

The Aging Population in China

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Abstract. In 1999, China had entered the population aging phase. This continues to exacerbate, with about 7% of the total population above the age of 65. This number has increased to 17.8% with estimations of 38.8% by 2050. This has caused a huge age gap within the society; the younger generation does not have the time and financial abilities to care for their elders. Additionally, the government is not providing enough financial aid for support of construction on elderly healthcare infrastructure. This causes elders to face many problems such as, lack of care and psychological problems. The aging of the Chinese population potentially will reduce economic growth.

Keywords: Aging Population, Chinese Demographics, Geriatric Psychology.

1. Introduction

Population aging has become a major problem for many countries nowadays. It causes an extreme population imbalance. Japan is the first of many countries that has experienced aging issues. As the population increasing ages, a shortage of able workers arises. Most Japanese workers are near or at retirement age.

China's far larger population is also aging rapidly. Healthcare and medical resources are insufficient for coping with the large shift in the population picture. Many must live either with their children or stay in tiny apartments. This leads to various psychological problems; more than one in every four elders face depressive disorders.

This paper will be divided into three major sections. Section I presents economic problems and a comparison with Japan. Section II analyses the demographic changes leading to the aging situation. Section III discusses the psychological problems that happens to elderly people.

2. Analysis

This paper is broken up into thematic sub-sections. Part will be descriptive, while other parts will contain data and discussion. The descriptive section contains discussions economics, demographics, psychology, and the demographics of longevity and urban versus rural populations.

2.1. Economics

Due to the situation whereby elderly people occupy greater proportions within society, productivity has dropped increasingly, resulting in decreased economic growth. Graph 1 (below) represents the growth rate of GDP since the end of the cultural revolution in 1978. Growth rates are indicated for each Five-Year Plan period (FYP). Percentage changes are presented on the vertical axis on a yearly basis.



Figure 1. Growth rate of GDP, 1978–2017

Source: National Bureau of Statistics, China Statistical Yearbook 2017

Since 1978, China’s economy developed rapidly. GDP growth averaged over 9% each year from 1978 until 2023, during which time more than 800 million people overcame poverty. Significant improvements have been made in the areas of health, education, and many other services throughout this timeframe [1].

The aging population has impacted society both negatively and positively. These impacts will affect the condition of society, bringing challenges to labor productivity and increases in demand for medical services. This transition brings with it both scarcity of labor and greater demand for geriatric services.

The resulting pressure on the younger generation lowers its health and siphons jobs away from more productive activities, thereby lowering national output. The need for healthcare rises, leading to higher demand for medical services. An empirical analysis in Beijing revealed a positive correlation between aging and the growth rate of medical costs [2]. As a result, economic growth decreased. Unfortunately, the healthcare sector is insufficiently prepared for the increasing needs of its elderly.

Fewer workers are now available for other jobs. This scarcity impacts not only labor-intensive sectors. Young people are diverted from more creative activities. China’s demographic future might be conceptualized by studying Japan’s recent history.

Graph 2 (below) represents the changes in the population age structures historically and as projected in China and Japan from 1950 until 2050. China currently manifests trends similar to the 1970s-1980s in Japan. The increase in the proportion of the elderly and the decrease in the population’s working age indicates that China is developing in a manner similar to that which Japan has embodied.

