

Comparative Study on Active Response to Population Aging between China and South Korea

Yang Wang Academy of Macroeconomic Research, NDRC Institute of Social Development (yeanning_wang@163.com)

I. Introduction

The aging of the population refers to the process of population change in which the proportion of the elderly population increases in the total population. When the population aged 60 and over accounts for 10% or more of the total population in a country or region, or the population aged 65 and over accounts for 7% or more of the total population, this country or region is defined as an aging society. If both of the indicators above meet the criteria, the country or region is called a typical aging society. When the proportion of people aged 65 among the total population reaches 14%, this country or region is called an aged society. If this proportion reaches 20%, it is called a super-aged society.

The aging of the population is a necessary stage for the development of human society and an inevitable trend and law of population development. In today's world, population aging,

along with globalization, urbanization, industrialization, and informatization, will have a profound and lasting impact on all aspects of economic and social development. The United Nations once called it a "silent revolution" in human history. In 2009, the proportion of elderly people over the age of 65 in the world reached 7.5%, which means that the world has entered an era of population aging. Governments all over the world must attach great importance to this and take active and effective response measures.

South Korea became an aging society in 2000. China became an aging society in 2001. According to the World Population Outlook 2017 published by the Population Division of the United Nations Department of Economic and Social Affairs, in 2000 South Korea's proportion of the population aged 65 and over to the total population reached 7.18%.¹ In 2001, the proportion in China of people aged 65 and over to the total population reached 7.07%.²

Both China and South Korea are East Asian

1 In 2019, South Korea's proportion of the population aged 65 and over to the total population will reach 15.01%.

2 In 2019, China's proportion of the population aged 65 and over to the total population will reach 11.72%.

countries with close geographical locations and cultural similarities. Both China and South Korea have gradually shifted from family planning policies to policies to encourage birth. In 1962, South Korea began a national family planning campaign, and China implemented a family planning policy in 1980. In 1996, South Korea cancelled its family planning policies and began encouraging births. In 2016, China began to implement a comprehensive two-child policy. The arrangements for population policies in the two countries are similar, and the transformation of their population policies also shares a similar history. South Korea may have implemented its family planning policy 20 years earlier than China, but both countries have implemented this policy for more than 30 years. In addition, both China and South Korea have achieved economic development in a short period of time, and the problem of population aging has changed with the development of the economy.

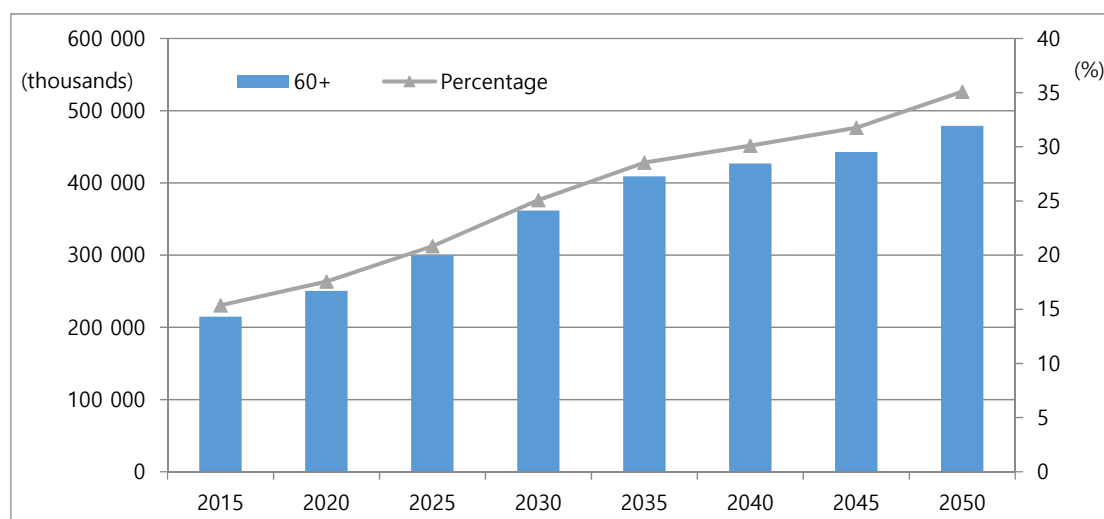
However, South Korea's population aging appears in the period when its per capita gross domestic product (GDP) ranged between 10,000 and 20,000 US dollars. It had solid material conditions and economic foundation for dealing with the problem of aging, and the public policy and social service system were relatively perfect. In contrast, China's population aging started when the nation's per capita GDP did not exceed 3,000 US dollars. Not only the accumulation of social material wealth and scientific and technological conditions, but also the public service system and social security policies, are not fully prepared. China's ability to deal with the outstanding problems and potential risks of population aging is still weak.

