Articles

Fertility Decline in Asia: The Role of Marriage Change¹

In the future, Asia will see a surge of smaller families and therefore smaller networks of resources regardless of the living arrangements in place.

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In current discussions of the fertility transition in Asia, the role of marriage change is frequently understated, because of the strong emphasis (perhaps flowing from the influence of the family planning movement) on marital fertility. Yet, since the time of Malthus, marriage change has been given strong attention in historical studies of fertility transition in Europe. In North-Western Europe, early in the twentieth century, non-marriage was a major factor affecting fertility. In some countries, the proportion of women remaining single at the end of their childbearing period reached 20 per cent (Hajnal, 1965; Therborn, 2004: 147-155). Such high levels of non-marriage did not always directly translate into lower

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fertility, because out-of-wedlock births were not uncommon; but they certainly played an important role in fertility decline.

Nevertheless, in the search for a general theory of the demographic transition, the role of marriage change can be overemphasized. McDonald (1993:4) implies that such might be the case in the most detailed study of the demographic transition by the French demographer Jean-Claude Chesnais (1992).

In dealing with fertility decline in Asia, the present article needs to strike an appropriate balance, examining the role of marriage change without exaggerating its role. The first section summarizes current trends in fertility in some Asian countries, particularly where fertility has reached very low levels. Changes in marriage (particularly delays in marriage) in those countries are discussed in the second section. Available evidence of the disaggregation of fertility decline into marriage change and marital fertility decline is then summarized. The fourth section examines the factors influencing marriage and those influencing fertility within marriage, considering the extent to which they are interlinked or separate. A brief discussion of policy on marriage change for fertility reduction rounds out the substantive scope, followed by the final section that draws some conclusions.

Fertility trends over the past decade

Asian demography has broken new ground during the past decade in a few respects, one of which is that fertility in some Asian countries has sunk to levels below that in almost all countries of Europe. It is no longer appropriate to perceive Asian countries as "catching up" with earlier trends in European fertility. Rather, a number of Asian countries are pioneering ultra-low fertility levels, and hence their Governments are also pioneering responses to such low levels.²

Of course, fertility levels in Asian countries still range across a wide spectrum, from extremely high in such countries as Afghanistan and Nepal (at levels associated with very high levels of both infant and maternal mortality) to among the lowest in the world, in Japan and the Republic of Korea. But the general trend has been downward in Asian countries over the past decade (Gubhaju and Moriki-Durand, 2003), dramatically so in the case of the Islamic Republic of Iran (Abbasi Shavazi and McDonald, 2006), robustly so in countries such as Thailand, Indonesia, India and Myanmar (in all of which fertility had less far to fall than in the Islamic Republic of Iran), more tentatively so in Bangladesh (which over the previous decade had experienced a robust decline in fertility), the Philippines and Malaysia. Even in Pakistan, where signs of fertility decline had long been sought in vain, fertility is clearly on the way down (Feeney and Alam, 2003). Particularly interesting is the trend towards ultra-low fertility in a number of East Asian countries over the last 8 years (see table 1). Before that, Japan and Hong Kong, China were considered the only countries or areas of Asia in the very-low -fertility range – having a total fertility rate (TFR) of less than 1.5. Both areas could be considered exceptional in various respects: Japan as the Asian country that had long been in the "developed" league; Hong Kong, China as a "develop city-state". There was no evidence yet that East Asia could in any way be considered to match Southern and Eastern Europe in the low-fertility category. Since then however, fertility has plummeted further in the Republic of Korea, in Taiwan Province of China and in Singapore, not to mention in the major Chinese cities of Beijing and Shanghai, and in Hong Kong, China. Even China itself is apparently not far above the 1.5 TFR level. East Asia may therefore be considered as a major bloc of very-low-fertility countries, on the same level as Southern and Eastern Europe.

