

# What measures can be adapted to mitigate the decreasing the fertility rate

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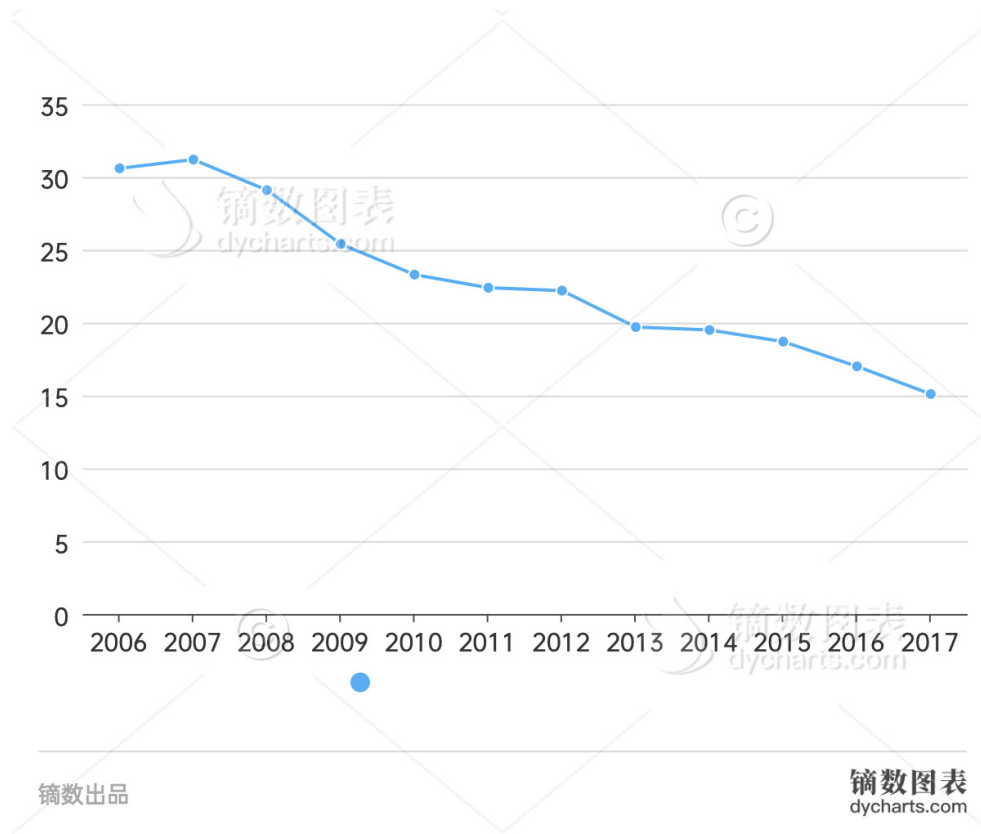
## **Abstract:**

Nowadays, the decreasing fertility has become the most serious problem to many countries around the world. It's 1.4 in Japan, 1.17 in Singapore, 1.12 in South Korea, 1.67 in Sweden and 1.41 in Greece. These are all far below the 2.1 reproduction rate. Therefore, these countries are all facing some population problems such as lacking of workforce or ageing population.

**Keywords:** fertility rate, developed and developing countries, solutions, Sweden, Singapore, South Korea

## **1. Introduction**

This phenomenon is observed across many developed nations and has profound implications for societal structures, economic stability, and public policy. The governments are all trying various policies to stop this progress. These include financial incentive; work-life balance initiatives and some support for families and so on. This paper will discuss the effectiveness of these measures and evaluate the performances of some countries. This paper will also give some advices to these countries.



Note: above is the percentage of woman's fertility rate in Singapore in 2006 - 2017

2.The factors which influence the fertility rate:

### 2.1 : work and life balance

The balance of the life and work may be a very important factor to influence the fertility rate. At first, there are many similar places between Singapore, South Korea, Sweden and Japan in their ways to treat the decreasing fertility rate. They all provide some subsidies: baby bonus in Singapore; child allowance in Japan childbirth; childcare subsidies in South Korea and child allowance in Sweden. Furthermore, the housing price in these countries are all very high compared to the developing countries .So, the difference is caused by many factors, one of them is how much they provide the maternity leave. There is strong evidence compared South Korea and Singapore, the Singapore provide 16 weeks maternity and South Korea provide 90 days. As a result, the Singapore's fertility of 1.17 is higher than the South Korea's. It's a very good idea for government to increase the fertility rate and solve a range of problems. The Swedish government has implemented a range of family-friendly policies designed to support both parents and children. One of the most notable measures is the generous parental leave system, which provides parents with up to 480 days of leave at a significant percent-