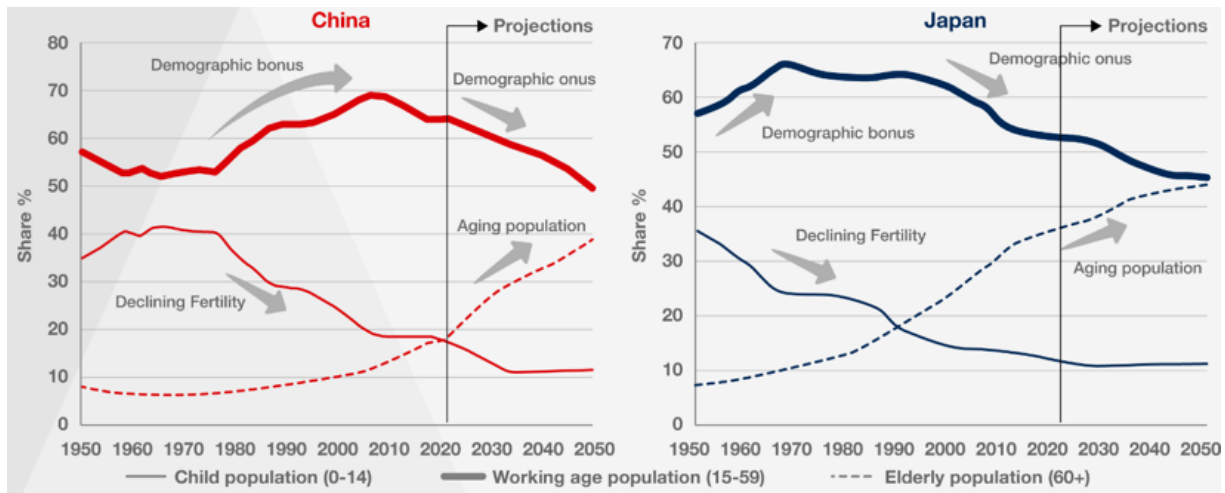


Figure 2. Changes in Population Age Structure in China and Japan

Source: Nomura Institute of Capital Markets Research from United Nations, Department of Economic and Social Affairs, Population Division, *World Population Prospects 2022*

Immediately, after the second world war, Japan’s economy developed rapidly on a sustained basis[3]. Graph 3 (below) indicates that between the years 1968-2009, the country’s GDP declined from 12.9% to -5.7%. This coincides with a burst in the growth rate of the elderly population as noted in Graph 2. Since the burst of Japan’s asset price bubble in late 1991, Japan’s economy has experienced a long period of diminished growth, followed by a rapid aging of its population.

