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Bracing for Low Fertility and a Large Elderly Population in South Korea

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ABSTRACT

For the first time in its history, South Korea is experiencing the challenge of extremely low fertility and a rapidly increasing number of elderly persons. This dramatic shift in population distribution is a result of total fertility rates below replacement levels for the past thirty years and to a smaller extent, increases in life expectancy. To date, policies have not been effective in increasing fertility levels; social and economic structures currently in place have encouraged delayed marriage and delayed childbearing. For any pronatalist policy to be effective there will need to be major changes, so that women can better integrate working and familial roles. It will become critical for South Korea to adjust to smaller families to care for the elderly and to have a greater reliance on the government for pensions and support of the elderly. The income redistribution will come at a time when the numbers of persons in the labor force will be contracting as a result of sustained low fertility. If government actions are not effective to increase fertility, then it will take the collective efforts of civil society to make the necessary adjustments to the new population distribution.

INTRODUCTION

Since 1983 the Republic of Korea has experienced below replacement fertility. As recently as 1970, Korean women were having on average 4.5 children, but in the subsequent 13 years fertility declined by 54 percent (Figure 1). Between 1983 and 2003 the Total Fertility Rate (TFR) dropped from 2.08 children per woman to 1.19, and has remained steady at 1.2 ever since 2003.¹ This sustained low fertility level is one of the most dramatic in the world and is unprecedented historically.

This dramatic demographic shift over the past

generation is already evident in the age structure of South Korea. The number of children enrolling in school for the first time declined by 39 percent between 1990 and 2011 and the number of young men aged 15-24 who are potential recruits for the military will decline by 1.3 million between 2010 and 2025, which is a 37 percent decline.² Conversely, the number of persons aged 65 and over in the South Korean population increased from less than a million in 1970 to 5.4 million in 2010 and is expected to be nearly 18 million by 2050.³



Source: Korean Statistical Information Service. 2012. http://kosis.kr

The full impact of this demographic tsunami, however, is not widely known or understood in South Korea. This paper examines the causes of the fertility decline and the structural changes and policy ramifications that will be required in South Korea to adapt to a rapidly changing population distribution.

CAUSES FOR THE FERTILITY DECLINE

In order to have a sense of whether the fertility trend can be reversed, it is important to understand what caused the fertility decline. The South Korean baby boom of the 1950s, coupled

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with slow economic growth, was a concern to Korean policy makers who saw a cycle of poverty. The Planned Parenthood Federation of Korea (PPFK) was started in April of 1961 with financial and technical assistance from the International Planned Parenthood Federation.⁴ The National Family Planning program was initiated in 1962 as part of the first Five-Year Economic Plan; the government worked closely with PPFK and policies were included in successive five-year economic plans.⁵

The drop from a TFR of 6 in the early 1960s to replacement level fertility in 1983 was hailed as a success.⁶ The slogans imploring citizens to limit births matched the rapid economic expansion and social change of that era in the ROK. "Unplanned parenthood traps you in poverty" was an early slogan, followed by "Sons or daughters, stop at two and raise them well" in the 1970s.⁷ The economic incentives offered to women for using contraceptives and the state disseminated messages promoting small families coincided with the country's rapid rise of urbanization and industrialization and women's desires to limit pregnancy and childbirth.⁸

Unintended consequences did arise in the 1980s and early 1990s with rising sex ratios at birth (as high as 115 males per 100 females) as parents strove to have a male child.⁹ The importance of having a son was critical for families as a means of economic and social support, as well as maintaining Confucian patriarchal traditions passed on through a son. Sex determination technology allowed families to terminate unwanted pregnancies.¹⁰ The government did revise laws to outlaw prenatal sex determination and by promoting the value of daughters as well as sons, the sex ratio at birth has declined to much more natural levels of about 105 boys born for 100 girls.¹¹ To date, no policies or public opinion have been as effective, however, in reversing the sustained low fertility levels.

