The parental leave can alleviate the problem of declining population growth and rapid aging.

Zimo Zhao

Shenzhen Foreign Languages School(high school campus) zhaozimo0703@gmail.com

Abstract:

Over the past few years, more and more countries have faced aging populations and declining fertility rates. This phenomenon mostly occurs in some developed countries, even their GDP ranking is very high. Results show that although some policies in stable fertility and support the elderly have achieved some success, there is still a major challenge. While fiscal spending is higher, the population of Japan and South Korea still face continuing problems, while Germany and Italy as a result of the comprehensive family policy and achieve more balance as a result, Iceland's population change has subsided, but it is still facing economic restrictions. This work emphasizes the management complexity of fertility rates falling in the aging population and highlights the continued necessity of policy innovation and adaptation. The results contribute to a broader understanding of the demographic trends and policy response and provide insights into the social and economic background of the strategy in the future.

Keywords: Fertility decline, population aging, Japan, Germany, South Korea, Italy, Iceland.

1. Introduction

Fertility declines and a rapidly aging population has become increasingly rich and middle-income social pressing population problem. These trends have brought economic stability, social service and long-term planning of the major challenges (Christensen et al., 2009)¹. The phenomenon of declining birth rates, combined with an increase in life expectancy, has

led to a decrease in the Labour force and an increase in the elderly population. This transition requires a comprehensive understanding of its causes and consequences, in order to make effective policy measures, and the change of the population of the Labour market, economic growth and the profound influence of the public finance highlights the urgency to solve these demographic changes (Bloom, Canning, & Fink, 2010)².

¹ Christensen, K., Doblhammer, G., Rau, R., & Vaupel, J. W. (2009). Ageing populations: The challenges ahead. *The Lancet*, *374*(9696), 1196-1208.

² Bloom, D. E., Canning, D., & Fink, G. (2010). Implications of population aging for economic growth. *Oxford Review of Economic Policy*, 26(4), 583-612.

The present study widely recorded the factors resulting in a decline in fertility and the aging of the population. In addition, economic factors, such as the high cost of raising children and the enhancement of the female labor force participation, plays a decisive role (Sobotka, 2017)³. Social factors, including the change of the social norms, the popularity of late marriage and birth control, will significantly affect fertility (Bongaarts & Casterline, 2013)⁴. Reduce child mortality and improve the reproductive health services to improve health care will affect family planning decisions (Cleland et al., 2006)⁵. However, although such extensive research, still need to systematically assess the effectiveness of the various policies, or reduced to reverse these trends. Many countries carried out different strategies and with varying degrees of success, but the lack of a comprehensive comparative analysis of these policies (OECD, 2017)⁶.

In this work, we aim to fill this gap by examining the factors that contribute to declining fertility and population aging and evaluating policies implemented in five different geographic countries: Japan, Germany, South Korea, Iceland, and Italy. Once again, we analysis the economic consequences of demographic trends, and to assess the effectiveness of the various policies and measures, cost, and the result of the population. The highlight of this study includes the birth policy and aging related policy, the financial impact and success in the change the course of the population has carried on the detailed comparison. This study contributes to a broader understanding of population management, and for the similar social and economic background of future policy provide insights.

By focusing on these countries, we provide a comprehensive overview of how different socio-economic environments influence policy effectiveness. The significance of this research lies in its potential to inform policymakers about successful strategies and necessary innovations to address the challenges posed by fertility decline and aging populations. This work emphasizes the importance

- 3 Sobotka, T. (2017). Childlessness in Europe: Reconstructing long-term trends among women born in 1900–1972. In M. Kreyenfeld & D. Konietzka (Eds.), Childlessness in Europe: Contexts, Causes, and Consequences, 17-53. Cham: Springer.
- 4 Bongaarts, J., & Casterline, J. (2013). Fertility transition: Is sub-Saharan Africa different? *Population and Development Review*, 38(S1), 153-168.
- 5 Cleland, J., Bernstein, S., Ezeh, A., Faundes, A., Glasier, A., & Innis, J. (2006). Family planning: The unfinished agenda. *The Lancet*, *368*(9549), 1810-1827.
- 6 OECD. (2017). *Preventing Ageing Unequally*. Paris: OECD Publishing.

of continuous policy adaptation and innovation to sustain demographic and economic stability.

1.2 Research Question

What are the factors responsible for fertility decline and population aging, and how effective are the policies implemented by different countries in addressing these trends?

1.3 Research Methodology

This research utilizes a qualitative approach, conducting a comparative analysis of policy measures in Japan, Germany, South Korea, Iceland, and Italy. Data is gathered from academic literature, government reports, and demographic studies. The focus of the analysis is to determine the key factors resulting in a decline in fertility and aging, and assess the economic impact as change point of view and the effectiveness of the implementation of the policy of population. The study aims at a comprehensive understanding of multiple problems under different social and economic background and different successful policy intervention.

