

Research on China's Fertility Decline and Economic Sustainable Development

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Abstract: China's social development has been influenced by a myriad of factors, including labor force dynamics, population aging, and economic growth. Notably, the gradual decrease in the birth rate has emerged as a critical concern, warranting in-depth analysis of its implications. This paper delves into the current state of China's birth rate, identifies the challenges associated with it, and explores its impact on the nation's comprehensive national strength. This paper conclude that the effect of the birth rate on the sustainability of China's economy. As the domestic consumer base dwindles, economic growth may face obstacles due to reduced domestic demand. Additionally, a higher dependency ratio, with fewer workers supporting a growing elderly population, could further strain public resources and social welfare systems. In light of these challenges, this abstract offers recommendations to address the declining birth rate and its impact on China's economic development.

Keywords: fertility rate, economic sustainable, labor force, population aging

1. Introduction

At the end of the 20th century, China underwent a transition from high fertility and mortality rates to low fertility and mortality rates [1]. Currently, China is characterized as a low fertility country, and its demographic trajectory is marked by declining birth rates and population aging. The dropping birth rate and the resulting rapid reduction of the work force may have a negative impact on economic growth and future generations' ability to support society [2]. This includes fulfilling responsibilities like paying taxes to fund pensions, education, healthcare services, and other essential needs. This study employs a literature analysis approach to investigate the prevailing state of China's birth rate and the associated challenges, including the implications of an aging population, declining labor productivity, and insufficient innovation on the nation's comprehensive national strength. By delving into these issues, this paper aims to identify potential pathways to promote sustainable economic development while addressing concerns linked to the country's birth rate.

2. Overview of China's Fertility Rate

At the conclusion of 2022, China's population witnessed a decline of 850,000 compared to the previous year's end, attributed to 9.56 million births and 10.41 million deaths. Notably, the natural population growth rate reached -0.60%, signifying the first occurrence of negative population growth

in China's history [3]. At the end of 2022, China's population declined by 850,000, reflecting a significant demographic shift. This decrease can be attributed to various factors that have influenced the country's birth and mortality rates. The number of births in 2022, totaling 9.56 million, highlights the continued impact of the declining fertility rate that has persisted over the past years. Factors like urbanization, changing family structures, and the rising costs of child-rearing may have contributed to this trend, discouraging some couples from having more children. The natural population growth rate of -0.60‰ means that for every one thousand individuals, 0.60 more people died than were born. This situation led to a decrease in China's total population, resulting in negative population growth. Leading to China experiencing negative population growth for the first time in its history.

This development has implications for the country's demographic makeup, economic dynamics, and social welfare systems. Currently, China's international economic status is partially attributed to its cheap labor force, providing cost advantages that make Chinese products competitively priced in the global market and widely favored worldwide. The large-scale labor force enables efficient production, lowering unit costs, and enhancing manufacturing capacity. However, once the population dividend diminishes, these advantages may gradually weaken. Therefore, from a long-term perspective, China needs to take measures to maintain the population dividend, improve labor skills and quality, rely on technological innovation, and further solidify and enhance its position in the global economy.

3. Challenges of Fertility Decline in China

3.1. Population Aging

The combined effects of the rapid fertility decline and unusually swift mortality decline in China have set the stage for an imminent and pronounced acceleration of the aging process in the country [4]. The decline in fertility rates over the years has led to a smaller proportion of younger individuals in the population. As fewer children are born, resulting in a demographic structure that increasingly leans towards an older age group. This trend, coupled with improvements in healthcare and living standards, has contributed to the rapid decline in mortality rates, allowing people to live longer and further adding to the aging population. Simultaneously, aging will impose significant pressure on social and healthcare services. With the increase in elderly population, there will be a substantial rise in demand for services like pensions, healthcare, and long-term care [5]. This may lead to an increase in social welfare expenditures, placing financial strain on the government and adding economic burden to individuals and families. Moreover, the surge in demand for healthcare services might strain medical resources, affecting the quality and accessibility of medical care.