Although nearly all childbearing in Korea takes place within marriage—98.5 percent as of 2007—marriage is much less attractive to the current childbearing generation.¹² Marriage is seen as a sort of luxury, which is sought after an "expanded educational and job-seeking period."¹³ In 1970, 88 percent of women aged 25-29 in South Korea were married; by 2005 it was 40 percent.¹⁴ This retreat from marriage has resulted in a rapid rise in the mean age at marriage and in the mean age of childbearing. Mean age at first marriage rose from 24.1 years in 1985 to 28.9 years in 2010; mean age at first birth was 27.2 in 1995 and was 30.1 years in 2010.¹⁵

The delay in marriage is a result in part of greater opportunities available for women who have made tremendous gains in obtaining higher education and securing jobs. Between 1995 and 2008 the percentage of females who graduated high school and entered higher education increased from 50 to 84 percent.¹⁶ Among women aged 25-29, 47.9 percent were in the labor force in 1995, which increased to 72.7 percent in $2007.^{17}$

The effect of the increased percentage of women working outside of the home is exacerbated by long working hours. According to the Organization for Economic Co-operation and Development (OECD), South Koreans work the most hours per year of any member country.¹⁸ (The concept used is the total number of hours worked over the year divided by the average number of people in employment.) In 2010, Koreans worked on average 2,193 hours per year, as compared with the United States at 1,778 and the average for the OECD countries of 1,749. The long hours create strain for employed women with children and place more of a burden on women whose employed husbands have limited time with their families.

Women's employment has yet another feature that tends to decrease fertility. Although the number of childcare facilities is increasing, childcare facilities meet only 30 percent of the demand.¹⁹ In 2003, there were 4,405 childcare facilities (public and workplace); by 2007, this had increased to 17,650. Even with the nearly quadrupling of facilities, the number of spots available falls far short of demand. Employed women spend nearly three and a half hours on household chores/child care in an average working day, which is about seven times as much time as their husbands.²⁰ As a result of few childcare facilities and/or the demands of childcare and housework, nearly half of all employed women quit their jobs when they have a child.

With a lack of public childcare facilities in Korea, the burden for caring for young children generally falls to families, and most specifically to mothers. Of the OECD-27 countries, Korea ranked last (as of 2003) in the total public spending per child as a percentage of average earnings and had the lowest public spending for children aged 0-6.²¹ As the family system has become more nuclear, there is less of a support network from other relatives for childcare. Although there are no school fees for public elementary and middle schools, extra-curricular studies and private after school academies (hagwon)-which are attended by most children-are very expensive and time consuming. Children have upwards of a 15-hour school day by the time they complete their after school academy. The oversight of the child's education traditionally falls to the Korean mother and excellence is expected. A New York Times article quoted one South Korean mother as saying, "Most Korean mothers want their children to get 100 on all the tests in all the subjects."²² A child's three-year preparation time for the college entrance exam is nearly a full-time job for mothers.²³

The high costs of childcare and extra-curricular education, combined with the change in women's status, have increased the costs of having a child to women and families. "The average share of household expenditure spent on children's education increased from 7.4 percent of the total household expenditure in 1985 to 11.6 percent in 2005."²⁴ The cost of raising and educating a Korean child is estimated to be at least US \$253,000.²⁵

Economic factors, in addition to demographic factors, have kept fertility rates very low. The 1997 economic crisis was devastating for Korea with unemployment rates for men aged 20-24 jumping from 8.7 percent in 1997 to 19.4 percent in 1998, and Korea has again been affected by the international financial crisis of 2008.²⁶ The economic shocks have led to diminishing expectations for labor market success, which is one of the factors that has led to an increasing mean age at marriage as well as young persons enjoying a more materialistic life and continuing to depend on their parents.²⁷ Housing is very expensive for young people, and yet there is the desire to live separately from their families once the young couple marries. In the 2005 Census, 76 percent of single men aged 25-29 were living with their parents compared with 86 percent of married men aged 25-29 living in their own households.²⁸

THE INCREASE IN THE ELDERLY SOUTH KO-REAN POPULATION

Improved public health measures, diet, and medical advances have helped South Korea become a healthier country and as a result mortality rates have declined. Life expectancy at birth reflects these positive changes with an increase from 72 years in 1990 to 79 in 2012.²⁹ While the increase in life expectancy at birth has been an important feature of the health and welfare of the elderly population, it has actually been the dramatic drop in fertility that has shifted the percentage distribution of South Korea toward the elderly.

