Low Fertility and the State: The Efficacy of Policy

PETER MCDONALD

SOME 30 COUNTRIES today have fertility rates below 1.5 births per woman. The governments of each of these countries have reported to the United Nations that they consider this rate to be "too low" (United Nations 2004). When fertility is moderately below replacement level, the size of subsequent generations falls only slowly and, if considered necessary, there is an opportunity to supplement the generation size with migration. When fertility remains very low, however, the generation size falls rapidly and massive migration would be required to offset the decline (United Nations 2000). Hence, we can think in terms of a "safety zone" for low fertility. Population dynamics tends to confirm the view of governments that the "safety zone" lies above 1.5 births per woman.

There is evidence also that very low fertility, on average, is counter to the preferences of individuals experiencing it (van Peer 2002; d'Addio and d'Ercole 2005). While individual-level economic analysis attributes meaning only to revealed preferences, actual fertility behavior (a revealed preference) is achieved within a given social-institutional setting. In expressing higher "ideal preferences" on average, women are effectively commenting upon the nature of the social-institutional setting in which they consider having children. They are saying that, in a different institutional setting, they believe they would have had more children. My central argument in this article is that institutional settings more conducive to having children are both desirable and achievable. People have many desires that are not satisfied. Why be concerned about this particular unrealized ideal? I shall argue that benefits accrue both to the individuals concerned and to the society as a whole if fertility ideals can come closer to being fulfilled. There are severe questions about the nature of social organization if citizens fail to have the number of children they would prefer to have when that number is as low as one, two, or three children. The argument is a subtle one because the societies under discussion do not remove the right to have children as some societies remove other personal freedoms. Rather, the argument I make is that ideals go unre-

alized because of countervailing forces ensuing from the nature of modern society. Low fertility is an unintended rather than a deliberate outcome of changing social and economic institutions.

While revealed preferences may fall short of ideal preferences in most advanced countries today, evidence is emerging that if very low fertility is sustained for a long period of time, ideal preferences can begin to shift away from childbearing. Goldstein, Lutz, and Testa (2003) have shown that as German society has reduced the level of support of its children and as German families have responded by having fewer or no children, German society in the past three to four decades has become less child-friendly and new generations have taken on anti-child preferences not previously evident. Once social organization reaches this stage, reversal of very low fertility becomes much more problematic.

In macroeconomic terms, very low fertility leads to serious future labor shortages, especially a shortage of young skilled workers at a time when populations are aging rapidly. Already, several European countries have reduced the level of retirement benefits and this is creating political problems. Compensation for labor shortages through large-scale immigration is also meeting hostility in several European countries. McDonald and Kippen (2001) have estimated that, over the next 50 years, Japan's labor supply would fall by 22 million and Italy's and Germany's each by 11 million if their fertility levels and labor force participation rates of the late 1990s were to continue unchanged. Most of this projected fall in labor supply is among younger workers. The importance of young skilled workers in maintaining international economic competitiveness is underlined by the claim that 80 percent of new technology is obsolete in ten years while 80 percent of workers obtained their qualifications more than ten years ago (Larsson 2003). At the high-technology end of the labor force, retraining of older workers tends to be a relatively ineffective means of substituting for younger workers (Skirbekk 2003). In each generation of new technology, conventionally it is young workers who assimilate the technology working in complement with older workers who have capital, wisdom, and ideas for the application of technology. As science advances, the speed of technological change increases. Countries that ignore this reality are placing themselves at risk in a competitive global economic environment, and it now seems that every country with very low fertility has become aware of the risks. On the other hand, countries have been slow to take corrective action. The number of OECD countries that reported to the United Nations that they had policies in place to maintain or raise the fertility level remained at seven from 1976 to 1996. However, the number had risen to 13 by 2003 and more countries have announced pronatalist policies since 2003 (d'Addio and d'Ercole 2005: 47). Most notably, President Vladimir Putin has announced new policies related to increasing the birth rate in his 2006 State of the Nation address

(*Population and Development Review* 2006). The Government of South Korea has also been actively engaged in defining a comprehensive new policy approach for that country (Lee 2005).

Why have countries been slow to take action?

Policy action on low fertility has been slow for four reasons. First, in the 1970s and 1980s, demographers tended to interpret low fertility as a temporary phenomenon related to the delay of marriage and childbearing (a so-called tempo effect). Because births were merely delayed, fertility would rise at a later point when the delayed births occurred. This view was confirmed to some extent by rises in fertility in several countries (all the Nordic countries, the United States, Belgium, Netherlands, Luxembourg) in the latter half of the 1980s. In other countries where fertility had fallen below 1.5 births per woman by the early 1980s (Germany, Austria, Italy), there was an assumption that low fertility would disappear of its own accord as the tempo correction took place. However, fertility in these countries has continued to fall to even lower levels and has remained below 1.5 births per woman for more than 20 years, almost a demographic generation. These countries have since been joined by others in southern Europe and by East Asian countries and most of Central and Eastern Europe. Waiting for tempo is beginning to look like waiting for Godot. After 20 years of very low fertility, the damage to a country's age structure has already been done because it is cross-sectional fertility that generates the annual number of births.

