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THE IMPACT OF POPULATION AGING ON ECONOMIC DEVELOPMENT IN VIETNAM

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Abstract

Population aging has an impact on many socio-economic aspects of each country. Population aging will also create many challenges for Vietnam, especially growth issues, labor supply and productivity, social security and health care systems, and pension funds. and social problems arise. The transition time from an aging population to an aging population in Vietnam is faster than in other countries, and especially when Vietnam is still a developing country with a low, middle income, these challenges are even more difficult for the economy. This article will evaluate the impacts of population aging in Vietnam on socioeconomic development and provide some policy suggestions for Vietnam's development process.

Keywords: Population Aging, Socio-Economic, Policy

INTRODUCTION

Rapid population aging and the increasing number of older adults have created many new challenges for Vietnam, including impacts on economic development. Vietnam has achieved remarkable successes in economic development since the reform and opening up policy in 1986 and has now become a middle-income country, according to the World Bank's classification. Rapid economic development improves life expectancy, especially in developing countries. However, many studies have also shown the negative impacts of population aging on economic development. The relationship between population aging and economic growth has gradually become the focus of the academic community. In the long term, population aging may put financial pressure on service providers as the number of elderly people increases. Several studies have also shown the impact of population aging on the sustainability of social security systems and national economic growth, highlighting the need to link population aging with capacity competitiveness and sustainable development.

In the past, population aging occurred mainly in developed countries such as the United States, Japan, and Europe. Some countries even had population pyramids that were inverse to the population growth rate at a negative level. However, population aging has become common in many developing countries, including China, Korea, Singapore and Thailand. This problem combines factors: reducing birth and death rates and increasing average life expectancy. In particular, the decline in the birth rate was an important factor causing the aging phenomenon in most countries worldwide (Bos & Von Weizsacker, 1989). Not an exception to the above trend, Vietnam is also experiencing population aging, even at a higher rate than previously developed countries, occurring throughout all regions and localities. The population structure with an increasing proportion of elderly people will bring many problems to the country's socio-economic development. This paper focuses on analyzing the current situation of population aging in Vietnam, identifying some challenging issues from the population aging process, and proposing some policy suggestions to help Vietnam appropriate response to this problem.

Literature Review

One of the most obvious adverse effects is aging due to increasingly low birth rates, leading to the risk of shrinking the labor supply, causing labor shortages, and threatening the economy's output (Carroll et al., 1997). Furthermore, as the proportion of elderly people

increases, according to life cycle theory, older people often have lower savings rates than working-age adults, which will reduce the savings rate, leading to a decrease in the investment rate in the economy and causing a decline in output (Börsch-Supan et al., 2008). In addition, a large number of elderly people in the economy will increase many burdens: dependence when fewer working people have to support a more significant number of elderly people; increases in public spending on pensions, social security transfers, medical care, health care, and other care for the elderly, thereby creating pressure on national budgets (Otsu & Shibayama, 2016). Hviding & Merette (1998) concluded that the aging population would reduce GDP per capita.

Population aging does not necessarily always reduce the labor force. Still, the decrease in labor supply resulting from population aging can be compensated for by an increase in the labor force participation rate (Onofri, 2004). Longer life expectancy - another cause of population aging - may encourage older people to extend their working hours to contribute to economic production and growth. According to Evan & Vozárová, (2018), women are more likely to participate in the workforce due to declining birth rates, so they are less burdened with children. The positive effects of behavioral responses to population aging, such as higher labor force participation rates, outweigh the adverse effects of a reduction in population size, making the aging population positively contribute to a country's economic growth. Besides, a decreasing fertility rate implies that parents will have fewer children, thus allowing families to devote more resources and invest more in their children's human capital, increasing the youth workforce's productivity and contributing to economic growth.

Furthermore, the elderly can contribute to the country's human capital and productivity by passing on knowledge and experience to future generations (Fougère & Mérette, 1999a). In addition, increased longevity may encourage older people to increase savings for preventive purposes for a longer retirement later in life (Friedlander & Klinov-Malul, 1980). Indeed, Fougere & Merette (1999b) used a modified model and incorporated the endogenous growth assumption to study the impact of population aging on population growth in seven OECD countries (UK, US, Canada, Italy, Sweden, France, and Japan). The results show that, with the assumption of endogenous growth, population aging will positively impact real GDP per capita and thus can help promote the growth of an economy in the long run by generating more investment in human capital formation. Fukuda and Morozumi (2004) also have studies with similar conclusions.

