

## Study on the Effects of Population Aging for Financial Risks in Yunnan Province

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**Abstract:** To investigate whether the aging population in Yunnan Province will bring about financial risks, four paths were analyzed: government expenditure, the old-age security and the rural basic pension expenditure and the analysis shows that government public resources would be reduced and government spending responsibilities would be increased due to population aging. Based on the analysis results, to prevent the financial risks brought about by the aging population in Yunnan Province, some relevant policies were put forward, such as the policy of population to alleviate the aging of the population, support the commercial endowment insurance to reduce government expenditure other policies and so on.

**Keywords:** Aging Population; Financial Risk; Influence Path

### 1 Introduction

Since the reform and opening up, in the gradual improvement of the level of social and economic development and strict family planning policy - under the influence of two factors, China's population reproduction type gradually changed from traditional to modern. This change is not only for the continued development of the Chinese nation to win the space also increased the proportion of the elderly groups, thus bringing the "old before getting rich" and "not prepared for the old" typical features[1]. For Yunnan Province, it is one of the big populations of our country and it is also one of the major ethnic minorities. Yunnan Province has a regional specificity and population aging is very typical.

Yunnan Province is one of the most populous provinces in China, especially one of the major ethnic minorities. In the face of special region, the aging situation is even more severe [2]. Yunnan Province in 2005 65 years of age and older population accounted for the proportion of the total population reached 8.4%, has entered the aging population society. The aging of the population will bring about a series of effects on the financial risk, how to take appropriate fiscal policy to seize the opportunity and use the unique regional advantages for the economic development to add bright spots, so as to build an aging perspective of the frontier stability and social harmony become Yunnan Province of important research topics.

### 2 Analysis of the Impact of Population Aging on Financial Risks in Yunnan Province

#### 2.1 Meaning of financial risk

In general, fiscal risk refers to the possibility that government-owned public resources at some point in the future are not sufficient to meet the responsibilities and obligations of the undertakings they bear so that economic and political, social stability and social development are compromised.

The causes of financial risks may fall into two categories: One is the reduction of public resources owned by the government; one is due to the government to bear the burden of responsibility and increased obligations[3]. The deepening of the population aging, on the one hand, will make the labor age population reduce and aging, causing the quantity and quality of the population capital supply to decline and lead to the reduction of social output and thus reduce the government tax revenue.

On the other hand, deepening aging will increase government spending on old-age security, health care and social and public services for the elderly. Under these two roles, aging can lead to financial risks.

## **2.2 Path of Impact of Population Aging on Financial Risks in Yunnan Province**

### **2.2.1 Aging population aging will reduce government-owned public resources**

A simple economic growth model to illustrate the negative impact of population aging on socio-economic development was used. In this basic economic growth model,  $L$ ,  $K$ , respectively, a country's labor and capital investment, the country's total output can be expressed as  $Y$ . When a country's technical level and capital investment remain unchanged, labor input has become a major factor affecting the total social output. If the amount of labor input is reduced, the total social output will also decline.

First, Let's temporarily ignore the impact of aging on the quality of labor inputs and assume that labor participation rates remain constant in the aging process. Then, changes in the working age population can be seen as changes in labor input.

### **2.2.2 Aging population aging will increase government spending responsibilities**

Social security is a non-competitive and non-exclusive public goods, and the provision of public goods to all members of society is an important responsibility of the government. In general, the social welfare system for the elderly includes three parts: old-age security, medical security and social services[4]. The increasing number of elderly population will directly increase the pressure of public pension funds in our country, which poses a greater challenge to our country's medical insurance and social service resulting in the improvement of our government's payment responsibility [5].

### **2.2.3 Aging of the population aggravates the pressure of the old-age security of the Yunnan provincial government**

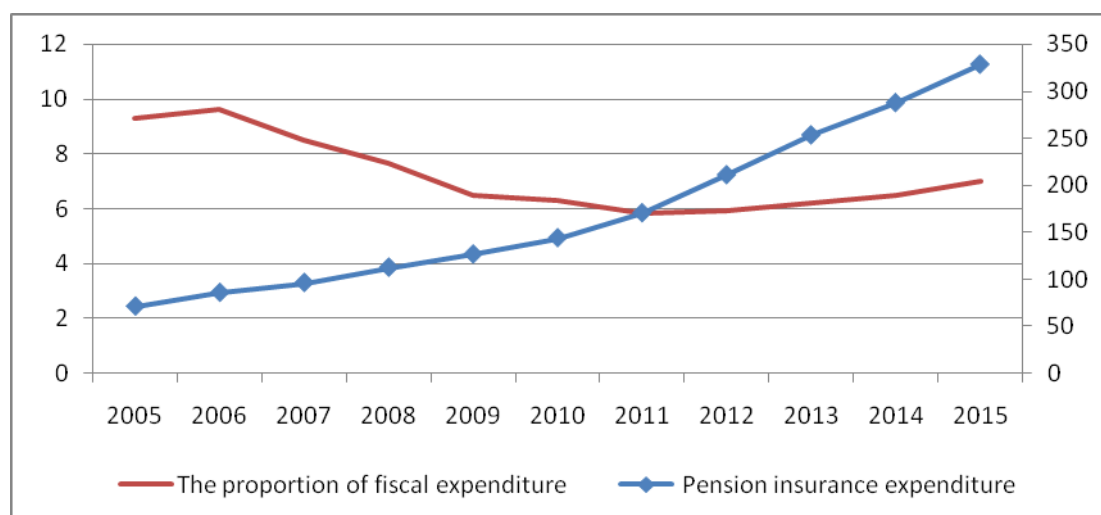
First, the aging of the population will increase the pressure of our government on urban pension security. Deepening the aging of the population is mainly through the change in the support ratio of old-age affect the basic pension insurance fund.

