

Analysis of the Impact of Chinese Population Aging on Economic Growth and Coping Strategies

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Abstract: Population aging has become a frequent occurrence due to changes in the global population structure, and it has a significant impact on the economic growth of many nations. Particularly in China, with the decline in fertility rates and the extension of life expectancy, the aging problem is further intensifying. The phenomenon of "fewer children and an aging population" is gradually becoming the norm, posing severe challenges to China's economic development. By searching for the relevant population data of the National Bureau of Statistics, this paper analyzes the current situation of Chinese population structure, analyzes the causes of population aging from four aspects—fertility policy, economic and social development, culture and education, and population migration. It also puts forward the impacts of population aging on economic growth, including the decrease in labor supply, the decline in consumption level and the increase in social pension pressure. This paper argues that even though the aging population structure has had a certain impact on China's social economy, people can turn challenges into opportunities. Furthermore, this paper proposes the coping strategies for China's population aging and promoting high-quality economic development, such as improving the elderly consumer market, giving full play to the leading role of government planning, improving the quality of the labor force, and forming an age-appropriate society. The purpose of this paper is to provide theoretical reference and practical guidance for China to cope with the challenges of population aging and the healthy development of population and economy.

Keywords: Aging population, economic growth, economical for the elderly, coping strategies.

1. Introduction

China's aging population is developing at a rapid pace, which had brought significant impacts on various aspects of national development. Focusing on the impact of the accelerated aging of the population on economic growth can address the challenges brought by the current or future aging population structure, and mitigate the adverse effects of population aging on the economy. With the continuous change in Chinese population structure, issues related to population aging have attracted the attention of many scholars and institutions. In the literature on population aging and economic development, scholars believe China's economic growth is negatively impacted by the aging population [1]. There is a statistically significant and negative correlation between the growth of the 55-69 age group and real GDP growth [2]. Scholars suggest that the aging population may lead to a decrease in the effective labor input [3]. There are also scholars who believe that population aging

suppresses consumer spending, leading to a decrease in the average propensity to consume in society [4]. They believe that a larger percentage of older individuals in the population has a negative impact on consumption related to survival and a good impact on consumption related to development [5]. Furthermore, the aging population exacerbates the burden on households across the society [6]. In response to these challenges, these scholars have proposed corresponding countermeasures. This paper describes the current state of population aging, analyzes the causes behind the current situation, examines the impact of population aging on the social economy, and specifically proposes feasible solutions and corresponding measures. Understanding the evolution and current state of population structure is made easier by this study, which also has the potential to transform obstacles into chances for the economic growth.

2. Demographic Analysis of the Present Population Structure

2.1. The Current Status of Population Aging in China

Generally speaking, a country or territory is considered to have entered an aging society when the population aged 60 and over makes up 10% of the total population, or the population aged 65 and above makes up 7% of the total population. China officially stepped into an aging society starting in the year 2000. However, at this time, China was still in the early stages of vigorous economic development, and its overall economic level was relatively modest compared to the developed countries that had entered the aging society earlier, exhibiting a characteristic of "aging before becoming wealthy." Subsequently, The level of age kept getting deeper. By 2021, the proportion of the population aged 65 and above reached 14% of the total population, entering a deeply aging society. It took China only 21 years to transition from an aging society to a deeply aging society, which was much faster than other countries that have aging societies internationally. In China, there is a noticeable difference in the aging rates of urban and rural areas, with the aging rate in rural areas being substantially greater than that in urban areas, and the difference is only getting bigger. From 2010 to 2022, the proportion of the elderly population in cities, towns, and rural areas increased from 7.7%, 8.9%, and 10.1% to 12.0%, 13.3%, and 19.3%, respectively. By the end of 2023, the total population was 1,409,670,000, and the population aged 65 and above was 216,760,000, accounting for 15% of the total population. As can be seen from Figure 1, in the past twenty years, the growth rate of the elderly population in China has significantly accelerated, and the degree of population aging continues to deepen. Overall, it presents characteristics such as a large population size, rapid development speed, unbalanced development, and aging before becoming wealthy [7].

