

---

研 究 論 文

---

## Lowest-Low Fertility in Korea and Japan

Toru Suzuki

In the 1990s, many countries in Southern, Central and Eastern Europe as well as the former Soviet Union started showing lowest low fertility, defined as having TFR of 1.3 or less. In Eastern Asia, the Republic of Korea arrived at the line of 1.3 in 2001 and Japan is approaching such a level. This paper compares Korea and Japan with European forerunners to investigate Eastern Asian characteristics of lowest-low fertility. The decline in TFR and the delay in childbearing were slower in Korea and Japan than in Europe. Cohabitations and extramarital births are very uncommon in Japan. The M-shaped curve in female labor participation is prominent in Korea and Japan. It is discussed that lowest-low fertility is a normal response to socioeconomic changes in the postmaterial era and that moderately low fertility in Northern and Western Europe and English speaking countries is an exceptional phenomenon. Cultural factors that prevent fertility from declining to lowest-low level are examined.

### I. Lowest-Low Fertility in Europe and Eastern Asia

Kohler et al. (2002) discussed the expansion of lowest-low fertility, defined as having TFR (Total Fertility Rate) of 1.3 or less, in Southern, Central and Eastern Europe, and the former Soviet Union. In an early version (Kohler et al., 2001, p.5), they listed the Republic of Korea (simply "Korea" henceforth) and Japan as candidates, suggesting that lowest-low fertility is going to spread also in Eastern Asia.

The demographic conditions in countries listed in Table 1 are so unstable that there were some changes in membership in 2000. While Belarus, Estonia, Hungary and Romania exit with TFR rising to over 1.3, Lithuania, Slovakia, and Moldova attained lowest-low fertility levels (Kohler et al., 2002, p.643). Though they did not refer to non-European countries, Korea also entered with TFR of 1.30 in 2001. While Japan remained in a candidate position with TFR of 1.32 in 2002, Korean TFR showed a further rapid drop to 1.17. Thus, Korea now has full membership in the lowest-low fertility club and is the top runner of fertility decline in Eastern Asia except for metropolitan states such as Hong Kong or Singapore. It seems to be only a matter of time before Japan arrives at lowest-low level because its fertility has been declining slowly but steadily. This paper compares Korea and Japan with European forerunners to investigate Eastern Asian characteristics of lowest-low fertility.

Table 1. Lowest-low fertility countries and candidates

Region	Country	TFR (1999)
Southern Europe	Greece	1.30
	Italy	1.19
	Spain	1.20
Central and Eastern Europe	Bulgaria	1.23
	Czech Republic	1.13
	Estonia	1.24
	Hungary	1.29
	Latvia	1.16
	Romania	1.30
	Slovenia	1.21
The Former Soviet Union	Armenia	1.20
	Belarus	1.29
	Georgia	1.07
	Russia	1.17
	Ukraine	1.19*
Candidates	Croatia	1.38
	Lithuania	1.35
	Poland	1.37
	Slovakia	1.33
	Austria	1.32
	Germany	1.36
	Japan	1.34
	Korea	1.42

Source: Kohler et al. (2001)

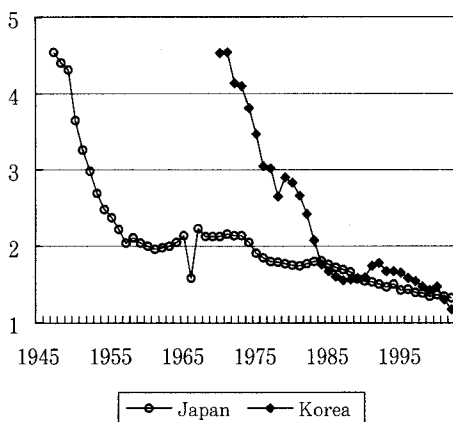
\* 1998

## II. Period Fertility

As shown in Figure 1, TFR in Japan and Korea declined dramatically to the replacement level in the 1950s and 1970s, respectively. However, the decline from the replacement level was relatively slow. Table 2 shows the years spent to move through each TFR range. There seems to have been a barrier between TFR levels 1.4 and 1.6 for countries in Eastern Asia, Southern Europe and German speaking countries, while countries in Eastern Europe and the former Soviet Union moved through the range very quickly. It is understandable that the fertility decline was drastic in the latter group, which experienced the transition to a market economy. However, Eastern Asian fertility change is slower than Southern European countries that did not experience such radical reformation.

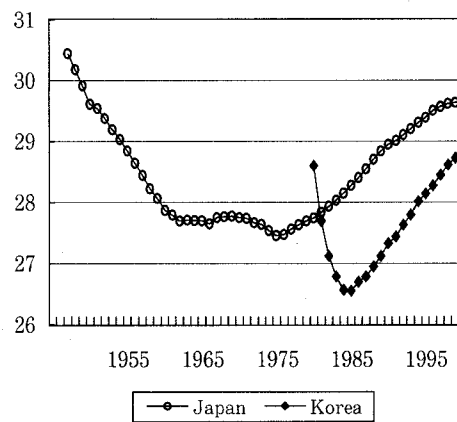
Figure 2 shows the trend of the mean age at childbearing (MAC) in Korea and Japan. Japan's MAC has been rising since the mid-1970s but the tempo of postponement slowed down in the late 1990s. The MAC in Korea started rising in the mid 1980s and the tempo of postponement has been faster than in Japan.

