

# Impact of Population Aging on the Japanese Economy

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**Abstract:** With ongoing economic and social development, the level of aging is deepening, making population aging a common challenge for many countries worldwide. Japan, in particular, has become the country with the most severe population aging issue. As the problem of population aging in Japan intensifies, this study analyzes the various factors contributing to this phenomenon. On this basis, the study examines the core economic impacts of population aging on Japan, focusing on three main areas: the labor market, consumption patterns, and fiscal expenditure. Specifically, it discusses the constraints on economic growth due to reduced labor supply and skill loss, the effects of changes in elderly consumption patterns on market demand, and the challenges posed by increased pension and healthcare expenditures to public finances. Subsequently, this paper summarizes the key strategies adopted by the Japanese government to address population aging, including pension system reforms, promotion of elderly employment, comprehensive social security coverage, and improvements in community-based long-term care services. The research on the impact of population aging on Japan's economy and the analysis of Japan's response strategies provide valuable insights for other countries, including China, in addressing the challenges of population aging and improving social security systems.

**Keywords:** Japan, Economy, Population Aging.

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## 1. Introduction

With the arrival of the 21st century, an increasing number of countries have entered the stage of an aging society. Population aging has evolved from a straightforward demographic issue into a complex social challenge that encompasses economic, political, cultural, and resource-related dimensions. There is a close interrelationship between population and economic growth.

The earliest research on the relationship between aging and economic issues was conducted by Sauvy [1], who studied the population aging issues in Western European countries such as France and Germany. Sauvy concluded that aging affects the economies of Western societies primarily by increasing production costs for producers and decreasing overall social production. Kuznets [2] also emphasized that population aging impacts economic growth through various channels, including production, consumption, savings, and labor supply. Lindh and Malmberg [3] examined the effects of age structure on economic growth in OECD countries and found that changes in age structure significantly influence the role of individual workers in GDP growth. Specifically, workers aged 50-64 have a positive impact on GDP growth, while those aged 65 and above have a negative impact.

Tian Xueyuan [4] studied the population aging and its economic slowdown in major developed countries. After investigating in Japan, he concluded that Japan's population aging has a positive effect on the country's technological progress. Wang Xiangming [5] focused on the decline in Japan's economic growth and the increasing social burden due to population aging, and briefly analyzed Japan's related countermeasures. Feng Jianfeng [6] analyzed the impact of population aging on economic growth from three perspectives: labor force participation rate, labor productivity, and the age of the labor force. The comparative study found that population aging primarily affects economic growth through its impact on labor productivity. Tian Xianglan [7] examined the issue from the perspective of national comprehensive

power, arguing that Japan's declining birthrate and aging population would alter the population structure, weaken Japan's international influence, reduce the living standards of its citizens, and subsequently affect the country's overall power.

Spyros and Emmanouil [8] argued that Japan's economic growth is influenced by a combination of factors including export growth, private investment, and consumption. As Japan's population ages rapidly, it will restrict improvements in labor productivity and thereby hinder economic growth. Mariana and Emilico [9] predicted that, based on current productivity and population growth rates, Japan may face a decrease in population and aging issues over the next 40 years, potentially leading to a reduction of over 25% in real GDP. Since 1994, the Japanese Cabinet has been publishing survey reports on population aging, which provide comprehensive assessments of elderly populations in terms of employment income, health and welfare, learning and social participation, and living conditions. Japanese scholar Kiyoke Atsushi [10] proposed that Japan's social security system needs further reform under the pressures of an aging population, as the high costs associated with elderly care are impacting the fiscal budget. Oda Mitsuki [11] noted that labor force is a critical factor affecting Japan's economic development and pointed out that, in addition to aging affecting labor supply, the reduction in average working hours also significantly contributes to labor supply shortages in Japan.

Therefore, this paper examines the impact of population aging on economic growth in Japan, analyzing both the aging issue and its effects on economic growth. The study aims to provide valuable insights and policy recommendations for addressing aging-related challenges in other countries, particularly for promoting sustainable social development and stable economic growth.

## **2. Analysis of the Impact of Population Aging on Japan's Economy**

### **2.1. The Impact of Population Aging on Japan's Economy Through the Labor Force**

Population is a primary source of labor supply, and changes in the age structure of the population, particularly population aging, lead to a reduction in the overall labor force and labor force participation rate. This results in decreased labor input in the production process, adversely affecting economic growth. Data from 2022 show that Japan's working-age population was 69.02 million, a decrease of 50,000 from the previous year, with the labor force aged 15-64 numbering 59.75 million, a decrease of 60,000 from the previous year [15]. This trend clearly indicates that Japan's labor supply is declining annually.

As society evolves and life expectancy increases, Japan's birth rates have entered a phase characterized by "low fertility and low mortality," leading to a shrinking labor force and an increasing proportion of elderly individuals. The slowing growth rate of the labor force ultimately results in a reduction in effective labor supply, which negatively impacts economic growth. According to forecasts by the Ministry of Internal Affairs and Communications, the working-age population is expected to drop to 67.73 million by 2030 and further decline to 50.01 million by 2050. This sharp decline in labor supply will directly affect various economic sectors and pose a significant challenge for Japan's economy, particularly for labor-intensive industries.