The second major reason that countries have been slow to take corrective action is a conventional wisdom among demographers and economists that pronatalist policies are both expensive and ineffective. Historically, this view may stem from David Glass's evaluation of pronatalist policies in the 1930s (Glass 1940); today, however, the belief is curious because the weight of evidence (reviewed below) is that pronatalist policies, either explicit or implicit, have been effective. They may be expensive but most social policy is expensive. The question is whether such policies are cost-effective or, more realistically, whether the risk of doing nothing outweighs the risk that policy will not succeed. Furthermore, pronatalist policies are usually justifiable on other grounds such as equity between those with and without children and improvement in the capacity for parents, especially mothers, to combine their family formation with paid employment. Nordic countries, for example, conventionally refer to policies that are implicitly pronatalist as family policies, and this tends to be the case in Australia as well.

Third, pronatalism was politically sensitive in some countries because of its past association with fascism and eugenics (Lutz and Scherbov 2003). More simply, governments have believed that it is not their business to meddle in people's private lives, and when childbearing was advocated on

the grounds that "women need to fulfill their national duty," there was justifiable reaction from women's organizations.

Finally, the claim has been made that low fertility can be offset by increased levels of migration. While migration can provide a partial solution to labor shortages at young ages, particularly in the shorter term, in all but exceptional instances it is not a long-term solution to the future labor shortages that arise from very low fertility. Also, some very-low-fertility countries have witnessed political opposition to large-scale migration. Furthermore, because many countries simultaneously will face a shortage of young skilled workers, competition for immigrants of this type will heat up in the future. In the long run, higher fertility rates must be part of the solution for countries with very low fertility. For those countries with fertility rates that are presently only moderately low (1.7–2.0), it is prudent to implement policies that will sustain fertility rates around their present levels.

The causes of low fertility

I argue that the emergence of low fertility is associated with two waves of social change that have had profound effects upon family formation behavior in the past 40 years. The first wave of change, beginning in the 1960s and consolidated in the 1970s, was a rapid expansion of social liberalism (also termed reflexive modernization). The second wave, beginning in the 1980s and consolidated in the 1990s, was a sharp shift to economic deregulation including, most importantly for the argument here, labor market deregulation (also termed new capitalism). In the following sections, I describe each wave and elaborate their combined effect upon fertility.

Social liberalism or reflexive modernization

The first major wave of social change in the past four decades was the values shift and associated institutional and legislative changes that van de Kaa and Lesthaeghe described as the second demographic transition, following Inglehart's (1977) work on the values shift among young people from materialism to postmaterialism (Lesthaeghe and van de Kaa 1986; van de Kaa 1987). Emergent from the rigid social regime of the male breadwinner model of the family that held sway in the 1950s and 1960s and for decades before, this wave of change is referred to as reflexive modernization by some sociologists (Beck, Giddens, and Lash 1994). Reflexive modernization is modernization of the principles of industrial society involving assessment by individuals or groups of the appropriateness of existing social institutions for modern life. It has brought a sharply increased capacity for individuals to pursue personal autonomy and to construct their own identities rather than having those identities defined for them by societal norms and institutions.

Under reflexive modernization, individuals are freed from institutional and normative constraints, and they become more responsible for the outcomes of their actions. In this latter sense, the risk to individuals is increased and society, in Beck's (1992) terms, becomes risk society and individuals become risk sensitive and most become risk averse. For example, at the personal level, women aware of the high risk of divorce will be more cautious in the selection of a husband and more likely to seek labor market qualifications and a work history that would enable them to be economically independent should the need arise.

In regard to family formation, reflexive modernization lifted the lid on divorce, previously held down by legislation and social opprobrium. Many countries enacted "no-fault" divorce laws, unilateral divorce based upon the irretrievable breakdown of the marriage proven by a relatively short separation. Also in the 1970s, the pattern of early marriage and early childbearing that characterized the 1950s and 1960s gave way rapidly to cohabitation outside marriage and delayed childbearing. Various institutionalized rights were extended to cohabiting couples and to children born outside of marriage. Couples who chose to live together rather than to marry immediately were seeking to maintain their personal autonomy while testing the relationship for the stronger and more altruistic commitments involved in marriage. The rise of the cohabiting relationship can therefore be seen as a product of the risk aversion that accompanied reflexive modernization. Cohabitation prior to marriage became an experiment in a form of intimacy that allowed the greater pursuit of personal autonomy (McDonald 1988). In this sense, cohabitation is not an alternative to marriage but can be regarded as a pathway that promotes the institution of marriage in a riskier social environment (McDonald 2003).

Reflexive modernization was characterized most importantly by at least partial fulfillment of women's claims for a greater level of gender equity in the distribution of returns from modernization, particularly through paid employment. Structures that discriminated against women in the workplace were gradually dismantled. The ensuing changes in women's lives were facilitated by the revolution in contraceptive technology and by legal judgments and legislative changes that allowed freer access to abortion. Control over their own fertility enabled women to plan and organize their lives with greater certainty. Young women were encouraged to enhance their employment prospects through increased levels of education, and their education levels have risen sharply, now exceeding those of young men in most industrialized countries. Labor force participation rates and wage rates of women relative to those of men also rose sharply (OECD 2002; Macunovich 1996). Nevertheless, some social institutions are still characterized by considerable gender inequity. These include the family itself, the tax-transfer system, and working arrangements and conditions (McDonald 2000a,

2000b). While men and women face increased personal risks from social liberalism, the risks are greater for women: gender inequity extends to how the risks are borne.