Taking a more neutral approach, Aisa and Pueyo (2013) confirm the simultaneous presence of both negative and positive effects of population aging on economic development, due to the overall impact of aging. A country's population and economic growth will depend on many factors. These scholars studied an economy in which national savings were an endogenous determinant of capital. From there, they found the presence of both impacts of population aging: the adverse effects from the dependence of the elderly and the positive impact from capital accumulation. The fact that these two effects are mutually exclusive makes the overall impact of aging on economic development need to be clarified.

RESULTS AND DISCUSSION

Some population characteristics of Vietnam

Vietnam is one of the countries with the fastest-aging population in the world. The total population of Vietnam as of April 1, 2009, was 85.85 million people, while the total population as of April 1, 2019, was 96.21 million. Of these, the number of elderly people in 2009 and 2019 was 7.45 million (accounting for 8.68% of the total population) and 11.41 million (accounting for 11.86%), respectively. From 2009 to 2019, the total population increased by 1.14%/year, and the elderly increased by 4.35%/year. According to the classification used by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), when the population aged 65 and over accounts for 7% to 9.9% of the total population, The population is considered "aging." Similarly, 10% to 19.9% are called the “old” population, 20% to 29.9% are called the "very old" population, and 30% or more are called the "super old" population.

According to the latest population forecast by the General Statistics Office and the Ministry of Planning and Investment, based on the 2019 Population and Housing Census results, the proportion of the population aged 60 and over in Vietnam will increase to 16. 53% in 2029, 20.67% in 2039, 24.88% in 2049, 27.01% in 2059, and up to 27.11% in 2069 (Table 1).

Table 1: Proportion of elderly population (60 years and older) in Vietnam in the period 1979-2069

Year	Number of elderly people	Ratio (%)
1979	3710	6,9
1989	4640	7,2
1999	6190	8,1
2009	7450	8,68
2019	11409	11,86
2029	17278	16,53
2039	22799	20,57
2049	28610	24,88
2059	31506	27,01
2069	31685	27,11

According to this forecast, after the "aging" stage, Vietnam's population will enter the "old" location around the end of 2037 and early 2038. Thus, the time for Vietnam's population to transition from the "old" stage into "old" is about 23 years. This is a relatively short time compared to countries with a transition period from the "aging" to the "old" stage in France, which is 115 years (1865 - 1980), and Sweden - 85 years (1890 - 1975). , Canada - 65 years (1944 - 2009), UK - 45 years (1930 - 1975), Japan 26 years (1970 - 1996), China - 26 years (2000 - 2026). Demographers predict that Thailand's transition time from the "aging" to "old age" stage is slightly lower than that of Vietnam, about 22 years (2003 - 2025).

Statistics also show that the life expectancy of Vietnam's population increased rapidly, from 62.9 years in 2000-2005 to 74.3 years in 2005-2010. Furthermore, the elderly population tends to "age at the oldest age group," meaning that the proportion of elderly people in the oldest group (75 and over) will increase rapidly shortly. However, UNDP's 2009 Human Development Report (HDR) shows that a Vietnamese person's average duration of illness is 8.9 years, so the actual healthy life expectancy is only approximately 66 years.

The child dependency ratio (light blue circle) is the primary determinant of the trend in the total dependency ratio until 2015, increasing until 1970 when it peaked (86%) before decreasing sharply until 2015 to 32%, then continued to decline, but only gradually and is forecast to fall to about 26 and 29% in the future. The elderly dependency ratio (purple

triangle) increased slightly until 1970 to 10%, remained flat until 2015, then began to rise sharply, and is expected to grow strongly by 2060 when it reaches about 46%. It will gradually increase - according to forecasts. These trends are reflected in the relative population shares of each age group. The percentage of the population aged 0 to 14 years (dark blue circles) started at 32% in 1950 and increased to a peak (43%) in 1970 before gradually decreasing. This decline is projected to drop to about 15%, starting around 2040 slowly. The percentage of the population aged 15 to 64 (orange) falls from 64% in 1950 to a bottom 51 % in 1970 before rising to a peak (70%) in 2015, then starting to decline to reach about 54% in 2100. The percentage of the population aged 65 and over (blue diamond leaves) fluctuated between 4% and 7% until 2015, then increased and is expected to grow. It is predicted that the proportion of this age group in the total population will exceed the balance of the age group (0-14) in the early 2040s.