However, despite the overall decrease in the labor force, the number of elderly workers in Japan has been increasing. Data show that, compared to other developed countries, Japanese seniors are more willing to continue working for income. This reflects Japan's proactive policies in supporting elderly labor market participation. The government has implemented measures to encourage older individuals to remain in the workforce, including improving working conditions, providing skills training, and balancing work with welfare policies [16]. These efforts help alleviate the pressure of declining labor force numbers and demonstrate Japan's recognition and support for the potential of elderly workers.

Japan's cultural and social background also influences this trend. The work culture and the value of "dedication to work" in Japan mean that work is not only a source of income but also a symbol of social responsibility and personal identity. This cultural backdrop encourages elderly individuals to continue working.

Population aging not only leads to a quantitative reduction in the labor force but also presents challenges related to labor quality and structure [12]. As the degree of population aging deepens, Japan must address both the overall decline in the labor force and the need to improve labor quality and adjust labor structure to meet new economic development demands and competitive environments. The government should further strengthen technological innovation, education and training, and labor market flexibility reforms to ensure sustained economic growth and social stability.

### **2.2. The Impact of Population Aging on Japan's Economy Through Consumption and Savings**

Against the backdrop of Japan's increasingly severe

population aging, the income sources for the elderly are limited, resulting in a reduced overall purchasing power compared to younger individuals. As the proportion of elderly people continues to rise, household consumption patterns have also changed. Specifically, an increase in the elderly population typically leads to higher household consumption rates and lower savings rates. Although the number of savers decreases with an aging population, the number of consumers relative to the elderly increases, resulting in an overall upward trend in total consumption while total savings decline.

Elderly individuals often engage in precautionary saving, setting aside funds for potential future expenses, which makes them cautious about spending wealth accumulated during their middle years. While this saving behavior helps maintain financial stability to some extent, it also impacts the overall level of consumption. Due to limited income sources, elderly individuals generally have lower consumption capacity, particularly evident in non-essential spending.

In terms of consumption, elderly individuals have unique needs. They seek to improve their quality of life and have increased demands for healthcare as they age. As the proportion of elderly people in households rises, the demand for healthcare and elderly living supplies also increases. This rise in demand shifts household consumption patterns, further increasing the share of elderly-related goods and services in total consumption expenditures.

The intensification of population aging not only directly drives consumption in related sectors such as healthcare but also exerts a growing impact on overall social consumption expenditure. Although this shift in consumption patterns might stimulate certain industries in the short term, it also affects the economy's growth potential in the long run. The reduction in savings and the change in consumption structure alter the flow of funds within the economy, impacting long-term economic growth trends.

### **2.3. The Impact of Population Aging on Japan's Economy Through Fiscal Expenditure**

Japan's healthcare system is designed to cover all segments of society across different ages and professions. It includes both social insurance and national health insurance. In 2010, Japan's national healthcare expenditure reached 37.42 trillion yen. By 2015, this figure had increased to 42.36 trillion yen, and in 2021, it reached a historic high of over 44 trillion yen. The high demand for healthcare services among Japan's aging population significantly drives these expenditures. Data shows that the per capita medical expenses for Japanese citizens under the age of 75 amount to 235,000 yen, while those aged 75 and over incur medical costs as high as 939,000 yen [13]. This discrepancy arises because elderly individuals often require more medical care and long-term treatments, resulting in per capita medical spending far exceeding that of other age groups.

The arrival of an aging society indicates a rising proportion of elderly individuals, which increases the pressure on healthcare spending. As the elderly population continues to grow and the age structure further ages, healthcare expenditures will inevitably continue to rise. Under these circumstances, the fiscal pressure on the Japanese government is apparent. Given the high demand and costs of medical care for the elderly, the government must allocate more financial resources to maintain and support the healthcare insurance system, thus increasing the fiscal burden.

Moreover, although Japan's healthcare insurance system is extensive, the ongoing aging process exacerbates fiscal pressure. The government must often reallocate resources between healthcare and other public services, leading to tighter fiscal resources. To balance the budget, the government may resort to measures such as increasing taxes, cutting other expenditures, or borrowing. While these measures can alleviate fiscal pressure in the short term, they may also negatively impact other areas of the economy. For instance, higher taxes may dampen personal consumption and business investment, while cuts in other expenditures could affect long-term development in areas such as education and infrastructure.

Additionally, the fiscal pressure resulting from aging may affect the government's ability to implement economic stimulus policies. To counter economic slowdowns or recessions, governments typically use fiscal policies to stimulate economic activity. However, when fiscal resources are predominantly directed toward aging-related expenditures, the government's ability to use fiscal policy effectively is constrained. This not only increases the fiscal burden but also may affect the allocation of funds for other public services and the implementation of economic policies.