Reflexive modernization has been extolled as providing the opportunity for "pure relationships" held together not by social constraint but by freely given intimacy (Giddens 1992). It has also been derided as the selfish pursuit of one's own fulfillment at the expense of others and, more broadly, at the expense of the institution of the family (Popenoe 1987). An intervening position sees reflexive modernization in a Kantian sense of autonomy that enhances the individual's capacity for self-direction. This capacity can be put to good or bad purpose. This is the social, as distinct from the individual, risk associated with the provision of personal autonomy. The dilemma faced today is the same as that faced by the Enlightenment philosophers: "the reconciliation of the goal of personal autonomy with the conviction that men and women are irreducibly social" (McDonald 1988: 44).

Economic deregulation or the new capitalism

In the 1980s and into the 1990s, much of the world was swept by what has become known as the new capitalism. In keeping with the neo-liberal philosophy that the free operation of the market is the most efficient and effective form of economic organization, in the past 20 years regulations and restrictions have been reduced so that capital can flow easily in the direction that maximizes business efficiency and profit. The theory is that profitable businesses mean improvements in employment and wages and, hence, in economic well-being. The characteristics of this new economic regime are free flow of capital across international boundaries, free trade, the right for employers and workers to negotiate wages and working conditions in a deregulated environment, and curtailment of government-funded social welfare.

The principles of old capitalism, perhaps best described as welfare state capitalism, were scrutinized and found to be rigid and "traditional." Progress involved dismantling market rigidities by providing greater autonomy to firms, investors, and workers to pursue the most profitable outcomes. Whereas the structures of old capitalism (stability of industry and company structures, lifelong employment, routine jobs, unions, tariffs, currency controls, investment restrictions, relatively high taxation, and state welfare provision) were designed to provide protections for both firms and employees, the new capitalism meant, as Beck (1992: 19) has said, that the social production of wealth became systematically accompanied by the social production of risk.

In relation to family formation and dissolution, the most important aspect of the new capitalism is its impacts on the labor market. These im-

pacts include: industry restructuring with a rapid increase in the producer services industries and a decline in manufacturing; direct negotiation between workers and employers and the decline of large unions; a shift in labor demand to higher levels of human capital; flexibility of employment permitting easy movement within the system and flexibility of appointment, dismissal, work content, working conditions, and working hours but absolute dedication to the completion of short-term tasks; downsizing as a short-term strategy of cost reduction; the end of "jobs for life"; and contracting out to increasingly specialized smaller firms. The new capitalism offers great rewards to those who are successful in its terms but is unforgiving for those whom it rejects. Accordingly, rising income inequality has been a significant feature of the new capitalism.

Sennett (1998: Chapter 8) has argued that the personal consequences of work under the new capitalism have led to a "corrosion of character," including loss of a lifetime identity, loss of trust in others, loss of a sense of the value of service (altruism), decline of community (see also Putnam 2000), vilification of the "dependent," and fear of failure or of being left behind. Like Beck, Sennett describes new capitalism as leading to a greatly increased sense of risk. This sense of risk has been heightened by witness: witness of friends or colleagues losing their jobs even in the middle- and high-level ranks; witness of long-term unemployment; witness of vilification of the unemployed; witness of the effects of recessions; and witness of the collapse of major corporations through corruption, bad management, or bad timing. On the other hand, in distributional terms, new capitalism rewards innovation and hard work and, hence, provides incentives for both. Jobs are less routine and can be more interesting and challenging. The individual worker has greater freedom to sell his or her skills to the highest bidder, and, with the use of computer technology, is much more productive. Thus, people also witness the labor-related successes of the new capitalism. Being engaged in a game of chance can bring fortune or failure. The difference under reflexive modernization and new capitalism is that the individual rather than society as a whole bears the responsibility and the consequences.

Both Beck and Sennett stress the negative outcomes of these social trends for individuals and for "community." They say little about outcomes for the family, although implicit in their arguments is the sense that the family, as the fount of altruism, is placed under great strain. Employers as a group have probably never been great supporters of family life, but under welfare-state capitalism prior to the 1970s the state intervened in various ways to protect jobs and wages on the assumption that each worker was supporting a wife and children. Under the new capitalism, governments have removed these worker protections, implying that employers need have little or no responsibility for workers' family lives. Like reflexive modernization, new capitalism has been facilitated by governments through changes

in laws relating to industrial relations, trade, financial institutions, taxation, and rights to welfare.

The positive outcomes from the new capitalism, however, have been substantial in some respects. Living standards have continued to increase under its aegis. Its young beneficiaries, of whom there are many, have engaged frequently in conspicuous consumption that has raised the economic aspirations of young people more generally. But these gains for young men and women have come in exchange for a lowering of job security, less protection of wage levels, and an end to standard working hours and other work-related benefits. If they wish to maintain economic standing with their peers in an environment of rapidly rising aspirations, young men and women must devote themselves to the maximization of their own human capital. This implies eschewing or at least delaying more altruistic endeavors such as family formation.

Social liberalism, economic restructuring, and the emergence of very low fertility

Social liberalism and economic restructuring have given rise to two key changes for individuals: the provision of gender equity through an opening up of opportunities for women beyond the household, and the rise of risk aversion among young people of both sexes in an increasingly competitive labor market. These changes influence fertility in the following ways.

