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PREFACE

In December 2009, the Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat convened an Expert Group Meeting on Recent and Future Trends in Fertility at United Nations Headquarters in New York. The purpose of the meeting was to discuss recent changes in fertility trends in the major regions of the world and in selected countries as well as their determinants. Such a discussion set the stage for the consideration of a new approach to the projection of fertility in the preparation of the official United Nations population projections.

The meeting took place from 2 to 4 December 2009. Its agenda and list of participants can be found on the website of the Population Division (www.unpopulation.org). The papers prepared by experts participating in the meeting will be issued as part of the newly launched Expert Paper series available as downloadable PDF files and accessible on the Population Division website (www.unpopulation.org).

This paper focuses on the demographic and socio-economic causes of the prevalence of very low fertility among selected countries or areas in Eastern and South-Eastern Asia. The paper also discusses the policy responses of Governments to try and raise fertility and it assesses the likely prospects for a rise in fertility over the medium-term future in the countries considered.

The Expert Paper series aims at providing access to government officials, the research community, non-governmental organizations, international organizations and the general public to overviews by experts on key demographic issues. The papers included in the series will mainly be those presented at Expert Group Meetings organized by the Population Division on the different areas of its competence, including fertility, mortality, migration, urbanization and population distribution, population estimates and projections, population and development, and population policy.

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A. TRENDS IN TFR IN RECENT TIMES, LOW FERTILITY COUNTRIES OF ASIA

In the first decade of the 21st century, a number of East Asian countries have undercut the European countries characterized by "lowest-low" fertility of below TFR of 1.3 (Kohler, Billari and Ortega, 2002) (or "ultra-low fertility" because it is difficult to assess what level of fertility is truly the "lowest-low"). As can be seen from table 1, trends in fertility in some East Asian countries, which had already reached low levels by the turn of the 21st century, sank much further in the first years of the new century, reaching their lowest point in 2005 in the cases of Japan and South Korea, 2004 in the case of Singapore and 2003 in the case of Hong Kong SAR. In Taiwan, Province of China fertility continued to decline until 2008, the latest year for which figures are available. By mid-decade, fertility in these countries was among the very lowest in the world.

In most European countries, an upturn in fertility has been in evidence since around the beginning of the 21st century (see Population Reference Bureau, 2008). The number of European countries with TFR below 1.3 declined rapidly after 2003 (Goldstein and Jasilioniene, 2009, figure 2). Interestingly, though, fertility was reaching its nadir in the East Asian countries around 2004-5. Each of them except Taiwan, Province of China has since seen a modest recovery in total fertility, but only in Japan was it enough to raise it above the TFR=1.3 level. In East Asia, the recovery in TFR has been very hesitant. Whereas in Europe increases of 0.2 or 0.3 have not been uncommon, in these East Asian countries the recovery was more in the order of 0.1 (or 0.16 in the case of Hong Kong SAR).

There are other countries in the region where fertility has reached or is reaching below-replacement levels, but where sources of data for year-to-year monitoring are lacking. Prominent among these countries, of course, is China, where the level of fertility has been a subject of enormous controversy. The general consensus among Chinese demographers is that the TFR in 2000 was about 1.5 or 1.6 (Cai 2005; Retherford et al., 2005; Zhang and Zhou, 2006). Data from the annual population-change sample surveys shows TFR in a range between 1.33 and 1.44 between 2001 and 2005 (Gu, 2009, table 4.2). What now seems incontestable is that China's TFR has been below replacement level for almost two decades – since about 1990.

Thailand is another country of the region with fertility clearly below replacement level since the late 1990s. Vietnam, Myanmar and Indonesia are all low-income countries in the region where fertility has fallen to close to replacement level or possibly below in the case of Vietnam. Fertility trends in these countries give strong support to the argument that it is not necessary to reach high levels of per capita income for fertility to reach replacement level, though in the case of both Vietnam and Indonesia, economic development has been rapid, and it has been accompanied by impressive gains in social development indicators such as school enrollment ratios, movement of women into the formal sector workforce and decline in infant mortality rates.

The focus in this paper, however, will remain on the very low fertility countries of the region: Japan, South Korea, Taiwan, Province of China, Singapore, and Hong Kong, with some discussion of China. It is characteristic of the region that the TFRs of the metropolitan cities are the lowest of all, and viewed in this light, Hong Kong's fertility (hovering around a TFR of 1.0) is not especially low. The TFR in 2008 was 1.01 in Seoul, South Korea, 0.98 in Busan, South Korea, 1.09 in Tokyo, Japan and in 2000 was 0.70 in Shanghai, China and 0.87 in Beijing, China (see table 2). It is noteworthy that as early as 2000, the TFR in Bangkok, Thailand was as low as 1.16 at a time when the national figure for Thailand was 1.81. In China, the urban-rural differences in fertility have been particularly marked. In 1980, China had an urban TFR of 1.2 compared with 2.6 for rural China; by 2000, the corresponding figures were approximately 0.9 and 1.4 (Tsuya, Choe and Wang, 2009: 7).