Therefore, studying and learning from South Korea's experience will help China accelerate the improvement of the strategic thinking and policy measures to deal with population aging. In order to meet the challenges in the future, we should respond earlier, more scientifically, and more comprehensively.

II. The Characteristics and Influences of China's Population Aging: Comparison with Countries such as South Korea and Japan

The Characteristics of China's Population Aging

China's population aging is characterized by its large scale, fast speed and imbalances. Specifically, firstly, the total amount is large. As shown in Figure 1, in 2015, the number of elderly people aged 60 and over in China was 215 million, accounting for 15.4% of the total population. In 2018, the number of elderly people aged 60 and over has exceeded 249 million, accounting for 17.9% of the total population. In the past three years, the number of elderly people in China has increased by 34 million, accounting for 2.5 percentage points of the total population. According to a United Nations (UN) forecast, in 2030, the number of elderly people aged 60 and over in China will reach 361 million, accounting for 25.1% of the total population. By the middle of this century (in 2050), the number of elderly people aged 60 and over in China will reach 479 million, accounting for 35.1% of the total population. By then, China will enter a stage of deep aging.

Figure 1. China's population aged 60 and over and its share of the total population

Description: The vertical axis on the left is the population of 60 years old and above (unit: thousand); the vertical axis on the right is the proportion of the population aged 60 and over to the total population (unit: %). The medium variant is in use.

Source: Calculated by author, based on Population Division, United Nations Department of Economic and Social Affairs (2017). World Population Prospects: 2017 Edition [EB/OL]. <https://www.un.org/development/desa/publications/graphic/wpp2017-ageing-population> (accessed May 24th, 2019).

Secondly, the growth rate is fast. The proportion of the elderly aged 60 and over in the world increased by about 3 percentage points from 2000 to 2017, while the proportion of the elderly in China increased by about 7 percentage points in the same period, which is more than twice the world average.

Thirdly, the degree of aging between regions is imbalanced. China's population aging varies greatly from region to region. The population in the eastern region³ is more aged than in the central region⁴ and western region.⁵ Shanghai and the Tibet Autonomous Region entered an

aging society in 1979 and 2015 respectively, with a time difference of 36 years. Moreover, due to the acceleration of new urbanization, the migration of young and middle-aged labor to cities, the problem of population aging (such as “empty nest”, old age and disabled seniors, etc.) in the rural area is more prominent and obvious than that in the city.

Although China's population aging is proceeding rapidly, it is still not the most severe country in terms of population aging compared with Japan, South Korea and many European countries. According to the UN's forecast, in 2035, China's elderly population will account for about a

3 The eastern region of China includes 11 provinces (or cities), which are Beijing, Tianjin, Hebei, Liaoning, Shanghai, Jiangsu, Zhejiang, Fujian, Shandong, Guangdong and Hainan.

4 The central region of China includes 10 provinces (or autonomous regions), which are Shanxi, Inner Mongolia, Jilin, Heilongjiang, Anhui, Jiangxi, Henan,

Hubei, Hunan and Guangxi.