Gender equity

Most advanced societies have a recent history of differentiated family roles for men and women where men specialized in wage earning while women specialized in homemaking and caring for relatives, especially children. Rigidly differentiated roles for men and women were questioned as part of the reaction in the 1960s and 1970s to socially prescribed roles for men and women and movement toward greater freedoms for the individual. As a result, education levels for women increased dramatically, and opportunities in paid employment were opened to women to the extent that, in the institutions of education and market employment, considerable gender equity was afforded to women as individuals. The movement to gender equity has been focused upon individual-oriented social institutions, however. Consequently, family-related institutions, especially the family itself, continue to be characterized by gender inequity. By the time women begin to consider family formation, they have experienced considerable freedom and gender equality, hence are keenly aware that these gains will be distinctly compromised once they have a baby (McDonald 2000a, 2000b). This is especially the case in those labor markets where little or no provision is made

for the combination of work and family. There is a considerable economic dimension to the gender argument, the mechanism being the lifetime earnings lost to women through having children.

In these circumstances, women exercise careful control over their own fertility, delay their family formation, and have fewer children to such an extent that fertility falls to very low levels. In some settings where childbearing is a strongly expected, rapid consequence of marriage—in East Asia, for example—women may remain unmarried. The central problem is that family formation involves greater risks for women than for men. Accordingly, women are wary about embarking upon marriage and childbearing if they do not feel confident about their ability to combine family with the other opportunities that have opened up for them, especially paid employment.

With respect to fertility, reflexive modernization has provided women a much wider range of choices beyond that of being a mother. Women are also cognizant, however, of the conflict between these wider choices and choices about motherhood. If early childbearing prevents a woman from realizing her potential in education and paid employment, she is held responsible. Alternatively, if she prioritizes education and career and remains childless, she is also held responsible. Books by or about successful career women who regret not having had children have been bestsellers in recent years (Hewlett 2002; Crittenden 2002; Haussegger 2005; Macken 2005). Through reflexive modernization, women are faced with a conflict between opportunities and risks in relation to family and paid employment. Reflexive modernization has passed the responsibilities and hence the risks to the individual.

Risk aversion under labor market deregulation

Globalization and sharply rising education levels have created high economic aspirations among young people. At the same time, labor market deregulation has led to a wider variation in their earnings and career stability and progression. Engagement in the deregulated labor market is now seen as involving greatly increased risk. Under these conditions, young people tend to become risk averse, that is, they follow pathways that have lower risk. Living in a society that has experienced recent high unemployment among the young adds greatly to this sense of risk. Personal experience of unemployment contributes to low savings and to loss of place in the competitive labor market, greatly heightening the sense of insecurity. While, at an individual level, early labor market success can promote earlier family formation (Kravdal 1994; de Wit and Ravanera 1998), the societal balance is toward later achievement of economic security, in a context where security is defined within an environment of greatly enhanced economic aspirations.

Investment in one's human capital (education and labor market experience) is seen as the essential hedge against these risks, the optimal path of

risk aversion. This investment involves considerable commitment to self and one's employer, especially through long work hours, in opposition to a commitment to more altruistic endeavors such as service to family members and family formation. As a consequence, family formation is put on hold while human capital is accumulated. Where a couple has formed a relationship, each will be concerned about the earning capacity of the other, adding to the sense of risk aversion. Women not in a relationship, aware that their own income is likely to be reduced during their children's early years, will seek a partnership with a man who has a secure income. While family formation remains the goal of most people, within the context of the opportunities and risks of the new capitalism it can be delayed to an extent that achieved fertility falls short of ideal preferences.

The conflict between autonomy and intimacy

Despite these social and economic changes, the family has remained central to most people's lives even in the most socially liberal countries. Surveys show that a large majority of young people in most industrialized countries continue to say they would prefer to have a long-lasting intimate relationship (marriage, in most of these countries) and that they would prefer to have at least two children (van Peer 2002; d'Addio and d'Ercole 2005). Caretaking support for the elderly continues to be provided overwhelmingly by family members (McDonald 1997). The family remains central to the lives of most people, and the quality of family relationships has a very strong association with the quality of life as a whole (Nolan 2002).

While new alternatives may be tantalizing, values related to the family are not simply swept aside by the rising tides of reflexive modernization and new capitalism. They represent a third dominant dimension of social values. Family values are resilient because humans are inherently social and have a strong need for intimacy. Isolation and loneliness are not desirable characteristics, and, for most people, these are avoided principally through the intimacy of family relationships. For most people, the emotional benefits of children remain strong. A recent report relating to Austria and Central European countries is indicative:

> What is really important to Austrians and CEE citizens, especially EU candidate countries? … Conclusion: Austria and the Central European countries are dominated by the values of family/relationship, liberty/independence, and financial security. (Austrian Institute for Family Studies 2003)

Liberty and independence are the aims of reflexive modernization. Greater financial security is a goal of new capitalism, although it often misses the mark. Family values are the third leg of the tripod, but they have not

been supported by governments to the same extent as the other two values. Without this support, reflexive modernization and the new capitalism have placed the institution of the family under great strain. Under the new capitalism, individuals must maximize their utility to the market. This requires that they focus upon the acquisition of saleable skills, work experience, and a marketable reputation. Reflexive modernization provides individuals with the freedom to pursue personal goals. In contradistinction, family involves altruism, that is, time and money freely devoted to others. While new capitalism and reflexive modernization may lead people to be both risk accepting and risk averse, it is easier to accept risk when others (including potential future others, that is, children) are not affected by the outcome. The widespread desire for intimacy and family relationships, therefore, tends to make the majority of people risk averse. Because the effect of childbearing upon women is greater than upon men, women are likely to be more risk averse than men (McDonald 2002).

