Literature Review of the Influence of Current Chinese Demographic Status on China's Economic Growth

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Abstract: Nowadays, China's population structure has changed significantly, and the impact on China's economy is very worth exploring. This paper will comprehensively analyze the impact of China's population structure change on economic growth by synthesizing the research of different students on population structure and economic growth in various periods.

1. Introduction

Population changes have a great impact on economic growth. In many literatures, many economists have conducted research around this topic. Economists now generally hold two views on population changes and economic growth. One is that population changes have a positive effect on economic growth, and the other is that population changes restrict economic growth. In addition to these two mainstream views, there is also a small group of scholars who believe that population changes are not directly related to economic growth. The impact of population changes on economic growth is very complex. The concept of population growth also contains many situations. Analyzing the impact of population on economic growth must be considered from many aspects. Moreover, the impact of population on economic growth is not all direct (for example, changes in population structure have a direct impact on labor force of different ages, production efficiency, and consumption capacity, which turns to affects overall economic growth. The number of populations growth will also affect the distribution of labor at different ages, thereby affecting overall production efficiency, and finally affecting economic development). This article will classify, discuss and summarize relevant literature and research results on population changes and economic growth. And contact the current demographic status of China to analyze the impact on China's economic development.

1.1. Discussion on the restraining effect of population growth on economy

The pioneer of population theory, Malthus, [1-4] put forward his own research views in his papers in 1789 and 1826. His main point of view is that if the population is allowed to grow naturally without restrictions, the affordability of the entire biological social system cannot support the excessive population increase. He believes that the number of people is limited by living conditions, and when living conditions are improved, the number of people will increase. The pressure brought by population growth will stimulate productivity growth, and productivity growth will in turn stimulate population growth. From a long-term perspective, productivity growth cannot keep pace with the growth of potential population. When population growth exceeds the affordability of the entire biological and social system, other factors will inhibit population growth, and these factors will also have an impact on other parts of the biosocial system. In general, Malthus's theory holds that the fixation of natural resources (especially land) restricts the growth of labor force, restricts per capita resources, and thus restricts population growth. In Solow's paper in 1956, he echoed Malthus's point of view, in which he proved that too high a population is not conducive to economic development.

Although Malthus's views seemed convincing enough, scholars soon questioned his views. Although Malthus realized that population growth would greatly reduce the per capita resources, he did not realize that the level of human technological development has the ability to increase the output of total resources, and at the same time, it also has the ability to increase the utilization of resources.

Of course, in the era of Malthus, the level of science and technology of mankind was far less advanced than it is now. Naturally, he would not make bold predictions about the level of human science and technology development, and it is even more impossible to consider the development of science and technology as the background of his doctrine.

All in all, it is not wrong to say that population growth will inhibit economic growth. However, it is obviously inaccurate to describe this through the reduction of per capita resources. Analyzing from other angles, it may be concluded that population growth inhibits economic development under certain circumstances, but this conclusion is not accepted by many scholars.

1.2. The Promoting Effect of Population Growth on Economic Growth

1.2.1. Discussion on population growth and natural resources

Kuznets' paper in 1967 [7-9] emphasized that the increase in the population, the adjustment of the allocation of productivity, and the increase of consumption and savings, have a positive effect on economic growth. He explained in the article that based on the model proposed by Malthus at that time, the analysis of population and economic growth was limited. According to the situation he put forward in the article, the following conclusions can be drawn: 1. It is very limited to judge the impact of population growth on economic growth through the study of total output per capita, although excessive population growth will have serious per capita total output If we analyze the inhibitory effect from this perspective alone, the increase in population will inevitably hinder economic development, but there are many other ways to achieve economic growth. Providing sufficient employment opportunities, reasonable allocation of population and labor, a reasonable combination of personal freedom and personal responsibility, these methods can achieve economic growth by rationally distributing the growing population, although these distribution methods involve more complicated political issues, but also proved the theoretical feasibility. 2. When analyzing the impact of population increase on economic growth, the comprehensive analysis and judgment made did not take into account differences. People at different economic levels within each country have different population growth rates. The impact of population growth on the per capita rate of return is naturally different. For a long time, the population growth rate of lower-income groups in society has been higher than that of higher-income groups. This is only an analysis of the differences between people with different incomes. The actual situation is more complicated. Therefore, an analysis that does not consider differences is not credible.