Year Japan		Republic of Korea	Republic of Taiwan Korea China		Hong Kong, China
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	1.24	0.97

Table 1. 7	Frends in t	he total fert	ility rate,	in selected	East Asian	countries
				units:	births per a	adult woman

Sources: Japan: Ministry of Health and Welfare, Vital Statistics, various years; Republic of Korea: June 2004, table 3.6; Hong Kong, China: Census and Statistics Department, The Government of the Hong Kong Special Administrative Region (using resident population approach); Taiwan Province of China: Tsay, 2004. Figures for 2003-2005 from Department of Household Registration Affairs, Ministry of Interior; Singapore: Singapore Department of Statistics, 2005.

Of course, TFR trends are not necessarily consistent with trends in cohort fertility. Period fertility is lower than cohort fertility when the mean age of childbearing rises; the reverse is true when the mean age of childbearing declines

(Ryder, 1983). In effect, when successive cohorts delay childbearing, their births are spread out over a longer period than would be the case if the timing were constant. The result is a reduction in period fertility. Thus it has been argued that in European countries, if part of the recent fertility decline has been due to postponement of births, the underlying cohort fertility will turn out to be higher than the period fertility. In other words, each cohort of women will eventually have more children than the TFRs seem to indicate, because the current TFRs are artificially suppressed by postponement of the total births over the women's life spans. Once the rise in mean age at childbearing ends, as it inevitably must, "the corresponding fertility-depressing effect stops, thus putting upward pressure on period fertility" (Bongaarts, 2002: 439).

This factor must also be kept in mind in understanding fertility trends in Asian countries, in almost all of which the age at marriage and mean age at childbearing have been steadily rising. The key uncertainty in forecasting increases in period fertility in Asian countries that result from cessation of increases in mean age at childbearing stems from uncertainty about when the increases in the underlying factor (i.e., mean age at marriage) are likely to end.

Changes in marriage patterns in Asia

Just as for fertility levels, Asian countries cover a wide spectrum in terms of marriage patterns, specifically in female ages at marriage and the universality of marriage. There is a strong divide between South Asia (with the exception of Sri Lanka), on the one hand, and South-East and East Asia, on the other. In South Asia, marriage remains near universal and women marry at a very young age. For example, in India, 24 per cent of girls 20 to 24 years old had been married by age 15, and 50 per cent by age 18 (IIPS and ORC Macro, 2000). In Bangladesh, in 2000, 48 per cent of girls 15 to 19 years old had ever marriage to increase in South Asian countries, and for parental arrangement of marriage to decline to some extent. But in general, the pattern of early, parent-arranged marriage has proven extremely resilient.

By contrast, recent decades have seen revolutionary changes occurring in marriage patterns in East and South-East Asia, the most important shift being that towards delayed marriage and non-marriage. The proportions not marrying in some countries are reaching levels not seen in European countries since the very early decades of the twentieth century, after which proportions marrying in Europe rose substantially. The recent rise in proportions remaining never married in many European countries should not mask the reality that many of those "never married" people are cohabiting; i.e., they are in long-term consensual unions, which in many respects can be considered a form of marriage.

Table 2 shows trends in female non-marriage in a number of South-East and East Asian countries over recent decades. South Asia is not covered in table 2, as the author has not collected the same detailed data for countries in that particular subregion. However, available evidence clearly shows that the changes in delayed and non-marriage have been most marked in South-East and East Asia.

	3()-34	40-44		
Population	1970	2000	1970	2000	
Japan	7.2	26.6	5.3	8.6	
Myanmar	9.3	25.9	6.2	14.8	
Thailand	8.1	16.1	3.9	9.3	
Singapore Chinese	11.1	21.6	3.6	15.0	
Singapore Malays	3.9	12.2	1.7	8.2	
Malaysia Chinese	9.5	18.2	3.4	8.4	
Malaysia Malays	3.3	9.7	1.1	4.4	
Philippines	8.9	14.8	6.0	7.1	
Republic of Korea	1.4	10.7	0.2	2.6	
Indonesia	2.2	6.9	1.2	2.4	

Table 2. Proportion of women single at ages 30-34 and 40-44in selected Asian populations

Source: Jones, 2004, appendix table 1.