Providing the confidence to form families

The preceding discussion indicates that delay of family formation is based not so much on experienced economic outcomes but, like any other investment, on the degree of confidence that potential parents have about their capacity to undertake family formation while not placing themselves at economic risk or at risk of falling short of their individual aspirations. Does the solution lie in lowering the level of aspirations or in providing a higher level of security? It is often suggested that young people's values are "too materialistic" and this is why their fertility is low. However, rising economic aspirations and materialism have existed from time immemorial, and, at present, they are encouraged by the new capitalism. It is a gross contradiction to support new capitalism and at the same time describe young people as materialistic. While young people are aware that almost inevitably they will reduce their material well-being if they have children, most are willing to accept the loss as long as it is not overly detrimental to their aspirations. In particular, they would like to have confidence that they will have adequate financial resources during the period when children are very young and that the period of loss will be temporary.

The solution to low fertility therefore lies in providing a greater sense of assurance to young women and young men that, if they marry and have children, they will be supported by the society in this socially and individually important decision. If instead they look ahead to societal arrangements that severely disadvantage those who have children, they will delay their family formation until they feel they have reached a secure enough position to assume its costs. Individual delay means very low fertility for the society. Having been instrumental in the rise of the conditions leading to

low fertility, governments should take the lead in providing this greater sense of security. Effectively, this implies large public transfers from those who do not have the care of young children to those who do. There is a role for other institutions as well, especially the institutions of employment. And there is scope for increased awareness among young people of the countervailing risk of delay, that is, the risk that couples will not be able to have the children they want to have. Many other risks and fears are associated with having children, and to the extent that a society is able to address these risks, it increases the chances it will have a higher fertility rate.

Empirical studies in support of the need for public policy

Baizan, Michielin, and Billari (2002), in a comprehensive study of young people in Spain, find that the time spent in education has increased greatly. From the 1950–54 birth cohort to the 1960–64 birth cohort, months in education between the 15th and 30th birthdays increased from a mean of 15.4 to 25.6 months for men and from 10.6 to 25.4 months for women. Again between these two cohorts, the number of episodes of unemployment and the number of job changes also increased substantially. The authors also record an increase in the heterogeneity of experience from the older to the younger cohort, especially in employment. Finally, they observe that women's careers are becoming more similar to those of men. They conclude that all of these trends in combination with the Spanish family system and the costs of housing have led to the postponement of family and household formation. Young people, both men and women, wish to be well established in their employment before they marry and have children. Also with reference to Spain, Ahn and Mira (2001) observed that the lack of stable jobs among men is one critical factor that has forced many young people to delay marriage and childbearing. Between 1987 and 1995, the proportion of employed Spanish men aged 25–39 years who held permanent work contracts fell from 55 percent to 37 percent. Ahn and Mira (2001: 15) concluded that the key to increased family formation in Spain lies in "increasing the level of confidence among young workers about their future employment prospects."

A norm of achieving a good income before having children has also emerged in Sweden (Andersson 2002). Indeed, Andersson suggests that where a parental leave payment is related to earnings, couples have an incentive to delay the birth of the first child until they attain a higher income. De Wit and Ravanera (1998) also argue that young Canadians are inclined to wait until they are secure in work before having children; moreover, young Canadians who have been successful in attaining a good income and employment situation at a relatively early age speed up entry to marriage and reproduction. This underlines the hypothesis of increasing heterogene-

ity among young people. For the Netherlands, Liefbroer (1998), using attitudinal data from a panel survey, found that the timing of the first birth is influenced by the perceived costs of having a child for one's career opportunities but that children were also seen as reducing life's uncertainties because of the stabilizing effect that they had on one's life.

These findings sit within an interesting theoretical debate. Happel, Hill, and Low (1984) presented a theoretical argument and empirical evidence for the United States that there is a greater economic incentive for couples to postpone childbirth where women acquire high-paying jobs, because of the potential loss of earnings and job skill depreciation that would ensue from time out of the labor force. Counter to this, using better measures, Kravdal (1994) found that accumulated economic and material resources have a large effect upon the timing of the first birth, whereas economic potential has little influence. Cigno and Ermisch (1989) had made the same argument for the United Kingdom but the available data were inadequate for the purpose. The reconciliation between the two arguments, as intimated originally by Happel, Hill, and Low, may be the capacity to purchase childcare and other child-related needs that comes with the accumulation of wealth and the acquisition of a high-income-earning husband.

Beets and Dourleijn (2001) have documented the increase in durations and levels of education in the Netherlands and its impact on the timing of first births. Britta Hoem (2000), in explaining the fall in fertility in Sweden in the 1990s, described a remarkable shift toward higher education among young women as levels of unemployment rose in certain sectors of the Swedish economy. In 1989, 14 percent of Swedish women aged 21–24 years received an educational allowance that is payable to all adult students (ages 20–50 years); in 1996, the figure had risen to 41 percent. At ages 25–28, the equivalent change was from 9 percent to 22 percent. Using municipal data, Hoem also observed that delays of childbearing were positively correlated with regional levels of unemployment. Similar observations for Sweden have been made by Andersson and Liu (2001).

These findings suggest that, as education levels continue to rise in response to the demands of the liberalized labor market, first births will be delayed even longer. With very lengthy delays, the chance increases that the first birth does not occur at all. This becomes more likely where young people have a poor understanding of the decline in fecundity (the biological capacity to reproduce) as women age though their 30s. Beets and Dourleijn (2001) have documented the relatively poor knowledge of young people about this issue in the Netherlands and suggest that information on declining fecundity should be included in school curriculums along with family planning information.