3.2. Reduced Productivity and Efficiency of the Labor Force

The decrease in fertility can indeed have significant implications for the productivity and efficiency of the labor force. When fertility rates decline, will reduce productivity through aging labor force, labor shortage, and declining innovation capabilities. With fewer young people entering the labor market due to a low birth rate, the overall workforce starts to age. An aging workforce can lead to a shortage of skilled and experienced workers, affecting productivity and innovation. Older members of the labor force often face issues such as reduced enthusiasm, slower responsiveness, and diminished sensitivity [6], which can lead to a decline in workforce productivity and efficiency. The main issue concerning China's population at present is not population control policies, but rather low birth rates, along with the challenges of diminishing demographic dividend and an aging population [7]. With the aging population and a decrease in the number of young workers, certain industries will face a severe labor shortage. This shortage will make it difficult for businesses to meet the growing production demands, especially those reliant on cheap labor, which may result in losing

competitiveness in the market. Meanwhile, the increasing demand for high-tech talents will intensify competition in the job market, leading to a need for higher wages to attract these scarce individuals, further adding to the operational pressure and causing some companies to resort to layoffs in response to economic challenges.

This vicious cycle could potentially have a negative impact on China's economic advantage internationally. As the labor shortage and demand for high-tech talents continue to rise, businesses will face greater competition, potentially undermining their position in the global market. Additionally, the loss of personnel and economic instability caused by layoffs may weaken China's economic strength and international competitiveness. Therefore, both the government and businesses should actively take measures to address these challenges, including promoting skill training and education, encouraging innovation and technological development, and implementing relevant policies to stabilize the job market and ensure sustainable economic growth.

3.3. Impact of Inadequate Innovation on a Country's Comprehensive National Strength

The inadequacy of innovation will have a significant impact on a country's comprehensive national strength. This includes economic, technological, and cultural aspects. The insufficiency in innovation caused by low birth rates will directly affect these aspects. Firstly, the lack of innovation is the main reason for the decline in business competitiveness and the slowdown in the development of new products and technologies. As innovation activities are constrained, market competition intensifies, and the pace of product updates slows down, businesses will find it challenging to adapt to the rapidly changing economic environment. This not only affects their profitability and market share but also directly impacts the overall economic growth of the country. The slowdown in economic growth leads to an increase in unemployment, reduced investment, and declining tax revenue, which in turn reduces the nation's fiscal income, weakening its influence and competitiveness on the global stage [8]. Secondly, under conditions of low birth rates, even technological prowess will be affected. Insufficient availability of technology experts may lead to a decline in research and development capabilities, restricting breakthroughs and progress in the technological domain. Consequently, a country's technological strength will diminish, putting it at a disadvantage in global technology competition and making it difficult to maintain competitiveness with other leading technological nations. Moreover, the scarcity of technology experts could hinder the effective advancement of technology projects, consequently affecting a nation's innovative capacity and the development of its technology industry. Lastly, low birth rates may also affect cultural strength. The enhancement of cultural strength relies on the support of innovative thinking and creativity, but the scarcity of innovation caused by low birth rates hinders its progress. The lack of fresh ideas and creativity may lead to stagnation and silence in the cultural domain. As a result, a country may face challenges in cultural exchange and the cultural industry, making it difficult to gain greater recognition and influence on the international cultural stage. The prosperity of cultural exchange and industry requires constant innovation, yet low birth rates restrict the emergence of a new generation of cultural talents, posing challenges to the inheritance and innovation of a nation's culture. In summary, low birth rates have a clear influence on innovation and can significantly undermine a country's comprehensive national strength. It is also not conducive to the sustainable development of the national economy

4. Recommendations

4.1. Enhancing Higher Education Quality and Labor Transformation

Firstly, people should increase education and adjust the educational structure to enhance the quality of higher education. Additionally, there should be a strong focus on developing vocational education to improve the skills and expertise of the population. Emphasizing the cultivation of innovative talents

is essential, as it will ultimately lead to the replacement of labor quantity with labor quality [6]. Secondly, physical fitness is not only the fundamental criterion for determining whether workers can enter the labor market but also a crucial factor in achieving the substitution of labor quantity with labor quality. Therefore, the government should not only increase investments in education but also pay greater attention to investments in healthcare. It is necessary to optimize social welfare systems and healthcare services to ensure the proper fulfillment of the needs of the aging population. These measures are of paramount importance in addressing the challenges ahead. Finally, in order to maintain a competitive edge in terms of scientific and technological prowess, emphasis should be placed on strengthening the cultivation and introduction of human resources, as well as on providing a policy environment more conducive to innovation and R&D support.