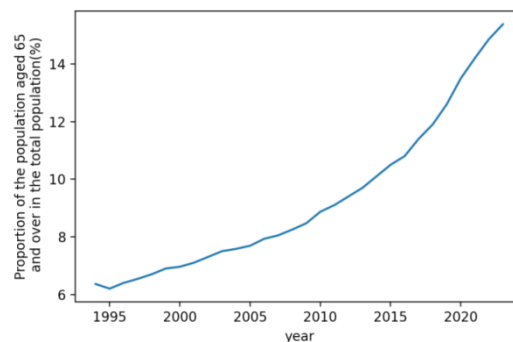


Figure 1: The proportion of the population aged 65 and above in the total population from 1994 to 2023.

2.2. Analysis on Causes of Population Aging in China

2.2.1. The Impact of Fertility Policies

Between 1950 and 1954, shortly after the establishment of the People's Republic of China, the country experienced significant population loss due to war. In response, there was an urgent need for a substantial increase in newborns to strengthen the nation's vitality. The state implemented policies to encourage childbirth, marking the first baby boom in the history of the newly founded nation. From 1962 to 1973, following major natural disasters, as the national economy gradually improved, the state once again encouraged procreation, primarily for compensatory purposes. Over the course of these ten years, nearly 260 million children were born across the country, constituting the most significant baby boom in Chinese history and having the greatest impact on the economy. Following the two baby booms, China's population surged dramatically, sowing the seeds for an impending and substantial aging population crisis. In September 1982, China created the One-Child Policy as a cornerstone governmental policy. This policy advocated for later marriage and childbearing, as well as fewer and better-quality births, which had a profound impact on China's fertility rate and significantly accelerated the formation of an aging society. Although adjustments to the family planning policy, including the implementation of the Two-child Policy and the Three-child Policy, have somewhat increased the fertility rate, they have not been able to reverse the overarching trend of China's progression towards an aging society.

2.2.2. The Impact of Economic and Social Development

With the rapid development of China's economy, the standard of living has qualitatively improved. The pursuit of diet has evolved from "eating to satisfy hunger" to "eating for quality", and today, there is a significant focus on healthy eating and food safety. China's medical and health care systems have also advanced significantly, as seen by declining death rates, rising life expectancy, and a growing share of order population. The social security system is gradually being perfected, striving to ensure that the elderly are well cared for, which has reduced the need for people to rely on having children to support the elderly, thereby affecting the fertility rate. While economic and social development progresses, prices are soaring, and the higher cost of living increases people's daily expenses. This has led to an increasing number of people being reluctant to marry and have children, thereby adding to their financial burden, which in turn further exacerbates the aging population in China.

2.2.3. The Impact of Cultural and Educational Factors

The importance of education is increasingly recognized by a growing number of people. The scope of education has expanded, and the level of education is gradually improving. In the past, the concepts of "more children, more blessings" and "raising sons to provide for one's old age" were deeply ingrained in people's minds, leading to persistently high fertility rates in China. Nowadays, as more people become better educated, these notions are gradually fading. It is particularly worth mentioning that after discarding the outdated notion that "a woman's virtue is her ignorance", there has been a significant increase in the level of education among women, leading to an elevation in their social status. Concurrently, however, discrimination against women in the workplace still persists, causing an increasing number of women to lean towards later marriage and childbearing, or even to choose not to have children at all, resulting in a substantial decline in the fertility rate.

2.2.4. The Impact of Population Migration

China's regional economic development levels vary, and there is a significant disparity between urban and rural development. Cities or regions with higher levels of economic development and more developed infrastructure offer more employment opportunities, attracting a larger labor force. For instance, Heilongjiang Province, which lags behind in economic development, experiences a serious outflow of young people. The elderly population in Heilongjiang Province accounts for 15.61% of the total, which is 2.11% higher than the national aging level for that year. In contrast, Guangdong Province, which is more economically developed, is able to attract an influx of people from other regions. The elderly population in Guangdong Province constitutes 8.58% of the total, which is 4.92% lower than the national average aging level [8]. Simultaneously, a significant portion of the rural labor force migrates to urban areas for work, as shown in Figure 2, where the proportion of the elderly population in rural areas is much higher than in urban and city areas.