age of their salary. This policy encourages shared parental responsibilities and supports parents in balancing work and family life (Swedish Social Insurance Agency, 2023). The Singapore government offered 16 weeks of maternity leave and increasing amount of paternity leave for fathers. This is definitely a good measure the government around the world can adapted. Therefore, the longer the parent leave, the higher the fertility rate when the countries have similar condition and are in the same group just like the several countries example at the start of the paragraph. (Singapore 1.17 compared to Sweden 1.67). Due to the increasing time for the parents can take to take care of their infants, the cost of raising the kid when he or she is just borne has sharply decreased. The parents do not need to hire a maternity matron. In Singapore, maternity leave provides parents with salaries. The company afford the first eight weeks and the government afford the last eight weeks. (safeguard global). This also means the cost has sharply decreased. Decades before, parents need to have enough saving to suffer several months lack of money because of the baby. Now the sunk cost has disappeared if the governments use this policy. The parents have more incentive to have a baby. However, there is no free lunch around the world. Firstly, the government expenditure increased. The government are facing some serious financial problems due to the ageing problem and higher expendi-

ture. This policy may not be useful because there is a limit of the salary during the maternity leave time. Such as the country like Singapore, it's a developed country and this means the people have a higher salary and the salary limit will still exist some sunk cost for some high salary people. As well, there may be more unemployment because some business will avoid to hire some women who are married but don't have a baby. However, life pressure may also keep people having a decision not to have a baby whether the country will provide a longer parental leave.

## 2.2 : financial incentive

Another factor is the financial incentive. The government can give some money to directly incentivize the parents to have a baby. The government provides direct cash payments and subsidies for childcare to alleviate the economic burden on families (Korean Statistical Information Service, 2023). Additionally, South Korea has implemented policies to reduce the cost of education, such as subsidizing school fees and providing financial support for extracurricular activities (Ministry of Education, 2024). Singapore has also introduced several policies aimed at encouraging higher birth rates. One key measure is the Baby Bonus Scheme, which provides financial incentives to families for each child born. This scheme includes a cash gift and a Child Development Account (CDA) that offers additional savings benefits (Ministry of Social and Family Development, 2023). Furthermore, the government offers subsidized childcare to reduce the financial burden on parents (Singapore Department of Statistics, 2024). All these evidences illustrate the importance of the financial incentive given by the government around the world to mitigate the decreasing fertility rate. However, these financial incentives may not be useful in some developed countries such as Singapore. The Singapore's baby bonus scheme was put into practice in 2002. The fertility rate in Singapore is 1.6 in 2000 and 1.27 in 2003. The reason behind this phenomenon proves that in some developed countries, the bonus may not be so attractive to some high salary parents. So, it's a very difficult task for governments to set the direct incentive level according to their state condition. Too high may cause some serious financial problems and too low may not be effective.

## 3. The economic consequence of decreasing fertility rate

Neo-classical economists believe that fertility rate is an exogenous factor in the process of economic growth (Du, 2001). That means the decreasing fertility rate may cause a lot of social problems and economic consequences in the

countries facing the decreasing fertility rate. The countries may face some aging problem and a huge pension pressure. One of the most significantly affected by this problem countries is Singapore, one of the fastest ageing countries in the Asia-Pacific region. In Singapore, where the average life expectancy at birth is about 77 years, the elderly population is considered to comprise those who are 60 years and above (Department of Statistics 1997). So combined with the decreasing fertility rate, the countries will be limited by these factors on its way to development. The production potential will be restricted and the workforce will be heavily short if the other factors keep unchanged. However, it's not reasonable to say that decreasing fertility will cause some problems for countries. Such as the countries like Singapore, have a lot of immigrants and attract the skilled workforce all over the world, so the labor shortage won't be so significant. So the economic consequence may be serious in some countries but it indeed has impact so the government needs to find a way to mitigate the trend.

4. How the different governments use these policies to try to mitigate the decreasing fertility rate

### 4.1 : balance of work and life

According to Statistics Sweden, in 2022, approximately 80% of fathers took parental leave, a substantial increase from earlier decades (Statistics Sweden, 2023). This high uptake of leave among fathers contributes to more balanced gender roles at home and helps to maintain a high female labor force participation rate of 75% (World Bank, 2023). In South Korea, the parental leave system provides up to one year of leave with a replacement rate capped at 1.5 million KRW per month (approximately \$1,200 USD). However, as reported by the Korean Women's Development Institute, in 2021, only 3.5% of fathers took parental leave, reflecting persistent traditional gender roles and financial disincentives (Korean Women's Development Institute, 2022). According to the Ministry of Social and Family Development in 2023, about 60% of eligible fathers utilized their paternity leave, which is an improvement from previous years but still indicates a gap in achieving equal parental responsibilities (Ministry of Social and Family Development, 2023).