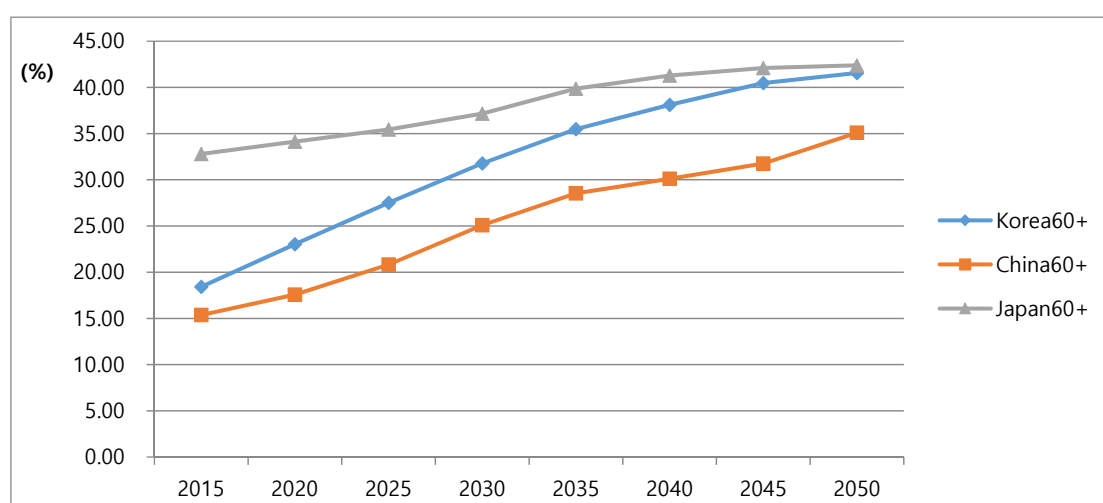
5 The western region of China includes 9 provinces (or autonomous regions), which are Sichuan, Guizhou, Yunnan, Tibet, Shaanxi, Gansu, Qinghai, Ningxia and Xinjiang.

quarter of the total population, which is basically the same level as the United States, the United Kingdom, and Russia, but still significantly lower than that of Japan, South Korea and Singapore. From the trends of two aging indicators (“the proportion of the population aged 60 and over to the total population” and “the proportion of the population aged 65 and over to the total population”), as shown in Figure 2 and Figure 3, Japan's population is the most aged, and its indicators are both the highest among the three countries.

In addition, South Korea's aged population is

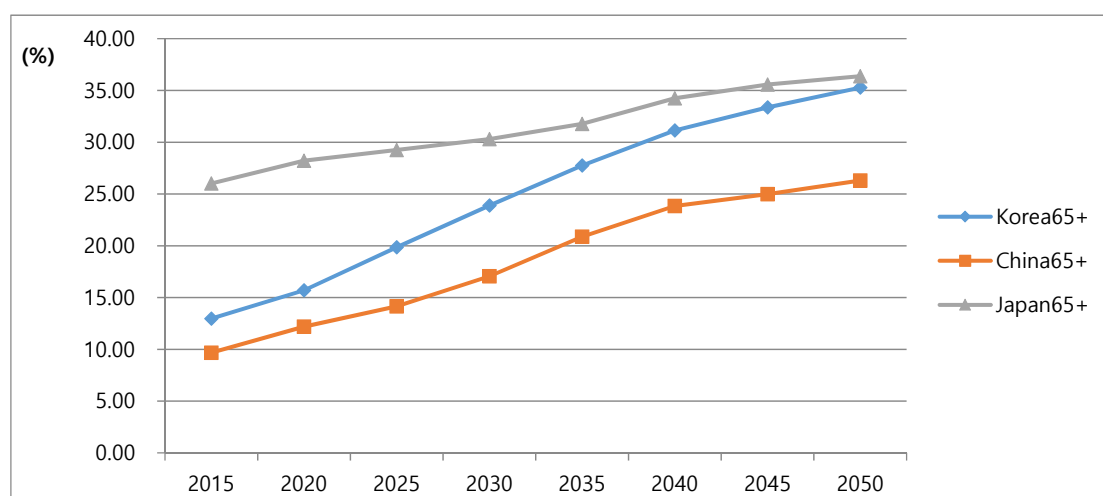
growing the fastest. In 2050, compared with 2015, the proportion of South Korean population aged 60 and over will increase by 23.15 percentage points, and the proportion of people aged 65 and over will increase by 22.31 percentage points. The increase of the above two indicators in China is 19.73 percentage points and 16.63 percentage points respectively, while Japan is 9.59 percentage points and 10.36 percentage points respectively. In 2050, Japan and South Korea will be among the top 10 super-aged countries in the world, but China will not be listed (as shown in Table 1).

Figure 2. Comparison of the proportion of the population aged 60 and over in Korea, China and Japan to the total population



Source: Calculated by author, based on Population Division, United Nations Department of Economic and Social Affairs (2017). World Population Prospects: 2017 Edition [EB/OL]. <https://www.un.org/development/desa/publications/graphic/wpp2017-ageing-population> (accessed May 24th, 2019).