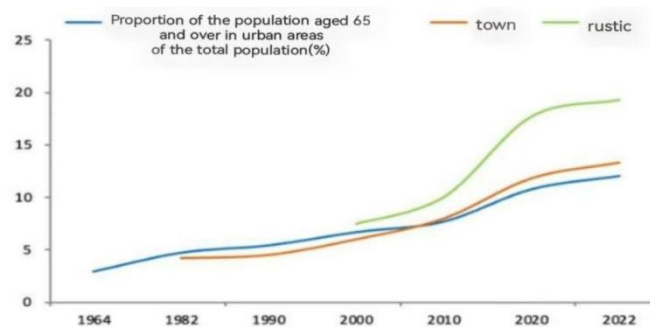


Figure 2: The Urban-Rural Aging Gap in China [9].

3. The Economic Challenges Brought About by Population Dynamics

3.1. The Impact on Labor

The accelerated process of population aging in China has numerous impacts on the labor force, which are manifested in three aspects. First, as the proportion of the elderly population rises, the labor supply is directly reduced, which lowers the share of the working-age population. In 2023, the number of people aged 15 to 64 accounts for 68.26% of the total population at the end of the year. Second, due to the increase in average life expectancy, the number of elderly people in the workforce has increased. The older generation's difficulty in changing work methods and thinking habits makes it challenging for them to adapt to the transformation and upgrading of enterprises, leading to a decline in the quality of the labor force and affecting corporate development. Third, as people age, their physical functions gradually decline. The physical strength, cognitive ability, and innovative capacity of the elderly population are generally weaker than those of younger individuals, impacting labor productivity.

3.2. The Impact on Consumption

Population aging has a significant negative impact on the level of household consumption. The sudden decrease in work income due to retirement among the elderly and the sudden increase in financial pressure on youth who support the elderly lead to a reduction in the marginal propensity to consume, thereby lowering the level of household consumption [10]. The increase in the aging population has led to a shift in the consumption structure, with a rise in the demand for medical, health care and elderly services, and a decrease in the demand for food, tourism, entertainment and luxury goods. At the same time, the growing number of elderly people has brought about a greater

need for customized consumption. Aging also results in a contraction of youth consumption and an increase in elderly consumption, causing the total household consumption expenditure to decline.

3.3. The Impact on the Pension Security System

China's social pension security system is facing significant challenges as the country's elderly population continues to increase. In the early stages of an aging society, while China's economic construction was in the ascendant phase, there was insufficient attention to elderly services, and the pension security system was weak. Even while the system has steadily improved as the economy and society have continued to grow, it is still unable to handle China's enormous old population. The demand for elderly care institutions is high, but supply is insufficient. The quality of elderly care services needs to be improved to provide comprehensive living assistance and diversified and personalized services for the elderly. Currently, elderly care institutions are still at the level of providing basic services such as accommodation, meals, and basic entertainment like watching television to meet the minimum living needs of the elderly. Feelings of idleness and emptiness are common among elderly people living in these institutions [11].

