Theoretical Explanations of Rapid Fertility Decline in Korea

Doo-Sub Kim

Abstract

This paper develops theoretical explanations for the causal mechanisms of fertility decline in Korea. Fertility transition in Korea is divided into two stages: the first fertility transition from 1960 to 1985 and the second fertility transition from 1985 to the present. Theoretical explanations of why and how Korea has passed through the first and the second fertility transition are provided. The main objective is to highlight the causal mechanisms of the second fertility transition, and to compare those of the first fertility transition. Key forces behind the recent fertility decline including labor market insecurity, family formation and gender equity orientation are emphasized. In this paper, attention is also given to driving plausible recommendations for pro-natal policy directions and responses to recent situations of the lowest-low fertility.

Key Words: Korean fertility, fertility transition, second fertility transition, causal mechanisms of fertility decline, pro-nat

1. Introduction

Korean society has experienced a drastic decline in the level of fertility since the early 1960s, and reached a total fertility rate (TFR) of 1.19 in 2003, the lowest level in the world. Indeed, the fertility decline during the past decade has been more remarkable, in terms of speed and magnitude, than most demographers forecasted. Until the mid 1980s, the theory that the demographic transition of Korean society would come to an end and a new period of stability would begin was widely accepted. However, we are now expecting to witness a radical pace of population decline in the near future, and will have to tackle its profound and pervasive consequences.

During the past two decades, the spread of below-replacement fertility has occurred at a rapid pace worldwide (Kohler et al., 2002; Van de Kaa, 2003; Atoh et al., 2004). Arguments that fertility levels may stabilize at around replacement level have become difficult to accept. While demographic transition theory has been widely accepted as a generalized description of the evolution of the demographic process, serious questions as to its explanatory and predictive value can be raised. There has been a great degree of evolutionary pluralism and dissimilarities as well as similarities in the determinants and paths of demographic transition. To establish the general validity of demographic transition theory, a satisfactory framework and knowledge at the country level is needed. In particular, a crucial area for reformulation appears to be the need for an

explanation of the recent transition to lowest-low fertility levels.

Table 1. Demographic Transition and Related Factors in Korea

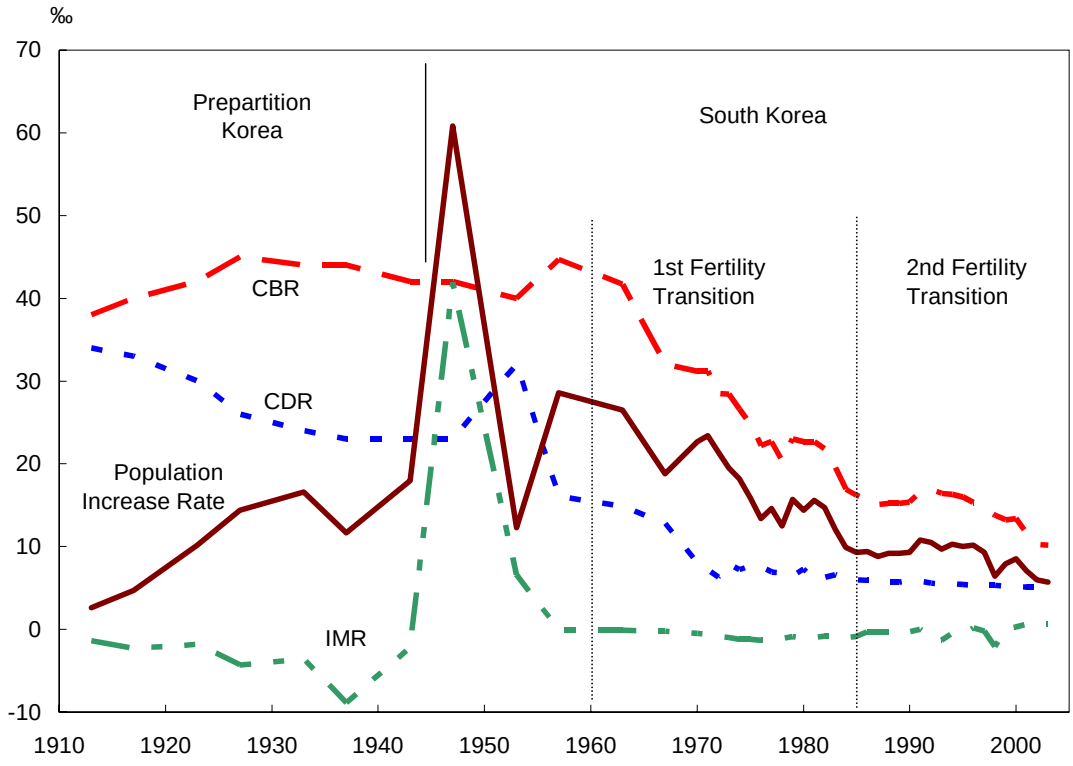
Stage	Period	Population Growth	Fertility	Mortality	International Migration	Political and Socioeconomic Factors
Traditional stage	-1910	Very low and stable increase	High	High with fluctuation	Negligible	Typical agrarian society/ Mortality fluctuated due to famine, epidemics and war
Early transitional stage	1910-1945	Rapid increase	High	Mortality transition	Massive emigration of farmers to Manchuria and Japan	Japanese colonial rule/ Introduction of medical facilities and medicine
Chaotic stage	1945-1960	Rapid increase except for the period 1949-1955	High	Medium but high mortality from 1949-1955	Massive influx from Manchuria and Japan/ Refugees from North Korea during the War	Liberation, partition of the country, the Korean War, social turmoil, economic hardship
Late transitional stage	1960-1985	Continued decline in growth rate	First fertility transition	Continued decline	Slight increase in emigration after 1970	Modernization, economic development, urbanization, family planning programs
Post-transitional stage	1985-Present	Further decline in growth rate with negative growth potential	Second fertility transition to under-replacement level	Further substantial decline	Maintained low level	Social development, globalization, expansion of education, changes in lifestyle, gender equity, medical insurance

Source: Kim (2004).

The underlying assumption of demographic transition theory is that economic development, industrialization, urbanization, and changes in social values and norms are preconditions to fertility transition (Notestein, 1953; Caldwell, 1982; Srikantan, 1982). Other factors to be emphasized as determinants of fertility transition are mortality decline and migration. Despite some disagreement about the causality between the two, the onset of mortality decline is generally regarded as the starting point in the analysis of fertility

transition (Nerlove and Schultz, 1970; Schultz, 1973; Gregory and Campbell, 1976; Mauldin and Berelson, 1978). Migration is also taken to be a determinant of the timing of fertility transition. Urbanward migration tends to reduce population pressure in rural areas and delays the onset of fertility decline. In urban areas, however, massive migration is likely to set up the conditions for fertility reduction and expedites the pace of the transition (Friedlander, 1969; Mosher, 1980a). A third set of arguments centers on the roles attributed to the diffusion of western technology. The principal force accounting for fertility decline in developing countries has been family planning programs with financial and technological help from international organizations.