Figure 3. Comparison of the proportion of the population aged 65 and over in Korea, China and Japan to the total population



Source: Calculated by author, based on Population Division, United Nations Department of Economic and Social Affairs (2017). World Population Prospects: 2017 Edition [EB/OL]. <https://www.un.org/development/desa/publications/graphic/wpp2017-ageing-population> (accessed May 24th, 2019).

Table 1. Top 10 super-aged countries in the world (region)

	1980		2017		2050	
	Country (region)	Proportion of 60+ (%)	Country (region)	Proportion of 60+ (%)	Country (region)	Proportion of 60+ (%)
1	Sweden	22.0	Japan	33.4	Japan	42.4
2	Norway	20.2	Italy	29.4	Spain	41.9
3	Channel Islands	20.1	Germany	28.0	Portugal	41.7
4	United Kingdom	20.0	Portugal	27.9	Greece	41.6
5	Denmark	19.5	Finland	27.8	South Korea	41.6
6	Germany	19.3	Hungary	27.7	China, Taiwan Province of China	41.3
7	Austria	19.0	Croatia	26.8	China, Hong Kong SAR	40.6
8	Belgium	18.4	Greece	26.5	Italy	40.3
9	Switzerland	18.2	Slovenia	26.3	Singapore	40.1
10	Luxembourg	17.8	Latvia	26.2	Poland	39.5
	Japan	12.8	South Korea	20.1	China	35.1
	China	7.5	China	17.3	-----	-----
	South Korea	6.4	-----	-----	-----	-----

Source: Calculated by author, based on Population Division, United Nations Department of Economic and Social Affairs (2017). World Population Prospects: 2017 Edition [EB/OL]. <https://www.un.org/development/desa/publications/graphic/wpp2017-ageing-population> (accessed May 24th, 2019).

The Influences of China's Population Aging

The aging of the population has profoundly affected all aspects of China's economy and society. On the economic front, an aging population means that an adequate, young, and cheap labor supply no longer exists, and this will lead to a decline in the national savings rate, which is harmful to social investment and capital accumulation. In turn, this adversely affects the potential growth rate of the economy.

In terms of social security, the ratio of workers to pensioners will decrease from 2.5:1 in 2020 to 1.3:1 in 2050, which will have a greater impact on the sustainable development of the pension system. The subsidy pressure on insurance will increase. Meanwhile, the demand for medical and health services will increase rapidly, per capita medical expenses and health costs will rise significantly, and medical insurance fund payments will also increase substantially. This will pose a huge challenge to the sustainability of the health care system.

In terms of the supply of public services, population aging has led to a significant increase in demand for aged care services and health services, and new demand for public services such as pensions, rehabilitation, medical care, housekeeping, child care,⁶ culture, sports, tourism, and barrier-free facilities.⁷ It is predicted that the proportion of total social expenditure on pensions, medical care, elderly care, welfare and facilities will increase from 7.33% in 2015 to 26.24% in 2050.⁸

6 As the birth policy shifts to encourage fertility, the number of newborn families increases, together with the demand for infant and child care.

7 Facilities suitable for people with reduced mobility.

8 Source: Research Group. National Report on the

In terms of social management, the demographic changes will reshape the pattern of public resource allocation, and the contradictions and conflicts of intergenerational benefits will become increasingly prominent. Some elderly people may be separated from units, families and children for a long time, and easily participate in group events and feudal superstitions, which will adversely affect the social harmony and stability.

South Korea, China and Japan are the three most important economies in Asia. After entering the aging society, the reduction of labor force involved in production activities and the disappearance of the first demographic dividend have become an important reason for the economic adjustment and low-speed growth of the three countries. Previous Korean studies show that the average Korean labor force is expected to shrink by 0.7% per year by 2030, and the potential growth rate for 2019-2030 will be 1.1% lower than the growth rate of 2000-2010 (4.1%).⁹ From the perspective of the three countries, population aging means increasing domestic public transfer payments, reducing the labor force and reducing productivity, increasing medical expenses and raising the welfare expenditure of the elderly. From an international perspective, the aging society of the three countries may have a negative impact on the growth of the global economy.

Strategy of Population Aging. Internal Research report, 2017.