Figure 1. Total Fertility Rate



Sources: *Vital Statistics of Japan, KOSIS.*

Figure 2. Mean Age at Childbearing



Sources: *Vital Statistics of Japan, KOSIS.*

Table 3 compares years spent to move through each one-year age interval. The tempo of MAC change of Korea is similar to that in Southern Europe, while Japan is comparable with Germany and Austria. This table also indicates that, presently, the MACs in Korea and Japan are as high as in Southern Europe. Thus, recuperation of fertility at older ages is less plausible in these countries (Kohler et al., 2002, pp.645-646).

Table 2. Tempo of TFR decline

Country	Years 2.0→1.8	Years 1.8→1.6	Years 1.6→1.4
Korea	1	4	6
Japan	4	5	9
Italy	3	3	6
Spain	3	3	5
Greece	3	3	4
Bulgaria	5	2	3
Czech Republic	10	3	2
Estonia	1	3	2
Hungary	4	4	3
Latvia	2	2	2
Romania	2	2	4
Slovenia	4	6	4
Belarus	3	3	2
Georgia	1	3	3
Russia	2	2	2
Ukraine	4	2	3
Croatia	19	6	2
Lithuania	3	2	4
Poland	4	2	4
Slovak	3	2	4
Austria	4	8	15
Germany	2	2	12

Sources: *KOSIS, Latest Demographic Statistics, Recent Demographic Developments in Europe.*

Table 3. Tempo of MAC rise

Country	Years 25→26	Years 26→27	Years 27→28	Years 28→29	Years 29→30
Korea			6	7	
Japan				9	
Greece			6		
Italy				7	6
Spain					5
Bulgaria					
Czech Republic	4	5			
Estonia		4			
Hungary	9	7			
Latvia		5			
Slovenia		5	5		
Croatia		5			
Austria			11		
Germany			9		

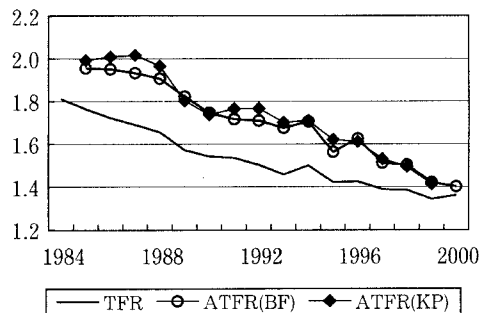
Sources: *Latest Demographic Statistics, KOSIS,*  
*Recent Demographic Developments in Europe.*

Even though the postponement of childbearing in Eastern Asia is not as impressive as in Eastern Europe, it still raises the issue of tempo distortion. Figure 3 presents two Adjusted Total Fertility Rates (ATFRs) for Japan calculated by the author. The assumption of the BF model (Bongaarts and Feeney, 1998) is simple. Age patterns by parity are assumed to shift linearly over time without any changes in shape, which means only the mean age by parity changes while higher order moments are held constant. In contrast, the KP model (Kohler and Philipov, 2001) allows an exponential change of variance in addition to the linear change of the mean.

Because of the recent slow-down in postponement shown in Figure 2, the difference between TFR and ATFR has been narrowed. This implies that the recent very low fertility in Japan, slightly more than 1.3, is not a temporary phenomenon caused by the tempo distortion. The difference between the BF and KP models is small. As Zeng and Land (2001) discussed, the BF method is robust except for abnormal conditions such as the roller coaster fertility change in Sweden around 1990.

Since the delay in childbearing is more rapid in Korea than in Japan, the tempo distortion in Korean fertility would be larger than that in Japan. In the 1990s, the mean age at childbearing in Korea annually rose by 0.17 years on average. If this rate were uniformly applied to all birth orders, ATFR in Korea would be about 20%

Figure 3. TFR and ATFR in Japan



higher than TFR. In this sense, ATFR value of 2.46 in 2000 (Cheon KH, 2002, p.108), which is 68% higher than TFR, should be taken as an outlier.

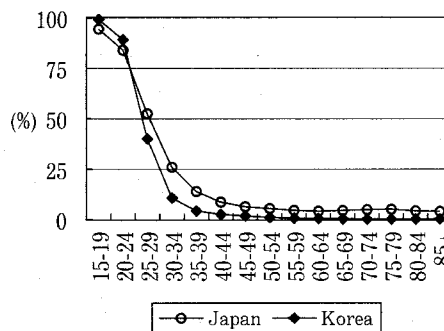
### III. Nuptiality

Figure 4 compares the proportion of single females in 2000 between Korea and Japan. At this point of time, Korea had an earlier and more universal pattern of marriage. Only 1.7% of Korean women aged 45-49 were single, while 6.3% of Japanese women stayed single.

The latest population projection for Japan assumed that, as the medium variant, the proportion of females single at age 50 will rise to 16.8% for the 1985 birth cohort (NIPSSR, 2002, p.18). Although such a projection is not available for Korea, it is possible that the marriage squeeze caused by the imbalance of sex ratio at birth (Pyeon HS, 2002, p.230) prevents the proportion of females never married from rising rapidly.

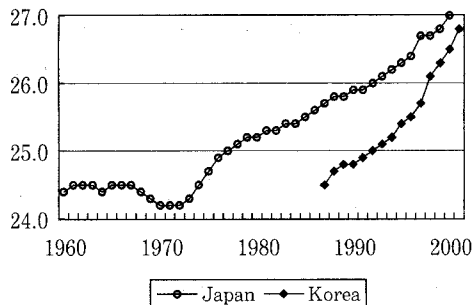
Figure 5 shows female mean ages at first marriage in Korea and Japan. The change is faster in Korea and catching up with Japan. As shown in Figure 6, crude divorce rate for Korea has already overcome that of Japan. The change of Korean nuptiality after the IMF economic crisis in 1997 is very impressive. These sudden declines in nuptiality are explained by changing labor market conditions such as growing instability and uncertainty of employment and difficulty for young people to find jobs. Thus, it is thought that the economic crisis not only accelerated the long-term trend of nuptiality decline but also caused a perpetual change in marital behavior of Korean people (Eun KS, 2003).