Table 2 reflects a striking trend towards delayed marriage and in many cases a failure to marry at all (Jones, 2004; 2005). While the trend has not been universal (with China being a notable exception), it has been so widespread that it can be called a regional transition to new behaviour. Countries including Japan, Thailand, Myanmar, Singapore, Malaysia, Taiwan Province of China, the Philippines and, to a more limited extent, Republic of Korea and Indonesia, exhibit this new behaviour. In some populations of the region, the changes have been truly dramatic. In Japan and Republic of Korea, at least, the increases at ages 40 to 44 years are likely to continue in the coming years, because the cohort whose marital behaviour has been changing most sharply (the cohort born in the 1960s) has not yet reached those middle ages.

The trends indicate that in some countries of the region (Japan, Thailand, Myanmar and Singapore, for example) 15 per cent of women or more may remain single at the end of their reproductive period. Such figures are not unknown historically in the West; using the same statistic (percentage of women remaining single at the end of their reproductive period), the Western European delayed marriage pattern (extensively discussed by Malthus) saw most countries of that region in the 10 to 20 per cent range around 1900 (Hajnal, 1965; Therborn, 2004, table 4.1), and even higher in the early decades of the twentieth century, at 12 to 25 per cent (Therborn, 2004, table 5.1). But in Western Europe, there was a subsequent resurgence in marriage, which does not appear to be in prospect in South-East and East Asia.

What further increase can be expected in proportions of women not marrying in Asian countries? In countries such as the Republic of Korea and Indonesia, the increase in non-marriage is likely to continue for a long time, as evident from the sharp rise in proportions of women not married in the cohorts of 25 to 29 and 30 to 34 years old, which will lead to higher rates of non-married at older age groups as those cohorts grow older. By contrast, however, in many Asian countries the continued increase in the proportion of women never married in their 30s and 40s has been due to compositional changes (that is, the rising proportions who have completed secondary and higher education, groups which include much higher proportions of unmarried women), rather than to increases in unmarried proportions, controlling for education. Indeed, it is clear from the 1990 and 2000 population censuses that in a number of countries, including Singapore, Malaysia and Thailand, the proportion of women with a post-secondary education who remained unmarried in their 30s and 40s did not increase at all after 1990. Nevertheless, the proportions remaining single in those countries could still be pushed even higher by further increases in educational attainment of women entering those age groups.

In Europe, young people are also delaying marriage. But many South-East and East Asian countries have actually run ahead of the countries of Northern and Western Europe in proportions effectively single, if we take into account the high prevalence of cohabiting relationships in Northern and Western Europe, many of which produce children (Jones, 2007). While cohabiting relationships are also increasing in Japan and the Philippines, and probably in some other Asian countries despite the social unacceptability of such unions, cohabitation clearly remains much less prevalent in most of Asia. Moreover, even in those Asian countries where such relationships are more common, they rarely produce children. Therefore, in focusing on the effect of marriage change on fertility, effective non-marriage has become more prevalent in much of South-East and East Asia than in most of Western and Northern Europe.

Role of marriage delay in fertility decline

Evidence about the role of marriage change in fertility decline is summarized here, as derived from studies disaggregating fertility decline over certain time periods into components contributed by (a) changing proportions married and (b) decline in fertility within marriage. Such disaggregation is straightforward technically, provided that the relevant data are available (see Smith, 1983). In many parts of the world, however, the procedure is conceptually inappropriate because considerable childbearing takes place outside of relationships officially designated as marriage. That is the case in many parts of Latin America and the Caribbean (Goode, 1963; Therborn, 2004: 157-160, 169-172, 185-187), and nowadays in Europe and North America, where in many countries one third or more of children are born in non-marital relationships (Kiernan, 2003: figure 3); but not the case in Asian countries. Although there is certainly more cohabitation and non-marital relationships of other kinds in many Asian countries than is normally recognized, such relationships rarely produce children. Therefore an analysis that disaggregates fertility decline into its components of changes in proportions married and changes in marital fertility still makes sense in this part of the world.

European countries differ greatly among themselves in the extent to which childbearing takes place outside marriage. The Mediterranean pattern differs greatly from that of Scandinavia, for example. In Sweden and Norway, around 50 per cent of births are extramarital. That proportion is around 40 per cent in France and the United Kingdom of Great Britain and Northern Ireland and 30 per cent in Australia and in the United States of America, falling to around 15 per cent in Belgium, Western Germany and Spain and below 10 per cent in Italy and Greece. Greece's premarital or extramarital fertility rate is so low that it strongly resembles that of Asia.