Figure 1. Demographic Transition and Its Components in Korea, 1910-2003

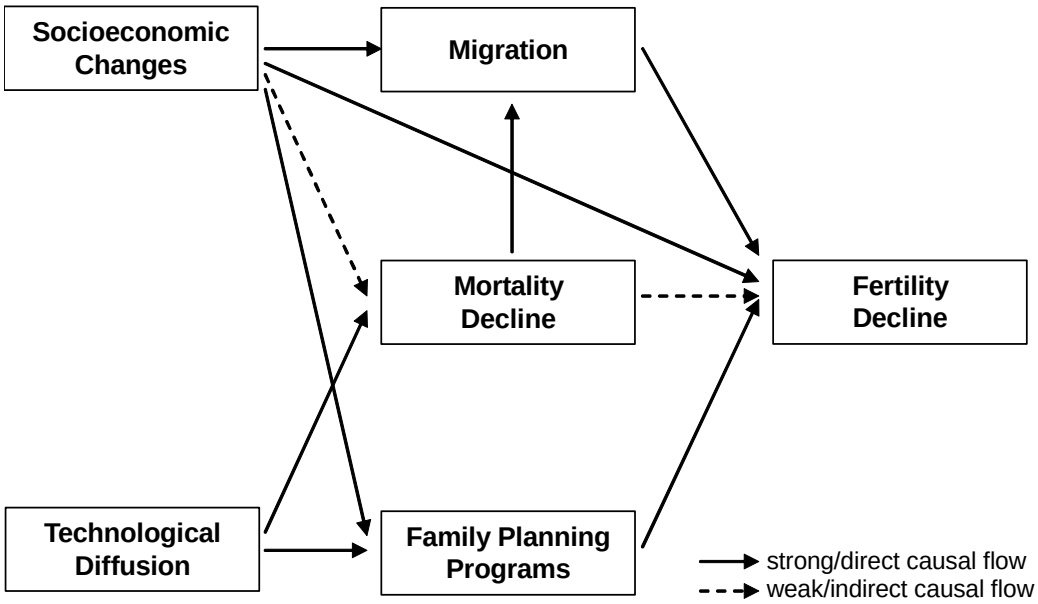


Source: Kim (2004); KNSO (2004).

This paper adopted the concept of second fertility transition to explain the recent decline in Korean fertility to below-replacement levels.[1] Unlike the first fertility transition, the second fertility transition is not intimately connected with mortality and migration, but is more concerned with values and attitudes (McDonald, 2000; Van de Kaa, 2004). It is argued that a profound shift in values and attitudes regarding marriage, lifestyle choice, parenthood and gender revolution is the driving force behind the dramatic changes in the fertility behavior of Koreans.

In this paper, fertility transition in Korea is divided into two stages: the first fertility transition from 1960 to 1985 and the second fertility transition from 1985 to the present. The main objective is to highlight the causal mechanisms of the second fertility transition, and to compare those of the first fertility transition in the 1960s and the 1970s. Key forces behind the recent fertility decline including labor market insecurity, family formation and gender equity orientation are emphasized.

Figure 2. Causal Mechanisms of the First Fertility Transition in Korea



Source: Kim (2004).

This paper identifies the five stages of demographic transition on the Korean Peninsula according to levels of fertility, mortality and migration. A brief review of the history of the Korean demographic transition is provided in Table 1. Trends in the population increase rate and its components are also presented in Figure 1. Of interest are the questions of why and how Korea has passed through the fertility transition since the 1960s. In this paper, attention is also given to addressing the implications for Korea's policy directions and responses to the recent demographic situation.

2. Causal Mechanisms of the First Fertility Transition

1) Determinants of the Onset of Fertility Decline

The proposed explanations of the onset of fertility transition in the 1960s stem from the threshold hypothesis and Davis' theory of demographic change and response. The basic arguments are that fertility decline is triggered when one or more associated conditions reach

certain threshold values, and that people under heavy population pressure tend to use every demographic means possible to maximize their new opportunities (Davis, 1963). Figure 2 presents the key concepts and the causal mechanisms of the first fertility transition in Korea.

The proposed model in Figure 2 is intended to explain the movement of fertility rates from 1910 to 1985 in Korea. During the early period of modernization (1910-1945) under Japanese colonial rule, declining death rates and sustained birth rates resulted in a rapid natural increase. The dominant rural demographic response was migration to urban areas as well as Manchuria and Japan rather than marital fertility control. In the early transitional stage (1910-1945), early marriage continued to prevail, and fertility remained at a high level (Kwon et al., 1975; Kim, 1987b).

Despite political and socioeconomic turmoil, fertility continued to be stable at a high level in the chaotic stage (1945-1960) in Korea. Figure 1 discloses a mild downward pattern of the crude birth rate (CBR) from 1945 to 1955, but the trend was reversed by the post-war baby boom in the late 1950s. It was not until the early 1960s, approximately half a century after the initiation of mortality reduction that substantial marital fertility declines occurred.

Korea achieved a relatively low level of infant mortality and a high level of educational achievement in the early 1960s. Income, female labor force participation, and all other development indicators also rose steadily throughout the subsequent period. Even before the launch of the national family planning programs in 1962, induced abortion was widespread in urban areas as a method of birth control, and women's age at marriage continued to rise (Kwon and Kim, 2002). This implies that socioeconomic conditions were favorable for shifts from “natural fertility” to “controlled fertility,” and that Koreans were fairly ready to accept and practice contraception.

In the early 1960s, Koreans did not have many alternatives other than marital fertility control as far as demographic responses were concerned. Emigration outlets were no longer available after the end of the Korean War, and remaining single has never been culturally supported in Korea. In this context, the family planning programs played an important role in triggering the onset of the fertility transition. From its initiation in 1962, the family planning program organized by the Korean government has been successful in providing contraceptives. The program also introduced financial, legal and other disincentives to childbearing.

Undoubtedly, pervasive socioeconomic changes in the late 1960s and 1970s have played an important reinforcing role in the fertility decline. In particular, urban-industrial expansion has altered the utility and costs of children in ways well described by many microeconomists (Leibenstein, 1957, 1975; Becker, 1960; Freedman, 1963; Mincer, 1963; Easterlin, 1969, 1975; Willis, 1973; Andorka, 1978). The high costs of children provoked low fertility-oriented norms, values and attitudes. Along with these developments, the transformation of family structure to the

nuclear family and the westernization of attitudes have altered perceptions of women's roles and loosened traditional controls on young women. Women in the nuclear family were more likely to be relieved from pressure by the elderly, and thus were able to exercise control over their family size. High expectations of upward mobility as well as fears of social slippage in the process of these changes resulted in a rapid decline of fertility unprecedented in other countries.