2. Factors Responsible for Fertility Decline and Aging

From an economic point of view, the high cost of raising children, and the improvement of female Labour market participation and economic instability can lead to fertility rates are falling (Sobotka, 2017)⁷. From the point of social factors, the change of social norms and values, the popularity of contraception and family planning cause late childbirth of marry at a mature age (Bongaarts & Casterline, 2013)⁸. The improvement of health care, such as reducing child mortality and improve the reproductive health services, also play an important role in lowering fertility (Cleland et al., 2006)⁹.

Similarly, advances in medical technology and health services have significantly extended average life expectancy, leading to an increase in the number of elderly people. A prolonged period of low fertility has resulted in fewer young people in the population, thereby increasing the

- 7 Sobotka, T. (2017). Childlessness in Europe: Reconstructing long-term trends among women born in 1900–1972. In M. Kreyenfeld & D. Konietzka (Eds.), Childlessness in Europe: Contexts, Causes, and Consequences,17-53. Cham: Springer.
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proportion of older people (Christensen et al., 2009)¹⁰. In addition, young population migrating to urban areas for better opportunities or migration patterns in other countries will be left behind of elderly people, speeds up the aging process in some areas of (Coleman, 2008)¹¹.

The economic implications of aging and declining fertility are wide-ranging and far-reaching, involving mainly the labor market, economic growth, public finances, and social services. On the labor market side, a declining labor force leads to potential employment shortages and rising dependency ratios, increasing the economic burden on the ageing population, lowering productivity and increasing the burden on social security systems. Economic growth may slow down as a result of lower consumer demand and reduced productivity. In addition, population ageing may affect innovation and entrepreneurial activity, further dampening economic growth. Public finances are under pressure, with increased government spending on pensions, health care and social services for the elderly likely to lead to higher fiscal deficits and the need to raise taxes or reduce spending in other areas.

In the area of social services, health care and long-term care facilities are under increased pressure and will require significant investment to meet demand. Some countries have responded to declining fertility by adopting pro-fertility policies, such as child allowances, day-care subsidies and extended parental leave in Japan, generous parental leave, child benefits and measures to support work/life balance in Germany, and paid parental leave and childcare subsidies in Italy. To some extent, these measures have stabilized birth rates and provided support for families

However, different countries face different challenges, such as willingness to educate and pressure to work, and cultural factors, and still face low fertility. Italy improves maternal and child health through family planning programs and social security benefits for the elderly. The Government encourages birth control for premature pregnancies and better financial support for social security reforms to improve the lives of older persons.

In Iceland, the Government has promoted gender equality and relatively high fertility rates through measures such as paid parental leave and childcare subsidies. Overall, ageing and declining fertility have significant economic, social and governmental implications, and comprehensive

10 Christensen, K., Doblhammer, G., Rau, R., & Vaupel, J. W. (2009). Ageing populations: The challenges ahead. *The Lancet*, *374*(9696), 1196-1208.

11 Coleman, D. A. (2008). The demographic effects of international migration in Europe. *Oxford Review of Economic Policy*, 24(3), 452-476.

policy measures are needed to address these challenges. Policies in Japan, Germany, the Republic of Korea, Iceland and Italy differ in terms of cost, effectiveness and demographic outcomes. Japan's high-cost fertility policies have had limited effects, with 2 per cent of GDP spent annually on family-related policies, but birth rates have not increased significantly and an ageing population has put pressure on the economy. Germany's large investments stabilized fertility and elderly care, and investments in parental leave and child care slightly increased birth rates, but were costly and required sustained policy innovation and financial investment. In the Republic of Korea, costly family support programs had a negligible impact on fertility, and rapid population aging posed economic and social challenges that required innovative and culturally sensitive policy responses. Italy's modest expenditures reduced fertility, but economic constraints continue to challenge sustainability and the increase in the older population needs to be managed. Iceland's high-involvement integrated family policy has maintained high fertility and a good demographic balance, but population aging still requires attention. Ongoing policy adjustments are needed to respond to changing demographic conditions.

3. Conclusion

This article examines the challenges that declining fertility and population ageing pose for rich and middle-income countries and highlights the economic implications of these trends. The article compares the different policies that five countries - Germany, Iceland, Japan, South Korea and Italy - have adopted to address these issues. Germany has invested heavily in families and support systems for the elderly, with some success, but still faces challenges. Iceland's comprehensive family policy has been successful in maintaining a high fertility rate, but population ageing still requires attention. The article highlights the complexity of managing population ageing and points to the importance of policy innovation and adaptation to mitigate these issues. Future research should focus on assessing the long-term sustainability of policies and exploring new strategies to balance fertility and population aging. The study provides valuable insights for policymakers and researchers to better understand demographic trends and responses.

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