9 Li, Canrong et al. 2011. "Diagnosing the "3S" Phenomenon in the Labor Market with Aging," *CEO Information*, vol. 815, no. 5.

III. Policies Comparison for China and South Korea on Active Response to Population Aging

South Korea's Experiences on Active Response to Population Aging

There are seven South Korean experiences to note in its measures to cope with population aging. Firstly, changing population policy to increase birth rate. Secondly, developing old-age labor and eliminating employment discrimination. Thirdly, developing aging-related industries to meet consumer demand. Fourthly, improving the pension system to ensure that the elder population is financially supported. Fifthly, extending the retirement age and solving senior poverty. Sixthly, establishing special regulations and institutions to work on the elderly. Seventhly, strengthening old-age experience education and enhancing social understanding and tolerance.

In particular, three experiences are the most important. Firstly, developing old-age labor. In 1991, South Korea passed the Aged Employment Promotion Act, which guaranteed the elderly's rights to continue to work, and introduced some incentives to promote employment diversification for the elderly. Since 1992, the Ministry of Employment and Labor has selected suitable professions for the elderly and announced them to the public. It has implemented support projects for the development of their professional abilities and a plan to improve their employability. The Industrial Manpower Association, which is only affiliated to the Ministry of Employment and Labor, has conducted training for the elderly in nearly 200 institutions, and learners can receive tuition subsidy at their own expense. In 2005, the Ministry of Employment and Labor formulated the

Act on Prohibition of Age Discrimination in Employment and Elderly Employment Promotion (hereinafter the "Employment Promotion Law for the Elderly"), aiming at establishing a systematic and comprehensive system for promoting the employment of the elderly. In June 2007, the Enforcement Rules of the Employment Promotion Law for the Elderly were also adopted. South Korea regards the employment of the elderly as a corporate obligation and grants subsidies to enterprises that employ more elderly people. In order to monitor the implementation of the policy, the government requires enterprises to submit annual reports, and those who violate the regulations are punished.

Secondly, develop industries to meet the aged consumers' demands. South Korea has vigorously developed "aging-related industries," involving medicine, medical equipment, food, cosmetics, elderly health and daily necessities, health care, housing, old age entertainment and leisure, post-retirement asset management, funeral services and other industries. In order to grasp the needs of the elderly and the development of the service industry, South Korea pays attention to surveys of the living conditions of the elderly and publishes special investigation reports every year. The government promulgated the Senior-Friendly Industry Promotion Act, which instructs the Ministry of Health and Welfare's Low Fertility and Ageing Social Policy Bureau and the Health Industry Promotion Agency to promote industrial development. The Ministry of Economy and Finance, the Ministry of Employment and Labor and other departments actively participate and form a linkage. The government has also invested in special funds for the development of advanced industrial products.

Thirdly, establish special regulations and institutions to work on the elderly. South Korean government has enacted a series of regulations

including the Welfare of Older Persons Act, the Long-Term Care Insurance Act, and The Framework Act on Low Birth Rate in an Aging Society, to ensure that there are laws to protect the elderly. In 2005, the government established the Presidential Committee on Ageing Society and Population Policy, chaired by the President and a number of central department chiefs, and set up corresponding institutions for different needs. In terms of employment, there are institutions for senior citizens, senior citizens clubs, and elderly employment support centers. In terms of cultural activities, there are also many institutions such as senior citizen halls, elderly welfare centers, and classrooms for the elderly.

China's Main Problems of Response to Population Aging

Relatively speaking, South Korea's policy framework for responding to the aging of the population is better: the measures taken are

strategic, targeted, and focused. In comparison, although China's policy system to deal with population aging has been formed and the content arrangement of various policies has also focused on comprehensiveness and feasibility (as shown in Table 2), most policies are still aiming at resolving the prominent issues and the major contradictions.

Actually, Chinese long-term, strategic and comprehensive considerations are still insufficient, especially on the policies of "developing the whole human resources," "developing the silver economy," and "improving the old age service and management system, and work mechanism." There are many strategic thinking and specific measures that China can learn from South Korea's experiences. Only by coping with population aging under the context of overall economic and social development can China respond to challenges successfully and turn many challenges into opportunities.