Perhaps the slight upturn in total fertility in some of these countries since 2004-5 presages a more significant upsurge in fertility, particularly when placed in the context of the widespread upsurge in fertility in European countries since the turn of the 21st century (Goldstein and Jasilioniene, 2009), and the evidence that further development in the wealthier countries, as measured by increases in their Human Development Indices, has been correlated with a rise in their total fertility (Myrskyla, Kohler and Billari, 2009). Nevertheless, the case of the East Asian countries is not so simple. Though most of them have experienced small increases in total fertility in recent years, two countries (Japan and South Korea) turn out to be outliers in the Myrskyla et al. (2009) study, and another (Taiwan, Province of China) has shown no increase in fertility at all from its very low levels. One point to keep in mind is that it is wise to use three-year moving averages rather than single-year changes in identifying changes in fertility in this region because of the importance of animal year factors in year-to-year changes. Thus the rise to 1.25 in South Korea in 2007 was followed by a decline to 1.19 in 2008. The 2007 figure may have been influenced by the fact that the 'double spring year' (lunar year January 29, 2006 to February 18, 2007) was a particularly auspicious year for marriages, and indeed did lead to an upsurge in marriages; moreover, 2007 was the year of the golden boar, an auspicious year for having babies (Choe and Retherford, 2009: 284-5). While it is true that the TFR of 1.19 in 2008 did remain well above the low point of 1.08 reached in 2005, it remained far below the 1.5 that is sometimes taken as a crucial level below which a cumulative downward spiral of population will eventually result.

B. CAUSES

Why have East Asian countries, and particularly their metropolitan cities, achieved the doubtful distinction of holding world records for low fertility levels? What policies are in place in an attempt to raise these fertility levels? Are there any factors that are likely to push up fertility levels towards a level of 1.5 which, it has to be said, is about the highest level of fertility to which many planners in these countries think they can aspire?

These same countries have had extended periods of rapid economic growth. The "Asian tigers" of the 1980s and 1990s (Japan, South Korea, Taiwan, Province of China and Singapore)[1] have been joined more recently by the biggest tiger of all, China.

> The very economic success of these countries is built on a model whereby women need and want to be in the workforce, but pressures the workplace exerts on them require great sacrifices of time and potential income if they are to raise a family in the way that East Asian societies expect. These are highly competitive economies and governments are determined to increase productivity and keep wages down. Employers remain relatively unforgiving of the divided loyalties inherent in the effort to combine child-raising with working, and society remains unsupportive of those who want to pursue non-material goals or who are not totally devoted to pressing their children to maximum performance. Moreover, in recent years greater uncertainty has entered the labour market, making many young people more apprehensive about taking on the commitments that starting a family entails. … The second reason why fertility has fallen so low is that governments of East Asian countries have yet to commit seriously to the costly policies required to make child-bearing more appealing to potential parents (Jones, Straughan and Chan, 2009: 210).

The economic success of these countries has been paralleled by remarkable increases in education, especially for women. In South Korea, the proportion of young women graduating from high school who advanced to higher education increased from 20 per cent in 1975 to 34 per cent in 1985, 50

per cent in 1995 and 81 per cent in 2005. The proportion of those enrolled in high school who proceeded to higher education was even more dramatic, because over the period high school education became almost universal. "The educational advancement of young Korean women during the last three decades is nothing but spectacular and, to our knowledge, unprecedented in the recent history of the world" (Tsuya, Choe and Wang, 2009: 16). The increases in women's education in Japan, Singapore, Taiwan, Province of China and Hong Kong, while not quite as spectacular, are very impressive nonetheless (Jones and Gubhaju, 2009).

It is the aspirations of these young women, and of the counterpart young men who they will (or will not) marry and whose educational levels have also been sharply improving, though not to quite the same extent, that underlie the sharp declines in fertility in the region. The life options of these young women have widened, and at the same time they have been exposed to values that compete with women's domestic roles. Although a decomposition analysis of the decline in South Korean fertility between 1995 and 2005 shows that only about 7 per cent can be attributed to changes in population composition by women's education, Choe and Retherford (2009: 285-6) speculate that the effect of compositional change is a actually much greater than this, acting through problems of job search for the surging number of college and university graduates, the near impossibility of temporarily shifting from full-time to part-time work in order to care for young children, resulting in delayed marriage and falling fertility, and a trade-off in quantity for quality of children due to apprehension about the children's future job prospects. Women with low education were also under pressure in the job market because of competition from more educated women who could not find jobs commensurate with their education.

The removal of a not inconsequential proportion of women from the childbearing population altogether as a result of non-marriage, and late initiation of childbearing due to delayed marriage, have been important factors in fertility declines in the region (see figure 1). While cohabitation is becoming more accepted, at least in Japan (Raymo et al., 2008) and in Bangkok though not elsewhere in Thailand,[2] childbearing in cohabiting relationships still remains rare,[3] and unless and until normative changes make inroads into this rarity, marriage will remain the gatekeeper into the possibility of childbearing in the region.