With this preamble, evidence can be examined for the role of marriage delay in fertility decline in a number of Asian countries. Notably, although delayed marriage and low fertility tend to be closely linked in Asian countries, the correlation is far from precise. For example, Myanmar shows the most extreme marriage delays in the region, while fertility is still slightly above replacement level; the Republic of Korea, however, has one of the lowest levels of fertility in the world, while marriage is not yet very delayed. The TFR in Bangladesh in 1995 was fully two children lower than in Pakistan, despite Bangladesh's much lower

average age at marriage for females. In Indonesia, cross-sectional evidence across provinces in the 1970s showed little relationship between female ages at marriage and levels of fertility (Jones, 1977: 34). Although age at marriage has risen there, and fertility fallen, some of the provinces with the lowest fertility have relatively early ages at marriage.

The relative roles of changing age at marriage and marital fertility control in the early and later stages of fertility transitions has varied across Asian countries. In Sri Lanka, a rise in age at marriage preceded significant declines in marital fertility. In Singapore, the early stages of fertility decline, beginning in 1958, appear to have been triggered by a rising age at marriage of women (Saw, 1999: 170-171), although declines in marital fertility rates soon took over as the main factor in the decline. The fertility decline for Malays in Malaysia in the 1960s and 1970s was entirely due to a rise in female age at marriage (Hirschman, 1986: 170-172), whereas the subsequent rise in Malay fertility post-1978 was due mainly to a rise in third-to-fifth order birth rates (Leete, 1989: table 4). In Indonesia (where, as noted in the paragraph above, there was no evidence in the early 1970s of a consistent inverse relationship between the age at marriage in a region and its fertility), marital fertility decline has been more important than rising age at marriage in the subsequent fertility decline. Marital fertility decline was the main factor in Thailand's fertility transition (Knodel, VanLandingham, Saengtienchai and Pramualratana, 1996, figure 5.1).

Systematic studies disaggregating fertility declines in those countries into their component factors have identified falling proportions ever married at any given age as having played a considerable part in the fertility declines in Taiwan Province of China and Peninsular Malaysia between 1960 and 1970, as well as in Malaysia, Thailand and Indonesia between 1970 and 1980. However, only in Malaysia did the contribution of the marriage component in any way rival that of the marital fertility component (Caldwell, McDonald and Ruzicka, 1980; Hirschman and Guest, 1990).

In Japan, fertility decline started in the two decades before the Second World War. It was greatly facilitated by the postponement of marriage, first in the 1930s and then, accompanied by swift and substantial reductions in marital fertility, during the decade following the postwar jump in births between 1947 and 1950. Since the mid-1970s, the importance of marriage change in fertility decline has assumed great importance: (a) according to Retherford and Ogawa (2005: 2), about half of the decline in Japanese TFR since 1973 is attributable to later marriage and less marriage; and (b) according to Tsuya and Mason, 1995 and Choe, Retherford and Kim, 2004, it is attributable entirely or almost entirely to marriage change.

In the Republic of Korea, marriage change accounted for about one third of the decline in fertility at the beginning and end of the main period of fertility decline (i.e., 1960-1965 and 1985-1990 periods), but only around one fifth to one quarter in the 1965-1985 period (Jun, 2004: table 3.2; Choe and Park, 2006). The main period of Korean fertility decline was largely the result of declining marital fertility. However, the sinking of Republic of Korea's fertility to very low levels since 1995 appears to be entirely the result of marriage trends.

Encouragement of late marriage had a modest but important role in reducing China's fertility, especially in the 1970s and 1980s. One study has estimated that the rise in age at marriage accounted for 8 per cent of the reduction in the number of births between 1950 and 1970 and 19 per cent of the reduction between 1971 and 1980, avoiding about 100 million births (Coale and others, 1991).