The ratio of dependents mainly refers to the ratio of the population of the social security fund to the social security fund, which has a significant impact on the income and expenditure of the basic old-age insurance system. When the ratio is low, it indicates that the system contributes more than the recipient to form a situation where the income is greater than the expenditure. When the ratio is high, it means that the recipient is relatively increased, which will gradually form the income less than the expenditure.

Second, the financial burden of basic old-age insurance for employees is increasing. Mainly for the two aspects: First, the basic old-age insurance for employees is financially bear the responsibility of the final payment, also said that the financial workers in the basic pension fund employees make ends meet, to be paid;

At present, due to China's stable social security fund financing mechanism has not yet formed and the pension financing channels more single makes the payment of pension pressure. As shown in Figure 2, the expenditure on old-age insurance in Yunnan increased from RMB7.333 billion in 2005 to 32.902 billion yuan in 2015, an average annual increase of 2.577 billion yuan, which accounts for about 7% of fiscal expenditure. In the pension fund revenue growth under the premise of slow, which caused the province's pension fund is facing enormous deficit pressure.

First of all, the administrative institutions in the large number of retired workers increased the burden of government spending increased pension. In accordance with the existing national policy, China's administrative of the pension payment is not fully socialized. In this case, with the increase of retirees, the expenditure scale will also continue to increase. Such as in Table 1, Yunnan Province in 2005 retired staff of 81.9 million and to 121.8 million by 2015, nearly three years an average of nearly 10 million a year; retirees from the pension expenses from 7.53 billion yuan in 2005 increased to 2015, 32.9 billion yuan.



Source: wind

Fig.1 Pension insurance expenditure and the proportion of fiscal expenditure in Yunnan Province

Table 1 basic old-age insurance for urban workers in Yunnan Province

| years | Number of insured persons (ten thousand) | Number of retired people (ten thousand) | Pension income and expenditure (100 million yuan) |             |
|-------|--|---|---|-------------|
|       |  |   | income  | expenditure |
| 2005  | 258.69                                   | 81.9                                    | 86.27   | 71.33       |
| 2006  | 267.42                                   | 83.79                                   | 99.36   | 85.95       |
| 2007  | 279.36                                   | 87.61                                   | 119.33  | 96.53       |
| 2008  | 293.72                                   | 89.35                                   | 143.57  | 112.82      |
| 2009  | 306.54                                   | 90.23                                   | 167.96  | 126.81      |
| 2010  | 317.42                                   | 92.34                                   | 194   | 144.22      |
| 2011  | 342.82                                   | 104.16                                  | 277.35  | 170.77      |
| 2012  | 364.47                                   | 110.71                                  | 298.48  | 211.33      |
| 2013  | 384.32                                   | 115.7                                   | 333.82  | 253.77      |
| 2014  | 397.89                                   | 118.67                                  | 358.15  | 288.17      |
| 2015  | 412.94                                   | 121.8                                   | 406.48  | 329.02      |

Source: wind

Second, enterprises to pay the basic old-age insurance premiums and personal insurance premiums are paid before the tax, excluding personal income tax[6]. Although the increase in fiscal expenditure does not include this part of the tax relief, it in fact reduces the fiscal revenue, and therefore still belonging to the scope of financial burden. Moreover, Yunnan Province is currently accelerating the construction of basic old-age insurance projects covering urban and rural residents. The amount of subsidy for government-based old-age insurance in urban and rural areas is increasing year by year[7]. In 2005, the number of insured persons was 258.69 million, reaching 412.94 million in 2015; the number of recipients increased from 81.9 to 121.8 million in 2015, an average annual increase of 3.9 million; pension expenses increased from 7.13 billion yuan in 2005 to 2015 \$ 329.02 billion.

#### 2.2.4 Aging population will increase the pressure of the Yunnan provincial government to invest in rural basic pension expenditure

The elderly population has a special demand preference for health care. Department of health research shows that 80% human life medical cost is the expenditure after the age of 60, the population aged over 60 years the incidence rate is 2 times the middle-aged population, is 2-5 times the adolescent population.

In the implementation of the current urban and rural residents basic medical insurance system, Yunnan Province, 60 years old and above the elderly population pay more policy concessions. Compared with the working age population, the elderly population can get more financial

subsidies[8]. With the development of the aging population, the size of the elderly population is growing, so the cost of the scale of expenditure will undoubtedly become increasingly large.

### **3 Conclusions**

After analyzes the financial risks brought by the aging of the population in Yunnan Province from four aspects and according to the results of the analysis, the aging of the population in Yunnan Province has reduced the amount of public resources owned by the government and increased government expenditure, which has increased the financial risk of the government.

In order to prevent the deepening of the aging population brought about by the financial risks, two aspects of targeted recommendations were made: On the one hand, the government should speed up the adjustment of the family planning policy and retirement policy so as to slow down the aging process and appropriately adjust the tax policy so as to ensure that the government revenue to make up for the reduction of public resources owned by the government brought by aging. On the other hand, the government should use the tax preferential policies to support the commercial endowment insurance business and thus ease the government's basic pension expenditure responsibility and mobilize social forces to participate in the construction of old social service system to ease the aging of the government to bring the increasing expenditure responsibility.

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