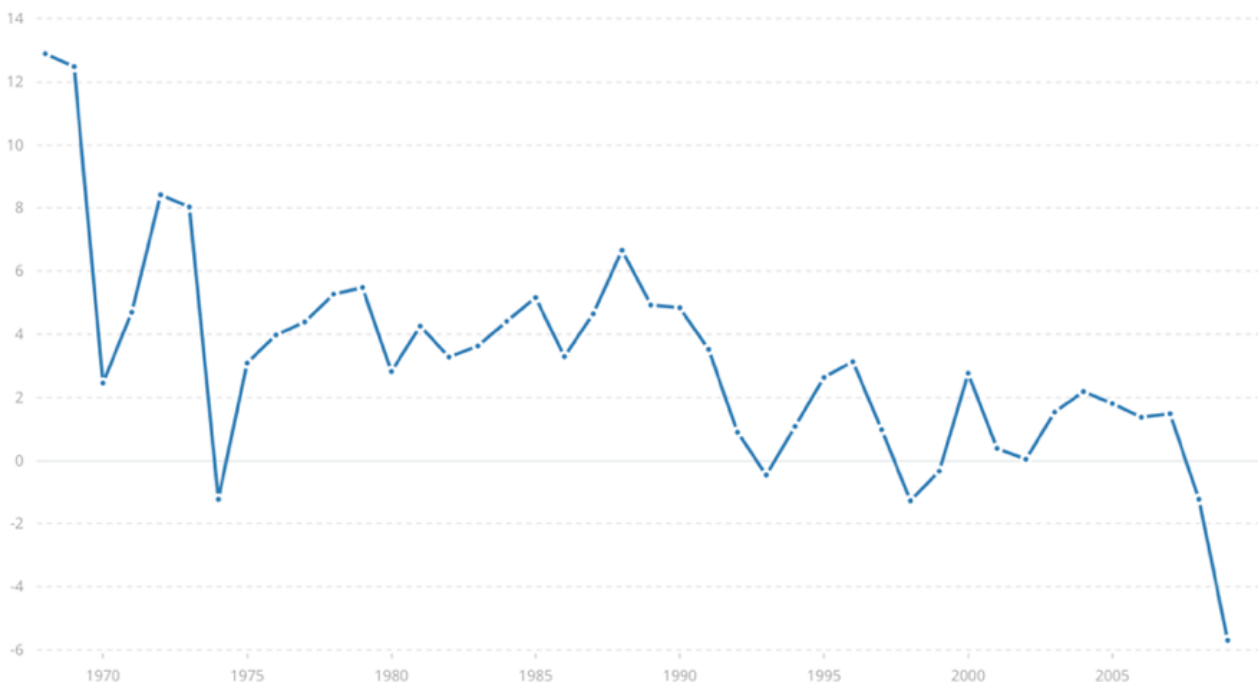


Figure 3. Annual GDP Growth Rates in Japan 1968-2009

Source: World Bank national accounts data, and OECD National Accounts data files 2022

China’s GDP growth rate increased at a yearly rate of -27.3% in 1961 to 14.2% in 1992. In 2007, China’s GDP grew at a rate of 14.2% compared with a rate of growth of 3% in 2022. The growth rates can be observed in Graph 4 (below).

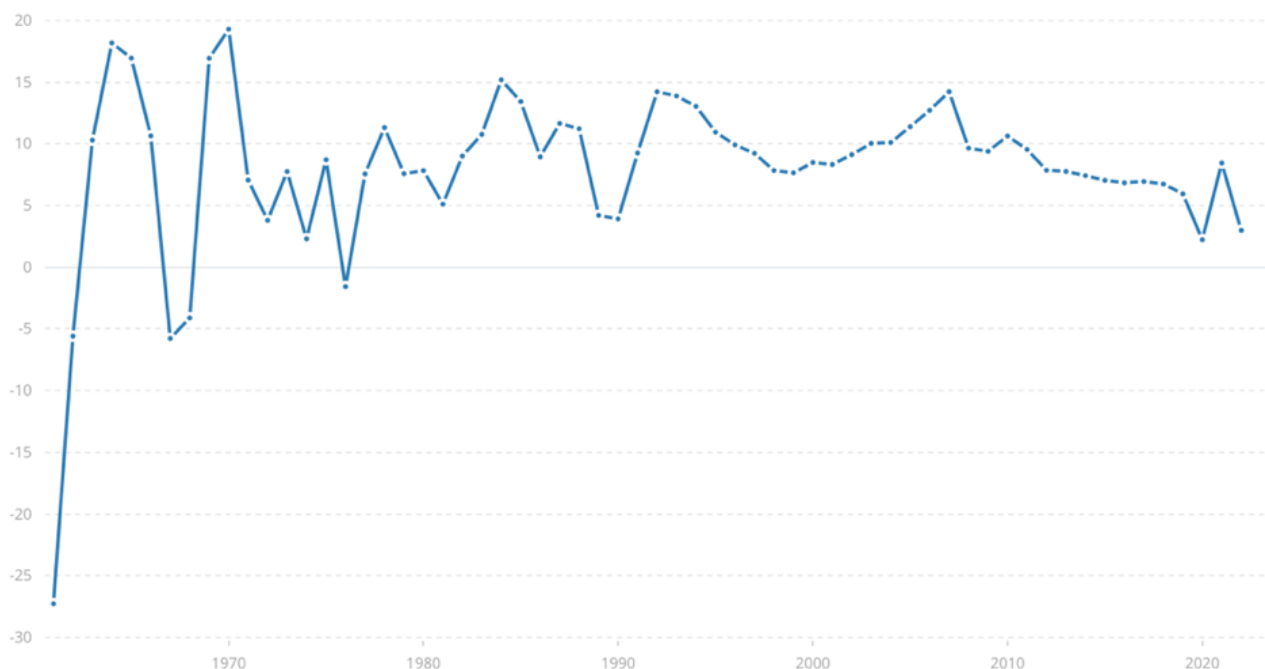


Figure 4. Annual GDP Growth Rates in China 1961-2022

Source: World Bank national accounts data, and OECD National Accounts data files 2022

Japan’s aging process appears to be about 30 years ahead of China’s, but the trends are remarkably similar. Japan has undergone four periods in its national aging development: 1. accelerated development; 2. rapid development; 3. slow down; and 4. high-level maintained periods. [4] It appears that China is lagging Japan by approximately 30 years in the effect of its declining fertility on the balance of its aged. This trend may be irreversible.