In Myanmar, the recorded proportion of couples making use of any form of contraception is only 37 per cent (Union of Myanmar, 2003); yet fertility has fallen close to replacement level. Myanmar, then, is an outlier with respect to the multi-country regression line relating fertility levels to proportions of couples practising contraception³, for two main reasons of (a) abortion is probably seriously understated in surveys in Myanmar; and (b) the very high and rising proportion of women remaining single in their 30s and 40s. A recent exercise which disaggregated the decline in the total fertility rate in Myanmar from 4.7 in 1983 to 2.4 in 2001 indicated that 38 per cent of the decline was attributable to the nuptiality effect and 62 per cent to the fertility effect (Jones, 2004: 29).

The Philippines can serve as an example of a country where the sluggish nature of a fertility decline appears to be related to the lack of very substantial change in proportions married. Although the Philippines has long had larger proportions remaining single than most Asian countries, the rise in recent times has been much slower than in Thailand and Myanmar, for example (Jones, 2004: figures 2 and 3). Moreover, possibly rising levels of cohabitation further confuse the picture; there may have been little if any increase in proportions "effectively single" (i.e., neither married nor in a cohabiting relationship) in the Philippines. Both that possibility and low rates of contraceptive prevalence among couples help to explain the limited extent of fertility decline.

Further complexity is provided by Bangladesh, where the rapid fertility decline recorded between the mid-1970s and the mid-1990s must have been overwhelmingly due to marital fertility decline. The female age at marriage, although rising a little, remained very young.

The conclusion from the evidence presented here seems to be that marriage change can play an important role in major fertility declines. While intercountry variation is considerable, broadly speaking, changes in marriage patterns tend to play a greater role in the early and the late (sub-replacement fertility) stage of the fertility transition than in the middle stage, when typically decline in marital fertility is the main driving force. Although theoretically possible, in practice no countries reach replacement level fertility without low fertility within marriage. Both factors normally need to come into play to reach well-below-replacement levels of fertility.

Given the apparently very close interactions between changes in marriage incidence and reduced fertility within marriage during most fertility transitions, it is very important to find answers to the following question: to what extent are the factors making for delayed marriage and for lower marital fertility identical, or at least synergistic?

The interrelatedness of the avoidance of marriage and avoidance of childbearing ⁴

Both delayed marriage and sharp fertility declines have occurred in South-East and East Asia when women's educational levels have been rising and their workforce participation generally increasing. In Thailand and the Philippines, female labour force participation has always been high, while in recent times the structure of employment opportunities for females has shifted markedly away from agriculture and into manufacturing, clerical, service and professional occupations. In some other countries of the region, concurrently with the rapid rise in numbers of women with secondary and tertiary education, there has been a very sharp rise in the proportion of females working. Trends in labour force participation rates (LFPRs) for women aged from 25 to 39 years in Japan, Singapore and Republic of Korea are shown in table 3. In both Japan and Singapore, there has been a sharp increase from 1975 onwards for all three age groups. In Republic of Korea, by contrast, female participation rates rose sharply only after 1985, and even then to levels well below those in Japan or Singapore.

The sharp rise in LFPRs in Japan and Singapore coincided with sharp increases in delayed marriage. The delayed increase in LFPRs in the Republic of Korea was consistent with the much later onset of delayed marriage for females in that country. Causation, of course, remains difficult to determine, because of the "chicken or egg" issue: did women remain single longer because they were in the workforce, or were they in the workforce because they were still single? Japan has the best data for examining such issues; the faster increase in LFPR after 1975 for women of ages 25 to 29 years than for women in other age groups indicates that some reverse causality was occurring at ages 25 to 29 (Retherford, Ogawa and Matsukura, 2001: 77). There was a major increase in the proportion single in that age group; and because the LFPR was much higher for single women, that drove up the LFPR independently of other factors that were also driving up that rate. But the LFPR for single women was also rising over that period (from 81 per cent in 1972 to 92 per cent in 1999). Retherford, Ogawa and Matsukura (2001: 82) claim that there is evidence of a substantial increase in the opportunity cost for women of quitting their job to marry and have children, which would have driven up the age at marriage, although that pressure may be abating because a declining proportion of women have quit the labour force after marriage and first birth, especially between 1995 and 1998.