### 4.2 : financial

The effectiveness of financial incentives in addressing declining fertility rates has been a subject of significant research across various countries, including Singapore, South Korea, and Sweden. In Singapore, studies such as Tan and Lee (2020) in the *Journal of Demographic Economics* and Ng and Tan (2022) in *Asian Population*

*Studies* provide some views about the impact of financial incentives like baby bonuses and tax rebates on fertility rates. Tan and Lee (2020) found that while these financial incentives contributed to a little increase in birth rates. This is largely due to other socio-economic environment challenges, such as high living costs and career pressures, which continue to deter larger family sizes despite the financial support. Ng and Tan (2022) also debate that while these incentives has a positive effect, they must be complemented by following supportive measures, including some subsidies to the parents, to achieve a more successful outcome. Similarly, South Korea has implemented various financial incentives aimed to boost its fertility rates, including direct cash benefits and subsidies for families. Research by Kim and Park (2019) in the *Korean Economic Review* reveals that cash benefits have had a limited positive impact on fertility rates. While these incentives have encouraged some families to have more children, the positive effect has partly offset by high living costs and insufficient childcare infrastructure. This finding is supported by Cho and Jeong (2021) in *Demographic Research*, conclude that, although beneficial, these measures alone are insufficient to significantly mitigate the declining fertility rate. Their analysis emphasizes that financial incentives need to combine a lot following measures to build a policy framework. In contrast, Sweden's approach to mitigate decreasing fertility decline through financial incentives has a pretty good effect. Studies such as Andersson and Fredriksson (2018) in the *European Journal of Population* highlight how Sweden's complete family policies, including generous parental leave and subsidized childcare, have contributed to its relatively high fertility rates compared to other European nations. The research suggests that Sweden's success can be conclude to a combination of financial incentives and a strong system for working parents. Lundberg and Rönn (2020), in *Population Studies*, evaluate the role of these financial incentives within Sweden's other fertility policies. They find that while financial incentives alone are not a determined factor, they significantly build a Sweden's family support system. This includes a well-established framework to help the government raise the people's enthusiasm to have a kid as well as decrease the cost for people to raise a kid. The government can also take some measures to keep the gender equality, which can also improve the fertility rate. The gender equality shows everywhere, the improving gender equality can help women can do decisions more independently and more freely. In addition, improved gender equality can have some significantly effect on the countries that have a Workplace gender discrimination such as South Korea. Workplace Bullying 119 commissioned Global Research, a public opinion research agency,

to conduct a questionnaire survey on "Experiences of Gender Discrimination in the Workplace" among 1,000 office workers across South Korea. The results showed that 27.1% of women responded that they were "forced to sign a labor contract that used marriage, pregnancy, or childbirth as a reason for leaving the job." In other words, one in four female office workers has experienced direct discrimination due to reasons such as pregnancy and childbirth. If the government can make some policies to stop these happen, the women in Korea will have more incentive to have a baby. Sweden also places a strong emphasis on gender equality. The Sweden focuses on improve the gender equality help it to keep its fertility rate about the 1.7 in the late 1990 and early 2000 when other developed countries were sharply decreasing. The country promotes equal opportunities for both men and women in the workplace and provides substantial support for working parents, including subsidized childcare services and flexible working arrangements (Swedish Institute, 2024). This is not appearing so clearly in other countries such as Singapore or South Korea. Therefore, the Sweden has a 1.67 fertility rate which is higher than many developed countries around the world.

### **4.3 : immigration**

The government can also put a more open immigration policy to incentive the fertility rate. Countries like America use wise immigration policies to attract immigrants. The immigrants may come from a developing countries and they have the incentive to raise a kid in the developed countries. The fertility rate of local Americans is 1.76 and immigrants' is 2.18.(International Monetary Fund, 2020). This shows that the open immigration policy will not only bring more people to the countries, but also bring their kids. So for the countries like Singapore, South Korea and other developed countries which has serious declining fertility rate. They can try to learn from the America to use a more open immigration policy to incentivize the fertility rate. But a new immigration policy may bring a lot problems to the countries. They may attract a lot high skilled workers who do not have a desire to have a baby or this policy may bring some environmental, social pressure, and a range of social problems to countries like Singapore and South Korea which don't have a huge land area and population capacity.

## **5. Conclusion**

In conclusion, to the countries facing the fertility problem, their governments are all trying hard to solve this problem. The governments want the countries have enough workforce and this will help the countries keep some economic

growth. The countries who have a appropriate fertility will not have a very big pension pressure. By comparing the different measures taken by the government and their little effect on solving this problem. It is clear that this problem is a multi-dimensional problem and it need a comprehensive solution.

Addressing the declining fertility rates observed in many developed countries like Singapore, South Korea, and Sweden, reveals that no single policy can effectively reverse the trend. Sweden's success underscores the importance of integrating generous parental leave, financial incentives, and strong gender equality measures. These combined efforts contribute to a higher fertility rate by creating a supportive environment for families.

In contrast, Singapore and South Korea, while implementing financial incentives and subsidies, face challenges due to high living costs and traditional gender roles. These experiences highlight that financial support alone may not suffice; a holistic approach involving improved work-life balance, extended parental leave, and cultural shifts towards gender equality is crucial.

For countries grappling with low fertility rates, the path forward involves enhancing parental support, promoting gender equality, and addressing the financial burdens associated with child-rearing. By adopting comprehensive policies that address these interconnected factors, governments can create better conditions that encourage higher fertility rates and keep long-term demographic stability.

From those countries' experiences, a more comprehensive solution can help the governments build the value of wanting to raise a kid is more important than just implemented some exact measures. So the recommendation is to advise the governments to have some supportive framework for raising a kid to solve this problem.

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