Part of the delayed marriage in the region may be a direct response to a desire to avoid or delay childbearing. As Bumpass et al. (2009: 217-19) note, referring to Japan, there is a "marriage package", in which marriage, childbearing and childrearing, and often, care of the elderly, are linked. Married women are expected to assume these roles, and also to take overwhelming responsibility for household tasks. In addition, the mother is mainly responsible for the educational success of her children, helping with homework and making all the arrangements if the child attends one of the very popular *juku*, or after-school 'cram schools' that prepare children for entrance examinations to higher-level schools.

"For many, the entire package of marital roles for the wife is what is being delayed, including children with their intensive care needs, a heavy household task load, and co-residence with parents-in-law, which is potentially included in the bargain" (Bumpass et al., 2009: 218)

At the same time, though, there are other barriers to marriage. Hypergamy remains strong, and in general the notion of who should marry whom is perhaps less flexible than in Western countries (Jones, Straughan and Chan, 2009: 208). Throughout much of the region, women are doing better than men in terms of reaching and graduating from tertiary levels of education, while traditional age gaps between husbands and wives remain. This is a context tailor-made for increasing levels of involuntary non-marriage, which may be playing a substantial role in the low fertility currently recorded in these countries (Jones, 2007: 472). Interestingly, a recent study (Tey, 2007: 254-256) shows that in Malaysia, where the Chinese population already has well-below-replacement fertility and high levels of non-marriage, there is little evidence of a trend towards women marrying down in terms of educational attainment; but among

the Malay and Indian populations, such a trend is in evidence. This suggests that the Chinese, with their Confucianist heritage, are more bound by tradition than the other ethnic groups. There are implications here for other low fertility East Asian societies, which share with Chinese Malaysians a Confucianist heritage.

The tendency in these countries for young people to delay marriage because of the perceived need to become settled in a career and build up some human capital "pushes potential childbearing into an age range where the obstacles and opportunity costs are likely to loom even larger, and where decreasing fecundity of women in the late 30s and 40s becomes an (under-recognized) factor" (Jones, 2007: 472). China is the exception here, as the proportion of women remaining single on their thirtieth birthday remains very low. Once couples have married, many factors work against childbearing. These include the financial costs of childrearing, uncertainty over uninterrupted employment, conflict of work and family responsibilities, compounded by family-unfriendly workplaces, pressure to raise 'quality' children, gender ideologies on housework and childrearing, lack of strong government policies to support childrearing, and other pressures of child-raising in city environments. Rising individualism may also be playing a part (Jones, Straughan and Chan, 2009: 209).

The gender ideology issue is of major importance. In the patriarchal and patrilineal traditions of countries in the Chinese cultural realm (which includes South Korea), as well as Japan, there are well-defined hierarchical relations among family members according to gender, generation and birth order. The gender division of labour is "rigidly defined with strong normative orientations about separated gender roles" (Tsuya, Choe and Wang, 2009: 3). This has been the basis for continued unequal gender relations in the home in East Asian countries.

While paid employment of women in these countries has increased considerably, the Western pattern in which men's contribution to household chores has also increased considerably is not being paralleled in Japan or South Korea. The persistence of unequal gender relations at home (or declining gender equality at home), on one hand, and increasing economic opportunities and rapidly changing expectations toward gender roles, on the other, are making it increasingly more difficult for women to balance their economic and family roles. This in turn may facilitate further decreases in marriage and childbearing in these East Asian countries (Tsuya, Choe and Wang, 2009: 20).[4]

C. POLICY RESPONSES

The history of policy responses in East Asia to the decline in fertility to ultra-low levels has been one of considerable delay in response in the first place,[5] then modest policy and programmatic changes that can be characterized as "too little, too late", then a more serious attempt to address the issue in more recent years. The policy responses have been summarized in a number of recent publications (Jones, Straughan and Chan, 2009; Suzuki, 2009; Lin and Yang, 2009; Lee, 2009; Eun, 2006). Suzuki (2009) argues that the Confucian tradition in countries such as South Korea and Taiwan, Province of China makes for an authoritarian approach even after the establishment of democracy and a market economy; nevertheless, South Korea and Taiwan, Province of China show very different policy reactions to influencing the value orientations of their people, with the South Korean Government interested in preserving conservative family values and the Taiwanese Government, reflecting the political power of Taiwanese women, encouraging feminist values.

How do pronatalist policies in East Asia differ from family policy in European low-fertility countries? Unlike in East Asia, "in most European countries overt population-policy measures would meet resistance rather than acclamation among the population" while family policy measures are an acceptable means of encouraging childbearing (Neyer, 2006: 49). Of course, family policies are difficult

to conceptualize and measure, and represent a diverse range of policy objectives. The primary purpose is not always connected to childbearing and child-raising as such. Because of this diversity, "family policies may encompass inconsistent or even divergent aims" (Neyer, 2006: 51).