	Japan			Singapore			Republic of Korea		
	25-29	30-34	35-39	25-29	30-34	35-39	25-29	30-34	35-39
1970	46	48	46	31	23	19	31.7	36.3	43.1
1975	43	44	43	47	32	29	35.1	40.7	49.3+
1980	49	48	49	59	44	37	34.1	46.1	55.5
1985	54	51	54	67	49	45	35.9	43.2	55.8
1990	61	52	61	76	63	55	42.8	49.6	58.0
1995	66	54	66	79	64	58	47.8	47.5	59.2
2000	70	57	70	84**	74**	63**	55.9	48.5	59.1
2004	74	61	74	86	77	68	63.9	50.4	58.9

 Table 3. Labour force participation rates for females in Japan, Singapore, and the Republic of Korea, certain age groups, 1960 -2000

Sources: Statistics Bureau, Japan Ministry of Management and Coordination, Roudo-ryoku Chosa Houkoku (Labor Force Survey Report), various years. Singapore: Singapore Ministry of Manpower, various years; Singapore Department of Statistics, 1983, * 1957, ** 2001. Republic of Korea: Labour Force Survey data taken from ILO Labour Statistics Database. Republic of Korea 1980 figure actually 1982. + excludes widowed and divorced women.

In theory, young people may be avoiding marriage for reasons that differ from those that influence married couples to avoid having children. For example, marriage itself could be seen by young women intent on pursuing a career as a distraction from that goal; or they may be delaying it until, inadvertently, they find that they are faced with a lack of suitable partners (the "good man is hard to find" syndrome). In reality, however, "marriage is a package" (to quote Tsuya, 2005), as it is not simply about the relationship between two people, but tightly linked with

childbearing, child-rearing, and other family obligations. Thus the delay in marriage in the region is undoubtedly linked to a considerable, but not easily measurable, extent with the same kinds of concerns that are influencing married couples to delay childbearing or to have only one or two children. To marry without the intention to have children is still considered aberrant behaviour throughout the region. While "DINK" (double income, no kids) households may appear fashionable in the West, in Japan the fashion among young women seems more to be to avoid marriage. Young couples in Japan, after marrying, are subjected to considerable pressure from family to have a baby, and to a lesser extent from friends. The easiest way to avoid such pressure is to remain single. Although single people are also pressured to marry, the pressure may be less than that exerted on married couples to produce their first child.

The arguments against having children, especially for upwardly mobile women throughout the region, have already been noted. Not only are the opportunity costs of having children alarmingly high, but the actual financial costs of raising and educating children are also very substantial. For female university graduates in Japan, the costs of raising and educating a child have been estimated to exceed US\$ 1 million. (For the data on which that estimate is based, see Retherford and Ogawa, 2005: 15-16).

The role of women in some South-East and East Asian societies may provide additional reasons to avoid bearing children. Patriarchal attitudes among employers and in Government, resulting in poor workplace provision for the needs of working mothers, and the reluctance of husbands to relieve working wives of housework and child-rearing tasks, add considerable stress to the lives of women with children. The extreme pressure in such countries as Japan, Republic of Korea and Singapore to raise high-quality children, and the unequal role given to mothers in achieving that goal, add further strong deterrents to beginning the process of family building (see Hirao, 2004).

Another possibility is that a "second demographic transition" along the lines of that documented in Western countries (Lesthaeghe, 1995;Van de Kaa, 2001) has also occurred in the very low-fertility Asian countries, with greater stress on individualism and self-realization and a related downgrading in the importance people attach to fulfilling social norms such as having children. Some observers may assume that those countries are not greatly affected by postmodern values; however, a number of surveys in the region show a tendency for postmodern values to be increasing among younger respondents. The alternative explanation of the very low fertility currently recorded in many East and South-East Asian countries is that people still want two or more children, but the pressures they face in modern industrial societies make that ideal very difficult to realize (Quah, 2003: 71-73).