China and Japan have experienced a rapid increase in the growth rate of population aging. China has taken 23 years to transition from a 7% aging rate to 14% and then 20% in the following 10 years. In comparison, Japan took 24 and 11 years respectively for the same transitions. The similarity is striking. One effect of the aging of the Japanese population manifests in its need to import foreign laborers to fill emerging gaps in its workforce.

As of 2015, the share of foreign workers in the Japanese workforce is 2.5% [5]. The approval of foreign workers is very limited, especially fields that are unskilled, restrictions continue to sharpen. Japan has allowed both professional and more highly skilled workers to immigrate into the country due to its loss of workers.

Emigration has exacerbated Japan’s labor shortage. Graph 5 (below) represents the amount of Japanese people who have left Japan before and following the World War II. Incidentally, many Japanese people have relocated to North and South America.

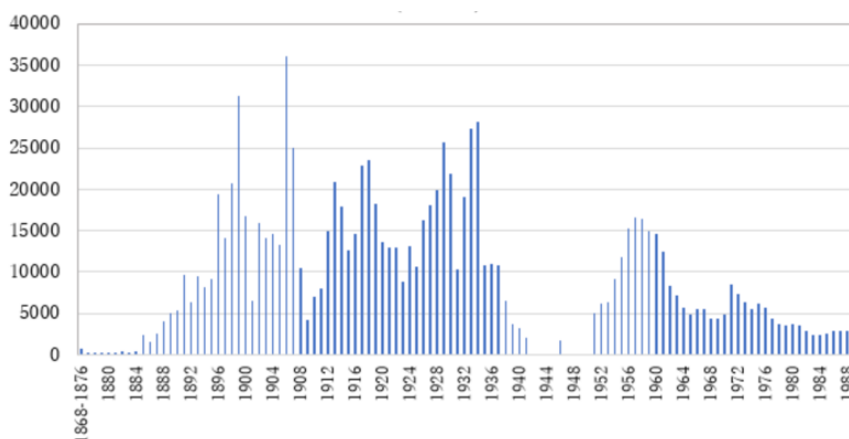


Figure 5. Number of Emigrants from Japan

Source: Japan International Cooperation Agency

Permission to receive permanent resident (PR) status or Japanese citizenship is difficult; even receiving a working visa is highly challenging. Whereas restrictions for foreign workers, especially ones with high degrees of specialization and skills are fairly loose. However, there still remains a significant labor migration from Japan.

2.2. Demographics

The People's Republic of China ("China") has a total population of approximately 1.4 billion as of 2023. There are 34 provinces in China with populations varying from as little as 3.6 million in Tibet to as many as 130 million in Guangdong. Similarly, the proportion of the population above the age of 60 varies from province to province. In Tibet, only 8.52% of its population is above 60, whereas in Shanghai, 23.4% is above 60. Table 1 (below) illustrates the relevant data across the country.

As noted in Table 1 (below), the 2019 census yielded population demographics for people aged 60 and above, and 65 and above are indicated by province. Population data are presented in millions and the percentages express the provincial proportions of the respective aged populations.