### **3. Strategies Japan Employs to Address Population Aging**

#### **3.1. Continuously Improving the Pension System and Strengthening Income Security for the Elderly**

Japan established a modern pension system early on through comprehensive social security laws and specialized legislation. The evolution of its pension system has been characterized by a combination of statutory mandatory basic pensions and various forms of non-mandatory pensions, a shift from a single-pillar to a multi-pillar system, an increase in the income redistribution role of pensions, and ensuring basic livelihood support for low-income groups. The National Pension Law was enacted in 1959 and the public pension system was implemented in 1961. A 1985 revision expanded coverage to all citizens, establishing a pension system with pillars including mandatory National Basic Pension, Employee Pension, and voluntary Corporate Pension. To alleviate pressure on pension payouts, the 2000 revision aimed to maintain the basic purchasing power of the elderly by adjusting pension benefits according to price fluctuations and raising the pension eligibility age to 65. The 2004 revision introduced a "macro-economic fluctuation adjustment mechanism" to curb pension benefit increases and stipulated an annual increase in pension premiums starting from 2005 [13].

#### **3.2. Ensuring and Promoting Elderly Labor Participation and Developing Elderly Human Resources**

Labor resource shortages and rising elderly dependency ratios are significant challenges for aging societies. To address these issues, leading countries have implemented a range of laws and regulations to increase elderly labor participation, focusing on three key areas:

**Anti-Age Discrimination Laws:** These laws encourage or mandate companies to hire older individuals, protecting their right to equal employment. In Japan, the Employment

Measures Law, enacted in 2007, prohibits employers from setting age limits in job recruitment. If age limits are required, employers must provide a justification.

**Legislative Adjustments to Retirement and Pension Policies:** Laws have been enacted to delay retirement ages, raise the standards for receiving full pensions, and extend contribution periods to keep older individuals in the labor market. For example, Japan's Elderly Employment Stabilization Law, introduced in 1986 and revised in 2021, raises the retirement age to 70 or implements a "re-employment system" to ensure employees are retained until age 65.

**Lifelong Learning Mechanisms:** These mechanisms aim to enhance the work capabilities of older individuals. The latest revision of the Elderly Employment Stabilization Law stipulates that employment support organizations in each prefecture must promote employment for those aged 65 and older through job consultation, assistance, and dispatch programs.

#### **3.3. Reforming the Social Security System for Comprehensive Coverage**

Japan has established a comprehensive social security system that includes pension insurance, labor insurance, health insurance, and long-term care insurance, covering almost all residents. These insurance systems encompass not only participants in the labor market but also self-employed individuals and specific groups, ensuring basic living security in cases of illness, unemployment, or old age. In addition to basic social insurance, Japan supports vulnerable and specific groups through various public welfare programs, such as single-parent families, low-income individuals, and people with disabilities. These programs include family support services, employment assistance, and housing subsidies to ensure comprehensive social coverage and fairness.

As demographic and socio-economic conditions evolve, Japan has continually adjusted and reformed its social security system. For instance, the government has addressed emerging social issues and challenges by raising the pension eligibility age, adjusting insurance premiums and benefit levels, and introducing new welfare programs. Japan also actively learns from and adapts international social security practices, such as pension systems and long-term care models from European countries and North America. By incorporating international best practices and innovative strategies, Japan continuously optimizes and improves its social security system to enhance efficiency and adaptability.

#### **3.4. Supporting Community Services and Long-Term Care to Enhance Service Levels**

Japan is dedicated to developing a community-based long-term care service system by establishing specialized care facilities and training caregivers, allowing elderly individuals to receive care services at home. These services include daily living assistance, medical monitoring, personal care, and psychological support, aiming to extend the time elderly individuals can remain in their communities and improve their quality of life. In 1997, Japan introduced a long-term care insurance system to provide financial support for elderly individuals and those with physical disabilities who require long-term care. This system not only assists families financially but also promotes the development of community and professional care institutions to meet the growing care

demand.

Additionally, Japan is actively constructing and enhancing elderly care facilities such as nursing homes, care centers, and day care centers. These facilities offer a range of services including professional care, health consultation, rehabilitation, nutritional meals, and fitness training, providing not only long-term care but also social activities, cultural entertainment, and health management. Specialized psychological counseling services are also available to help elderly individuals cope with psychological stress and emotional needs, ensuring their overall well-being.

## 4. Implications

China is rapidly entering an aging era. Although the aging issue in China is currently less severe and slower in pace compared to Japan, the trend of population aging in China is expected to accelerate due to factors such as adjustments in population policies and increased life expectancy. By studying the impact of population aging on economic growth in Japan and summarizing its experiences and lessons in addressing aging, China can take proactive measures to mitigate the challenges of aging and significantly promote economic growth.

In response to the intensifying aging problem, the Japanese government has continuously improved the legal framework for elderly rights protection through legislative means and established a comprehensive elderly social security system. In contrast, China's current legal framework for the elderly is relatively fragmented, making it challenging to safeguard the rights of the elderly and promote their participation in economic and social development. Therefore, China should enhance its legal framework to address population aging by improving the systematization, coordination, relevance, and operability of elderly-related laws and policies to better meet the challenges of an aging population.

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