Proceedings of the 3rd International Conference on Business and Policy Studies
DOI: 10.54254/2754-1169/75/20241588

Analysis of the Impact of Population Aging on Inflation

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Abstract: The essay investigates the impact of population aging on inflation. Inflation is a long-term macroeconomic problem. For a long time, domestic and foreign experts have focused on the economic factors that cause inflation, while ignoring a major ongoing event, namely, population aging. As aging becomes more and more serious, it attracts more and more attention. Aiming at the above problems, this paper adopts the review method to carry out studies on the connection between inflation and population aging, which is divided into three major parts; the first part briefly analyzes the aging population that exists now; the second part describes the process and pattern of inflation; the third part explores the effect of population aging on inflation. It is concluded that the rate of saving will decline as the population ages, weaken the interest rate elasticity of total consumption, and reduce the labor-intensive industries, thus inhibiting the economic development of China.

Keywords: Ageing of population, inflation, population age structure

1. Introduction

As health conditions have improved and public awareness of physical health has grown, people's life expectancy is extended, and the accompanying problem is aging. At the same time, declining fertility rates are reducing the young workforce and exacerbating aging. In addition, the demographic structure has also undergone significant changes. Previously, young people accounted for a large proportion of the total population in society, however, as aging has accelerated, the percentage of older persons has been rising, which has caused the demographic structure to change. The aging issue has emerged as a result of the economy's rapid development and the rise in people's standards of living. China is a large country in terms of population and economy, and the issue of aging is very important to us. Research on the effect of aging populations on inflation is crucial. First, population aging has far-reaching implications for economic development. Increased aging means more pensions and more social welfare spending, which puts enormous pressure on society and on the national treasury, which needs to cut back on spending in other areas, such as education and health care. At the same time, the increase in the elderly population has changed consumer demand and the structure of the economy, which has had a huge impact on the market. With the increase in the elderly population, the health care system and the elderly service system need to be improved as a way to meet the needs of the elderly. Nowadays, inflation is gradually becoming the main culprit of the problem of population aging. The low inflation of the past three decades mainly stemmed from the world's demographic dividend, such as China's and Eastern Europe's accession to the World Organization, which released a large workforce. Everything has changed as China enters an aging

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population. Workers are a deflationary force; workers must produce more than they earn, and the income does not all go to expenses. So society as a whole is producing more than it is consuming. Once aging accelerates, it will accelerate the inflationary process. In addition, the elderly population will put a lot of pressure on society's health care and public services. The speed of saving money, can not catch up with the speed of spending money, forcing the banking sector to raise interest rates, which in turn will increase the debt burden on enterprises, limiting economic development, that is to say, the solution to the problem of inflation and recession boils down to solving the problem of aging. This paper uses the REVIEW research methodology to study the connection between inflation and the aging population, increasing research on this issue will not only solve the problem of old age but also contribute to sustainable economic development.

2. Analysis of the Impact of Population Aging on Inflation

2.1. Ageing of the Population

Population aging is the increase in the share of the elderly population brought about by a decline in the proportion of young people in the population as a whole and an increase in the number of senior persons. The UN's report, "Population Aging and Its Social and Economic Consequences" stated that "in a country or region, if the number of elderly people over the age of 65 exceeds 7 percent of the total population, it means that the country or region is aging" in the year 1956.

The number of individuals 60 and older topped 10% of the overall population, according to the World Assembly on Aging in Vienna in 1982. This indicates that the nation or region is rapidly aging. China's current population aging has two obvious characteristics, "aging" and "fewer children". People will inevitably age as a result of increasing life expectancy, rising living standards, and rising subjective happiness. Fewer children are the inevitable result of the rapid development of society and the increase of life pressure. In 31 provinces, autonomous regions, and municipalities directly under the control of the central government, there were 9401.52 million family households, with a total population of 1,244.61 million. The average number of people per family was 163.10, which was 0.34 fewer than in the 2000 census. These figures are based on the main data from the Sixth National Census. As to the findings of the seventh national census, the proportion of senior people living in rural areas is 23.81 percent, which is greater than the aging rate of 15.82 percent in urban areas. The overall health status of the rural elderly was 83.9%, lower than that of the urban elderly (91.64%) [1]. This shows that China's total fertility rate is extremely low. The average lifespan of the population has increased due to the quick development of China's economy, ongoing advancements in healthcare, and ongoing improvements in living standards. This has resulted in previously unheard-of changes in our nation's population age structure. According to the United Nations' definition of aging countries, in 2000, China has an aging population: 88.21 million individuals, or 7.01% of the total population, are over 65. This suggests that China has become an older nation since the turn of the twenty-first century. China's population aging speed is accelerating, and it has caught up with all European countries. The decrease in the fertility rate in China has also accelerated the process of population aging [2]. From a deeply aging society to a super-aging society, China is expected to take only nine years. China implemented the family planning program and the one-child policy in the 1960s, which is the cause behind this. On the other hand, China's strength and medical status have improved, and people's life expectancy will also increase [3].