4. Strategies of Addressing the Issue of Population Aging

4.1. Perfecting the Elderly Consumer Market

Given the large scale and rapid pace of aging of China's elderly population, the continuously increasing number of elderly people indicates a vast market potential for the elderly consumer market in China. Developing the elderly consumer market can effectively promote the growth of the elderly care industry and stimulate economic growth [11]. While meeting the demands for consumption among the elderly, it can improve the quality of life for the elderly population, promotes economic development, and drives social progress. For a long time, the elderly's purchasing power has been underestimated, with a weak awareness of market development and an underdeveloped elderly care industry. However, the substantial elderly population now possesses significant purchasing potential. Although China has relatively well-developed medical and health care services for the elderly, to stimulate the consumption potential of the elderly, it is necessary to gain a deep understanding of the consumption needs of the elderly and develop more diversified and customized services. To develop the elderly care industry, one should not be confined to a single approach but should innovate and promote elderly care services, combining the elderly care industry with other industries to achieve a "1+1>2" effect and promote the co-development of multiple industries. For example, combining the elderly care industry with the healthcare industry can provide elderly people with more scientific, healthy, and diverse health care products, while also involving medical institutions in daily prevention and care. Combining the elderly care industry with the leisure tourism industry can create more precise, detailed, and safe travel plans for the elderly, offering them a variety of entertainment options, facilitating travel for the elderly, enriching their lives, and bringing new vitality to the tourism industry. Combining the elderly care industry with the real estate industry can create personalized and specialized elderly real estate products, complete with corresponding medical facilities, elderly dining halls, and activity centers. This not only provides safe and comfortable housing for the elderly living alone but also offers differentiated elderly care service models based on different needs. Integrating the elderly care industry with sports and fitness can make gyms not just the domain of the young, by developing customized fitness programs and training plans for the elderly, providing specialized and distinctive fitness services to improve the physical fitness of the elderly and attract more of them to participate in fitness activities. At the same time, these emerging elderly care services should make full use of the advantages of modern internet marketing, combining high-quality services

with modern marketing techniques to stimulate the consumption capacity of the elderly population and inject momentum into economic growth from the elderly consumer market.

4.2. Leveraging the Role of Government Planning and Leadership

The government should introduce relevant policy planning in the context of the current population structure, strengthen the monitoring and forecasting of changes in the population structure, maintain a keen sensitivity to the potential impacts of these changes, and strive to maintain a harmonious and balanced development between the population and the social economy. The government should provide comprehensive compensation to multiple-child families, offering economic support to alleviate the challenges of raising children, and appropriate compensation in areas such as education and healthcare. It is worth noting that women's willingness to marry and have children significantly impacts China's fertility rate; therefore, attention should be paid to the protection and assurance of women's rights, providing a better employment environment and more equal job opportunities for women. The government needs to implement measures to reasonably extend maternity leave, provide appropriate subsidies, reduce employment discrimination against women in the workplace, and offer "paternity leave" to males from multiple-child families to accompany their spouses or care for the family [12].

4.3. Enhancing the Quality of the Labor Force

To address the impact of an aging society on the labor force, efforts can be made to strengthen talent cultivation and attraction, improve the quality of the labor force, and compensate for the decline in China's overall labor supply and the disappearance of the demographic dividend with a supply of high-quality labor. The country can improve the quality of the labor force by enhancing the training and education of young workers, strengthening the connection between university curriculum and practical experience, focusing on practical application, and improving the overall quality of young people. Introduce preferential policies to encourage outstanding talent to stay locally and develop talent attraction plans to draw high-quality labor from other countries. At the same time, the scope for re-employment of the elderly can be expanded, the idea of lifelong learning can be actively promoted, and the elderly can be encouraged to actively integrate into society, discover their potential strengths for re-employment, thereby alleviating the social pressure from the insufficient labor supply. The government can encourage actively promote industrial upgrading, use technological innovation to improve enterprise productivity and efficiency, drive the adjustment and optimization of the economic structure and cultivate new economic growth points through the input of innovative technologies.

4.4. Accelerating the Formation of an Age-Friendly Society

Society as a whole needs to accelerate the transformation to become age-friendly, integrate and allocate social resources rationally, and build a comprehensive and long-term effective pension security system. The government should formulate welfare policies for the elderly to alleviate the economic burden caused by retirement. Medical institutions, social welfare, communities, and families can form an integrated chain of elderly care services, providing higher quality and more comprehensive elderly care services, and improving the quality of life for the elderly population. The elderly should be loved and attended for, and their social standing as well as their physical and mental well-being should be a priority for the entire society.