McDonald (2002: 435) classifies policies directed toward the reversal of low fertility into three broad categories:

1. Financial incentives
2. Support for parents to combine work and family
3. Broad social change supportive of children and parenting

The first category includes child benefits (public transfers paid for children). The second includes such items as maternity leave policies, parental leave policies (leaves of absence from employment granted parents by law in order to take care of their child during the first few years of life) and childcare services (offered by the state, the market, employers or non-profit institutions). The third category includes such things as child-friendly environments (including aspects of urban design), development of positive social attitudes towards children and parenting, greater gender equity and widening of options for part-time work.…The extent to which support of these kinds is provided to parents varies greatly between European countries, largely according to the kind of welfare state regime they follow. Common classifications of welfare state regimes in Europe distinguish between universalistic welfare states (the Nordic countries), conservative welfare states (continental European countries), liberal welfare states (Anglo-Saxon countries) and Southern European welfare states (see, for example, Gauthier, 2002, table 1).

Conservative welfare states rely heavily on familialism; that is, on the family as a provider of welfare. Southern European countries display an even higher degree of familialism. In this respect, Southern European countries clearly have an important element in common with East Asian countries that are also currently facing the issue of how to raise birth rates: that of having the lowest levels of fertility in the world. McDonald (2000a; 2000b) argued persuasively that the sharing of these two common elements is not accidental; it is precisely their familialism, in the context of widened educational and employment opportunities for women, that poses strong conflicts of interest for women and leads to delayed marriage and low levels of childbearing. The pro-natalist policies that Japan, South Korea, Singapore, Taiwan, Province of China and China have introduced are summarized below.

1. *Japan*[6]

Japan has gradually been strengthening its pro-natalist policies since 1990 as the level of concern with very low fertility has risen. Japanese policy has followed two main approaches: direct subsidies for childbearing and child-raising; and changing the institutional framework to facilitate marriage and child-raising. As in many other countries, child allowances (first introduced in 1972) were a family policy measure to assist low-income families, rather than a pro-natalist measure. After 1990, pro-natalist concerns led to large increases in the allowances, though an eligibility criterion remains. In 1991 unpaid leave for childcare was introduced, though part-time workers were excluded. The "Angel Plan" introduced in 1994 called for major expansion of childcare centres, with eligibility criteria varying by locality. Later, partial payment of wages during childcare leave was introduced.

In 1999 the New Angel Plan stressed the need to improve gender equity and working conditions. It called for further expansion of the heavily subsidized childcare centres, after-school programs and family support centres. The age range for the child allowance was widened (and widened again in 2006). In 2001, the proportion of salary received by an employee on childcare leave (a leave made available to husbands as well as wives) was raised from 25 per cent to 40 per cent.

It seems that few men take childcare leave, and many women were not taking childcare leave because of social disapproval from fellow workers. Thus the Government introduced measures aimed at creating an atmosphere within firms that would encourage parents to take the childcare leave to which they were entitled. Complying firms could use a logo saying "we support childbearing among our employees". It also introduced measures to support mothers' re-entry to the labour market. Finally, in 2005, the Government extended the right to childcare leave to part-time workers, under certain circumstances. Workers on short-term (e.g. 3-month or 6-month) contracts whose employer does not renew the contract are not eligible for such leave, however.

The gradual strengthening of pro-natalist policies in Japan is clear. In 2006, the monthly cash benefit of the child allowance was raised from 5,000 to 10,000 yen until a child's third birthday (though large tax deductions for children are not yet entertained), and the cash benefit during childcare leave was raised in 2007 from 40 per cent to 50 per cent of wages. However, the typically very small contribution of husbands to housework and childrearing tasks (see Tsuya et al., 2005) means that the burden borne by working wives remains very high. Without change in broader gender relations in Japan, the task of raising fertility appears formidable.

2. *South Korea*

In 1996, the South Korean Government adopted new population policy goals in the face of continuing declines in fertility (the TFR had been around 1.6 or 1.7 for a decade). However, these goals were hardly pro-natalist, and instead emphasized maintaining the level of fertility, improving reproductive health, redressing the imbalance in sex ratios at birth and reducing the incidence of induced abortion, tackling the sex-related problems of youth and adolescents and empowering women by expanding employment opportunities and welfare services for them (Cho and Lee, 2000: 151-61).

A decade later, with fertility declining even lower, the South Korean Government in 2006, after long discussions with representatives of employers, workers, activists and feminists, finally announced an action program (the First Basic Plan for Low Fertility and Aged Society). This plan attempts to create a favourable environment for childbirth and child-raising by transferring some of the burden of child-raising from family to society. More specifically, subsidies for the costs of child-raising and education, previously available for low-income groups, were provided for the middle class as well. Daycare for children up to age four was subsidized according to the family's income level. After-school programs were expanded, particularly for lower-grade primary school children, as an alternative to expensive private tutoring institutions. Taxes were also lowered for households with young dependent children or large families, and the tax system altered to reduce the costs of health insurance for such families (for more details, see Lee, 2009, tables 7 and 8). Maternity and childcare leave was expanded. Introduction of a child allowance system, which South Korea does not yet have, is being seriously considered.