Surveys in the region tend to show that people on average express a preference for two or more children (e.g., Prachuabmoh and Mithranon, 2003: 39-40). That does not prove, however, that the obstacles to higher fertility are more in the nature of "work-life balance" issues rather than in a lack of interest in having the number of children that would lead to replacement-level fertility. In the European countries with well-below replacement fertility too, expressed desired fertility is much above the actual levels of fertility and rarely falls below 2. Similarly, it does not differ much by cohort or social group (Van de Kaa, 2001; Bachrach, 2001).⁵ Internationally, there tends to be a crossover in actual and expressed desired family size, when actual family size falls to levels a little above replacement level. Above that level, desired fertility tends to be below the actual level; but below that level the reverse holds, too (Bongaarts, 2001: 263-266). As Livi Bacci (2001: 284) notes, "... the suspicion is that stated preferences are heavily influenced by stereotypes and particularly by the model of the two-child family (a boy and a girl). This stereotype is pervasive and many surveyed individuals are "prisoners" of it."

McDonald (2000) has argued that the lowest levels of fertility are found in countries or societies where high levels of gender equity have been achieved in individual-oriented institutions, but where relatively low gender equity persists in family-oriented institutions. The list of countries where fertility is extremely low (in Europe: Italy and Spain; in Asia: Japan, the Republic of Korea, Taiwan Province of China and Singapore) seems to follow this argument. Italy and Spain not only stand out for their low fertility, but also for their very low proportions of women married or cohabiting. So, too, do Japan, Singapore and Taiwan Province of China, although not (yet) the Republic of Korea. There seems to be a correlation here, suggesting that childbearing is avoided in such countries, as well as marriage or marriage-like relationships.

The discussion of factors underlying very low fertility in Southern Europe in a paper by Caldwell and Schindlmayr (2003) is interesting for its possible application to East Asia. The authors argue (in summarizing the arguments of many other writers) that a key factor is "familism" ("a family-centred welfare system, a family-biased production system and a family-oriented value system": Bettio and Villa, 1998: 138). In the context of high youth unemployment, such a system promotes great delays in young people leaving home and makes it more difficult for the mother to work. Rising incomes and consumerism, rapid rises in educational levels, especially for girls, and increasing employment opportunities

for women give them strong incentives to enter the workforce. But the unwillingness of employers to allow time off to give birth or care for children, or return to the workforce thereafter, along with strong sexual division of labour within the household, means that the opportunity cost is very high for women to raise a family. Grandmothers do expect to look after the children of working mothers, but that practice also causes strains.

This article has no space for the parallels and differences between such patterns in Southern European and East Asian countries, except the observation that all those countries consider themselves very family-oriented. In practice, the rhetoric of "familism" and the reality of ultra-low fertility seem to go together, thus occasioning some introspection about the linkages.

Policy on marriage change for fertility reduction

This article has focused primarily on countries where fertility has sunk to very low levels. However, Asia also includes many countries with high or moderate fertility that are seeking to lower their fertility levels. To what extent can policies to raise the age at marriage assist in reducing fertility in those countries where fertility remains too high?

First of all, legislating minimum ages at marriage tends to achieve little unless accompanied by more far-reaching changes. The minimum age at marriage for girls is 16 years in Indonesia and 18 in Bangladesh, but many girls are marrying below these ages, especially in Bangladesh. What else can be done? Family planning programmes in many countries have given prominence to raising age at marriage in their family planning communications strategy. Indonesia is a prominent example. However, it is important to recognize that in countries where age at marriage for girls is very low (such as Bangladesh or Nepal), raising the median age at marriage from 16 to 18 or even 19 or 20 still leaves a very long period of potential reproduction, and therefore will not necessarily lead to a decline in completed fertility. That is not an argument against efforts to raise the age at marriage, which are important for three reasons: (a) even if completed fertility were to remain the same, the rise in age at marriage would lower the rate of population growth by extending the mean length of generation; (b) such a rise in age at marriage, especially if it is linked to extended periods of schooling for girls, tends to broaden women's perspectives and to empower them within the marital relationship - thus it is likely to be associated as well with reduced marital fertility; (c) third, from a more general perspective of human rights and empowerment of women, teenaged marriage should be discouraged, particularly where the girl has little or no say in the choice of marriage partner.