Table 2. Comparison of policy framework and implementation progress between China and South Korea in response to population aging

South Korea	China	
Experiences	Policies & Plans	Comparison
1. Changing population policy.	1. Improving the population and maternity supporting service policy	<i>Contents:</i> Similar.
	<i>Objective:</i> To promote the return of the total fertility rate to the ideal fertility rate of population, economy, society, resources and environmental sustainability (between 1.8 and 2.3).	<i>Progress:</i> Synchronous.
	<i>Measures & Plans:</i> (1) Establishing a dynamic adjustment mechanism for birth policies; (2) Establishing the population forecasting and early-warning mechanism; (3) Improving the current family planning service system for maternal and child health.	<i>Performance:</i> (1) Under implementation; (2) Tracking and monitoring the policies' effects; (3) Needing further improvement.
2. Developing elderly labor resources; 3. Extending retirement age.	2. Development of human resources system.	<i>Contents:</i> Different.
	<i>Objective:</i> To improve the average educational level of the working-age population, and the vocational skills of working laborers, increase the mobility of workers, and protect the legitimate employment rights of all workers, and establish a unified and multi-level system of labor employment and entrepreneurship services covering all workers.	<i>Progress:</i> Lagging.
	<i>Measures & Plans:</i> (1) Strengthening the obligatory phase, high school and higher education; (2) Establishing the lifelong voca-	<i>Performance:</i> (1) The quality of the labor force has improved and the productivity of all employees has increased; (2) On-the-job labor is the main policy object; (3) The direction of developing the resources of

	tional skills training system; (3) Introducing a gradual delayed retirement age policy in a timely manner; (4) Appropriately increasing the minimum monthly payment period for basic pensions.	the elderly is to avoid the labor force leaving the labor market too early and stabilize the labor participation rate.
4. Developing aging-related industries.	3. Developing the “Silver economy,” which mainly includes products such as medical equipment for the elderly, health products, products for life and capacity enhancement, special facilities and equipment, as well as services such as health, pension, culture, sports, tourism and finance.	<i>Contents:</i> Similar. <i>Progress:</i> Lagging. <i>Performance:</i> (1) Some policies are being promoted and implemented; (2) Some institutions are still being explored and studied; (3) Tracking and monitoring the policies’ effects; (4) Needing further improvement.
	<i>Objective:</i> To enrich the supply of suitable products and services, to meet the needs of multi-level and diversified aged care services, and to foster new economic dynamism.	
	<i>Measures & Plans:</i> (1) Creating a convenient and efficient business environment, and attract social forces to participate; (2) Building national, industry and enterprise standards, and strengthen awareness of quality and brand; (3) Promoting the integration of old-age service industry with health, housekeeping, sports, culture, tourism, education and training industries, as well as to support the development of the aged care service industry; (4) Piloting various forms of long-term care insurance.	
5. Improving the pension system.	4. Improving the pay-as-you-go pension and medical insurance system.	<i>Contents:</i> Similar. <i>Progress:</i> Lagging. <i>Performance:</i> (1) Under implementation; (2) Tracking and monitoring the policies’ effects; (3) Needing further improvement.
	<i>Objective:</i> To ensure the smooth operation of the social insurance system, reduce the pressure on the fund’s revenue and expenditure, and properly respond to the income and expenditure gap caused by the aging of the population.	
	<i>Measures:</i> (1) Promoting the development of supplementary pensions such as enterprise annuities, personal and family business insurance; (2) Strengthening the investment management of social insurance funds to achieve the synchronization of social insurance fund appreciation and economic growth.	
6. Strengthening old-age experience education.	5. Building an old-age friendly social environment.	<i>Contents:</i> Similar. <i>Progress:</i> Synchronous. <i>Performance:</i> (1) Under implementation; (2) Tracking and monitoring the policies’ effects; (3) Needing to further improvement.
	<i>Objective:</i> To create an atmosphere of supporting, respecting, and familiarizing with the elderly in the whole society.	
	<i>Measures:</i> (1) Guiding the elderly to be self-reliant; (2) Striving to let the society, family and individuals participate together, and consolidate the basic status of family support; (3) Creating a culture of respecting relatives and respecting the elderly.	
7. Establishing special regulations and institutions to work on the elderly.	6. Making the old age work, the old age service and management system, and work mechanism sound and smooth.	<i>Contents:</i> Different. <i>Progress:</i> Lagging. <i>Performance:</i> Under exploration and study.
	<i>Objective:</i> To provide an important organizational guarantee for actively responding to the aging of the population.	

