level of medical insurance in various regions is also very large. Nowadays, medical expenses are constantly rising. Many people feel the pressure of medical expenditure. The standard deviation of the increase in medical expenditure is σ_{med} .

Uncertainty of housing expenditure. In recent years, due to the abolition of house-sharing benefits, houses now need to be purchased with currency. Now the urbanization process is accelerating. The development of the real estate industry has led to rising housing prices. Many people are buying houses with loans, so the cost of mortgages as it continues to increase, let the standard deviation of the increase in housing expenditure be σ_{hom} .

The payment of social security is expressed by INS , and the share of household savings is expressed by S .

2.3 Model Building

The social security and resident consumption models are set as:

$$C = \alpha_0 \times \sigma_0 + \alpha_1 \times \sigma_{edu} + \alpha_2 \times \sigma_{hom} + \alpha_3 \times \sigma_{med} + \beta \times INS + \gamma \times CPI + \delta \times S + Residual$$

Fig.1 Social Security and Consumer Spending Model

Among them, C refers to resident consumption; σ_0 is the uncertainty of income; σ_{edu} is the uncertainty of education expenditure; σ_{hom} is the uncertainty of housing expenditure; σ_{med} is the uncertainty of medical expenditure; INS is the social security fund payment amount; CPI is the price index; S is the amount of savings; $\alpha_0, \alpha_1, \alpha_2, \beta, \gamma, \delta$ are all variable coefficients; Residual is the error term.

3. Specific Analysis of the Impact of Chinese Social Security on Consumption

In the equation before the adjustment, there is a positive relationship between savings and household consumption, and there is an ambiguous positive relationship between social security and consumption expenditure. The traditional ideology of Chinese residents is relatively deep, and various uncertainties increase during the economic transition period. More and more people choose to save rather than consume.[4]

There is no significant relationship between price changes and residents' expenditures. It is mainly related to price instability. On the one hand, residents have formed psychological expectations of price instability; on the other hand, because of price fluctuations, many daily necessities and raw materials have a relatively large fluctuation range, but necessities The price fluctuation is relatively small, so the impact will not be great.

There is a positive correlation between income uncertainty and consumption expenditure. The T value is large enough, but the coefficient is small. This is related to the illusion of currency inflation.

4. Conclusions and Recommendations

From the above analysis, we can know that under today's conditions, housing and medical expenses have become factors that affect residents' consumption due to higher expenditures. At the same time, the social security system is constantly being improved. During this period, it is necessary to establish a moderate level and cover a wide range of systems.

4.1 Increase Public Medical Investment and Increase the Proportion of Medical Commitment

The part of medical expenditure is relatively high, so it is the main factor affecting consumption. At present, the main problem of medical treatment in China is that the proportion of personal responsibility is relatively high, because there are strict rules for reimbursed drugs, and most diseases and drugs cannot Reimbursement, coupled with rising medical expenses, so the state should bear the corresponding proportion and lower the threshold for medical treatment.

4.2 Implementation of Individual Pension Accounts

From the above analysis, we can see that savings and consumption have a positive correlation. National savings mainly saves the income during their work to ensure consumption in old age. The more savings, the more consumption in old age. However, this also reflects that China's old-age pension system cannot meet the needs of retired employees. Due to historical debt and other reasons, many enterprise accounts will have operational problems, so the country needs to gradually implement individual accounts to ensure that the return on investment of individual account funds is higher than wages. In order to ensure the ability to pay for old age [5].

4.3 Balanced Development of Various Systems

According to the needs of economic development, adjust the social security treatment of residents, expand the scope of social security, and reduce some expenditures on education and housing. In this article, we know that in addition to medical treatment, education and housing also have a great impact on consumption. Social insurance policies, so as to ensure that residents can quickly respond to emergencies, and in accordance with economic development and quality needs to increase social security expenditures, so that all classes can enjoy the benefits, so that each resident Enjoy the corresponding rights.

4.4 Improve and Supervise and Operate Social Security Mechanisms

We must strengthen the long-term and stable payment of social security funds to ensure the stable operation of China's social security system. A sound social security system requires not only multi-channel social security measures, but also the establishment of an efficient social security supervision mechanism, so as to ensure market economy Among them, stable investment and operation of social security funds.

5. Conclusion

In today's form, the government needs to continuously increase the coverage of social security, so that more residents can access social security, so as to promote social development and effectively expand the consumption of rural residents.

References

- [1] Chao Jianhong. Research on the impact of social security on the consumption of rural residents in China. *Chinese Market*, No.14, pp.59-60, 2020.
- [2] Fan Chunguang. Analysis on the impact of social security on rural residents' consumption behavior. *Southern Entrepreneur*, No.04, pp. 209, 2018.
- [3] Ma Shunying. Analysis of the impact of social security on the consumption behavior of rural residents. *Commercial Economic Research*, No.16, pp. 31-33, 2017.
- [4] Gao Sibing. *New Technology Revolution and Agricultural Development*. Agricultural and Animal Husbandry Product Development. pp.5-6, 1995.
- [5] Pan Xiaohua. New agricultural technology revolution and sustainable agricultural development. *Journal of Jiangxi Agricultural University*, pp. 3-4, 2016.