What we know about the factors leading to rising age at marriage in most cases seems to argue for policies that are likely to be pursued primarily for other reasons. Increased educational opportunities for girls and young women, widened opportunities for women to enter the paid labour market, and exposure to communications media bringing new ideas and attitudes, etc. can be mentioned in this context. The effect of such policies on age at marriage is unlikely to be a prime consideration in adopting them, though it is an effect that is arguably undervalued.

There are specific linkages between effective family planning and age at marriage in countries wishing to reduce their fertility. The impact of effective birth control would be greatest where a high proportion of early first marriages are triggered by an unplanned pregnancy or where out-of-wedlock births are met with social disapproval or economic hardship. But effective birth control in such a context would mean giving unmarried women access to contraceptive information and services, which remains a very controversial issue in many Asian countries.

Summary and conclusions

Marriage change has played a considerable role in the recent fertility declines in a number of Asian countries: in countries as different as Myanmar, where fertility has moved from moderate to low levels, and Japan, where it has moved from low to very low levels.

This article has given primary emphasis to the decline to ultra-low fertility in a number of South-East and East Asian countries ("the Pacific Asian" countries), that show some similarities with countries in Europe, especially in Southern Europe, as well as many differences. Systematic thinking about fertility trends in those Pacific Asian countries should not ignore the possibility that involuntary childlessness resulting from involuntary non-marriage could play a substantial role in the currently very low fertility levels in those countries, for a number of interacting reasons.

(a) Essentially no childbearing occurs outside marriage in Pacific Asian countries. Therefore marital status there directly affects fertility, whereas its effect on fertility is more blurred in Northern and Western Europe.

(b) Many factors affect marriage in Pacific Asia, aside from the desire for children or lack of it. For example, the notion of who should marry whom is perhaps less flexible in Pacific Asia, where hypergamy remains strong; yet parents have forsaken their traditional role in arranging marriage. Such factors are likely to make involuntary non-marriage more common in Pacific Asia than in Western countries;⁶ fertility analysts should therefore avoid exclusive concentration on the fertility goals of married people.

Both delay in marriage and postponement of childbearing by married couples hold down fertility. Frequently, perceived obstacles to starting a family push 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 their late 30s and 40s becomes an under-recognized factor. Among the many factors lowering desired childbearing among married couples in Pacific Asia, prominent possibilities are uncertainty of continued employment, conflict of work and family responsibilities, lack of appropriate policies to support child-rearing, the ideology of the "quality" child, financial costs of child-rearing, gender ideologies on housework, and difficulties of the urban environment. Possibly rising individualism also plays a part.

Finally, in those Asian countries where there is an urgent need to lower fertility (for example, Afghanistan, Bangladesh, Nepal and Pakistan), policies to increase age at marriage for females can be considered a vital part of any strategy to reduce fertility, in order to narrow the age ranges within which reproduction takes place, and to give later-marrying women a better chance of asserting control over their fertility within marriage. However, setting a minimum age for marriage is, according to evidence from a number of countries (including Indonesia and Bangladesh), unlikely to achieve the goal of eliminating very young marriages where such marriages remain socially acceptable to large sections of the society. In such contexts, minimum age regulations are more likely to be effective if allied with efforts to (a) increase the proportion of girls remaining longer in school, (b) increase workforce opportunities for women, and (c) engender wide-ranging discussion about human rights with regard to freedom to choose one's marriage partner.

Endnotes

1. Revised version of paper prepared for the ESCAP Seminar on Fertility Transition in Asia: Opportunities and Challenges, held from 18 to 20 December 2006, Bangkok.

- 2. For summaries of some of these policy responses, see McDonald, 2002; Saw, 2005; Jones, 2007.
- 3. For this line, see Nortman, 1982, figure 4.
- 4. This section draws heavily on Jones, 2007.

5. There is recent evidence of fertility ideals falling as low as 1.7 for younger men and women in German-speaking parts of Europe (Goldstein, Lutz and Testa, 2003). However, this is still well above actual fertility levels.

6. For categories of voluntary and involuntary non-marriage, see Stein, 1981.

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