In the 1988 T.N. Srinivasan paper, [5, 6] he obviously analyzed the impact of population size on economic development more objectively. When analyzing the impact of population on economic development, many scholars will analyze per capita resources. If it is assumed that the per capita resources required by each person are fixed, then for natural resources, the greater the population, the greater the consumption. If we continue to analyze this extreme example, the increase in population growth will inevitably lead to the rapid end of the world. However, this example is obviously too extreme, and it does not consider fixed natural resource substitutes. If natural resource substitutes are added to this example, the results obtained are completely different. When a resource is about to run out, the price of itself and its substitutes will rise, and at the same time new substitutes will appear. This effect will eventually affect the population growth rate. Of course, based on this point of view, some people believe that if the increase in population is controlled, then people will have more time to study alternatives to natural resources, but the facts show that if the rate of population growth slows down, natural resources The consumption rate will also slow down, this situation has delayed people's demand for substitutes, and thus delayed the research on substitutes. For the analysis of natural resources, if you see this, it can be said to be a dead end, but let us make an extreme assumption and the situation will be clear immediately. Assuming that population growth stops, natural resources will eventually be depleted. From this, it can be concluded that the consumption of natural resources is not directly related to population growth but is directly related to people's income growth. So according to this view, previous scholars' views based on population growth's consumption of natural resources inhibiting economic development are not so convincing.

The above research shows that the view that population growth is detrimental to economic development through resource consumption is not authoritative enough. As mentioned earlier in this article, the impact of population growth on the economy is not necessarily direct. Population growth can affect many other data, which has an impact on the economy itself.

2. The Influence of Population and Savings Rate on Economic Growth

Bloom and many other scholars study this issue from a new perspective. [16] They study the impact of demographic changes on economic growth through the impact of population size and demographic changes on the savings rate. As we all know, the growth of the population will have an impact on the savings rate. Generally speaking, population growth will reduce the savings rate, because population growth will inevitably lead to an increase in the number of children. The increase in the number of children will increase the family's expenditure. When the family income remains unchanged, the family's savings will be reduced. Many scholars have demonstrated this idea. However, Cook studied this issue from a new perspective, which is to study the number of potential savers. Through data analysis, he found that when the population grows rapidly, the labor force growth rate and the population growth rate tend to maintain a balance. This view is very innovative. Of course, this conclusion may not apply to all countries, but it also shows that an increase in population growth does not necessarily inhibit economic development. An increase in the growth rate of the labor force means an increase in potential savers. When the growth rate of the labor force is in balance with the population growth rate, the reduction in the savings rate due to the increase in the child population will be offset by the increase in potential savers. However, Cook also stated that to achieve this effect, the population structure must be adequate. His view opposes certain countries' curbs on birth rates from a certain angle.

In Bloom's research, he also used savings as a research object. According to the life cycle principle, people will save for themselves when they are young and prepare for their old age. Young people contribute to the increase in savings, while the elderly will spend their savings. Therefore, the savings of young people and the savings of old people should offset each other. This view is based on population balance. But the reality is that when the proportion of young people in the population is larger, the amount of savings will increase, which will promote economic growth, and economic growth will also allow young people to have higher incomes, which forms positive feedback of the loop. However, the problem is that if saving is taken as an individual, the predicted result is very inaccurate, because people's saving is determined by consumption, and people's consumption depends more on the needs of the family. Therefore, the analysis A more accurate perspective of saving is to analyze the family as a unit. So, when the family is involved, the entire analysis becomes complicated, and no scholars have made very accurate predictions.

Obviously, savings are affected by too many factors, so we might as well make the problem a bit simpler. Through the analysis of Bloom and other scholars on this issue, we can draw the following inference results: It is obviously very unrealistic to comprehensively consider various factors from all angles within the scope of the analysis of savings, so choose a few For analysis from a more intuitive perspective, the first is the life span of the population. Now that the level of human technology development is getting higher and higher, the life span of the population is getting longer and longer. According to Bloom's analysis, an increase in life span means an increase in the savings rate of each age group. Make the economy grow. However, I don't think this statement is accurate. From a longterm perspective, the increase in life expectancy will affect each age group differently. People who were born in the last century enjoyed the same standard of living as they were born here. Unlike people born in the century, the increase in life expectancy of the population should not be viewed. Moreover, the increase in life expectancy will have a more obvious impact on the elderly. The population of the elderly is larger, which in turn leads to a decline in savings. Moreover, according to people's current savings plan, people obviously don't realize that their lifespan has increased. People still think that their retirement age is between 50 and 60. People think that their youth is not extended by the increase in lifespan. The time people save has not increased because of the increase in their lifespan. People's