The very low fertility rates over a sustained period of time are also reflected in the overall population growth of the country and in the median age. The current population growth rate is 0.2 percent, and by 2025, the country is expected to experience negative growth rates.³⁰ The median age has been increasing and will continue to climb: from 19.0 years in 1960 to 31.8 in 2000, and is projected to be 43.7 in 2020 and 56.2 in 2050.³¹

Korea will move from an aged society to a super-aged society very quickly, as can be seen in the population pyramids for 2012, 2025 and 2050 in **Figure 2**. Historically, the elderly were a very small percentage of the population in all countries. During the late-1800s, European countries began to see an increase in the elderly population. It took France 115 years to move from 7 to 14 percent elderly, whereas it will only take Korea 18 years.³² Korea will be classified as a super aged society with an estimated 20 percent of its population elderly by 2026. Population projections for the year 2050 estimate that 38 percent of the South Korean population will be 65 or older, making it one of the oldest countries in the world.³³

South Korea is not the only Asian country to experience rapid aging. Japan has the highest life expectancy in the world (84 years) and a total fertility rate of 1.4, a bit higher

than South Korea's. Currently the median age in Japan is nearly 45 years. The pattern of a rapid increase in the elderly has been observed in Japan, just as in South Korea. As of 1970, the elderly in Japan accounted for only 7.1 percent of the total population; in 1994, it had almost doubled to 14.1 percent. Although Japan has the highest life expectancy in the world, South Korea experienced an even more compressed rise in the elderly population combined with even lower fertility than in Japan.³⁴



Population Pyramid, South Korea (2025)





Population Pyramid, South Korea (2050)

Source: Korean Statistical Information Service. 2012. http://kosis.kr The rapid rise in the aging population is a potential concern in terms of economic growth potential and the generational shift required for supporting the elderly with a shrinking labor force. There were 7 persons in the working-age population per one aged person in 2007. By 2020, the ratio will be 4.5 to 1, and in 2050, it is estimated that it will be 1.4 to 1.³⁵ Business leaders, as well as governments and civil society organizations, share concern about the consequences of an aging population for public finance and global competitiveness.³⁶

Just as young adults are more likely to set up their own households, it is increasingly likely that the elderly in South Korea are living on their own. The percentage of elderly living with a child fell from 77.7 percent in 1988 to 42.7 percent in 2002, and family support decreased from 72.8 percent to 53.3 percent during the same time period.³⁷ One of the reasons for the decline is the small number of children for the elderly to live with, and this trend will only accelerate. If elderly parents do live with a child, they may be expected to look after grandchildren and/or do household chores, especially if their son and daughter-in-law or son-in-law and daughter both work outside the home.³⁸

Care of the elderly has traditionally been a family responsibility in South Korea.³⁹ Confucian family values have led to weak public policy for the elderly; it is only relatively recent that the government has taken on a role as the traditional family system changes. This has come at a critical time as not only are the numbers of elderly increasing, but also as families are increasingly limited in their ability or motivation to pay for their elders. Social welfare increases will require a political consensus, particularly if costs through taxation are to be shared.⁴⁰ If families are unwilling or unable to care for elderly members, and if the government is stretched to its limit, then the elderly may be required to either work longer and/or draw on personal savings.⁴¹ Potential conflicts abound, not only across generations but also between those working and not working.⁴²

The first national pension law in South Korea was first discussed in 1973, but had to be delayed, owing to the economic hardship encountered after the oil shock. The National Pension System (NPS) was introduced in South Korea in 1988 and covers approximately half of the working population.⁴³ However, only 10.8 percent of those 65 and over currently receive any benefits from the public pension plan.⁴⁴

In addition to the NPS, there are three additional plans in South Korea: 1) the government employees' pension plan; 2) the military personnel pension plan; and 3) the private school teachers' pension plan.⁴⁵ All of these plans are intended to be the "first tier" pension plans. There are virtually no private pension systems. The NPS is targeted to pay 60 percent of average career earnings for a worker with 40 years of work experience and with a retirement age of 60, although the income replacement rate is scheduled to decrease to 40 percent over the next 20 years.⁴⁶ The entitlement age will increase to 61 in 2013 and then will have a phased-in increase to 65 by 2033.⁴⁷ Although the NPS is a critical part of the social safety net for the elderly, it clearly faces questions as to its long-term viability given the aging population.