Table 1. Aging Population Demographics

Province	60 & Above	Percentage	65 & Above	Percentage
Shandong	21.22	20.90%	15.36	15.13%
Jiangsu	18.5	21.84%	13.72	16.20%
Sichuan	18.16	21.71%	14.16	16.93%
Henan	17.96	18.08%	13.4	13.49%
Guangdong	15.56	12.35%	10.81	8.58%
Hebei	14.81	19.85%	10.38	13.92%
Hunan	13.21	19.88%	9.84	14.81%
Zhejiang	12.07	18.70%	8.56	13.27%
Hubei	11.79	20.42%	8.42	14.59%
Anhui	11.46	18.79%	9.15	15.01%
Liaoning	10.95	25.72%	7.41	17.42%
Guangxi	8.36	16.69%	6.11	12.20%
Jiangxi	7.62	16.87%	5.37	11.89%
Shaanxi	7.59	19.20%	5.26	13.32%
Heilongjiang	7.39	23.22%	4.97	15.61%
Yunnan	7.03	14.91%	5.07	10.75%
Chongqing	7.01	21.87%	5.47	17.08%
Fujian	6.63	15.98%	4.61	11.10%
Shanxi	6.6	18.92%	4.5	12.90%
Guizhou	5.93	15.38%	4.45	11.56%
Shanghai	5.81	23.40%	4.04	16.30%
Jilin	5.55	23.06%	3.75	15.61%
Inner Mongolia	4.75	19.78%	3.13	13.05%
Beijing	4.29	19.60%	2.91	13.30%
Gansu	4.26	17.03%	3.14	12.58%
Tianjin	3	21.66%	2.04	14.75%
Xinjiang	2.91	11.28%	2	7.76%
Hainan	1.47	14.65%	1.05	10.43%
Ningxia	0.97	13.53%	6.9	9.62%
Qinghai	0.71	12.15%	5.1	8.68%
Tibet	0.31	8.52%	2	5.67%

Source: National Bureau of Statistics of China, China Statistical Yearbook 2022

Graph 1 (below) presents the growing trend of the elderly in proportion to the total Chinese population. In 1950, the elderly population consisted of approximately 8%, whereas as this paper is being written, the proportion is approximately 18%. The elderly population is projected to grow to nearly half of the total population by the end of the century.

This growing trend will cause a decrease in China's productive manpower with the resulting reduction in economic output and national income. More and more economic resources will need to be devoted to geriatric healthcare and living. Therefore, resources will be diverted from more productive activities. In sum, these factors will reduce Gross Domestic Product (GDP), resulting in negative growth domestic wealth and international influence.