4.2. Establishment of a Diversified Family Policy

Addressing economic instability and work pressures is critical to creating an environment in which individuals feel more confident about managing their career and family ambitions. We need to recognize the impact of economic factors on birth rates in order to develop effective policies that support individuals and families to make informed future plans. By understanding and responding to these impacts, society can create a more adaptive and resilient economic landscape to meet the changing needs of the labor force and population.

Particularly in the context of the economy's transition to a knowledge-based system, women's participation in various industries has surged, reshaping traditional family structures. The convergence of economic opportunities and career aspirations often leads women to delay marriage and childbearing. The desire to establish a stable career and achieve economic independence before starting a family can influence family planning decisions.

The implementation of comprehensive family-friendly policies can help alleviate economic barriers and positively impact birth rates [5]. In order to effectively increase birth rates, States should implement supportive family policies, such as affordable childcare, parental leave and financial incentives for large families. These measures help to alleviate economic barriers and have a positive impact on birth rates. By providing financial support, such as childcare allowances, child benefits and tax exemptions, they can reduce the financial burden of raising children on families and increase couples' willingness to have children.

In summary, addressing economic instability and work pressures and providing supportive family policies is essential to help individuals and families plan for the future with greater confidence, while effectively increasing birth rates and achieving balanced population and labor force development.

4.3. Empowering Fertility Awareness Through Education and Social Media

The government can carry out extensive publicity and education activities to convey the importance of increasing fertility rate to the public, and improve people's awareness and awareness of fertility. Furthermore, the research also reveals that social media plays a crucial positive role in influencing women's decisions to have more children. Social media platforms have a significant impact on people's thoughts and behaviors [9], shaping individual beliefs and influencing lifestyle choices and family planning decisions through information dissemination and social interactions. Through various online communities, support groups, and informative content, social media can shape perceptions and attitudes towards family planning and child-rearing. It provides a platform for women to share experiences, exchange information, and gain insights into the joys and challenges of motherhood. As a result, social media can serve as a valuable resource that encourages and empowers women to consider and pursue the option of having subsequent children. Its ability to connect and

engage with individuals on a personal level makes it a significant force in shaping family planning decisions in the modern age.

5. Conclusion

In conclusion, the decline in China's fertility rate, presents significant challenges that impact the country's demographic composition, economic dynamics, and social welfare systems. The decreasing number of births is influenced by factors such as urbanization, changing family structures, and the rising costs of child-rearing, discouraging some couples from having more children.

The challenges of population aging and reduced productivity and efficiency of the labor force pose economic and social pressures. With an aging population, there will be a greater demand for social and healthcare services, putting a strain on resources. The labor force's aging also affects productivity and innovation, leading to potential labor shortages and decreased competitiveness in the global market. Moreover, low birth rates can hinder innovation, affecting a country's comprehensive national strength. It impacts business competitiveness, slows down the development of new products and technologies, and hampers cultural progress. A lack of innovation may lead to economic growth slowdown, unemployment increases, and declining tax revenue, affecting the country's global influence and competitiveness.

To address these challenges, China should focus on enhancing higher education quality and labor transformation, supporting vocational education to cultivate innovative talents and improve labor skills. Establishment of a diversified family policy are necessary to enhance fertility, including family-friendly policies, economic incentives, and promoting fertility awareness through education and social media. Also, China is a vast and diverse country with significant regional variations in demographics and economic conditions. This study does not explore the regional disparities in birth rates and their implications, which could be an essential area for future research.

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