2.2. Currency Inflation

When real purchasing power exceeds the supply of output, or when the real demand for money is less than the money supply in a currency in circulation, the result is the depreciation of the currency. This is known as inflation, which is the general and continuous increase in prices over time. In short, the

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overall social supply falls short of the overall social demand (supply is significantly less than demand). The CPI also calculates the additional amount of money that a typical household must have on hand to purchase the same "basket of goods" at the same time as the prior year. Inflation is measured by the percentage change in the CPI. According to Keynesian economics, price level fluctuations result in inflation since they are caused by adjustments in the economy's overall supply and demand. The rationale behind this, according to monetarist economics, is that when the amount of money in circulation in the market surpasses the amount required, paper money will lose value and prices will rise, which will lower purchasing power and cause inflation. A well-known equation, MV=PT, summarizes the theory. Where the number of money turns in a single bit of time is represented by the velocity of money, V. The higher the velocity of money circulation, the more times of money turnover per unit time; And vice versa [4]. Inflation is divided into demand-pull inflation and cost-push inflation. Cost-push inflation is a rise brought on by higher manufacturing costs for firms. An increase in wages will have a significant impact on the costs of production. Imports can cause a rise in the price of commodities. The government can raise indirect tax rates or reduce subsidies thus increasing prices. When total demand exceeds total supply, it is referred to as demand-pull inflation, and this means that high demand may raise prices overall. Spending by consumers can increase unnecessarily. Companies could significantly up their investment spending. Either taxes are being lowered or government spending is rising significantly. There may be an increase in the demand for that nation's exports due to the global economic expansion. In our country, fiscal deficits often lead to demand-pull inflation. After World War II, the capitalist world experienced a very serious economic depression, and the inflation rate of European countries rose sharply, resulting in the phenomenon of "stagflation". This led to a sharp rise in unemployment in the capitalist world, creating a serious social crisis [5]. The consumption attitude of the residents in each region is measured by the proportion of the consumption amount in the local GDP, and the intensity of social consumption is also strongly related to inflation. Openness is measured by the proportion of imports and exports to GDP, which also affects inflation [6].

2.3. The Impact of an Aging Population on Inflation

First, the potential growth rate will decline as the population ages. First of all, the decline in the labor supply and the aging of the labor force's age distribution are the two most obvious effects of aging. Healthcare costs for the elderly and government social security expenditures will increase as the population ages more profoundly, so the capital expenditure of enterprises will be restricted, thus affecting labor productivity [7]. Secondly, aging will reduce the saving rate, reduce the source of capital, and lead to a decline in the marginal output of capital and the expected rate of return. The income of the elderly population is relatively small, and the increase in the elderly population will lead to increased costs for pensions and healthcare products, so it will reduce the saving rate. Second, with the deepening of the aging degree, the tolerance of the whole society for inflation is becoming less and less. Only price stability can ensure the stability of the real value of pensions and savings, and the displacement effect of unemployment on inflation in an aging society will decline. Third, the elderly often do not need loans, they are usually creditors, and their sensitivity to interest rate changes is reduced. The wealth effect brought by rising interest rates and the decline in price level may promote the consumption of the elderly, so aging weakens the interest rate elasticity of total consumption. Fourthly, when aging is serious, young people hope to prepare enough savings for their future retirement life, and they are more willing to provide more labor, which leads to a large decline in wages. Therefore, with the increase of aging degree, the effect of increasing interest rate on inflation will be further enhanced. As the aging population continues to grow and the increase of per capita consumption level, there may be three results: low growth of material capital, inhibiting domestic economic growth. Corporate investment demand is falling [8]. In addition, it will lead to a

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slow growth of physical capital [9]. Furthermore, with the increase of aging, China's labor force is getting smaller and smaller, the cost of labor is rising, and the return on investment is declining, which will reduce labor-intensive industries. So some foreign capital may abandon our market and look for countries with lower labor costs. This will inhibit our economic development [10].

3. Conclusion

In conclusion, the age distribution of the labor force has shifted due to population aging, which has also directly reduced the labor supply. If it is not properly solved, China's economy will be greatly restricted and even lead to recession. Population aging also inhibits the development of intensive industries in China to some extent, reduces domestic exports, and harms the domestic economy. The more severe the population's aging is, the more it has a restraining effect on inflation. Conversely, the population's modest aging has little bearing on inflation.

References

[1] *Liu, Y.H., Jia, J.Y., Cui, L. (2023) An ageing population increase endowment problem why. China youth daily.*

[2] *Li, X.H. (2023) Population aging research on the effects of inflation. The northeast university of finance and economics.*

[3] *Li, X.L. (2023) The challenges and countermeasures of accelerating population aging in China. New Finance, (08), 4-7+35.*

[4] *Wu, D., Liang, M.T. (2023) Looking at Inflation from the Speed of Currency Circulation and Its Inspiration for China. China Money Market, (08), 38-43*

[5] *Wang, Y.C. (2019) The causes and countermeasures of inflation from the global perspective. Vitality, 41(08), 196-198.*

[6] *Zou, J., Zhang, J.X.(2016) The impact of population aging on inflation: An empirical analysis based on provincial panel data. Financial economy, (12), 43-45.*

[7] *Liu, Y.Y. (2022) China's ageing population impact on monetary policy effectiveness research. At zhongnan university of economics and law, 2022.*

[8] *Cheng, J., Zhao, Y.H., Li, L.G. (2022) The effects of population aging on economic development in our country. China business theory, (17), 150-152.*

[9] *Du, Y. (2016) Impact of population aging on Economic and social development and Countermeasures. Think Tank for Finance and Economics, (2), 27-39+141.*

[10] *ang, X.Q. (2021) National Strategy for actively coping with aging population and developing aging economy. Scientific Research on Aging, 9(03), 1-12.*