Korea has the highest rates of economically active persons aged 50 to 64 of any OECD country, although the average retirement age is 55 for most employment contracts. National pension eligibility begins at age 60.⁴⁸ This gap in part explains the high employment rates for the older workers, although a high proportion of the population is self-employed and those workers are not covered by the pension plan. Of those aged 55 to 64 in 2004, 60 percent were self-employed and of workers aged 65 and over, more than three-quarters were self-employed.⁴⁹ On average, Koreans work an additional 12 years after they are retired from a primary job, owing to the lack of public support and declining family support.⁵⁰

The primary challenge for Korea is how to provide a decent level of support for the old, without imposing a crushing burden on the working population, given the benefit formula and the rapidly ageing population.⁵¹ Pension participants will peak at 18.9 million in 2014, while pension recipients are expected to increase to 11.1 million in 2059.⁵² The military pension plan has been in deficit for several decades.⁵³

The cost of the National Pension System is projected to rise from 0.4 percent of GDP in 2005 to 7.3 percent by 2050. It is likely that additional reforms will be forthcoming as it is estimated that the pension fund will be exhausted by 2060.⁵⁴ When all four pension programs are included—NPS, government employees, private school teachers and the armed forces—the total cost of public pensions will reach 10.2 percent of GDP.⁵⁵ Virtually all of the elderly are covered by National Health Insurance, but with costs that are 2.1 times that of the population under age 65.⁵⁶ When health care and other programs are included, the total cost of benefits to the elderly could exceed 25 percent of GDP by 2050.⁵⁷ The IMF projects that pensions in Korea will be 10.1 percent of GDP in 2050, along with 7.8 percent of the GDP for health costs of the elderly and 4.1 percent for long-term health care.⁵⁸

Prior to the implementation of the pension system, the Korean retirement allowance system was introduced in 1953. The severance allowance is equal to "one month of wage for every year of service at the rate of average monthly wage over the last three months prior to departure."⁵⁹ Thus the critical feature of the retirement allowance is the number of years worked and the final salary. For companies, this allowance was beneficial in that no other financial provisions were required at the time of retirement and payment was made from current operating funds. With the changing tide of the elderly population, the government is allowing large corporations to replace this plan with more traditional corporate pension plans.⁶⁰ This plan was a compromise between business leaders who wanted to abolish

the retirement allowance entirely and labor organizations that sought to keep it. Long-term care insurance has also been established. To date, public expenditures on this program are 0.3 percent of GDP, as compared with the OECD average of 1.1 percent.⁶¹

Even with these plans in place, the poverty rate of the elderly in South Korea is very high. It is particularly difficult for the current cohort of the elderly who were not able to participate fully in government pension plans and who are feeling the effects of smaller extended families who are less likely to be co-resident. According to an OECD study published in 2008, 45 percent of South Korea's elderly households live in a state of "relative poverty," (income below 50 percent of the average household income of the nation).⁶² In comparison, the mean poverty rate among OECD countries was 13 percent.⁶³ As of 2005, 14 percent of the elderly received government social assistance with monthly benefits averaging less than \$80 per person. The elderly poverty rate is now three times that of the young.⁶⁴ The elderly are vulnerable to shocks to the economic system; during the financial crisis of 1998 the poverty rate for the elderly was nearly 50 percent.65

EXISTING POLICIES AND OPTIONS FOR THE FUTURE

Without an increase in fertility, the population redistribution will create serious imbalances that will have long-lasting consequences for South Korea. Efforts to increase fertility rates are much more challenging than the successful family planning programs in the 1970s and 1980s that very effectively lowered fertility.