The Government is playing a central role in increasing the number and quality of childcare facilities, as part of an effort to create a family-friendly and gender equal social culture, with more compatibility between work and family. Companies providing maternity leave are being supported. Women workers at small to mid-sized firms who take maternity leave can receive up to three months of employment insurance protection. Starting in 2008, male partners will automatically receive three days off to help after childbirth. Childcare leave that hitherto applied only to parents of children under the age of one will now be extended to children up to three years of age.

3. *Singapore*[7]

Tracing the history of pro-natalist policy in Singapore is complicated by the fact that for a while, beginning in 1984, Singapore adopted policies that were seemingly unique in Asia. These policies were selectively pro-natalist for the well educated but anti-natalist for the poorly educated. They were adopted in the interests of improving the genetic quality of the population, but not directed at a general increase in fertility rates.

Not very long after that, however, Singapore did reverse its fertility objectives in 1987. Since then, Singapore has experimented with a wide range of measures designed to raise fertility. The general trend has been towards a strengthening of these measures over time, and especially since the further downward trend in fertility since 1996.[8] The first task was to loosen or abandon the old anti-natalist policies, and this was gradually done (Saw, 2005, Chapter 11). A number of limited pro-natalist measures were also introduced in 1987. For example, couples having a third child were given priority in getting access to a larger Housing and Development Board (HDB) apartment through sale of their smaller apartment, and tax rebates were granted for third or fourth children. Subsequently, the involvement of Government in encouraging marriage was widened from a concern with ensuring that well educated women married (through the Social Development Unit) to a broader program targeting also the non-tertiary educated.

Further pro-natalist policies were announced in 2000 with the introduction of the baby bonus scheme for second and third children. The scheme consists of a two-tier payment given annually by the Government for a period of six years after the birth of the child. The first tier is an outright cash gift (paid in five installments over five years), totaling S$3,000 for the second child and S$5,000 for the third child, while in the second tier both parents and the Government contribute to a co-savings account. The scheme has been structured so that the funds must be used solely for the benefit of the children. Other pro-natalist provisions announced in 2000 included limited provision for paid leave in the public sector to marry and to attend to sick children, flexible working hours and childcare subsidies for enrolment in childcare centres.

In 2004, it was decided that these measures had been insufficient, and a raft of new measures were introduced, including a Medisave maternity package, extra paid maternity leave (extending paid maternity leave from the eight weeks provided in 2001 to 12 weeks), further modification of the provisions for getting an HDB apartment to encourage marriage, extension of the baby bonus from the second and third children to include the first and fourth children, increase in the subsidy paid by the Government for enrolment of an infant in childcare, a more liberal parenthood tax rebate and a streamlined working mother's child relief scheme. Further measures announced in 2004 include provision of statutory two-day paid childcare leave for a parent of a child under seven years of age, a lower maid levy for parents with children under 12 years of age, tax relief for working mothers where a grandparent serves as care-giver, introduction of a five-day working week in the civil service (though the week's total working hours remain the same), equal medical benefits for male and female civil servants and incentives for firms to seek better "work-life harmony" for their employees.

In 2008, the Singapore policies were further modified with an increased child tax relief, increased cash Baby Bonus for first and second children, paid maternity leave increased from 12 to 16 weeks, unpaid childcare leave introduced and paid childcare relief extended. Employers have to give pregnant workers maternity leave benefits if they are fired without good cause in the last six months of pregnancy (Straits Times, 21/8/2008).

4. *Taiwan, Province of China*

The new population policy announced in 1992, eight years after fertility fell below replacement level, essentially ended Taiwan's family planning program, by abandoning the goal of reducing fertility. However, no pronatalist measures were introduced. It was not until 2006 that the Mega Warmth Social Welfare Program was introduced and, in 2008, the White Book of Population Policy, with specific measures to tackle low fertility. Feminists and ecologists strongly opposed the transition to a pronatalist policy; feminist arguments against "buying of feminine wombs for cash" prevailed against payment of birth allowances (Lee, 2009). The measures introduced include maternity leave benefits, parental leave benefits, a childcare subsidy system and early childhood education and care (Lin and Yang, 2009). The provision is for eight weeks of paid maternity leave covered by labour insurance, which means that employers have to shoulder 70 per cent of the cost of maternity leave. Parental leave of up to six months on half pay is now available to mothers. In relation to childcare, the plan is to certify qualified child-minders as well as subsidize childcare services for low-income working families.

5. *China*

The debate in China on whether to dismantle anti-natalist policies continues unabated, with most of China's demographers advocating such a dismantling and the Government unwilling to take this momentous step. Thus in China's case, 17 years after fertility fell below replacement level, government policy remains strongly anti-natalist.