Figure 4. Female proportion single (2000)



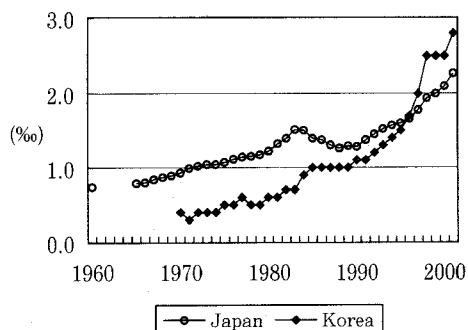
Sources: Census of Japan, KOSIS.

Figure 5. Female mean age at first marriage



Sources: Vital Statistics of Japan, KOSIS.

Figure 6. Crude divorce rate



Sources: Vital Statistics of Japan, KOSIS.

#### IV. Marital Fertility

In evaluating the change in marital fertility and its contribution to fertility decline, both Japanese and Korean demographers often rely on age-specific marital fertility rates, namely the number of births by age of mother divided by the currently married female population at each age. They conclude that marital fertility rose in the 1990s and that it contributed little to the recent fertility decline (NIPSSR, 1997, p.10; Kim SK et al., 2002, p.77; Cheon KH, 2002, pp.90-94; Eun KS, 2003, pp.13-15).

However, age-specific marital fertility rates are erroneous. According to Hiroshima (2001), the rate does not indicate the true fertility level of a married couple. Moreover, the rate is seriously misleading when there is a trend of marriage postponement. Hiroshima's simulation suggests that a decomposition analysis using the age-specific marital fertility rates fails when the true marital fertility is held constant and only the delay in marriage proceeds.

The trend and contribution of marital fertility cannot be determined while one relies on the age-specific marital fertility rates. It is plausible that the situation of Korea is similar to Japan, where a simple decomposition using age-specific marital fertility rates indicates that nuptiality decline dominantly explains the fertility change, while more sophisticated methods show that both nuptiality and marital fertility are important (Hiroshima, 1999, 2000; Ogawa, 1998; Suzuki, 2000; Iwasawa, 2002).

#### V. Cohabitation and Extramarital Births

Today, there is a positive correlation between fertility and extramarital childbearing in Europe (Atoh, 2000, p.203; Dalla Zuanna, 2001, p.136; Billari and Kohler, 2002, p.17). The prevalence of births out of wedlock is especially low in Italy and Spain, two top runners of lowest-low fertility. Thus, slow emergence of such postmodern behaviors is an important aspect of lowest-low fertility.

Tables 4 and 5 show the prevalence of cohabitation and extramarital births in Japan and lowest-low fertility countries. The emergence of these new demographic behaviors in Japan is even slower than in Italy and Spain. Though Table 4 does not show the exact proportion cohabiting in Japan, a national survey in 1997 revealed that 1.0% of single women aged 25-29 cohabited (NIPSSR, 1999, p.38). If this figure is applied to the proportion of single women in this age group in the 1995 census (48.2%), the prevalence of cohabitation in the late 1990s is thought to have been 0.48%.

The prevalence of extramarital births is available in the vital statistics of Japan. The figure has been growing since the late 1980s but the change has been very slow. As a result, the proportion of births out of wedlock in 2001 was still as low as 1.7%. With this rate of change, it will take

several decades for Japan to arrive at the level of Southern Europe today.

The data on cohabitation or extra-marital birth are not available in Korea. It has been supposed that both new behaviors are very uncommon because of strong Confucian tradition (Cho BY et al., 1999, pp.38-39). On the other hand, some demographers assert that, without any evidence, premarital cohabitation is recently on an increase (Pyeon HS, 2002, pp.244-245; Cheon KH, 2002, p.110). Considering the drastic change in nuptiality after the economic crisis, it is possible that these behaviors have increased to some extent. It is very unlikely, however, that cohabitation and extramarital births in Korea are more frequent than in Italy and Spain. Thus, low prevalence of cohabitation and extramarital births could be mentioned as one of the most prominent features in Eastern Asian demographic conditions.

## VI. Proximate Determinants

According to the result of the latest Korean national fertility survey in 2000, the prevalence of contraception among wives aged 15-44 sustained a high level of 79.3%, just a slight decrease from 80.5% in 1997 (Kim SK et al., 2000, p.142). Corresponding figure in Japan for wives aged 20-49 was 60.4% in 1997 (NIPSSR, 1998, p.33). Contraceptive prevalence in Korea is thought to have reached the saturation level in the 1980s and explains little about recent fertility decline (Cheon JK, 1997, p.82). Some decomposition analyses show a significant effect of contraception on fertility decline (Cheon KH, 2002, p.90; Eun KS, 2003, p.12). However, they are not reliable because they use the age-specific marital fertility rates.

There is a surprisingly wide range in the prevalence of induced abortion among lowest-low fertility countries. As shown in Table 6, while there is practically no abortion in Poland, two of

Table 4. Proportion cohabiting among women aged 25-29 (%)

	1991-93	1994-97
Japan		0
Italy	2	3
Spain	4	5
Bulgaria	0	
Czech Republic	11	
Hungary	2	
Romania	4	
Slovenia	14	15
Estonia	6	16
Latvia	8	11
Russia	3	
Belarus	4	
Poland	3	0
Austria	12	21
Germany	20	14
Lithuania	0	4

Sources: Iwasawa (1999), van de Kaa (2002).