While levels of childlessness in advanced countries may be more divergent in the future, the evidence suggests that the main difference be-

tween countries with moderately low fertility and countries with very low fertility is the extent to which childbearing continues beyond the first birth when the first birth occurs at a late age (Lesthaeghe 2001). Recent studies in Europe have focused upon the determinants and speed of progression from the first to the second birth and from the second to the third birth. The evidence suggests that a higher level of education does not lead to lower progression rates at these birth orders. Indeed, it is not unusual to find the opposite effect. For example, Hank and Kreyenfeld (2003) found a positive correlation between a woman's education level and the transition rate to the second child for West German women. Kravdal (2001) argues that we should pay attention to the combined effects of progression rates at all parities because of selectivity at lower progressions. He argues that educated women in Norway have a higher level of childlessness and a later age at first birth that contribute to lower fertility rates overall despite only small differences in progression rates by education at higher orders of birth. The later age of educated women at first birth means that it is somewhat artificial to examine rates of parity progression at higher ages while controlling for current age.

Giraldo, Mazzuco, and Michielin (2005), in a comparison of France and Italy, concluded that higher fertility in France was associated with institutional factors that made it easier for French women to combine employment and having children. Similarly, Del Boca (2002) observed for Italy that the availability of childcare and part-time work increases the probability both of working and of having a child.

The cultural divide

If all advanced countries face similar forces of change, why do some have very low fertility rates while others have only moderately low rates? There is evidence that fertility rates in advanced countries are broadly correlated with the extent to which governments and employers provide supports to families with children. Table 1 divides high-income industrialized countries into two groups: those with fertility rates above and below 1.5 births per woman. There is a cultural divide between these countries. Those at or above the 1.5 level (Group 1) include all Nordic countries, all English-speaking countries, and all French- and Dutch-speaking Western European countries. Those below the 1.5 level (Group 2) include all advanced East Asian countries, all southern European countries, and all German-speaking western European countries.

In broad terms, Group 2 countries share a strong tradition in which family and state are separate entities and families are expected to support their own members without intervention from the state. Accordingly, these states have been slow to implement family assistance measures. With some exceptions, the opposite is the case in Group 1 countries; in general, they are notable for

TABLE 1 Total fertility rates 2003: Two groups of countries

Group 1	TFR	Group 2	TFR
United States[a]	2.01	Portugal	1.44
Iceland	1.99	Switzerland	1.41
Ireland	1.98	Malta	1.41
New Zealand	1.96	Austria	1.39
France	1.89	Germany	1.34
Norway	1.80	Spain	1.29
Denmark	1.76	Italy	1.29
Finland	1.76	Japan	1.29
Australia	1.75	Greece	1.27
Netherlands	1.75	Singapore	1.26
Sweden	1.71	South Korea	1.19
Britain	1.71	Hong Kong	0.94
Luxembourg	1.63		
Belgium	1.61		
Canada[a]	1.50		

[a]2002.
SOURCE: Compiled by the author from various official statistical sources including Eurostat and national statistical agencies.

the family-friendly institutional arrangements that they have implemented in the past 20 years and for relatively higher levels of gender equity within the family. The responsibility for family caring and maintenance (beyond income) in Group 2 countries falls almost exclusively upon women, that is, the male breadwinner model of the family remains largely intact. Because women are expected to provide caring and maintenance work, the service and public sectors in Group 2 countries are generally smaller than in Group 1 countries (Bettio and Villa 1998). In Group 1 countries, these are the sectors that are more likely to employ women and to have family-friendly work environments. It is no surprise then that both fertility and labor force participation rates for women are lower in Group 2 countries.

Ironically, Group 2 countries see themselves as having strong traditional "family values." This image of themselves makes change from the traditional family organization politically more difficult. Furthermore, the cultural divide between countries in Groups 1 and 2 has deep historical roots, suggesting also that change is likely to be difficult. Therborn (1993) postulated a strong relationship between the development of children's rights in Western countries and the forms of legal patriarchy that applied at the beginning of the twentieth century and that persist to varying degrees. Therborn's classification of countries according to the timing of movement toward children's rights and away from patriarchy bears a close resemblance to groups based upon current fertility levels.

Therborn did not discuss East Asia in his classification but, in regard to children's rights, this region lagged even further behind. The cultural divide indicates that differences between countries with very low fertility and those with moderately low fertility are due to institutional factors rather than to individual-level factors. Hence, the state, as the custodian of the country's institutions, is the logical instrument for effecting change.

Besides having more developed family support policies, Group 1 countries are more "advanced" in terms of social liberalism. Levels of divorce, cohabitation, and childbearing outside marriage tend to be higher in Group 1 countries. Does this imply that Group 2 countries need to promote social liberalism if they wish to have higher fertility rates? Or, more critically, are strong family support policies likely to emerge only from the most socially liberal environments? My view is that the problems arising from the very low levels of fertility in Group 2 countries are so pronounced that these countries cannot afford to wait for the answer to these questions to unfold. It is difficult to imagine states in Group 2 countries promoting higher rates of divorce, cohabitation, and childbearing outside marriage as a means to increase their fertility. It is easier to envisage them promoting family support policies, and many are already beginning to do so.