Source: Compiled by author.

Nowadays, China is facing six prominent problems. Firstly, its medical and health service system is currently lagging behind needs. Secondly, the supply of aged care services is insufficient. Thirdly, the development of the aging industry is still very weak. Fourthly, the social

security system for the elderly must be further developed. Fifthly, the construction of living environments for aging remains inadequate. Sixthly, public administration mechanisms and public services for the elderly are inadequate. Among these, the first three problems are the most urgent.

China's medical and health service system still has the problem of “heavy treatment, light prevention, and light health management.” At present, the number of disabled and half-disabled elderly in China has reached more than 40 million. With the increasing number of disabled, semi-disabled elderly, older seniors, living alone elderly and empty-nest elderly, the demand for aged care services will continue to increase. It is estimated that the whole society will spend 0.64% of GDP on the care and nursing of disabled and half-disabled elderly people by 2020, with this percentage reaching 1.56% of GDP in 2050, an increase of 2.4 times. Only by promoting healthy aging and improving the health of all citizens can China reduce the health costs related to aging.

In addition, the supply of various types of aged care services is insufficient, and the quality of services needs to be improved. In terms of community and home care, more than 90% of the elderly want to enjoy aged care services in the community and at home, especially on-site services and nursing services. However, supply is developing slowly and remains in severe shortage due to strict entry requirements, thin profit and the lack of service staff. In terms of institutional care, the number of beds per 1,000 elderly people in China has only exceeded 30. However, the structure remains uneven, leading to the problem of so-called “four more and four less”: that is, more public, less private; more in the city, less in the countryside; more in the suburbs, less in the central area of the city; more single function (living and elderly care) institutions, less multiple function (living, medical, elderly care and nursing) institutions. In terms of long-term care, many elderly people, especially those who are disabled and semi-disabled, have a huge demand for nursing services, but they cannot pay for them. China has not established a cost-collection mechanism for long-

term care of disabled elderly people, meaning that this huge demand often becomes demand without ability to pay. This cannot turn into actual demand. This mismatch between supply and demand will exist for a long time. At present, although some Chinese cities have carried out long-term care insurance pilots, such as Shanghai, Suzhou, Ningbo, Qingdao, Jingmen, Guangzhou, Chongqing and Chengdu, etc., most of the pilot cities use medical insurance funds to share long-term care costs, and do not fully play the role of commercial insurance.

Finally, there is a huge potential market for the development of industries related to population aging. The demand for products and services related to the elderly is huge, especially in the health business, from the whole population's health education, health management, and health insurance, to the elderly's medical services, long-term care, and rehabilitation aids. Some basic rehabilitation aids can be developed into large industries in China.

IV. Conclusion and Policy Suggestions

Facing the grim situation of an aging population, China must extensively and deeply study the experience of South Korea. First of all, it should gain a deep understanding and full analysis of the situation of aging, and truly establish a comprehensive, objective and systematic concept of understanding the population aging issue.

During the "Thirteenth Five-Year Plan" period, China's economy will continue to maintain medium-to-high-speed growth, and the material conditions for aging population will become more acute. With comprehensive reform, China's social security system and old-age service

system will become sounder, and many major policies concerning fertility, employment and health are constantly improving.

China should seize this valuable time window, strengthen the top-level design for responding to population aging, raise it to the level of major national policy, and accelerate the formulation of a national strategy and medium-and-long-term planning. It is necessary to further clarify the strategic objectives, key tasks, major projects and major policies for a long period of time.

China should gradually relax restrictions on retirement age, increase investment in education and training, increase employment for older workers in multiple channels, establish a vocational skill training allowance system for elderly workers, provide training subsidies to enterprises that employ older workers, especially small and medium-sized enterprises, encourage social forces to establish old employment service centers, and elderly legal service organizations to help older workers improve their ability to find re-employment.

As long as China responds to the aging of its population actively, and then combines policy actions with overall economic and social development, we will minimize the challenges and maximize opportunities of population aging, and then achieve a win-win situation for long-term prosperity and stability in the economy and society, and the improvement of the welfare of hundreds of millions of elderly people.

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