5. Conclusion

This paper focuses on the impact of China's population aging on economic growth, utilizing relevant population data from the National Bureau of Statistics to analyze the current situation of population aging in China. The trend towards an aging population structure in China is an inevitable trend, characterized by a large population size, rapid development speed, unbalanced development, and aging before wealth. The issue of population aging presents both challenges and opportunities, and its impact on the labor force, consumption, and elderly care service systems, in turn, affects the healthy growth of the social economy. Facing the changes towards an aging population structure, it is necessary to pay attention to the increasingly large elderly population, develop and improve the elderly consumer market, stimulate the consumption vitality of the elderly group, make full use of the advantages of the elderly population, activate the value potential of the elderly group, develop an age-friendly economy, integrate social resources, strengthen publicity and education, play a good role in government planning and leadership, strengthen talent training, improve the quality of the labor force, accelerate the formation of an age-friendly society, find a balance between population and economy, and achieve healthy and sustainable economic development. However, there are areas for further improvement in this paper. There may be individual cognitive biases in the analysis of the causes of population structure changes, and the summary of the economic impacts brought about by population aging is not comprehensive. Additionally, some of the solutions and measures provided in this paper may have practical issues, and some strategies may be too idealistic, encountering difficulties and obstacles in implementation, resulting in the practical effects not meeting expectations. Future research can focus on the combination of theory and data, using specific data to support theoretical findings and make the conclusions more reliable and actionable.

References

- [1] Yang Du. *The impact of population aging on economic and social development and its countermeasures* [J]. *Financial Minds*, 2021, 6(02):27, 39-141.
- [2] Williams, G.A., Cylus, J., Al Tayara, L. et al. *Can healthy ageing moderate the effects of population ageing on economic growth and health spending trends in Mongolia? A modelling study*. *Health Res Policy Sys* 20 (Suppl 1), 122 (2022). <https://doi.org/10.1186/s12961-022-00916-0>.
- [3] Yang Du, Yonggang Feng. *The impact of rapid population aging on economic growth* [J]. *Financial Minds*, 2021, 56(02):71-88.
- [4] Fangfang Li. *The impact of population aging on residents' consumption from the perspective of "common prosperity"* [J]. *Cloud based*, 2024(35):139-141.
- [5] Shiwen Fan, Liang Hui, Lei Dou, Meimei Hui. *Impact of population aging and declining birth rates on household consumption structure: Evidence from China*, *Finance Research Letters*, Volume 68, 2024. <https://doi.org/10.1016/j.frl.2024.105932>.
- [6] Lin Li. *Challenges and reflections brought about by the aging population in Heilongjiang Province*, *Statistics & Consulting*, 2023(06):2-6. DOI:10.19456/j.cnki.tjyzx.2023.06.001.
- [7] Zhen Li, Boyuan Qi. *The Impact of Population Aging on Economic and Social Development in the New Era and Its Countermeasures: A Case Study of Yancheng City, Jiangsu Province* [J]. *China Market*, 2024 (22):1-7.
- [8] Pei Zhu, Zhi Wang. *Current situation, causes and responses to the aging of Chinese population* [J]. *Modern Business Trade Industry*, 2024, 45(10):160-163.
- [9] Zeping Ren. *China Aging Report 2024: We are in a critical period of the demographic cycle, one of the "gray rhinoceros" of aging and declining birthrate*, 2024. <https://baijiahao.baidu.com/s?id=1803897102652065629&wfr=spider&for=pc>
- [10] Le Tang, Wei Qiang, Shiyu Sun. *A re-analysis of the impact of China's aging population on residents' consumption level in the era of digital economy* [J]. *Population & Economics*, 2024, (04):59-69.
- [11] He Zhang. *Research on China's elderly consumer market under the background of population aging* [D]. *Southwestern University of Finance and Economics*, 2011.
- [12] Tao Chen, Jianren Yang, He Wang. *Current situation, problems and countermeasures of population aging in Jiangxi Province* [J]. *Construction in the Old Revolutionary Areas*, 2023(11):56-62.