The Saeromaji plan 2010 was announced by the government in 2006 and is intended to address both low fertility and the increase in the elderly population.⁶⁶ The plan calls for: 1) stable income of the elderly through an improved public pension system and guaranteed retirement income; 2) a healthy life for the elderly through long-term care and senior health management; 3) a safe and active life by providing public housing at a low cost and senior-friendly public transportation; and 4) active participation in society through an expansion of job-creation projects and meaningful voluntary projects. Included in the plan are provisions for subsidies for daycare, tax and housing incentives for large families, expanded maternity and childcare leave. The government also announced the Vision 2020 Plan, which is intended to shift some of the burden of child-rearing and care of the elderly from the family to the general society through increased childcare and after-school programs, subsidies for day care, and lower taxes for households with young children.⁶⁷ This plan is very explicit in stating that society is responsible as a whole for fostering the next generation, which Lee has argued is a public good.⁶⁸

(which as of February 2012 would have been just over US \$9.5 billion) on programs to increase the birthrate and to cope with the ageing population, with about 40 percent of the funds earmarked to raise the birthrate and support child-rearing initiatives.⁶⁹ To date, the policies have not been effective, which in large part is due to the country's work culture and gendered society that will require societal shifts for success of any pronatalist plan.⁷⁰

Even if efforts to increase fertility are successful in the future, the echoes of low fertility will reverberate through the population structure for years to come and will be most evident over the next 25 years. During this adjustment period to an aged country, South Korea must adjust to a smaller workforce (in percentage terms, and in absolute terms as early as the next decade) who will be able to support the elderly population while at the same time providing for the nation's children. There are no easy-fixes.

Jackson et al. suggest an increase in immigration, but while the short-term effect may be to increase the number of workers, South Korea would find it very difficult to assimilate a large number of immigrants.⁷¹ In addition, the numbers of immigrants that would be required are staggering. To show the extreme immigration that would be required to reach the replacement level of workers, Coleman titled a paper "Replacement Migration, or Why Everyone's Going to have to Live in Korea."⁷² In response to a United Nations report, Coleman states in his paper that, "For South Korea, the most exciting example, 94 million immigrants per year would be needed, almost twice its current population, adding up to 5.1 billion by 2050 (that is, 5/6ths of today's world population). Even the United Nations decided that might be 'extreme'."

If immigration is discounted as the likely savior to increase the number of workers and children in South Korea, then the pleas to increase fertility would require multifaceted changes in the country. To encourage such a government-planned massive fertility turnaround may not be feasible given all the economic, social and demographic aspects that would be required to change in lock step in South Korea. In order to address the incompatibility of worker and mother roles for women would require a reordering of male and female roles in the household and perhaps shorter working hours. The retreat from marriage would need to be reversed, combined with an earlier age at marriage and childbearing. The costs of children would need to decline, which like these other factors is difficult to change through public policy. For instance, the Saeromaji Plan proposes to extend publicly funded after-school classes and cyber-education programs. Given the intense competition for highly coveted university spots, however, it is likely that private education services will remain much more popular than public after-school programs.73

While the numbers of children populating elementary schools will be contracting, the dependency ratio will sky rocket. In fact, by 2050 South Korea will have the highest age-depen-

In 2008, the ROK government spent 10.7 trillion won

dency ratio (as measured by the number of persons 65+ to the number of persons aged 15-64) of the primary emerging market countries (Argentina, Brazil, China, Indonesia, Mexico, Russia, Saudi Arabia, South Africa and Turkey).⁷⁴ The economic downturn, combined with the rapidly aging population, will require South Korea to adjust with limited available labor-force options. South Korea benefitted tremendously in the previous generation from the demographic dividend, i.e. a large labor force, but will now have to deal with labor contraction. Although some European countries may increase retirement ages in order to delay the drain on pensions, that is less viable for South Korea with such a large percentage of the elderly already working and with the long work hours being recorded.

In the past 50 years the demography of South Korea has twice changed course very effectively. First was the national family planning campaign, as described earlier in this paper, which resulted in the steep decline in fertility rates. The second example was a result of a rapidly increasing sex ratio at birth (males per 100 female babies), which was as high as 115 in 1994. This largely came about as a result of using prenatal technology for parents to select for a male birth. But Eberstadt has argued convincingly that it was not public policy that caused the sex ratio to return to a more historical and balanced pattern of about 105 boys born for every 100 girls, but rather that it was civil society, including the faith-based community, that brought to the fore the value of daughters to the family and the country at large.⁷⁵ Although the country leaders would be remiss not to have pronatalist policies in place, it appears that it will again be the collective efforts of civil society that will be necessary to change course and increase fertility. This change will not happen in a vacuum and will necessitate concomitant changes in society and the labor force to accommodate women and mothers, so that children are valued as emotional and financial support for their elderly parents and the costs of children decline.