views on their lifespan are very subjective. Some people are optimistic about their lifespan, while some people are not so optimistic. From a certain point of view, the increase in life expectancy has increased the population of the elderly. Having said that, some people may think that this statement is a bit pessimistic and one-sided, but the facts have proved that the increase in human life span is far from the extent that it affects people's life planning. Bloom also associates savings with dependency ratio. His research perspective is very innovative. When studying the impact of population on economic growth, many scholars always think that the increase in the child population will definitely inhibit economic growth. When this issue relates to the dependency ratio, the results are more convincing. When the dependency ratio in the society increases, young people will be affected and increase their savings. In the short term, this will promote economic development., This effect of promoting economic growth will only fade when the dependency ratio and the child population reach a balance. Although the increase in the number of children will lead to a reduction in savings, it will also promote consumption. Therefore, the statement that the increase in the number of children will inhibit economic growth is not so accurate and cannot be refuted.

Age structure is also a non-negligible effect on the savings rate. In Bloom's 2007 analysis, he tried to predict economic development through changes in population structure. Changes in population structure can directly affect the population's labor force and savings rate. The discussion on the rate of life has been discussed in the previous chapters of this article. The effect of the increase in lifespan on the savings rate was discussed before. Broadly speaking, the increase in lifespan will indeed increase the savings rate, but this statement is also covered by the previous part of this article. It is proved that it is not so irrefutable. However, the increase in life expectancy will have a direct impact on the population and labor force. The increase in life expectancy will increase the population and labor force. Although the positive side of delaying retirement formulated by many governments has not been accepted by the public, people are gradually increasing their life expectancy and good health does allow people to work longer hours and thus save more. Therefore, from this perspective, it can be explained that the increase in the life span of the population will promote the increase in the savings rate and thus promote economic growth.

At the same time, the aging phenomenon is also a problem faced by many developed and even developing countries around the world. The aging effect of the population on economic growth is unquestionable. Many scholars have studied and elaborated on the harm caused by the aging phenomenon. First, the aging of the population has severely restrained the labor supply of the population, and the labor provided by the entire society cannot meet the demand, which will cause the overall economic growth to be slow, and more serious. It will cause economic stagnation or even regression. Although this impact can be improved through the development of science and technology, it is very difficult and takes a long time. The second impact of aging on society is the burden on public finances. The proportion of social welfare consumed by the elderly is the largest. From the most basic pension insurance to medical resources, the whole society aims to improve the lives of the elderly. Quality and provide. It is impossible for the country to reduce the social welfare of the elderly just because of the increase in the population of the elderly. Therefore, the pressure on public finances brought by the aging is very huge. At the same time, aging will also affect the savings rate. More old people mean less savings rate, or even a negative savings rate. This is a very heavy burden on the economic market of the entire country and may even cause inflation. Appeared. To analyze the burden of aging on the economy, the above points should be combined. The impact they cause forms a vicious circle. Therefore, the harm caused is rising exponentially.

In summary, the increase in life expectancy, the balance of the population structure, and the appropriate dependency ratio will all promote economic growth. But the burden of an aging population on the economy is also very large.

3. The current situation of China's population and its impact on the economy

3.1. Current status of China's population

According to the "Seventh Census" report released by the National Bureau of Statistics of China in 2021, China's total population in 2020 will reach 1.41 billion, with an average population growth rate of 0.53%, and the proportion of people over 60 years old is 32.2%. These data are essential to analyze population and economic growth. Similarly, we can also compare the results of previous censuses in China and analyze the previous economic development in China.

3.2 The impact of China's population status on China's economy

According to the results of China's seventh census, [21] China's population growth rate has reached the lowest in history, and the proportion of people over 60 years old has reached the highest in history. In the eyes of other countries, the impact of these figures may not be so severe. However, as the world's most populous country, China's extremely high population base makes these figures even more terrifying.