Table 5. Proportion of extramarital births (%)

Country	Year	Proportion of extramarital
Japan	1998	1.4
Italy	1998	9.0
Spain	1996	11.7
Greece	1998	3.7
Austria	1998	29.5
Germany	1998	19.3

Sources: *Latest Demographic Statistics*,  
*Recent Demographic Developments in Europe*.

three pregnancies result in abortion in Russia. The ratio of abortion to birth in Japan (28.3%) is moderate and about the same as Italy.

It is understandable that Korea lacks data on cohabitation or extramarital births, because these behaviors have been uncommon. However, it is strange that there is no exact number of abortions. The only available data on abortion is on experiences among currently married women. As Table 7 indicates, Korean wives experienced about twice as many abortions as Japanese wives. If this ratio were applied also to unmarried women, the abortion/birth ratio in Korea would be 50-60%.

Although the prevalence of abortion is ambiguous, its impact is very obvious. The sex ratio at birth in Korea started rising in the 1980s and recorded 115.3 in 1993. The ratio declined thereafter but is still unnaturally high, indicating that selective abortions are prevailing (Cheon KH, 2002, p.96; Eun KS, 2003, p.4). About the same level of imbalanced ratio has been observed in China, and moderately high ratio in Taiwan (Hayashi, 2001, pp.30-33).

Such an imbalance of sex ratio is not observed in Japan where the ratio has never deviated from the range between 105 and 108 since 1960. Curiously, there has been an increase in preference for daughters among Japanese wives (NIPSSR, 1998, p.41). However, such an attitudinal change has never affected reproductive behavior. On the other hand, both strong preference for sons and acceptance of sex check during pregnancy have been observed among Korean wives (Lee SS, 2001). The prevailing selective abortion and imbalanced sex ratio could be pointed out as an element of fertility decline in Eastern Asia other than Japan. Full explanation of son preference and selective abortion might be difficult, but some cultural properties common to Korea and China, such as the combination of Confucian thought and patrilineal kinship system, could be working as an important factor.

Table 6. Induced abortion

Country	Year	Abortion / birth ratio
Japan	1997	28.3
Italy	1995	25.5
Greece	1994	12.2
Czech Republic	1997	49.7
Hungary	1998	70.9
Romania	1998	114.4
Estonia	1997	131.6
Latvia	1998	108.4
Russia	1995	202.8
Belarus	1998	156.9
Georgia	1993	73.3
Armenia	1997	57.5
Poland	1997	0.8
Slovak	1991	58.4
Germany	1995	12.8
Lithuania	1998	56.8

Source: *Latest Demographic Statistics*.

Table 7. Experience of induced abortion among currently married women, 1997

	Experience (%)	Average times
Korea (1997)	44.2	0.7
Japan (1997)	22.8	0.32

Sources: NIPSSR (1998), Cho et al. (1997)



## VII. Transition to Adulthood

Lowest-low fertility is a part of an overall postponement in transition to adulthood including graduating from school, finding a stable job, leaving the parental home, and union formation. In this line, Italy and Spain are characterized by lowest-low fertility and latest-late home-leaving (Billari and Kohler, 2002, pp.13-14). Leaving home before marriage has been uncommon in Southern Europe and these two events have been considered to be inseparable (Reher, 1998, pp.204-205). In fact, 76% of the female cohort born around 1960 in Italy and Spain left home at marriage (Billari et al., 2001, p.28).

Table 8 compares the timing of home-leaving in lowest-low fertility countries and Japan. The uniqueness of Japan is in its gender difference. Though a pattern that men leave earlier than women was observed in pre-industrial England and the United States during World War II (Wall, 1989, p.385; Goldscheider and Goldscheider, 1994, p.14), Japan seems to be the only country with this reversed gender pattern in the contemporary world.

This pattern comes from the difference in the proportion leaving at marriage. In most European and Northern American countries, the proportion is only moderately higher for women than for men. In Japan, however, the female proportion of leaving for marriage (52.9%) exceeds the male proportion (20.5%) by more than 30 points. This gender gap easily overcomes the difference in age at marriage and produces the reversed pattern.

While Japanese men leave as early as Northern European males, Japanese females leave as late as Southern Europeans. Thus, it can be said that Japanese women suffer "postponement syndrome" (Livi-Bacci, 2001) as serious as Italian and Spanish women.

There is little data on home-leaving in Eastern Asia other than Japan. The only empirical evidence that I could find is indirect estimates using census data by Zeng and others (1994). It is expected that the proportion leaving at marriage among Korean women is as high as in Japan, and that Korean women experience about the same level of postponement syndrome. This expectation needs to be tested directly with empirical evidence.

Table 8. Median age at home-leaving of cohort born around 1960

Country	Male	Female
Japan	20.2	22.8
Italy	26.7	23.6
Spain	25.7	22.9
Czech Republic	23.8	21.2
Hungary	24.8	21.3
Slovenia	20.9	20.5
Latvia	24.1	21.3
Poland	25.8	22.5
Austria	21.8	19.9
Germany	22.4	20.8
Lithuania	20.3	19.8

Source: Suzuki (2002)

## VIII. Female Labor Force Participation and Gender Equity

McDonald (2000, p.437) stated in his proposition 5 that very low fertility appears where gender equity is high in an individual-oriented institution but low in family-oriented institution. This explains the positive correlation between fertility and female labor force participation observed among developed countries today (Atoh, 2000, p.202; Billari and Kohler, 2002, p.21). The low female labor force participation in lowest-low fertility countries, especially in Southern Europe, is attributable to conflict between childbearing and career attainment due to strong gender role distinction.