Given that Japan has experienced the onset of an aging population earlier than Korea, one might look there for lessons to be learned. The government of Japan has listed the growing elderly population as the major demographic concern and has passed legislation that has increased the age of eligibility for the full flat National Pension benefit-in stages--from ages 60 to 65, by 2013 for men and by 2018 for women. In 1999, the Government announced its intention to institute a similar increase with respect to the other part of the retirement benefit: the earnings related pension, fully effective in 2025 for men and 2030 for women.⁷⁶ Pronatalist policies such as the Angel Plan, which was revised as recently as 2009, combine the improvement of public child-care support systems with gender policies for equal treatment for women and men in the workplace. Japanese women have found working and mother roles to be incompatible to a great extent; as a result, the median ages at marriage and first birth have been creeping up. To date, immigration has not been seen as an option to alleviate the population crisis in Japan, although nearly 600,000 immigrants are Korean.⁷⁷ In sum, although Japan has looked to legislation to help alleviate economic pressure of pensions for the elderly and has instituted pronatalist policies, societal and economic ramifications of the population redistribution remain a national concern as the Total Fertility Rate has remained constant at 1.4 children per woman since 2008.⁷⁸

Although Singapore has its unique properties, it is also facing the rapid expansion of the elderly population, with a total fertility rate (0.8 in 2012) even below that of South Korea and a life expectancy of 83.75 years.⁷⁹ Its multifaceted economic approach to address the dependency ratio relies on self-reliance and individual savings, combined with a mandatory savings plan for all workers (the Central Provident Fund), which is a defined contribution plan attached to an annuity. These policy changes encourage workers to continue working for three years past the retirement age of 62. Singaporeans have the benefit of living in close proximity to one another, so elderly "wellness" groups can meet and encourage the elderly to remain active and promote healthy lifestyles.⁸⁰

While it is tempting to hope that South Korea can learn from the experiences of Japan, Singapore, and even some of the European countries with burgeoning elderly populations, no country has yet rebounded from such low fertility for such a prolonged period of time. The one facet that is very unique to South Korea is the potential for reunification. Fertility in North Korea is estimated to be right at replacement level (2.1 children per woman), and the median age in 2008 was 30.1 for males and 33.7 years for females as compared to 35.3 years for males and 37.4 years for females in South Korea in the same year.⁸¹ There is no question that immediately following reunification, the fertility rate would be higher than it is now in South Korea, if fertility remained unchanged in the two geographic areas, and the total population would be younger. What would happen in five, ten or twenty years after a Korean reunification is anyone's guess, but the experience of Germany's reunification was that former East Germany's fertility dropped from 200,000 births in 1989 to 80,000 births in 1994.⁸² One can imagine that reunification of the two Koreas would cause staggering social and economic adjustments that would likely result in a downward shift in fertility in North Korea, and possibly in South Korea as well. It is unlikely that reunification would have any hope of increasing fertility in the long-term.

Perhaps South Korea is in a better financial situation than some of its Asian neighbors to deal with the financial considerations of the elderly population, given that it has one of the lowest debt to GDP ratios in the OECD countries. But one factor that differentiates South Korea from the Asian dragons is that Korea has the sixth largest armed forces in the world. Although it has a large military, Korea spends a relatively small amount on the military; as of 2008, South Korea spent 2.8 percent of its Gross Domestic Product (GDP) on the military, and in 2006 was ranked 53rd in the world for countries with available data on the percentage of GDP spent on the military. If South Korea maintains a large military into the future—and there is every reason to believe it will given the threat to its north—there may be competing demands between supporting the elderly and the military.⁸³

The demographic restructuring facing the Asian dragons is unprecedented and there are no easy or obvious solutions. Are these intractable problems or can current planning alleviate the social and economic challenges that will be faced by countries with more elderly than children? The optimist will argue that there are economic safety valves and adjustment mechanisms that are available to be utilized, such as shifting more of the public coverage of services back to individuals and families, while the pessimist will focus on the impending inversion of the population pyramid. Whether and how the South Korean government and families can adjust to the demographic dilemma facing the country remains to be seen.

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