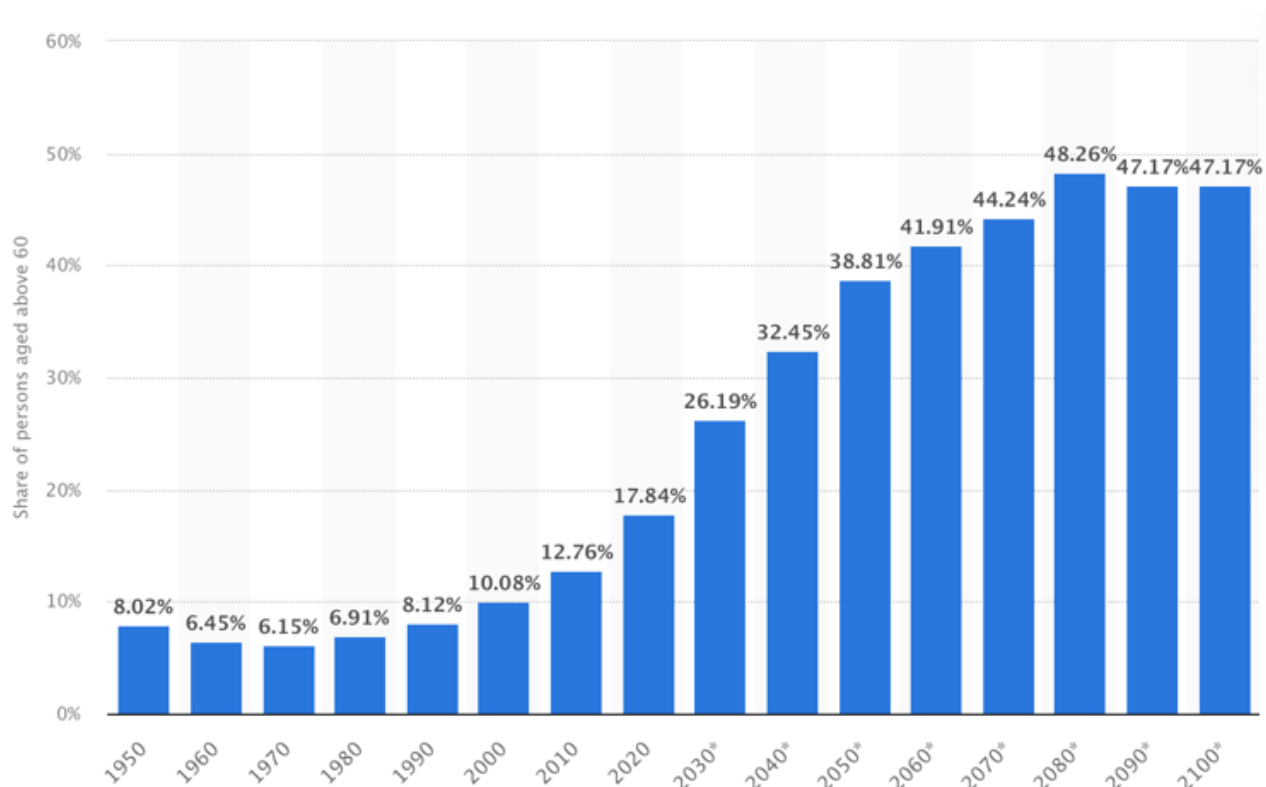


Figure 6. Elderly Population Proportions 1950-2100

Source: China; UN DESA; National Bureau of Statistics of China; 1950 to 2020

There are numerous factors which contribute to the aging of the Chinese population. In 1982, the Chinese communist party instituted a “One Child Policy” that prohibited married couples from giving birth to more than one child. This policy was instituted due to the intense and unsustainable problem of overpopulation. No consideration was given to the negative impact on national demographics.

While the “One Child Policy” was in effect, the Chinese government offered incentives to encourage compliance. Families committing to the policy received an “Honor Certificate for One-child Families” for recognition. They also enjoyed discounts on house purchases, medical care, and educational benefits, and many other welfare advantages.

On the other hand, “social maintenance fees,” based on family income and location, were given when the policy was violated. Additionally, government employees who violated the policy faced punishments, including demotion, salary reductions, or even termination. Individuals who have unauthorized children will also be limited to access social welfare benefits, such as healthcare subsidies and education allowances. Furthermore, children born in the violation of the one-child policy would encounter restrictions on school enrollment and face social stigma within their communities.

In 2016, the “One Child Policy” was replaced by the “Two Child Policy”, followed by the “Three Child Policy” in 2021. Now, couples were allowed to have multiple children to address the demographic challenges of an aging population and the declining birth rates.

With the current policy, the Chinese government offers incentives to encourage compliance including tax deductions. Additionally, some compliant families were awarded home purchase incentives. Other benefits include school admissions, scholarships, as well as healthcare subsidies and family support services.

2.3. Longevity

With developed healthcare services and better living qualities, the lifespan of the average Chinese person has increased. With the number of elders increasing year by year and birth rates decreasing [6], the demographic structure has shifted towards an aging situation.