Rising age at marriage, increase in induced abortion, and diffusion of contraception were three major factors causing the first fertility transition in Korea. Rising age at marriage and an increasing number of induced abortions were the most important factors causing fertility decline in the early 1960s. The mean age of women at first marriage (SMAM) was 22.9 years in 1966 indicating an increase of 6.3 years since 1925 (Kim, 1987b). The relative importance of age at marriage and induced abortion has been substantially reduced since the second half of the 1960s. Contraceptives were introduced in the early 1960s through the family planning program, and were mainly used by women of a late reproductive age who already had a sufficient number of children. Contraception, therefore, contributed relatively little to fertility decline during the first half of the 1960s. However, the diffusion of contraception has been the factor most responsible for changes in the level of fertility since the second half of the 1960s (Kwon, 1981; Kim, 1987a, 1992).

2) Roles of Mortality and Migration in the Decline of Fertility

To provide a broader basis for the reformulation of demographic transition theory, the nature of the relationship between mortality decline and the onset of fertility transition needs further discussion. One of the major controversies is whether the decline in mortality preceded the decline in fertility, and whether any causal relationship exists between the two declines.

Unlike the situation in western countries, socioeconomic changes exercised little direct impact on the mortality reductions in Korea. Industrial development in the colonial days was based on the exploitation of Korean labor and was achieved at the cost of deteriorating living conditions for the Korean population (Kwon et al., 1975: 24). With very slow restoration after the Korean War, economic conditions were not favorable for controlling mortality. Mortality decline during the colonial period and the post-war years appears to be less related to socioeconomic development or the rising standard of living of the population. This

suggests that the introduction and dissemination of health and medical systems as well as new medicines contributed most significantly to mortality decline in Korea.

Ware (1972) argued that there is a threshold level of mortality above which fertility decline does not occur. Based on the equilibrium model, demographic transition theory states that mortality declines first, followed by reduced fertility. However, several

empirical studies found that a decline in mortality does not always precede a decline in fertility (Goldscheider, 1971; Ware, 1972; Coale, 1974). The question is whether mortality declined in Korea before fertility started to decline.

It is clear in Figure 1 that the mortality decline in Korea, brought about by the introduction of western techniques for controlling epidemic diseases, preceded the decline in fertility. However, it is difficult to produce a good example of a positive temporal association in the amount of declines in mortality and fertility. In contrast, there have been some counter-examples. When mortality was declining from 1910 to 1925, fertility increased due to improved health conditions. A similar pattern is also observed in the late 1950s.

To conclude, a prior improvement in adult or infant mortality does not appear to have been a major factor encouraging parents to restrict their fertility. The causal connection between mortality and fertility in the course of the Korean demographic transition seems to be tenuous and spurious. If there is a connection between the two, it is likely to be an indirect one. Alternatively, it can be argued that mortality and fertility have been associated with each other rather than being causally linked.

In the original formulation of demographic transitional theory, migration was treated as an exogenous variable along with industrialization and urbanization. Davis (1963) introduced migration into his theory of demographic change and response as an important determinant of demographic transition. The main responses for people, faced with persistent population pressure, were listed to be remaining single, delayed marriage, contraceptive use, abortion, and internal or international migration. Among them, migration is considered to be more efficient and to have more rapid results. It can also be argued that out-migration is a short-term safety valve relieving population pressure and delaying the onset of fertility decline (Goldscheider, 1981). Empirical studies indicate that the timing and rate of fertility decline correlate negatively with out-migration opportunities (Friedlander, 1969; Mosher, 1980a, 1980b).

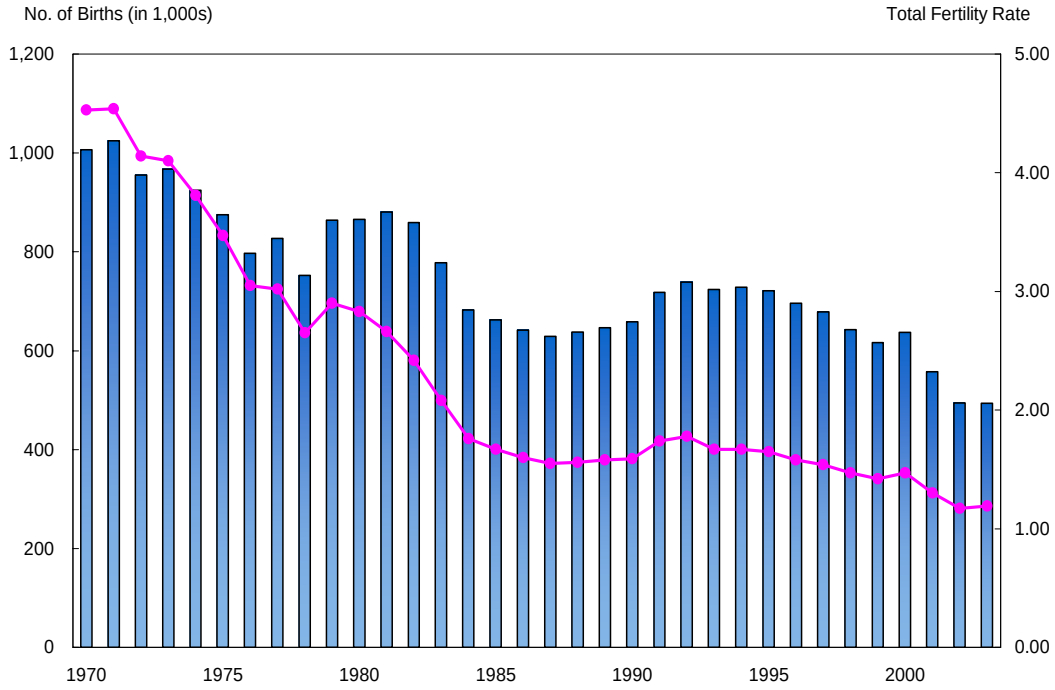
The role of migration in Korea's fertility transition can be considered as a substitute process in the short-run and as part of the multiphasic responses in the long-run. It is clear that the massive emigration of farmers to Manchuria and Japan from 1925 to 1944 retarded the onset of fertility transition. If out-migration outlets had not been available, the Korean population might have been forced to reduce its natural increase through delaying marriage, abortions, and/or marital fertility controls.

The timing and pace of the fertility transition in Korea have also been influenced by internal migration. During the colonial period from 1925 to 1944, the urban population increased from 3.2 to 11.7 percent of the total population, and the number of cities grew from 12 to 21. By transferring a large segment of the population out of rural areas that were faced

with a high population growth rate, rural-urban migration during the colonial period reduced population pressure considerably and retarded the initiation of fertility reduction.