With the rapid growth of the elderly population, calculations of many studies show that the time for Vietnam to prepare to adapt to an aging population is much shorter than in other countries. For example, to increase the proportion of elderly people from 7% to 10%, it took France 70 years, the US 35 years, Japan 15 years, and Vietnam about 20 years.

The elderly population is unevenly distributed and varies significantly between regions, partly due to migration and changes in household structure. Research by Giang Thanh Long and Wade Pfau (2007) shows that most elderly live in the Red River Delta, Northeast, South Central, and Mekong Delta. The proportion of households with only elderly people, especially elderly people living alone, has increased in recent times. Among people living alone, elderly women and elderly people in rural areas account for a large proportion (about 80%). The ratio of "missing generation" elderly households (only grandparents living with their grandchildren) has increased significantly, and part of this consequence is due to the migration of the middle generation. It is also the reason for migration that makes the population aging rate in different provinces/cities very different, in which areas with lower incomes have a higher proportion of elderly people. With the purpose of migration being to increase revenue, it is clear that with the changes in elderly household structure as above, the elderly are very vulnerable to economic and social risks when they migrate (usually for children of the elderly) and do not have a job and a stable life.

Due to urbanization, the proportion of elderly people living in rural areas decreased from 72.47% in 2009 to 67.16% in 2019 (or correspondingly, the proportion of elderly people

living in urban areas increased from 27. 53% to 32.84%). In both censuses, for both elderly men and women, the odds of living in urban areas were higher than for younger elderly groups. This also means that as people age, the proportion of elderly people living in rural areas increases. This is a crucial population distribution trend when developing and planning policies and services for the elderly, especially those with economic and health factors demonstrating the need for care.

Regarding socio-economic regions, at all age levels, the Red River Delta and the North Central and Central Coast regions have the highest proportion of elderly people due to their large population concentration. Rural areas have more elderly people at all thresholds than urban areas.

Impact of population aging on economic development in Vietnam

Population aging increasingly strongly impacts socio-economic development in Vietnam in both the short and long term. Population aging quickly affects the labor force's structure, economic growth, and action. Changes in population structure will change other factors, such as technological progress, capital accumulation, and savings levels. Population aging will reduce consumer demand. In addition, the consumption structure will also change towards health care services. These are labor-intensive services that use little capital.

Population aging also leads to an increase in the amount of savings in society, an increase in the money supply, and, therefore, a decrease in interest rates. Population aging will lead to development stagnation when negative, accurate interest rates can balance savings and investment.

Population aging also leads to reduced human resources participation in the research and development process, and a shrinking workforce also leads to a decline in growth momentum.

Changes in age structure have a substantial impact on support for public transfers. Griffith et al., (2014) calculated the proportion of fiscal support that transfers contribute to fiscal sustainability. This ratio is calculated between the inflow and outflow of people's remittances according to age, remaining constant until there is a change in population structure. The adequate number of taxpayers is calculated by weighting the population

yearly using the age profile of per capita taxes paid. The sufficient number of beneficiaries is calculated using per capita benefits in the base year to apportion by population age.

According to the above calculation, population aging combined with current welfare policies in Japan will lead to a 26% decrease in fiscal support by 2050. Therefore, taxes must increase, benefits must decrease, or the deficit must increase or combine all three cases above. China, Taiwan, and South Korea show more minor fiscal impacts, with budgetary support rates falling by 18-22% by 2050. In contrast, India, Indonesia, the Philippines, and Thailand show rates of Fiscal support increases because the proportion of older people is low or changes in their age structure are partly concentrated at ages when net transfers are elastic.