The effect of policy on fertility

Fertility rates have fallen in almost all developing countries over the past 40 years. It is now accepted that government policy in most cases played a major role in the achievement of this remarkable phenomenon. This is a recurring theme of the articles in the volume *Global Fertility Transition* (Bulatao and Casterline 2001) and is accentuated in a recent review by Caldwell (2005). Acceptance of this fact has been belated, however. In the first decades of government-sponsored family planning programs, many demographers were highly skeptical about whether governments could influence fertility rates in the context of strong traditional supports to high fertility. Hodgson described this as a controversy within demography between the "developmentalists" and the "family planners" but astutely also described it as "an expression of conflicts attendant upon pursuing policy-oriented research within an academic discipline" (Hodgson 1983: 1).

It is not surprising, then, that many members of the same profession today question the efficacy of policies that are aimed at increasing or sustaining fertility rates in industrialized countries. The reasons offered are similar to those that were used to reject policy efficacy in relation to fertility decline: the culture of values is too difficult to reverse and indubitable empirical evidence is not available. Government family planning programs in developing countries went ahead on the basis that action could not be delayed and, although the evidence was incomplete, it appeared

sufficient to justify investment of scarce development funds in family planning. The gamble, if it was a gamble, was successful and we now anticipate a world population in 2050 of around 9 billion, compared to the 16 billion that was projected in the mid-1960s. In hindsight, we can conclude that countries made the correct decision to proceed vigorously with the implementation of family planning programs at a time when the evidence for their efficacy was incomplete. In fact, this is not an unusual circumstance in the implementation of social policy. Social policy is often implemented on the basis of hypotheses that remain to be confirmed. Indeed, implementation is often the only way to test whether or not a policy is effective and, even then, it may be many years before conclusive evidence is available.

As Hodgson (1983: 1) wrote, "To offer advice on how to produce beneficial social change without doing violence to 'facts' as best they are known is a difficult and stressful task." Nevertheless, the reluctance of demographers to recommend action to sustain fertility at moderately low levels or to increase it from very low levels is academically conservative: in general, the evidence for the efficacy of such policies tends to be favorable. Several demographers examined the effectiveness of pronatalist policies introduced in Hungary in 1965. Their conclusion was that these policies stopped the fall in fertility in Hungary that was underway at the time (Andorka and Vukovich 1985). Büttner and Lutz (1990) concluded that an explicitly pronatalist policy package introduced by East Germany in 1976 increased fertility there in the years from 1977 to 1987 by between 15 and 20 percent.

More broadly, Gauthier and Hatzius (1997) concluded: "On the basis of an econometric model applied to data from 22 industrialized countries and spanning the period 1970–1990, the results suggest that cash benefits in the form of family allowances are positively related to fertility" (p. 304). They also suggest an "additional effect of…the more general package of cash and in-kind benefits for families" (ibid.). Despite its positive conclusion, this study is often cited as evidence that policy is ineffective. The reason is that the study concluded that the effects of policy appear to be small. Gauthier and Hatzius quantify the impact of increases in family payments as being 0.07 of a child for a 25 percent increase in expenditure. The additional effect of the broader package is not quantified but it seems that a comprehensive policy based on a 25 percent increase in expenditure by government could produce a fertility increase of 0.1 of child. This is not insignificant because, for most very-low-fertility countries, a 0.4 increase in the total fertility rate would raise TFR above 1.5. I emphasize that only small policy impacts are required. To produce another baby boom or even replacement-level fertility is not the aim. Gauthier's more recent (2005) review of the effect of family policies on fertility makes the point that it will always be difficult to disentangle the impact of any policy change upon fertility when

there is no counterfactual: what would have happened without the policy change? It is also difficult to gather adequate data on policy changes across countries, and even more problematic to convert the effect of policies into quantitative measures that are comparable across countries. Nevertheless, Gauthier reasserts that there appears to be a positive impact of cash benefits on fertility and that "the literature also suggests that policies that support working parents can sometimes have a positive effect on fertility" (2005: 106), although the picture is mixed.

A further methodological issue, as Castles (2003) has pointed out, is the problem of causal ordering when we attempt to estimate the impact of pronatalist policies on fertility. He argues that pronatalist policies are likely to be implemented by governments when fertility rates are low. Accordingly, in the early years of implementation, a substantial policy initiative may be associated with low fertility. If the timing of implementation is not taken into account, we may associate low fertility with a policy that, in the longer term, will be effective in raising it. The study by Gauthier and Hatzius was based on policy in the period 1970–90. This may well be "early years" in Castles's terms. A more recent multi-country econometric study based on data from the 1990s (Adkins 2003, discussed below) shows much stronger effects of financial payments on fertility than were observed by Gauthier and Hatzius.

In recent years, the number of studies on the effectiveness of policy has increased. As policies are more widely and more comprehensively applied, the evidence of a positive effect has become stronger, as would be expected from the causal ordering argument. Castles (2003) found that family-friendly policies effectively explained the positive association between fertility and women's labor force participation rates in 21 OECD countries. He observed an "extremely strong positive relationship between fertility and formal child-care provision" and a lesser correlation with family-friendly workplace policies such as flexible working hours (ibid.: 222). A comprehensive study by the Rand Corporation (Grant et al. 2004: xv) concluded that "government policies *can* have an impact on fertility." This report suggests that the removal of policies supportive of families in Poland, East Germany, and Spain contributed to falls in fertility in those countries. With reference to France, the report states: "Family policy has been high on the political agenda ever since [the introduction of the Family Code in 1939], resulting in relatively high fertility rates" (Grant et al. 2004: xv).