D. SUMMARY

What can we conclude about policy developments in these East Asian countries? First, policies have become progressively more comprehensive over time. Second, they are not yet as comprehensive as those in the universalistic or liberal welfare states of Europe, as described earlier. Third, consistent with the continued strength of patriarchal family and societal structures in these countries, policy does not yet take the male role in child-raising as seriously as it does in European countries. None of the East Asian countries have introduced paid paternity leave,[9] though Singapore in 2008 opted for childcare leave and infant care leave that can be used by either father or mother.[10] Fourth, metropolitan cities such as Tokyo, Japan and Seoul, South Korea have introduced their own programs to support multi-child families, in addition to those introduced by the central government. Seoul has 65 programs in the following four areas: encouragement of childbirth, childcare benefits, establishing a family-friendly environment and human resources development plans for women. In response to a questionnaire about Seoul City's support system, women respondents were most aware of the city's child-raising leave policy followed by its child-raising stipends (from the third child onwards) and its maternity leave policy. These women felt that the most effective of the policies in inducing women to bear and raise multiple children were the "assurance of return to the workplace after maternity leave", followed by "expansion of child-care and child-raising support facilities" and "child-raising stipends" (Jun, 2009).

Singapore is the only country in the group where the Government has had specific and ongoing policies actively promoting marriage, which in recent years has involved government-supported matchmaking through the internet. The idiosyncratic trends in singlehood for Singapore in figure 1 suggest that these policies may have been having some effect.

The low tax regimes in Singapore and Hong Kong, and to some extent elsewhere in East Asia, limit their possibilities for implementing financially costly schemes to support child-raising. Dialogues conducted by the Singapore Government in 2008 with 10 groups amounting to more than 300 constituents

revealed that affordable childcare, a better work-life balance and more financial support were the three key felt needs. However, while the Government studied and commented favourably on the policies in Scandinavian countries, they also recognized that Scandinavian policies were implemented in a very different political environment with much higher tax rates (Straits Times, 22/7/2008).

E. WHAT ARE THE PROSPECTS FOR REGAINING A TFR OF 1.5 OR HIGHER IN THESE COUNTRIES?

The fertility-depressing factors listed above continue to exert their influence. One or more of these factors would need to be modified greatly if there is to be much likelihood of a resurgence of fertility in East Asia.

There are three kinds of factors that could foster an increase of fertility in these countries. The first is the much-discussed cohort versus tempo effects. Period fertility is "artificially" depressed in periods in which childbearing is delayed, and will rise when the rise in mean age at childbearing ends, assuming that the desired completed family size remains unchanged. We might expect some upward pressure on fertility once the delay in age at marriage—and consequently the delay in onset of childbearing—experienced by these East Asian countries comes to an end. This could conceivably lead to a rise of period fertility rates similar to the increases of between 0.1 and 0.4 (mostly in the range 0.2-0.3) measured in European countries (Population Reference Bureau, 2008). In South Korea, the tempo effect has undoubtedly been a very strong factor in the decline in fertility, given the very sharp rise in age at marriage. It is not clear, however, when this continuing delay in marriage in the East Asian countries will come to an end, and it has even been accelerating over the 2000-2005 period in Japan, South Korea and Taiwan, Province of China (Jones and Gubhaju, 2009). Moreover, as Koh (forthcoming) has shown, analysis of cohort fertility trends in Singapore based on parity progression analysis gives little indication that fertility is likely to rise significantly in the short to medium term.

The second factor is the impact of policy. Pro-natalist policies have gradually strengthened and expanded throughout the region, albeit after a slow start. South Korea and Taiwan, Province of China have brought in important policy changes in 2006 or later, and Singapore in 2008, and these policy changes may be slowly having an impact on decision-making on family building. Assessing this impact is likely to be difficult, given that it is probably being counteracted, at least in the short term, by caution about marriage and childbearing stemming from the global financial crisis. Much remains to be done from a policy perspective to encourage greater male involvement in child-raising and ensure more genuinely family-friendly workplaces. In all these countries, women are apprehensive about taking full advantage of the leave benefits available to them for fear of negative consequences on the way their employers view them and their future career prospects; and Governments are apprehensive about extending maternity and childcare leave benefits too much for fear of resistance from employers. Particularly in smaller enterprises, which have the most difficulty in adjusting their staff deployment to worker absences, employers may avoid employing reproductive-age women in the first place, or find spurious reasons to dismiss those who become pregnant.

The third factor, although very speculative at this stage, could be attitudinal changes to work and family. As argued by Jones, Straughan, and Chan (2009: 211),

> people could become dissatisfied with what they are getting from neo-liberal economic policy and its attendant work patterns, from consumerism, and from a perceived decline in family values. A desire to return to "family values" could be bolstered by propaganda programs in favour of family formation that governments may engage in when facing the prospect of a downward spiral in population size. The extent to which individual child-bearing decisions are likely to be influenced

by dire warnings of the imminent contraction and eventual disappearance – or dilution through immigration – of the Japanese and Korean populations remains a great unknown.