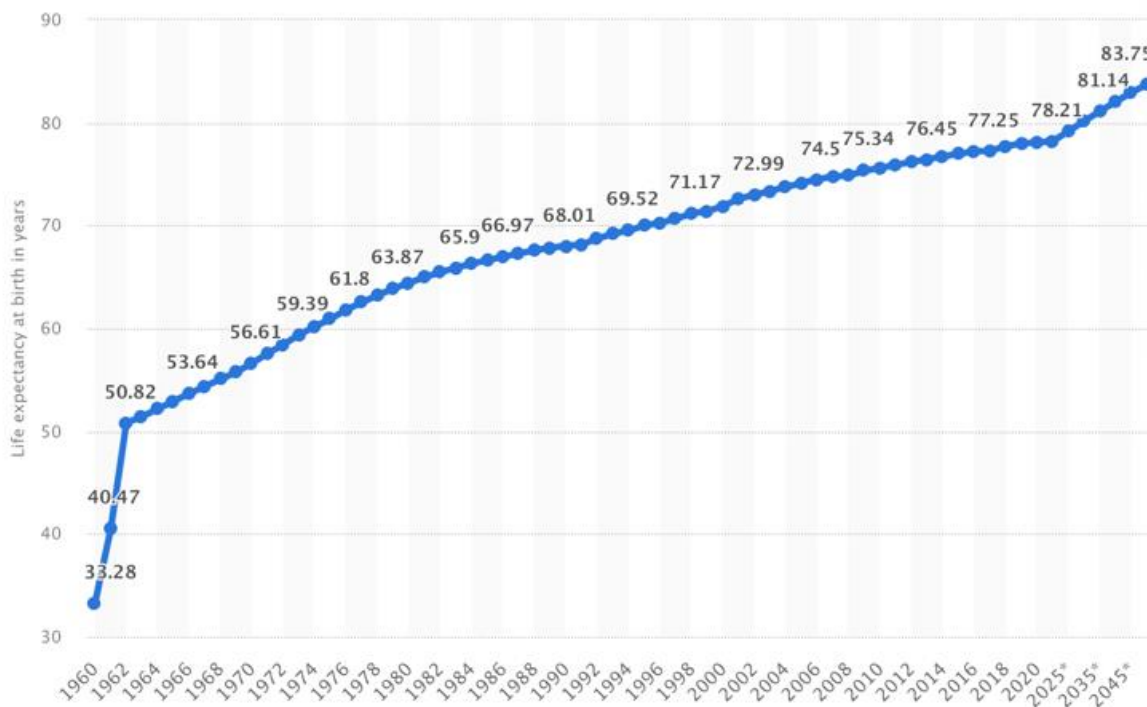


Figure 7. Life expectancy at birth in China from 1960 to 2021 with forecasts until 2050

Source: World Bank 2023

Graph 7 (above) presents the average lifespan of people in China; the numbers continue to increase rapidly with about 200% increase in half a century. This shows that the development of the country has led to better living qualities. More importantly, this is a deciding factor of the aging situation that is becoming more severe.

2.4. Geriatric Psychology

Geriatric health in China has become a concern due to its aging population. Research shows that over 75% of the elderly is facing one or more chronic diseases and more than 50% of these elders suffer multiple chronic diseases. [7] Elderly people with health problems have a greater likelihood of depression. Chronic diseases cause elderly health to decline and long-term medication for illness increases financial burdens. Some elderly require family care, thereby increasing economic and emotional pressures on families. These diseases prevent the elderly from attending social activities, causing isolation and exacerbating depression [8].

Elderly people with greater personal annual income have a lower possibility of depression. People with lower Social Economic Status (SES) may have poor access to mental health therapy services and treatment of depression. As a vulnerable group, the mental health of elderly people highly relies on social support, especially from family members. With the current demographic structure, problems of isolation become common, and the elderly population is unlikely to share their feelings with others.

Compared to living independently with a partner, elders that live with grown children are less happy and have less satisfaction of life. Especially when they don't have their partners accompany as this status improves when there are also grandchildren living together. A very small proportion of the elderly are happy and do not manifest depression symptoms.

I visited an elderly home recently. It is one of the finest in Beijing with full time healthcare services. Even in this excellent facility, there are still many elderly who display psychological problems,

including two suicides about which I was informed. Within this proportion, a majority have low expectations of life, causing the overall atmosphere to seem depressed and tattered in comparison to its facilities.

3. Summary

The aging population has caused various problems and has potentially affected economic development. China's economy has rapidly increased from 1960-1980. As a result, China experienced huge growth in manpower and industrialization. It appears that China is moving towards the trend that Japan faced 30 years ago and is still ongoing. Due to China's much larger population, numerous economic, social and health related problems have arisen. The government, in a desperate attempt to address population aging, has reversed its earlier "One child policy." Still, this solution may be too little, too late.

4. Suggestions for future research

This paper outlined the various issues related to China's rapidly aging population. Future research may suggest practical solutions for the range of problems discussed.

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