In contrast, massive rural-urban migration since the mid 1960s has expedited the pace of the fertility transition. It is generally agreed that those who migrate to urban areas have lower fertility than those who remain behind (Goldstein and Tirasawat, 1977). Migrants are more prone or receptive to change processes, and in the process of moving, are likely to accept low-fertility oriented norms and attitudes. It is also argued that migration creates the conditions necessary for fertility reduction, as it affects the role and status of women (Goldscheider, 1981).

Figure 3. Trends in the Number of Births and Total Fertility Rate in Korea, 1970-2003



Source: KNSO (2004).

3. Causal Mechanisms of the Second Fertility Transition

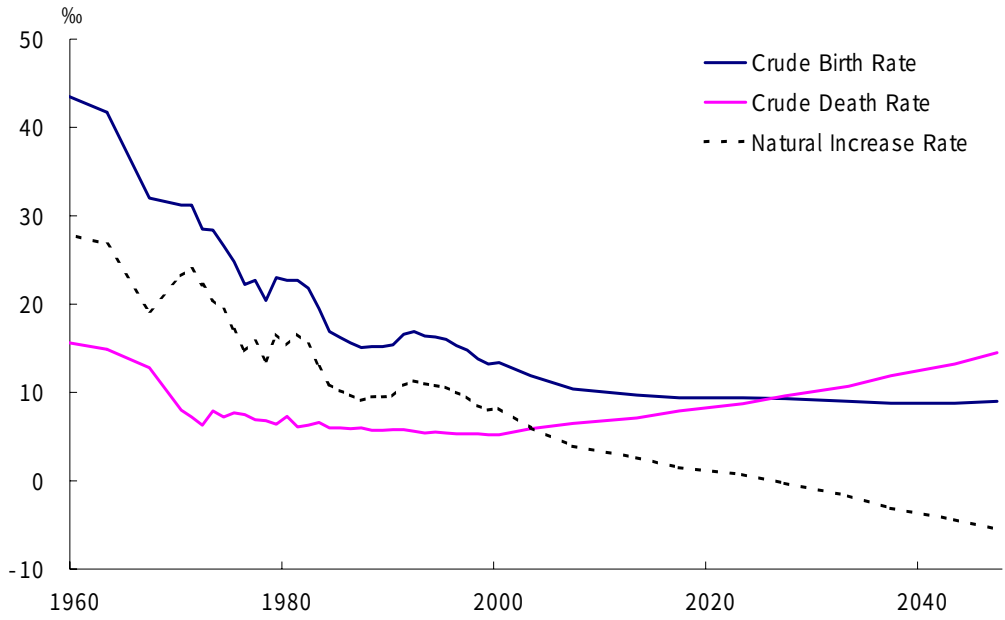
1) A New Model for Fertility Decline since the Mid 1980s

The mid 1980s can be recorded as an important turning point in the history of Korean demography. Korea has witnessed a continued decline in the level of fertility, even though a slight upturn was noticed in the early 1990s. Since then, the fertility transition has recently continued to accelerate. Despite traditional cultural factors such as strong son preference, motivations for small families arose and spread widely over the course of rapid industrialization and urbanization (Kwon and Kim, 2002).

Figure 3 shows that Korea achieved the

replacement level of fertility in 1983. Since then, the TFR has continued to decline rapidly. Various indicators reveal that the pace of fertility decline in Korea is even faster than in Japan (Suzuki, 2003). Current fertility is now far lower than the replacement level. The CBR and the TFR were estimated to be as low as 10.2 and 1.19, respectively, in 2003. The annual growth rate of the population was estimated at 5.7 per thousand in 2003, as low as those of developed countries. Under the current age structure, as shown in Figure 4, it is projected that Korea will experience population decline from the early 2020s (KNSO, 2004).

Figure 4. Crude Birth Rate, Crude Death Rate and Natural Increase Rate in Korea, 1960-2050



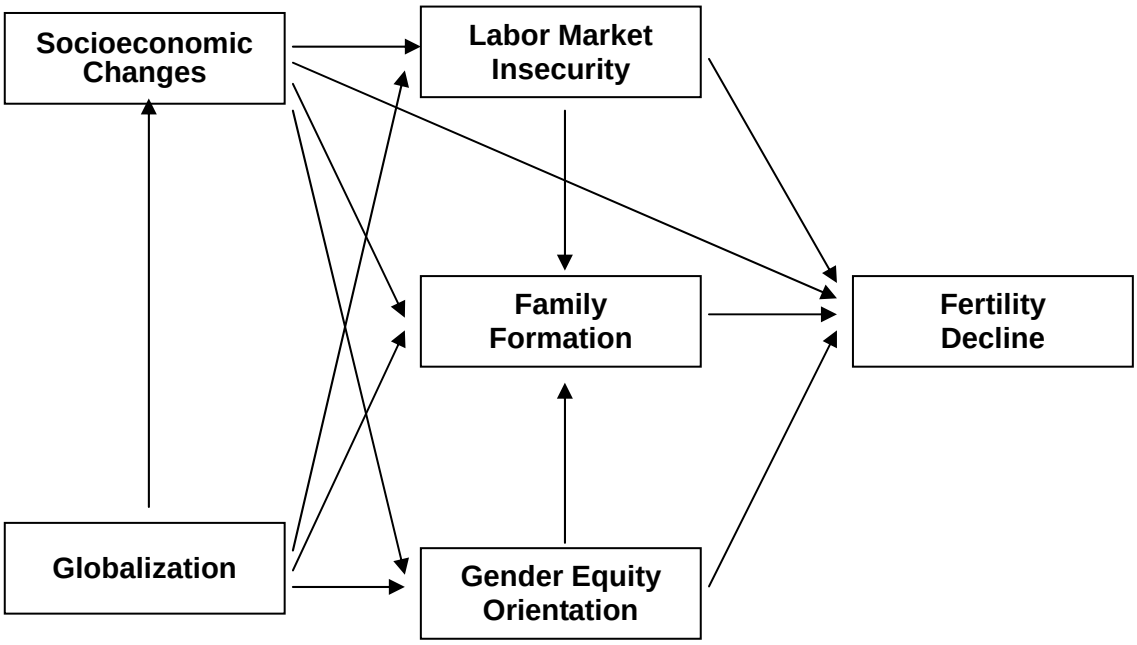
Source: For 1960-2000: KNSO (2004); for 2005-2050: United Nations (2002).

Coale and Watkins (1986) suggested that a ten percent fall in fertility can be set as the criterion for the onset of fertility transition. The speed and magnitude of the fertility decline in Korea since the mid 1980s have been remarkable enough to satisfy the above criterion. It is also evident that the dynamics of the fertility decline in Korea since the mid 1980s are different from those of the fertility transition in the 1960s and the 1970s. Based on these observations, we now discuss the theoretical implications of the second fertility transition since the mid 1980s. Figure 5 presents the key concepts and the causal mechanisms of the second fertility transition, which is substantially different from those in Figure 2.