The difficulty of continuous work for mothers with young children in Korea and Japan is obvious from the M-shaped curve in the proportion economically active. As shown in Table 9, in 1995, Japanese women had a big drop of more than 10% between 25-29 and 30-34, and Korean women had a drop between 20-24 and 25-29. Such a clear M-shaped curve could not be found in European lowest-low fertility countries. Only moderate drops of less than 5% were found in Greece, Austria and Germany.

The pattern of female economic activity in Korea is changing rapidly. As Figure 7 indicates, the bottom of the M-shape shifted to age 30-34. The M-shape pattern in 2000 has become less clear than in 1995, especially in metropolitan area. However, there still is a strong negative correlation between the presence of a child and the labor force participation of a woman in her 20s and 30s (Min KH, 2002, pp.419-420).

Even though there was some improvement in solving conflict between childbearing and labor participation, the gender inequality in Korea still seems to be serious. As demonstrated in Table 10, the Gender Related Development index that indicates equity in health, education and income is lower in Korea than in Japan and Southern Europe. Moreover, the Gender Empowerment Measure

Table 9. Female proportion economically active (%) around 1995

Country	(A)	(B)	(C)	Differences	
	20-24	25-29	30-34	(B)-(A)	(C)-(B)
Japan	74.1	66.4	53.7	-7.7	-12.7
Korea	66.1	47.8	47.5	-18.3	-0.3
Greece	54.6	66.1	63.0	11.5	-3.1
Hungary	47.8	50.9	65.5	3.1	14.6
Roumania	63.9	76.5	81.1	12.6	4.6
Slovenia	65.8	91.3	94.5	25.5	3.2
Estonia	52.7	68.9	82.0	16.2	13.1
Poland	60.0	71.1	79.7	11.1	8.6
Slovak	57.4	70.8	85.2	13.4	14.4
Austria	73.2	78.2	74.1	5.0	-4.1
Germany	70.8	75.5	73.6	4.7	-1.9

Source: ILO, *Yearbook of Labour Statistics* 1996.

Table 10. Human Development Indices

Country	Human Development Index HDI	Gender-related Development Index GDI	Gender Empowerment Measure GEM
Korea	0.879	0.873	0.363
Japan	0.932	0.926	0.515
Italy	0.916	0.910	0.561
Spain	0.918	0.912	0.709
Greece	0.892	0.886	0.519
Bulgaria	0.795	0.794	
Czech Republic	0.861	0.857	0.579
Hungary	0.837	0.834	0.518
Romania	0.773	0.771	0.460
Slovenia	0.881	0.879	0.582
Estonia	0.833	0.831	0.560
Latvia	0.811	0.810	0.576
Russia	0.779	0.774	0.440
Ukraine	0.766	0.761	0.406
Belarus	0.804	0.803	
Croatia	0.818	0.814	0.534
Poland	0.841	0.839	0.594
Slovak	0.836	0.834	0.582
Austria	0.929	0.938	0.782
Germany	0.921	0.924	0.776
Lithuania	0.824	0.823	0.499

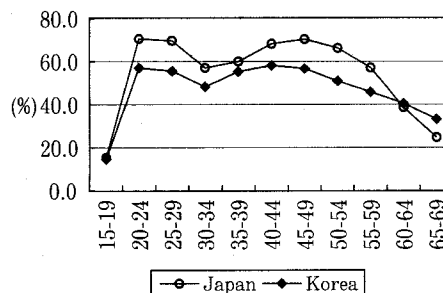
Source: UNDP, *Human Development Report 2003*.

that displays equity in political and economic leadership is lowest in Korea among countries in the table. This very low GEM is taken seriously by Korean feminists (Park SJ).

## IX. Discussion

Demographers have failed to predict fertility changes in the developed world. When fertility decline to the replacement level was widely observed in the countries that achieved economic development, the demographic transition theory anticipated that the fertility would fluctuate around the replacement level. However, the postwar baby boom in Northern and Western European countries was followed by the secondary decline of TFR to below-replacement level. Since this new fertility decline coincided with the emergence of cohabitation and extramarital births, the second demographic transition theory assumed the changing values toward individualism and secularism to be the main cause of the transition (van de Kaa, 1987). In the 1990s, however, lowest-low fertility appeared in Southern and Eastern Europe

Figure 7. Female labor force participation (2000)



Sources: *Census of Japan*, KOSIS.

where the emergence of new demographic behaviors is slow and family values are robust. Thus, the task of demographers today is to develop a theory explaining the spread of lowest-low fertility outside of Northern and Western Europe.

It is not plausible that the demand for children in lowest-low fertility countries is lower than in other developed countries. The ideal number of children for married women in Korea and Japan has never dropped under 2.0 (Kim SK et al., 2000, p.307; NIPSSR, 1998, p.35). A negative attitude toward marriage accounts for only a small portion; 5.4% of Korean wives agreed that "one had better not marry" (Kim SK et al., 2000, p.297) and 4.9% of single Japanese women responded that they would never marry (NIPSSR, 1999, p.19).

However, such demands for children and a spouse cannot be fulfilled for several reasons. As seen in the M-shaped labor force participation curve, the conflict between work and childbearing is still prominent for Korean and Japanese wives. It seems that the increase in demand for quality of a child is endless, which leads to a continuous rise in the required level of human capital investments in health and education. As women obtain earning power, the opportunity costs of marriage and childbearing become higher and higher. Ideological changes toward gender equity and parental altruism have been undermining benefits of marriage and parenthood.