The World Bank's Long-Term Growth Model (LTGM) predicts that the long-term growth of Vietnam will decline by 0.9 percentage points over 2020–2050 compared to an increase over the past 15 years, mainly due to aging populationization. The main factor leading to this deceleration is the decline of Vietnam's labor force. This is because even in the most favorable scenario (e.g., an apparent increase in human capital), the impact is not significant enough to overcome the braking force caused by workforce decline.

Population aging impacts the transformation of labor and employment structure in Vietnam. The share of agricultural production in GDP fell from 40% in 1985 to 15% in 2018. Agricultural employment in total employment also fell, from 72% in 1985 to 40% in 2019. The decline in farming jobs was offset by a more substantial increase in employment in industry and services, leading to a net increase in total jobs and facilitating the absorption of new entrants into Vietnam's workforce as the working-age population grows.

From 1990 to 2018, nearly 25 million Vietnamese people reached working age, equivalent to an average annual labor force growth of about 2.5, causing Vietnam's labor force to double. While the working-age population and labor force are forecast to grow in absolute terms over the next two decades, the growth rate is projected to slow to a markedly lower rate - down to about half the recent historical average. Compared to the total population, the size of the working-age population has reached its peak. From around 2035, the working-age population is expected to decline slightly until 2050, the final year of the study period.

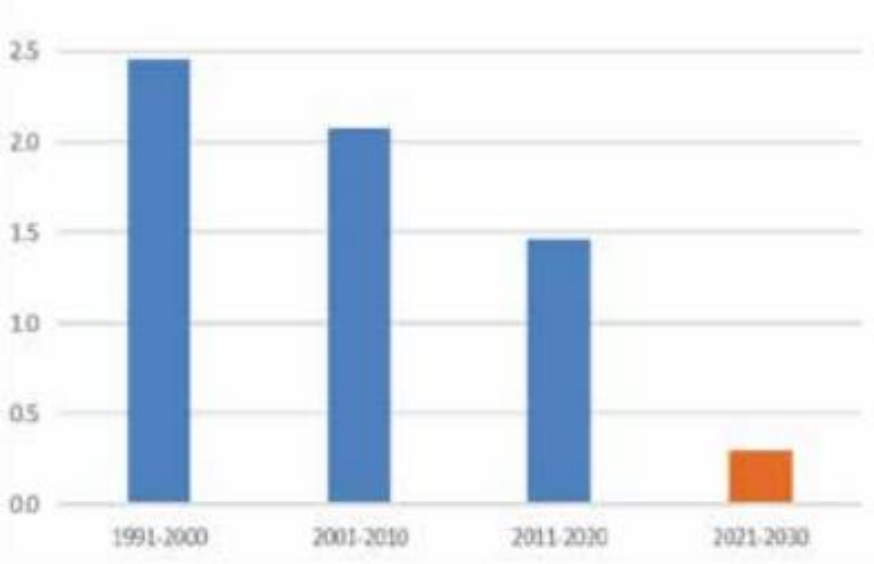

Figure 1: Vietnam's employment growth (%)

Source: Worldbank, 2022

Participating in the workforce is one of the most effective ways for older people to continue contributing to their families and society. Like many other Asian countries, the increasing trend of older people participating in the labor market is inevitable due to the rapid population aging process. Furthermore, continuing to work with the elderly may be necessary to fight poverty in a society with an underdeveloped social welfare system like Vietnam. The elderly in Vietnam live in rural areas with low incomes. So there are almost no savings for old age, while the social security system is lacking and weak, so many elderly people, whether they like it or not, still have to stay in the force and work longer to support themselves and their families financially.

Population aging has the fundamental consequence of lacking additional labor for the future. Falling fertility will lead to a shortage of labor force in the future. The rapid pace of population aging will make it challenging to balance the social insurance fund, especially the pension fund, for a long if the current system design is still applied despite the number of workers. Participation in the system increases yearly, and as of 2008, about 8.7 million workers were participating (equivalent to 20% of the workforce and about 10% of the population in 2008). Besides, the current number of pensioners is approximately 2 million, accounting for about 25% of the elderly in Vietnam.