A prominent factor to be emphasized as exogenous determinants of fertility decline in Figure 5 is socioeconomic changes. Without a

doubt, socioeconomic change is one of the prominent conditions and underlying forces for fertility decline. Arguing for the importance of values and attitudes in recent fertility decline does not mean that contextual factors are not important. Values and attitudes do not operate in a societal vacuum, but depend on the socioeconomic, political and demographic contexts of society. When socioeconomic change results in the decline of kin dominance over economic resources and affects social values and attitudes including the role and status of women, it creates the conditions necessary for fertility decline. It is postulated that recent socioeconomic transformation and its accompanying changes in labor market, family formation, and gender equity orientation are the major underlying forces for the rapid decline of fertility since the mid 1980s.

Figure 5. Causal Mechanisms of the Second Fertility Transition in Korea



The second set of arguments focuses on the effects of globalization. A tide of globalization and the movement of capital and people around the world have influenced population dynamics through effects on economic restructuring, job opportunities, spread of medical technology, women's status, value orientation, and other conditions that affect fertility, mortality and migration. Globalization is therefore a broader concept compared to the concept of technological diffusion appearing in Figure 2. It is generally agreed that the global spread of family planning technology played a key role in the fertility transition in the 1960s and 1970s. Unlike the situation in the 1960s, government-organized family planning efforts in the 1980s were not as strong as before, and were not substantially responsible for the continued decline of fertility to way below the replacement level.

In the proposed model in Figure 5, the recent fertility decline in the 1980s is hypothesized as a joint product of three factors: an unfavorable labor market due to a poor economy, change in timing and magnitude of family formation, and gender equity orientation. Considering that the Korean population can be regarded as an almost "closed population" (Kim, 2004), and that there has been a slowdown in the pace of urbanization since the mid 1980s, migration is not included in this conceptual model. It is also noteworthy that, in Figure 5, mortality decline is not emphasized as a determinant of recent decline of fertility. With an improved life expectancy of 65.9 and 72.7 years respectively for men and women, by the mid 1980s, mortality rates have been approaching the low level found in western countries, and did not play a major role in recent reductions in fertility.

2) Effects of Labor Market Insecurity on Fertility Decline

Various theories have been advanced in the past regarding the reasons for fertility differentials based on economic status or income. Interest in the effect of income on fertility is not recent. Malthus believed that an increase in income induces people to marry earlier and abstain less while married, and, thus, leads to higher fertility (cited in Becker, 1960: 212). Beginning in the early 1960s, many economists have tried to analyze the demand for children based on family income from a purely microeconomic perspective, in which children are considered as a type of consumption goods (Leibenstein, 1957, 1975; Becker, 1960; Freedman, 1963; Mincer, 1963; Willis, 1973; Easterlin, 1969, 1975; Andorka, 1978).

Becker (1960) maintains that the negative relationship between income and fertility, found in many empirical studies, is partly due to the negative association between income and contraceptive knowledge: when contraceptive knowledge is controlled, a positive relationship between income and fertility appears. Many other economists also argue that income, other things being equal, is positively related with fertility (Namboodiri, 1970).

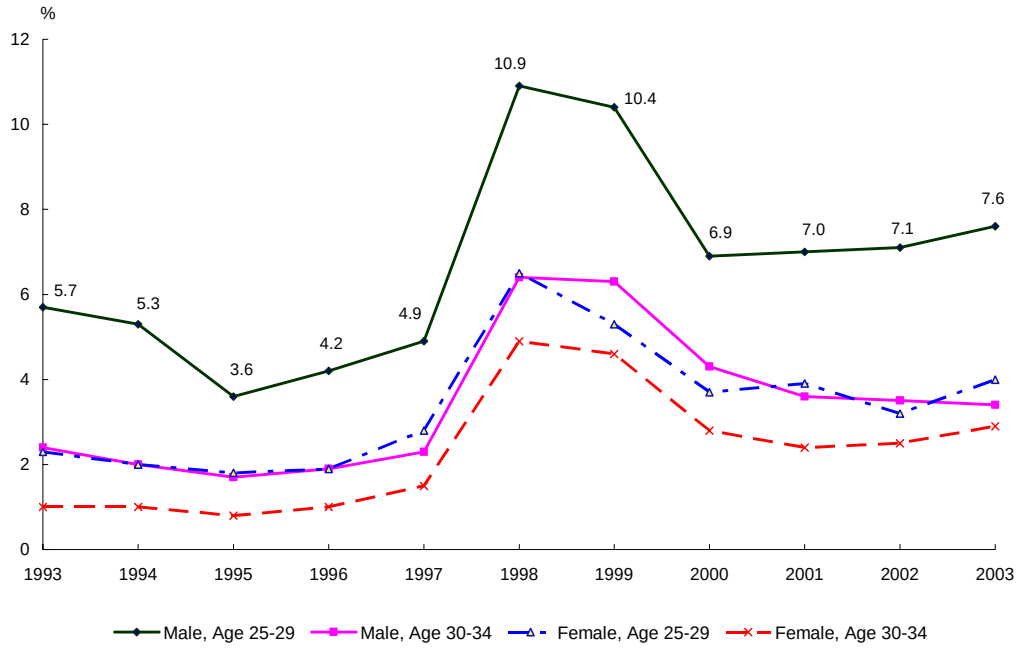
Various results have been found in empirical studies that attempt to relate income to fertility at the micro and macro level. After reviewing income differentials in fertility in Western countries, Wrong (1958: 224) concluded as follows:

> three different types of relation between fertility and income represent different stages in a process of transition from the inverse pattern. The 'straight line' inverse pattern yields first to a reverse J-shaped curve which is then succeeded by a U-shaped pattern. A final equilibrium, characterized either by the emergence of a positive relation between fertility and status may ultimately be attained in relatively stationary populations with uniformly low birth- and death-rates.

Similarly, using U.S. and Korean data, Kim (1987a) found a cubic relationship, that is, socioeconomic status has positive effects on fertility at a low socioeconomic level, but as socioeconomic status rises, the relationship becomes negative. For the highest

socioeconomic group, however, the relationship becomes positive. Based on the results from his comparative analysis, Kim (1987a) argued that the cubic relationship between socioeconomic status and fertility can be generalized across the development level of countries, and that socioeconomic differentials in the more and less developed countries as a whole are following such a process of evolution.

Figure 6. Trends in Unemployment Rates by Sex and Age, 1993-2003



Source: OECD (2004).