First, the low population growth rate reflects the current life problems in Chinese society. The main reason why people are unwilling to have children is the high cost of living. According to the current income level of young people, they do not have enough ability to raise their offspring. Here is an example in Liu's research. He used Chinese housing prices as an object, reflecting the excessively high cost of living in China. China's housing prices are now in a falsely high state, and people's hardworking income can be said to be far from the price of a house. Calculated according to China's average housing prices and average wages, people's annual income can afford 3 square meters. The area of meters, although this calculation method may not be rigorous, but it can fully reflect the unreasonable housing prices, this phenomenon has caused a population growth rate that is too low, and a population growth rate that is too low will have a very long-term impact, May lead to a long-term low labor supply, which will make China's economy develop slowly for a long time. If the government does not make timely adjustments to this situation, China's economy will face unprecedented difficulties.

Secondly, China's population aging has reached the highest level in history. The elderly over 60 accounted for 32.2% of the total population. This figure is very scary for China. The originally low population growth rate will cause labor shortages. Now there are a large number of elderly people exerting tremendous pressure on public finances. The combination of these two factors will have a long-term and unavoidable impact. After printing, China's economy will inevitably go through a stage of slow growth.

In general, China's current population situation is very unoptimistic, and its impact on economic development is inevitable. China is facing the most serious population aging since the founding of the People's Republic of China, which will have a huge impact on China's economic development. It is very necessary and challenging for the government to formulate relevant policies. It is necessary to reduce people's life pressure from all aspects and make efforts for the stability of public finances.

4. Concusion

This article synthesizes the relevant research results about population on economic development, connects these research results, and analyzes the impact of population changes on economic development more comprehensively. And studied the current demographic situation in China and its impact on China's economic development.

References

[1] Proceedings of the American Philosophical Society. Vol. 111, No. 3, Population Problems (Jun. 22, 1967), pp. 170-193 (24 pages) Simon Kuznets

- [2] Population age structure and savings rate impacts on economic growth: Evidence from Australia Gazi A. Uddin, Khorshid Alam, Jeff Gow 2016
- [3] A Contribution to the Theory of Economic Growth. Robert.M. Solow. The Quarterly Journal of Economics, Volume 70, Issue 1, February 1956, Pages 65–94
- [4] Malthus: 'An Essay on the Principle of Population'
- [5] Lu Jin, Li Tingting, Zhang Xiaotong. Journal of Xi 'an Jiaotong University (Social Science Edition):1-15 [2021-11-30].
- [6] Population growth and economic development. T.N.Srinivasan
- [7] The effects of economic and population growth on national saving and inequality. Angus S. Deaton; Christina H. Paxson
- [8] AGING AND SAVING IN ASIA. Charles horoka
- [9] Longevity and Life-cycle Savings*. David E. Bloom, David Canning, Bryan Graham
- [10] Population growth and savings rates: Some new cross-country estimates. CHRISTOPHER J. COOK
- [11] Does age structure forecast economic growth?
- [12] The impact of population growth on economic growth: Japan's experience. Population research, No. 6, 2002, Li Tongping, Institute of population and development, Nankai University
- [13] Ando, A. and Modigliani, F. 1963, The "Life Cycle" Hypothesis of Saving: Aggregate Implications and Tests, American Economic Review 53, 55–84.
- [14] Bloom, D. E. and Sachs, J. 1998, Geography, Demography, and Economic Growth in Africa, Brookings Papers on Economic Activity
- [15] Bloom, D. E., Canning, D. and Graham B. 2002, Longevity and Life Cycle Savings, NBER Working Paper no. 8808.
- [16] The effects of ageing population on health expenditure and economic growth in China: A Bayesian-VAR approach
- [17] Deaton, A. and Paxson, C. H. 1994, Savings, Growth, and Aging in Taiwan, in D. Wise (ed.), Studies in the Economics of Aging, NBER and University of Chicago Press, Chicago.
- [18] Deaton, A. and Paxson, C. H. 1997, The Effects of Economic and Population Growth on National Savings and Inequality, Demography 34, 97–114.
- [19] Deaton, A. and Paxson, C. H. 2000, Growth, Demographic Structure, and National Savings in Taiwan, Population and Development Review 26 (Supplement), 141–173.
- [20] Higgins, M. 1998, Demography, National Savings, and International Capital Flows, International Economic Review 39, 343–369.
- [21] The "Life Cycle" Hypothesis of Saving: Aggregate Implications and Tests. Albert Ando and Franco Modigliani
- [22] Does age structure forecast economic growth? David E. Bloom David Canning
- [23] Crespo Cuaresma J., von Schweinitz G., Wendt K. On the empirics of reserve requirements and economic growth. Journal of Macroeconomics, Volume 60, 2019