One way to look at lowest-low fertility is to see it as a normal response to socioeconomic changes in the postmaterial era. In this perspective, moderately low fertility in developed countries in Western and Northern Europe, Northern America and Oceania are seen to be exceptional and should be explained. These countries are characterized by weak family ties, developed non-familial institutions for social welfare, and the notion of contraction between family members (Reher, 1998). It is supposed that such characteristics promoted individualism and gender equality, and developed non-familial childcare activities by baby sitters, tutors, childcare workers and other professionals. This might be why Western and Northern European countries have achieved high female labor participation rates while preventing fertility from declining to lowest-low level.

In Western and Northern Europe, young men and women left the parental home before marriage to work as servants (Reher, 1998; Wall, 1999). The tradition that the majority of men and women leave home before marriage still remains today (Billari et al., 2001, pp.18-19). Premarital home-leaving is supposed to promote union formation through both consensual union and formal marriage, while Southern European adolescents are suffering from postponement syndrome that discourages autonomy and decision making ability on their own lives (Dalla Zuanna, 2000; Livi-Bacci, 2001).

Most family changes other than cohabitation and extramarital births are inevitable in a matured industrial society. Women's economic power rises as the tertiary industries grow and the issues of gender equality gain political concern. Marriages are delayed as the importance of human capital investment increases. The divorce rate rises because of the growing economic independence of women and declining mortality. Household size decreases as the importance of kinship groups and

the economy of scale declines. While these changes are commonly observed in Europe, Northern America and Eastern Asia, there is a considerable diversity in the prevalence of cohabitation and extramarital births. This fact suggests that cohabitation and extramarital births are more strongly affected by cultural setting than other changes.

It is natural to infer that there were very specific traits in Western European societies especially in Anglo-Saxon society that endogenously achieved the industrial revolution. Thus, there is nothing surprising in that lowest-low fertility countries outside of Western and Northern Europe share common features such as strong family ties, robust marriage institution, late transition to adulthood, and enduring tension between female labor force participation and childbearing. More specifically, the difference from Western and Northern Europe is expected to be wider in Eastern Asia than in Southern, Central or Eastern Europe because the latter regions are more closely affected by Western European societies. This expectation was supported in terms of M-shaped labor force participation curve and gender equity in Korea and Japan. A remaining task is to confirm empirically that the Korean situation in terms of cohabitation, extramarital birth and female premarital home-leaving is more similar to Japan than to European countries.

In Japan, governmental efforts have been made to relieve the tension between childbearing and mothers' labor force participation, to subsidize childrearing costs, and to support medical treatment of infecundity. These efforts have not been successful in compensating the rise in the expected costs of a child, growing uncertainty in young people's perception of the future, and continuous decline in the benefit of marriage and parenthood. Taking the very slow increase in cohabitation and extramarital births into account, it is unlikely that fertility in Japan will recover to the previous level similar to the moderately low rates currently observed in Northern and Western Europe.

Fertility and nuptiality declines are more drastic in Korea than in Japan. Probably both structural conditions such as "compressed modernity" (Chang KS, 2001; 2002) and a specific event such as economic crisis (Eun KS, 2003) are responsible for it. Policy treatment is slow to develop in Korea compared with seriousness of demographic changes, and a proposal was made to introduce policies taken in Japan such as expanding childcare services, encouraging fathers to utilize parental leave, and subsidizing infecundity therapies (Park ST, 2002, p.653). However, such an effort is apparently insufficient. As far as the government is interested in preserving traditional family values, the emotional overloading of familial values and roles that promote "defamiliation" including fertility decline cannot be solved (Chang KS, 2003). Korean policy makers need to explore more radical policy measures if they think that the recent fertility is too low.

Acknowledgement: This paper was originally prepared as a part of the research on low fertility and social policies in Asian NIEs, supported by a scientific grant from the Ministry of Health, Labour and Welfare. The author would especially like to thank Professor Chang Kyung-Sup at Seoul National University, Professor Eun Ki-Soo at the Academy of Korean Studies, Dr. Kim

Seung-Kwon, Mr. Lee Sam-Sik and Mr. Park Jong-Seo at the Korea Institute for Health and Social Affairs, Mr. Kim Hyung-Seok at the Korea National Statistics Office, and Ms. Yamaji Kumiko at Kobe University.

## References

(in English)