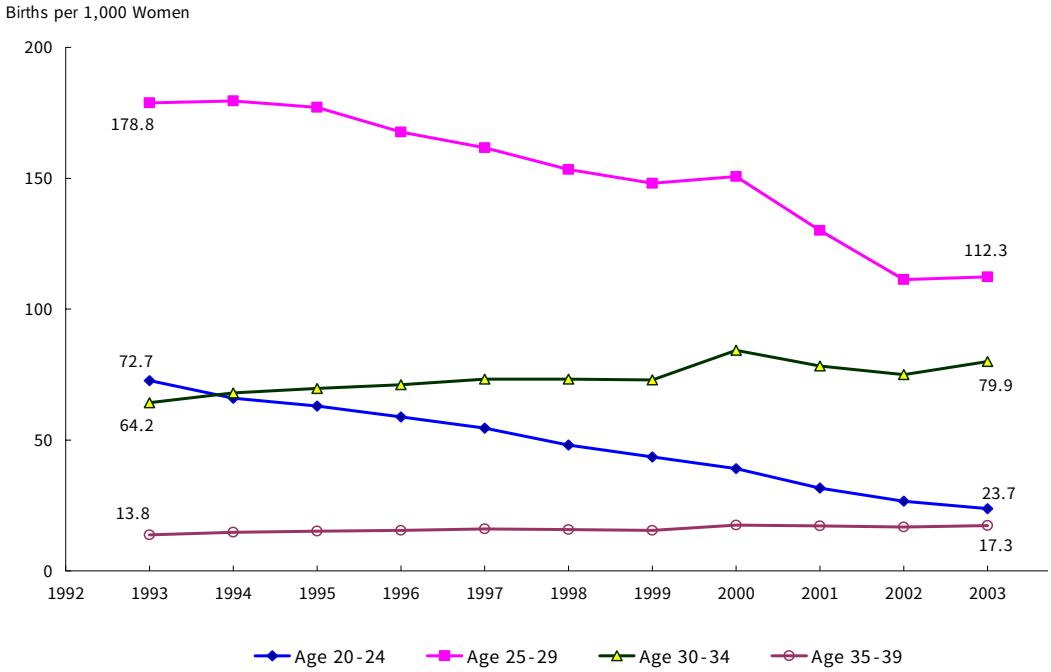
It is postulated in this paper that the relationship between economic conditions of family and fertility reverses itself from a negative to a positive one in societies with extremely low fertility. This leads to conjecture that globalization and labor market deregulation after the Asian economic crisis are responsible for the fertility decline in Korea. During the past several decades, the world has been swept along by tides of globalization with the spirit of new liberalism. Globalization, characterized by free trade and free flows of capital and labor across international boundaries, resulted in labor market deregulation and increasing insecurity in the labor market in many countries.

Since the mid 1990s, in Korea, employment has become much less secure for young people at the ages of career formation and marriage as well as for those in their late thirties and early forties. Labor market insecurity due to a remarkable increase in unemployment, layoffs, and part-time and temporary jobs has played a decisive role in delaying marriage and widening the birth interval, and thus has had flow-over effects on

the decline of recent fertility in Korea.[2] As Davis (1963) argued, fear of relative deprivation, rather than the threat of famine or absolute deprivation, is a subjective stimulus to limiting fertility. By creating fears of social slippage, labor market insecurity and high unemployment associated with the poor economy gave rise to declining fertility in Korea since the mid 1990s.

Figure 6 shows that the unemployment rate for men aged 25-29 rose from 4.9 percent to 10.9 percent between 1997 and 1998. Similar patterns are found for women at counterpart age groups as well as for men aged 30-34. Despite its downfall since 1999, the level of the unemployment rate has turned out to be still higher than the pre-crisis rate. Other statistics on wages, part-time work, layoffs and other conditions of the labor market also show that Korea has not recovered from the economic crises (KNSO, 2004). It is rather widely agreed that the security of the labor market has deteriorated in recent years. This explains the sharp falls in fertility rates for those aged 20-24 and 25-29, the prime ages of entry to the labor market. However, it is interesting to note that the fertility rates for those in their thirties show a slightly increasing pattern in Figure 7.

Figure 7. Trends in Age-Specific Fertility Rates, 1993-2003



Source: KNSO (2004).

Economic hardship due to labor market insecurity or high unemployment since the 1997 economic crisis does not appear to be the only factor explaining the recent decline of fertility in Korea. Korea has experienced a continued decline of fertility for many years

and reached way below the replacement level even before the economic crisis. This paper introduces the concepts of family formation and gender equity orientation as key factors behind the continuing decline of fertility after the mid 1980s.

3) Family Formation and Dissolution as an Intermediate Variable of Fertility

There are clear connections to be made between fertility trends and trends in family formation. In Figure 5, family formation is introduced as an intermediate variable, and refers to delay of marriage, a decreasing proportion of those married and an increasing incidence of divorce.[3] It is hypothesized that globalization, socioeconomic changes, insecurity in the labor market, and gender equity orientation influence the timing and magnitude of family formation which in turn, affects fertility decline. It is also postulated in this paper that, without changes in age at marriage and proportion of those married, there are not many paths through which globalization affects the level of fertility.

Since the mid 1990s, high unemployment due to insecurity in the labor market has led to serious economic hardship for the Korean people in terms of earnings, job opportunities and career stability. As the notion of jobs for life and progression through seniority has gone, a sense of insecurity and risk has been exacerbated. The immediate result for young people was a delay in initial family formation and timing of first birth.

An increase in age at marriage played a dominant role in the decline of the CBR and the TFR between 1960 and 1985, although its relative importance was reduced in the late 1960s and early 1970s (Kim, 1992, 2004). However, evidence shows that the contribution of rising age at marriage to the decline of fertility has been increasing since the mid 1990s (Eun, 2003; Jun, 2004). The mean age at first marriage was 30.1 and 27.3 years, for men and women respectively in 2003 indicating an increase of 2.0 years for men and 2.2 years for women since 1993. The mean age of women at first birth also rose from 26.3 years in 1993 to 28.6 years in 2003 (KNSO, 2004).

Marriage composition is also regarded as an important intermediate variable of reproduction. The proportion of married tends to decline as age at marriage rises. According to the 1985 census, 79.6 percent and 91.4 percent of men and women aged 30-34 respectively were married. At the turn of the twenty-first century, the proportion of those married has dropped to 70.6 percent and 86.9 percent respectively.

Decrease in the proportion of those married has been a significant factor behind the recent decline of fertility in Korea. It is suggested that the lack of stable jobs for young men has been an important reason for remaining single since the mid 1990s. Decreasing confidence about their future employment prospects has kept young people from their entry to marriage and reproduction. For women, increased opportunities in education and paid employment also have contributed substantially to the decrease in the

proportion married.

Marital composition is also affected by marriage dissolution. Recent findings suggest that changing value orientations of family and economic hardship resulted in an increasing incidence of divorce. This is particularly true after 1990. The crude divorce rate had risen steadily from 0.4 in 1970 to 1.1 in 1990. The increasing pace of the crude divorce rate jumped remarkably after that, and reached 3.5 in 2003.