The report of Vietnam Social Insurance shows that the current average retirement age is 53 years old, of which men are 55 years old (5 years early compared to regulations) and

women are 51 years old (4 years early compared to rules) (Tran et al., 2023). Meanwhile, the average life expectancy of retirees is 72.5 years old, of which men are 71.1 years old and women are 73.9 years old. Thus, the average benefits age will be 19.5 years, of which men are 16.1 years and women are 22.9. However, on average, a person's insurance premiums for 28 years are only enough to pay for that person for 10 years. So, it is clear that the remaining benefit period (about 9.5 years) will have to come from other sources, in which the contributing source must be the primary source. As a result, contributors must increase their contribution rate to ensure a balanced retirement fund. This is inequality between generations. This inequity will fall into a vicious cycle when the number of contributors decreases (due to the decline in the working-age population after the "golden age") and the number of beneficiaries increases (due to the aging population). As a result, the system dependency ratio – measured as the ratio between the total number of contributors and the total number of beneficiaries – will increasingly decrease. In other words, the burden of contributing to the system for future generations of workers is increasingly high. The system dependency ratio decreased from 34 in 2000 to 19 in 2004 and 6 in 2020 with the current system. In other words, contributors will increasingly have to "burden" more beneficiaries in the context of population change, as mentioned.

Some argue that health spending will positively impact longevity/health. However, some other studies suggest that the role of health care in reducing mortality rates is minimal compared to other factors such as nutrition and public health measures. Recently, the impact of medical care on reducing mortality has increased significantly.

Population aging increases the healthcare needs of elderly groups and leads to further population aging, known as Sisyphus syndrome. The high proportion of elderly people will also raise salary funds for the healthcare sector. In addition, health spending is increasing as the population aging rate increases. Some documents have shown that the total health spending in Western countries averages 4% (Jakovljevic et al., 2020). National income growth, medical technology, prices, and wage increases are the main factors driving the rise in health spending, including the correlation between population aging and health spending. Health spending also depends on health and disability status; therefore, population aging is also one of the impacts of the increase in health spending.

In Vietnam, the level of access to health services among the elderly population groups by region and income is very different in the elderly in urban areas and with higher payments

use health care services more and better quality than rural and low-income elderly people, even though they have the same health spending ratio (compared to total household spending)(Nguyen & Giang, 2021). The burden of medical expenditure "burdens heavily" on the more vulnerable elderly groups, making them even more at risk for their health.

CONCLUSION

The level of population aging and economic development has significant spatial differences. Therefore, policymakers should consider the different factors between provinces and cities to develop policies and sustainable development. Areas with low competition and low connectivity need to receive priority policies when facing population aging. The issue of population aging needs to be discussed in the context of sustainable development. For example, in regional development planning, population aging must be considered in various development challenges, such as infrastructure development and innovation capacity, which are essential to competitiveness. Mountainous or remote areas need to have policies to attract a highly educated workforce. Mountainous and remote provinces with low sustainable competitiveness lead to relatively poor health conditions for the elderly, indicating great demand and pressure will be placed on the health and social care sector. Several health and social care innovations, such as telehealth, telemedicine, and telemedicine technology and services, may be recommended to support older people living independently longer. This is expected to help governments improve their ability to compete sustainably and cope with the challenges of an aging population.

Population aging should be placed as one of the priority issues in the socio-economic development strategy. Population aging poses both opportunities and challenges for economic growth and social stability. Therefore, in the socio-economic development strategy, the issue of population aging needs to have a role commensurate with the effects of this issue on the country's socio-economic development. From there, the elderly population needs to be recognized as essential contributors to the socio-economic development process instead of just as beneficiaries of social benefits.

Because population aging will affect pension funds and public spending issues, thereby affecting the fiscal security of each family, policies on population aging need to consider the balance of income and expenditure of the government budget. Therefore, the

Government needs to have balanced solutions to finance the consumption needs of the elderly, mobilizing support from the private economic sector and the savings of the elderly.

Developing high-quality human resources through increased investment in education and aiming for a lifelong learning society is also one of the most important ways to maintain workers' income.

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