- Billari, Francesco C. and Hans-Peter Kohler (2002), "Patterns of Lowest-Low Fertility in Europe," *Max Planck Institute for Demographic Research Working Paper* WP-2002-040.
- Billari, Francesco, Dimiter Philipov and Pau Baizan (2001), "Leaving Home in Europe: The Experience of Cohorts Born around 1960," *Max Planck Institute for Demographic Research Working Paper* WP 2001-014.
- Bongaarts, John and Griffith Feeney (1998), "On the Quantum and Tempo of Fertility," *Population and Development Review* Vol.24, No.2, pp.271-291.
- Chang, Kyung-Sup (2003), "The State and Families in South Korea's Compressed Fertility Transition: A Time for Policy Reversal ?", *Journal of Population and Social Security*, Supplement to Volume 1, [http://www.ipss.go.jp/English/WebJournal.files/Population/ /2003\\_6/21.Chang.pdf](http://www.ipss.go.jp/English/WebJournal.files/Population/ /2003_6/21.Chang.pdf)
- Council of Europe, *Recent Demographic Developments in Europe*, various years.
- Dalla Zuanna, Gianpiero (2000), "The Banquet of Aeolus: A Familistic Interpretation of Italy's Lowest Low Fertility," *Demographic Research*, Vol.4, No.5, pp.134-162.
- Eun, Ki-Soo (2003), "Understanding Recent Fertility Decline in Korea," *Journal of Population and Social Security*, Supplement to Volume 1, [http://www.ipss.go.jp/English/WebJournal.files/Population/2003\\_6/20.Eun.pdf](http://www.ipss.go.jp/English/WebJournal.files/Population/2003_6/20.Eun.pdf)
- Goldscheider, Frances K. and Calvin Goldscheider (1994), "Leaving and Returning Home in 20th Century America," *Population Bulletin* Vol.48, No.4.
- International Labour Office, *Yearbook of Labour Statistics* 1996.
- Kohler, Hans-Peter and Dimiter Philipov (2001), "Variance Effects in the Bongaarts-Feeney Formula," *Demography* Vol.38, No.1, pp.1-16.
- Kohler, Hans-Peter, Francesco C. Billari and Jose Antonio Ortega (2001), "Towards a Theory of Lowest-Low Fertility," *Max Planck Institute for Demographic Research Working Paper* 2001-032.
- Kohler, Hans-Peter, Francesco C. Billari and Jose Antonio Ortega (2002), "The Emergence of Lowest-Low Fertility in Europe during the 1990s," *Population and Development Review* Vol.28, No.4, pp.641-681.
- Livi-Bacci, M. (2001), "Too Few Children and Too Much Family," *Daedalus* Vol.130, No.3, pp.139-156.
- McDonald, Peter (2000), "Gender Equity in Theories of Fertility Transition," *Population and Development Review* Vol.26, No.3, pp.427-440.
- Reher, David Sven (1998), "Family Ties in Western Europe: Persistent Contrasts," *Population and Development Review* Vol.24, No.2, pp.203-234
- Suzuki, Toru (2002), "Leaving Home in Japan: Its Trends, Gender Differences, and Determinants," *NIPSSR Working Paper* E-15.
- United Nations Development Programme (2003), *Human Development Report* 2003.
- van de Kaa, Dirk (1987), "Europe's Second Demographic Transition," *Population Bulletin* Vol.42, No.1.
- Wall, Richard (1999), "Leaving Home and Living Alone: A Historical Perspective," *Population Studies* Vol.43, No.3, pp.369-389.
- Zeng, Yi, Ansley Coale, Minja Kim Choe, Liang Zhiwu, and Liu Li (1994), "Leaving the Parental Home: Census-Based Estimates for China, Japan, South Korea, United States, France, and Sweden," *Population Studies* Vol.48, No.1, pp.65-80.
- Zeng, Yi and Kenneth C. Land (2001), "A Sensitivity Analysis of the Bongaarts-Feeney Method for Adjusting Bias in Observed Period Total Fertility Rates," *Demography* Vol.38, No.1, pp.17-28.

(in Korean)

- 장경섭 (Chang KS, 2002), “한국 가족의 ‘정상 위기’?: 이념적 다원성과 기능적 과부하를 중심으로” 『한국의 예절』 제4집, pp. 11-35.
- 전광희 (Cheon KH, 2002), “출산력”, 김두섭·박상태·은기수 편 『한국의 인구』 통계청, pp. 81-113.
- 鄭在九 (Cheon JK, 1999) 「出産力에 避妊實踐 變動이 미치는 効果에 관한 研究」 『産業研究』 第11輯, pp. 79-83.
- 趙南熙·金勝權·曹愛姐·張英植·吳英姬 (Cho NH et al., 1997) 『1997年全國出産力 및 家族保健實態調査報告』 韓國保健社會研究院, 정책보고서 97-07.
- 조병엽·박병전·이화영 (Cho BY et al., 1999), “韓國의 제2차 人口變遷의 可能性”, 朝鮮大學校統計研究所 『統計研究所論文誌』 第1卷第1號, pp. 27-41.
- 金勝權·曹愛姐·李三植·金柔敬·宋寅珠 (Kim SK et al., 2000) 『2000年全國出産力 및 家族保健實態調査』 韓國保健社會研究院, 調査研究報告書 2000-01.
- 김승권·최변호·정경희·이삼식·박덕규·박인화·장지연 (Kim SK et al., 2002) 『低出産의 社會經濟的 影響과 長·短期政策方案』 韓國保健社會研究院.
- 李三植 (Lee SS, 2001) 「男兒選好 意識과 行爲間 一致性에 관한 研究」 『保健社會研究』 第21卷第2號, pp. 33-59.
- 민경희 (Min KH, 2002), “노동력”, 김두섭·박상태·은기수 편 『한국의 인구』 통계청, pp. 393-427.
- 통계청 (NSO), KOSIS. (<http://kosis.nso.go.kr/>)
- 박숙자 (Park SJ), “한국사회의 여성정책의 흐름과 쟁점”, ([http://www.sungshin.ac.kr/~kowoin/d\\_223.htm](http://www.sungshin.ac.kr/~kowoin/d_223.htm))
- 박상태 (Park ST, 2002), “인구정책”, 김두섭·박상태·은기수 편 『한국의 인구』 통계청, pp. 645-673.
- 변화순 (Pyeon HS, 2002), “혼인상태”, 김두섭·박상태·은기수 편 『한국의 인구』 통계청, pp. 219-245.