Without a doubt, decreased family formation and increased family dissolution have been key factors of recent fertility decline. Results from decomposition analyses of changes in the TFR show that the effects of changes in marital composition and age at marriage on shaping the tempo of fertility decline turn out to be much greater after 1990, compared to the period of 1960 to 1985. It is also found that the increasing incidence of divorce also contributed to the fertility decline after 1990, while its impact was not substantial in the period of the first fertility transition (Kim, 1992; Jun, 2004).

4) Gender Equity Orientation and Fertility Decline

The basic idea about the second demographic transition is that fertility decline has been driven by growth of values and attitudes regarding individual self-realization, satisfaction of personal preferences and freedom from traditional forces of authority (McDonald, 2002). In particular, the gender explanation of low fertility has received attention in recent studies (Chenais, 1998; Tsuya, 2000; McDonald, 2000, 2002).

Korea has experienced substantial improvements in gender equity during the past two decades.[4] However, as McDonald (2000) indicates, rigidly differentiated sex roles for childrearing still prevail inside the family. Little or no provisions are made for women to increase compatibility between working and childrearing. Young Korean women are well aware that their career and self-realization will have to be compromised once they get married and have a baby. Therefore, there has been a tendency among young Korean women to consider marriage as a compromisable “option” rather than a “mandatory” process in the course of their life. More and more young women with high education and economic capability for self-support tend to postpone or avoid it. A similar explanation can be applied to the very low fertility of Japan and the Southern European countries including Italy, where strong family systems are maintained.

It is postulated in this paper that recent trends in family formation and dissolution, contributing to extremely low fertility, have been very much influenced by gender equity orientation. It is also hypothesized that gender equity orientation also affects marital fertility, and that the motivations for small family would be stronger for women with a gender equity orientation. Young couples are now less likely than the older generation to accept the ideology of patriarchy and traditional gender roles and, as a result, their attitudinal and behavioral expressions of the desired number of children

and son preference are getting lower than ever. Consequently, increasing trends in gender equity in education and market employment, and extended control over childbearing by women are responsible for the fertility decline from low levels to very low levels during the past two decades in Korea.

Another distinctive feature of fertility related to the value orientation of Koreans is the emergence and gradual disappearance of son-selective reproductive behavior since the mid 1980s. There is little doubt that motivations for sex-selective reproductive behavior stem from strong son preference along with gender discrimination against women. The risk and insecurity that patriarchy imposes on women represents a powerful systematic incentive for sons. To accommodate a strong son preference and low fertility at the same time, sex ratio at birth rose remarkably in the second half of the 1980s and the early 1990s. As the tide of gender equity orientation is prevailing recently, young couples are less likely to be motivated strongly for son-selective reproductive behavior.

Son preference also plays an important role in determining family size. It has been pointed out that strong son preference might provide a serious barrier to the attainment of low fertility (Lee, 1982; Park, 1983; Arnold, 1985; Arnold and Liu, 1986). However, this concern has proven to be groundless. Results from simulations indicate that son-selective reproductive behaviors raise sex ratio at birth, and, at the same time, play a role in lowering the level of fertility (Kim, 2003). Despite strong son preference, Korea has achieved extremely low fertility, as have a number of East Asian countries such as China, Taiwan, and Hong Kong (United Nations, 2002).

4. Implications for Policy Directions in Korea

1) Two Policy Directions

Although Korea is projected to experience population decline from the early 2020s, the likelihood and degree of further decline in fertility is a matter of some controversy. Many demographers predict the perpetuation of the lowest-low fertility in the coming decades. Based on the fact that the desired number of children has been around 2, others hold the view that the current level of fertility is a transitory phenomenon. This paper does not claim to be exhaustive concerning the prospects of fertility development, or the premise that lowest-low fertility is not desirable for Korean society. It rather intends to highlight some of the policy directions and to drive some policy implications from the analysis of causal mechanisms of fertility transitions.

The twenty-first century is expected to witness even more rapid population aging in Korea than the previous century. The speed of the aging process is mainly determined by the steepness of the fertility decline. Therefore, a major policy option for an aging society with a declining population is to include programs to raise the fertility level. Other possible measures to cope with the labor shortage are to better utilize the female labor force, and to accept foreign workers. Finally, population policy

responses also comprise efforts to expand employment opportunities for the elderly by eliminating labor market impediments.

No single policy option alone can ameliorate the current demographic situation. The Korean government, therefore, intends to address as many of the above policy options as possible. Among them, two policy directions and related options deserve more discussion.

(1) Pro-natal Policy

In response to very low levels of fertility and the socioeconomic consequences of the resultant population aging, in 2004, the Korean government declared a shift to pro-natal policies aimed at boosting the low level of fertility and delaying the speed of aging. Rational decision-making theory implies that policies geared to raise the psychological/economic benefit thresholds or reduce the economic costs of children are likely to have a positive impact on fertility. Since the former is not amenable to policy, major policy options focus on helping families by providing child allowances, childcare leave, a childcare support system, tax exemptions based on the number of children, etc.

Another set of policy options is to consolidate women's role as mothers and workers by improving the flexibility of the labor market. A new policy direction is to improve the social status of women and gender equity, and to guarantee the involvement of fathers in childcare and rearing responsibilities. Improving the status of women and gender equity through effective programs of education, employment and mass communication in all spheres of life is also essential for the long-term eradication of son-selective reproductive behavior.

(2) Female Employment Policy

In the past several decades, there has been a steady increase in female participation in the labor force in Korea. The labor force participation rate for females has increased to 48.9 percent by 2003, up from 42.8 percent in 1980 (OECD, 2004). However, these female economic activity rates have remained at a far lower level compared to the figures of their male counterparts. A large portion of highly educated women still do not get appropriate jobs because of gender discrimination and become housewives.

In order to augment female employment, the government is currently taking stronger measures and regulations to create a more favorable working environment for women. A high priority is to provide childcare facilities for female workers as well as to eliminate gender discrimination in the workplace. More flexible working hours and short-term leave for family-related purposes could be another set of policy options for women with a baby.

2) Comments and Recommendations for Policy Directions

Now, a question could be raised. Would the above policy directions and options be effective for fertility change in Korea? Without a doubt, the policy directions mentioned above and related programs would be helpful in improving the childcare environment as a welfare policy. It is argued in this study,

however, that the above approach as a pro-natal policy will probably not be very effective.

Fertility has continued to decline recently in Japan and several European countries in spite of their governments' economic support for childcare, family-friendly workplace arrangements, and the provision of more flexible work opportunities for mothers. Empirical evidence shows that direct economic incentives are not effective in advanced countries (Gauthier and Hatzius, 1997).[5] Compared to Japan and European countries, the coverage of childcare facilities, child allowance and income tax exemption in Korea are very limited. The Korean Government's economic support for childcare is far from sufficient to reduce extremely high direct and indirect costs of childrearing substantially, and thus to have a significant influence on fertility.