Another, perhaps equally plausible, scenario has been put forward by Lutz and others (see Lutz, 2008 for an application to South Korea): The possibility of a low-level fertility "trap" developing in which the desire for children falls below the normative two children through the processes of socialization and social learning. First, because of young people's decreasing interaction with children in societies with very low fertility, having children features less prominently in their own image of a desirable life. Second, there is the possibility of a "child unfriendly" culture developing in situations where children are rare.[11] There is already evidence of low-fertility desires in some East Asian settings. In China, when a couple marries, both of whom were only children, they are now permitted to have two children, but studies in Beijing (Hou Yafei, 2007) and Jiangsu (Gu, 2009) show that only 18-24 per cent of such couples (Beijing) and less than 40 per cent (Jiangsu) want to have a second child.

In Europe there is a positive correlation between fertility levels and rates of cohabitation. Could increased levels of cohabitation be a key to raising fertility in East Asian countries? This seems unlikely, at least in the short to medium term. Levels of cohabitation may be rising in the region, but childbearing in cohabiting unions remains very rare. Only if this became more acceptable would fertility be much affected by patterns of cohabitation.

F. CONCLUSION

Compared with the countries of Europe, the East Asian countries will have a harder time dismantling the cultural barriers to raising fertility. The focus of policy will have to go further than making it financially easier to raise a family and ameliorating the dilemmas of reconciling family and workforce roles, especially for women, important as these are. More broadly, policy will have to consider how child- and family-friendly environments can be created, and how deeply ingrained patriarchal sentiments and attitudes in the family, in the economy, and in government can be overcome. The trend towards more irregular and part-time employment will have to be reversed if young couples are to have the confidence to marry and start raising a family. Without progress on these fronts, it is hard to see much increase in fertility in the East Asian countries, except for that arising in a rather "mechanical" way from the interplay of tempo and quantum effects.

NOTES

[1] For Japan the 1990s were the "lost decade". However, Japan had reached very high levels of productivity and of family and personal income by that time, so the "lost decade" represented a failure to move further ahead. Given high aspirations among the Japanese public, the "lost decade" no doubt contributed to people's unease about committing to family building.
[2] The evidence from Thailand is of good quality though as yet unpublished.
[3] For example, in South Korea, 98.5 per cent of births in 2007 were to legally married couples (Lee, 2009: 57).
[4] It is notable that the upsurge in singlehood in Japan and South Korea since the early 1990s has been experienced by women in all education and social groups, rather than just a consequence of more women entering the advanced educational groups where singlehood is more common (Jones and Gubhaju, 2009).
[5] Delays in reversing anti-natalist policies in the region have been remarkably long: typically between 10 and 20 years after fertility first fell to replacement level (Jones, Straughan and Chan, 2009, Table 1.2). One reason was that all of these countries (except Japan) had built a strong family planning program, oriented to reducing fertility from unacceptably high levels in these densely populated countries, and the mindsets of planners and the bureaucratic interests involved in continuing this program proved difficult to adjust to the radically altered demographic situation.
[6] For a more detailed discussion, see Ogawa, Retherford and Matsukura, 2009; Suzuki, 2009.
[7] For more detail on Singapore's policies, see Saw, 2005, Chapters 11-13; Yap, 2009 and Straughan, Chan and Jones, 2009.
[8] This downward trend was interrupted by a rise in a single year – 2000 – which was a Dragon Year (Saw, 2005: 207-210). This was only a blip in the downward trend.
[9] Singapore did introduce three days paid paternity leave for civil servants in 2001, but this has never been widened to the rest of the workforce.
[10] A week of unpaid infant care leave a year is available to each parent when their child is younger than two years, and another six days of paid childcare leave is available to each parent for children under seven. The government decided against paternity leave, arguing that the majority of men in Scandinavian countries do not take up the paternity leave offered to them (*Straits Times*, 21/8/2008).
[11] An interesting case of such attitudes was generated in Singapore's leading newspaper by a letter to the editor complaining of parents with infants or toddlers in strollers who took up too much space in subway trains, or who used the strollers as "battering rams" in the crowded shopping street, Orchard Road. In the ensuing debate, one young letter writer, oblivious to the needs of parents from lower-income families, argued that parents with infants should just stay home, or alternatively take a taxi.

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TABLE 1. TRENDS IN TOTAL FERTILITY RATES AND PROJECTED POPULATION GROWTH, SELECTED EAST ASIAN COUNTRIES

Year	Japan	South Korea	Taiwan, Province of China	Singapore	Hong Kong SAR
1995	1.42	1.64	1.78	1.67	n.a.
1996	1.43	1.70	1.76	1.66	1.19
1997	1.39	1.54	1.77	1.61	1.12
1998	1.38	1.47	1.47	1.47	1.02
1999	1.34	1.42	1.56	1.47	0.98
2000	1.36	1.47	1.68	1.60	1.04
2001	1.33	1.30	1.40	1.41	0.93
2002	1.32	1.17	1.34	1.37	0.94
2003	1.29	1.17	1.24	1.25	0.90
2004	1.29	1.16	1.18	1.24	0.93
2005	1.25	1.08	1.12	1.25	0.97
2006	1.32	1.13	1.12	1.26	0.98
2007	1.34	1.26	1.12	1.29	1.02
2008	1.37	1.19	1.00	1.28	1.06

Source: Jones, Straughan and Chan, 2009, updated.