(in Japanese)

- 阿藤誠 (Atoh, 2000) 『現代人口学』 日本評論社.
- 張慶燮 (Chang KS, 2001) 「急進に進んだ近代化と韓國の家族」 『APCアジア太平洋研究』 第9号, pp.24-32.
- 林謙治 (Hayashi, 2001) 「ジェンダー問題としての出生性比：アジア諸国からの考察」 阿藤誠・早瀬保子編 『ジェンダーと人口問題』 大明堂, pp.21-42.
- 廣嶋清志 (Hirosima, 1999) 「結婚と出生の社会人口学」, 目黒依子・渡辺秀樹編 『講座社会学2 家族』 東京大学出版会, pp.21-57.
- 廣嶋清志 (Hirosima, 2000) 「近年の合計出生率低下の要因分解」 『人口学研究』 第26号, pp. 1-20.
- 廣嶋清志 (Hirosima, 2001) 「出生率低下をどのようにとらえるか?—年齢別有配偶出生率の問題性—」 『理論と方法』 第30卷第2号, pp.163-183.
- 石川晃 (Ishikawa, various years) 「全国人口の再生産に関する主要指標：各年次」 『人口問題研究』.
- 岩澤美帆 (Iwasawa, 1999) 「1990年代における女子のパートナーシップ変容—婚姻同居型から非婚非同居型へ—」 『人口問題研究』 第55卷第2号, pp.19-38.
- 岩澤美帆 (Iwasawa, 2002) 「近年の TFR 変動における結婚行動および夫婦の出生行動の変化の寄与について」 『人口問題研究』 第58卷第3号, pp.15-44.
- 国立社会保障・人口問題研究所 (NIPSSR, various years) 『人口統計資料集 (Latest Demographic Statistics)』 各年次.
- 国立社会保障・人口問題研究所 (NIPSSR, 1997) 『日本の将来推計人口：平成9年1月推計』 研究資料第291号.
- 国立社会保障・人口問題研究所 (NIPSSR, 1998) 『平成9年第11回出生動向基本調査第I報告書：日本人の結婚と出産』 調査研究報告資料第13号.
- 国立社会保障・人口問題研究所 (NIPSSR, 1999) 『平成9年第11回出生動向基本調査第II報告書：独身青年層の結婚観と子ども観』 調査研究報告資料第14号.
- 国立社会保障・人口問題研究所 (NIPSSR, 2002) 『日本の将来推計人口：平成14年1月推計』 研究資料第303号.
- 小川直宏 (Ogawa, 1998) 「変化する結婚パターン—日本とアジア諸国の静かなる革命—」, 毎日新聞社人口問題調査会編 『「家族」の未来—ジェンダーを超えて—』, 第24回家族計画世論調査報告書, pp.81-108.
- 鈴木透 (Suzuki, 2000) 「近年の結婚力と出生力の低下について」 『季刊家族経済研究』 第47号, pp.13-19.
- ディルク J・ヴァン・デ・カー (van de Kaa, 2002; 福田亘訳) 「先進諸国における「第二の人口転換」」 『人口問題研究』 第58卷第1号, pp.22-56.

## 韓国と日本の極低出生力

鈴木 透

1990年代に入り、南欧、中東欧、旧ソ連圏では、TFR（合計出生率）が1.3以下となる極低出生力を記録する国が多く現れた。さらに東アジアでも、韓国で2001年の合計出生率が1.30となって極低出生力状態に入り、日本も間もなくこの水準に到ると考えられる。本稿では韓国と日本の出生力と関連要因をヨーロッパの極低出生力国と比較し、東アジア的な特徴を探る。

日本のTFRは1950年代、韓国のTFRは1970年代に急激に低下し、置換水準を下回るに到った。しかし置換水準から極低出生力に到達するまでの変化は遅く、特に東欧・旧ソ連圏との差は著しい。2000年時点での日韓の平均出生年齢は29歳以上で南欧同様高く、従って30代以降の取り戻しによって出生率が大幅に回復することは期待し難い。ただし韓国のTFRにおけるテンポ歪曲は、日本よりは大きいと考えられる。韓国の晩婚化と離婚率上昇は1997年のIMF危機後に顕著であり、経済危機が労働市場の状況と若年層の将来に対する予期を劇的に変えたとされる。韓国の人口学者による分析では、年齢別有配偶出生率を用いたTFR低下の要因分解が散見される。この方法は誤っており、おそらく日本と同様に、結婚力低下と結婚出生力低下がともに作用していると思われる。

ヨーロッパの極低出生力国の特徴のひとつに、同棲・婚外出生の少なさが挙げられるが、日本の同棲・婚外出生は南ヨーロッパと比較しても格段に少なく、韓国も南欧の水準に達しているとは思えない。別の特徴として成人移行遅滞があるが、日本人女子の離家は北西欧に比べると遅い。さらに日韓では女子労働力割合のM字型年齢パターンが明瞭で、母親の就業と出産育児の両立に困難が多いことを示している。

極低出生力国とそれ以外の北西欧や英語圏先進国を対置した場合、例外的で説明を要するのは後者であり、極低出生力は脱物質主義時代における社会経済的変動への自然な反応と見られる。北西欧や英語圏先進国における個人主義、弱い家族紐帯、結婚前離家の多さといった社会・文化的特徴が極低出生力を予防する一方、そうした特徴を持たない国では同棲・婚外出生が増えず、成人移行遅滞が進み、就業と出産育児の両立が難しいため極低出生力にならざるを得ない。そして北西欧との差異は、南欧や中東欧よりも東アジアとの間で大きいことが予想される。

日本で行われて来た政策的努力は、出生力低下を防ぐほど十分に有効ではなかった。同棲と婚外出生の増加が極めて遅いことから、日本の出生力が近い将来北西欧の緩低出生力水準まで回復するとは考え難い。韓国の極めて急激な出生力低下に対し政策的対応は遅れているが、今後は東アジアにおける極低出生力の先頭走者として、より急進的な政策を模索する必要がある。