In fact, most of these pro-natal policies are actually pro-rearing policies that aid couples who already have children. The meager amount of public funds that each young couple can receive cannot be compared to the staggering cost of raising a child in Korea. It should be noted that the cost of education is already the largest single expense for most Korean families with school children.

Evidence indicates that, in several European countries including France, policies increasing the compatibility of women's work and childcare may have been effective in increasing the level of fertility (Gauthier and Hatzius, 1997). However, the effectiveness of a policy depends largely on its relevance to the country's socioeconomic context. It is worth noting that the rapid pace of population aging in Korea over the coming decades is expected to force more and more women into the labor market and cause a serious drain in the public budget to support the elderly. It is thus not reasonable to assume that public transfers of resources will be enough to increase childcare facilities to a sufficient level in the years to come.

The most significant factor in the recent decline of fertility is the serious decrease in births among young people in their twenties. Therefore, the main goal of the pro-natal policy should be to motivate these young people to get married and to have children at earlier ages. The current programs should be better designed for this specific age group since evidence shows that couples in their thirties show not only a higher fertility rate compared to younger couples but also a slight rise in their fertility rate in the past decade (Figure 7).

The current government expenditure for its pro-natal policies cannot be a motivating factor for young couples who feel insecure not only about their current job situation but also about the future economy of the country. Furthermore, the government's commendable efforts to correct gender discrimination against women in workplaces will surely help women to earn higher wages and to be promoted further in their careers than they were allowed previously. However, it will not motivate career minded young women who want to enjoy financial independence and freedom from traditional childrearing responsibilities to marry early and have children. Under current

circumstances marriage and childrearing are not very attractive "options" for them.

To encourage young people to marry early and have children, the key problem of providing young workers a greater sense of job security must be solved. That means rather than spending limited public funds to support a variety of ineffective programs that does not attack the core of the low fertility crisis, the government must concentrate its resources to achieve a solid economic recovery and steady growth in which young people can be convinced to feel secure about their financial future. The clear and unequivocal success in economic recovery is the most important factor in improving the Korean fertility level. Unless economic recovery is achieved along with overall improvements in the educational system as well as men's acceptance of equal responsibilities in house keeping and childrearing, Korean fertility will continue to remain at an extremely low level and population decline will be unavoidable in the near future.

5. Summary and Concluding Remarks

This paper has tried to shed light on the principal factors that have affected the fertility transition of the Korean population and the attainment of the lowest-low fertility. The main objective has been to develop theoretical explanations of why and how Korea passed through the first fertility transition from 1960 to 1985 and the second fertility transition from 1985 to the present. It is argued in this paper that the causal mechanisms of the two transitions are different from each other. Two conceptual schemes for the first and the second fertility transitions are developed. Attention is also focused on driving plausible recommendations for Korea's policy directions and responses to recent demographic situations.

The first fertility transition was explained as a function of five factors: socioeconomic changes, technological diffusion, migration, mortality decline and family planning programs. It is widely accepted that the first fertility transition was a joint product of socioeconomic changes and family planning programs. Although the decline in mortality preceded the decline in fertility, it appears that mortality did not play a major role in triggering the onset of the first fertility transition,. It was also found that Koreans responded to population pressure by migrating, delaying marriage, and having abortions, and then, only when these options were exhausted did marital fertility sharply decline since the early 1960s.

The concept of the second fertility transition was adopted to provide explanations for the establishment of the lowest-low fertility in Korea. Socioeconomic changes, globalization and the accompanying changes in the labor market, family formation, and gender equity orientation are stressed as the major underlying forces for the second fertility transition since the mid 1980s. Unlike the conceptual model for the first fertility transition, government-organized family planning efforts, migration, and mortality decline in the 1980s are not emphasized as major determinants of the recent decline of fertility to way below the

replacement level.

Socioeconomic changes, globalization, insecurity in the labor market, and gender equity orientation have played a dominant role in the delay of initial family formation and timing of first birth. Mainly due to labor market deregulation after the Asian economic crisis, employment has become much less secure for young people at the ages of career formation and marriage. Since the mid 1990s, high unemployment due to a poor economy and an accompanying high sense of insecurity among young people have resulted in delay of marriage and a decreasing proportion of those married which in turn, have affected fertility decline. Along with changing value orientation of family, economic hardship is also responsible for an increasing incidence of divorce. It is noteworthy that the contribution of rising age at marriage to the decline of fertility has been increasing since the mid 1990s. It is also argued that increasing trends in gender equity in education and market employment, and extended control over childbearing by women are responsible for recent trends in family formation and dissolution as well as marital fertility.

The Korean government is currently taking a step further from the simple discontinuation of its population control policies to pro-natal policies encouraging more births: extending childcare leave and child allowances, increasing coordination between childrearing and the employment of women, etc. However, the pro-natal policies will probably not be very effective. The small amount of economic support for childcare and some family-friendly workplace arrangements for mothers are not likely to have a significant influence on young couples who have strong desire to maintain a reasonable standard of living in a very competitive society with high educational costs. To encourage young people to marry early and have children, a greater sense of job security along with a sure economic recovery would be more effective. Ultimately, unless overall improvements in the educational system as well as in the security of the labor market happen, Korean fertility will continue to remain at an extremely low level and population decline will be unavoidable in the near future.

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Notes

[1]The concept of “the second demographic transition” was introduced by Lesthaeghe and Van de Kaa in 1986. This paper does not intend to be exhaustive about the debate whether “the second demographic transition” is a useful research concept or only a partial regime change of “the first demographic transition” (Billari and Liefbroer, 2004; Van de Kaa, 2004; Coleman, 2004; Bernhardt, 2004). Considering that recent fertility dynamics in Korea are different from the fertility transition in the 1960s and the 1970s, this paper adopted the concept of “the second fertility transition,” and elevated it into a “transition” of the same rank as “the first

fertility transition."

[2] In Japan, worsening household economy is argued to have had a critical impact on reproductive behavior recently, leading to abortions among married women. Empirical evidence shows that Japanese couples have gone through abortions to widen birth interval even if they wanted to have one more child (Hayashi, 2004).

[3] Unlike liberal European countries and Japan, cohabitation and extramarital births do not appear to be significant factors of the second fertility transition in Korea.

[4] However, there is still a wide gender gap in access to education and employment. According to UNDP (2004), the gender-related development index (GDI) and the gender empowerment measure (GEM) are turned out to be very low in Korea.

[5] However, economic support for childcare in France and Luxemberg is argued to have led to a relatively higher fertility although the causal relationship is difficult to prove.

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Doo-Sub Kim（Professor of Sociology, Han-yang University）