TABLE 2. TOTAL FERTILITY RATES, METROPOLITAN CITIES COMPARED WITH WHOLE COUNTRY, SOUTHEAST AND EAST ASIAN CITIES

Area	*Time period*	*TFR of metropolis*	*TFR of country*
Bangkok, Thailand	(1984-87)	1.60	2.23
	(1991)	1.41	2.41
	(2000)	1.16	1.81
Ho Chi Minh City, Vietnam	(1999)	1.40	2.50
Taipei, Taiwan, Province of China	(1991)	1.37	1.72
	(1996)	1.45	1.77
	(2001)	1.21	1.40
	(2008)	1.00	
Shanghai, China	(1990)	1.29	2.00
	(2000)	0.70	1.60
Beijing, China	(1990)	1.38	2.00
	(2000)	0.87	1.60
Tokyo, Japan	(2008)	1.09	1.37
Seoul, South Korea	(2008)	1.01	1.19
Busan, South Korea	(2008)	0.98	1.19

Sources: Bangkok – For 1984-87: Hirschman et al, "the Path to Below Replacement-Level Fertility in Thailand", International Family Planning Perspectives, 20(3), Sept. 1994. Estimate based on 1987 Demographic and Health Survey.
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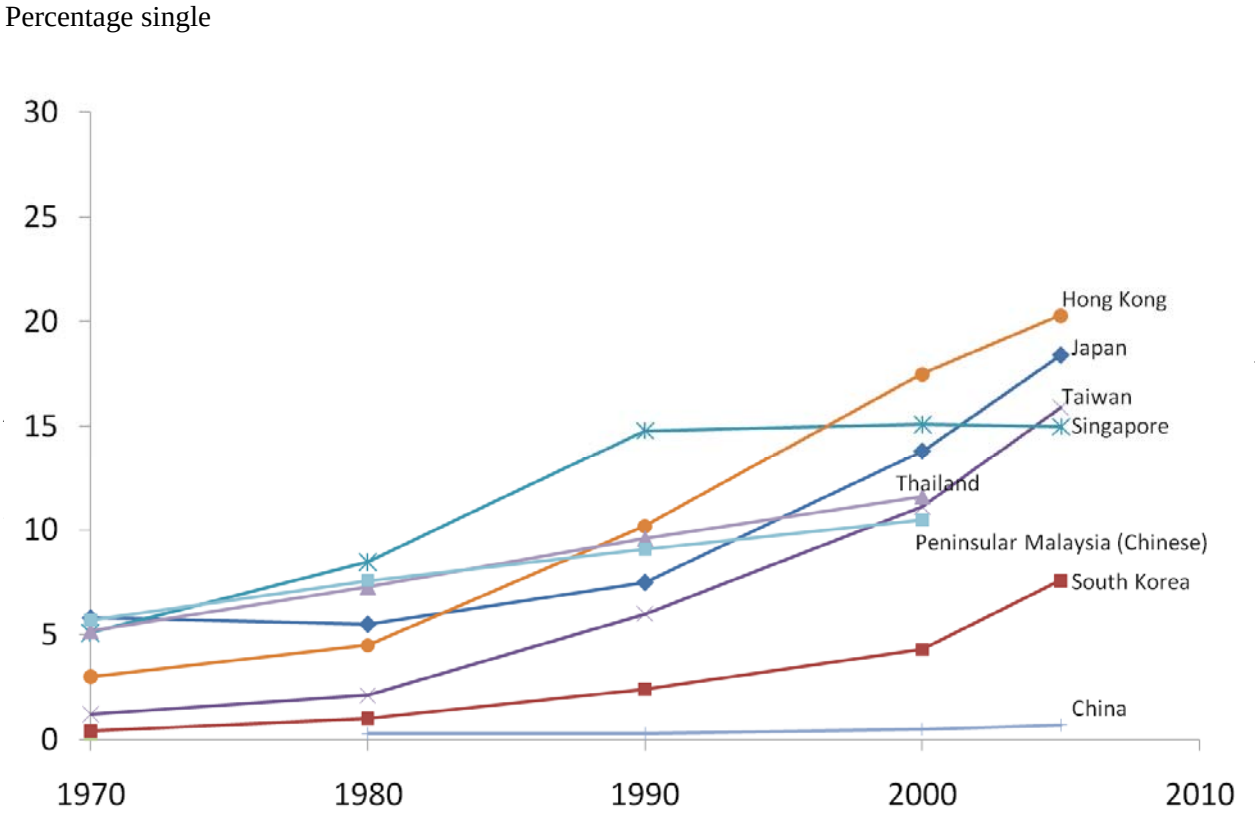
Figure 1: Trends in proportion single among women aged 35-39, 1970-2005



Source: Jones and Gubhaju, 2009.