In a comprehensive review of studies of policy effectiveness, Sleebos (2003) concluded:

> Most studies seem to suggest a weak positive relation between reproductive behavior and a variety of cash benefits and tax policies. Impacts of family-friendly policies are more contradictory with some studies suggesting strong

> positive effects on fertility from higher child care availability, but weaker or mixed effects from maternity and parental leave.... What is required is coherent application of a range of well-designed interventions, applied consistently over time. (p. 5)

In agreement with my dichotomy between Group 1 and Group 2 countries, Neyer (2003) concluded on the basis of a cross-national study of policy: "Countries which regard their family policies as part of labor market policies, of care policies, and of gender policies seem to have fared better in retaining fertility above lowest low levels" (p. 32).

Adkins (2003), conducting a multi-level analysis of 18 European countries, also found that national-level institutional (policy) differences helped to explain fertility differences. He observed "a very substantial, significant positive effect [on fertility] of the national mean child benefit level after controlling for other conflating factors" (Adkins 2003: 27). Specifically, he calculated a 25 percent increase in women's fertility for every 10 percent increase in the child benefit level as a proportion of family income. He also found, however, that payments that are contingent on the mother remaining out of the labor force are a poor approach because they act as disincentives for women when they wish to return to work after having a child. In agreement, Laroque and Salanie (2005: abstract) conclude, "Our results suggest that financial incentives play a sizable role in determining fertility decisions in France."

Other studies have shown that direct financial incentives can be effective in raising fertility (Lutz 1999; Milligan 2002). Direct financial subsidies assist with the costs of children, whereas policies that enable women to combine work with childrearing reduce opportunity costs (Ermisch 1989). Opportunity costs rise with a woman's wage, whereas direct costs of children are less responsive to rising incomes, except insofar as wealthier parents have higher discretionary expenditure on children. This means that as the wage rate rises, women will be more likely to favor the combination of work and childcare than to favor staying at home and receiving a direct cost subsidy for children. The conclusion from this discussion is that the full range of incentives and supports is required (financial, services, workplace arrangements) because they are all beneficial in differing degrees to women according to their potential wage and to their work preferences. They also need to be provided in as nearly universal a system as possible so that parents are not faced with disincentives if benefits are withdrawn when they change their labor force participation or income level.

A number of studies in Norway have indicated the importance to fertility of access to childcare. Kravdal (1996) found that a 20 percentage point increase in childcare enrollment would increase cohort fertility by 0.05 of a child.

Using data from the Norwegian Registration System and the Norwegian Municipality Data Base, Rindfuss and colleagues (2004) found that women living in municipalities that have the highest availability of childcare places make the transition to becoming a mother at younger ages.

Agreement seems to be strong among researchers that the transition rates from first to second birth and from second to third birth are highly related to access to resources that enable women to combine work and family. Baizan, Michielin, and Billari (2002: 202) argue with respect to Spain that a high opportunity cost is associated with childbearing because of the lack of "social care services." Rønsen (2004) concludes that the improvement of policies to support work and family in Norway has reduced fertility differences between women of different education levels. Hoem, Prskawetz, and Neyer (2001) find higher rates of transition from second to third births in Sweden than in Austria but find little difference between the two countries in either the educational levels of women or their levels of individual autonomy. In keeping with gender equity theory (Joshi 1998; McDonald 2000a), they conclude that the difference between the two countries is brought about by public policies related to work and family. The opportunity cost of a third child was greater in Austria because of lack of access to resources that support women's ability to combine work with a third child. These resources include availability of part-time work, access to affordable childcare, access to long-term parental leave, and the level of maternity leave payments. Olah (2001) draws similar conclusions on the basis of a study of transition from the first to the second birth in Sweden and Hungary. Rindfuss, Morgan, and Offutt (1996: 288) argue that fertility in the United States has remained relatively high because childcare centers have become more widely available and acceptable. They say that "the preference, the need, and the ability to pay for center-based childcare is greatest among female college graduates." This has meant that the depressing effects that increasing education of women might have had upon higher-order fertility have been mitigated. Tsuya, Bumpass, and Choe (2000) attribute low fertility rates in Japan and South Korea to lack of support for working women both outside and inside the household.

As was the case with the decline in fertility in developing countries, examples of policy failure can be alleged. Pronatalist policies were considered to be ineffective because the fertility rate in the most pronatalist country in the world, France, remained lower than in many other advanced countries in the first two decades after the introduction of the 1939 Family Code. Now with one of the highest fertility levels in Europe and having achieved a smooth transition to moderately low fertility, France is no longer cited as a failure of pronatalism. Indeed, the opposite is the case—it is used as one of the paramount examples of the effectiveness of state involvement. For example, Grant et al. (2004) conclude that France's success in maintaining

its fertility rate is attributable "to its ability to create an environment which encourages childbearing. This environment is created by a combination of policies that jointly serve this aim" (Grant et al. 2004: xv).

Japan and Singapore are cited as examples of the failure of policy. In both countries, fertility has continued to fall despite government attempts to reverse the trend. In my assessment, policies have failed in Japan and Singapore because they have attempted to target particular types of women (an individual approach) rather than to reform societal institutions on a broad scale. In both countries, single women were targeted, especially more highly educated single women; and, at least in Singapore, financial incentives have been directed largely to high-income women. In both countries, government has failed to confront employers in the effort to achieve workplaces that are more cognizant of the needs of parents, especially mothers. Expected work hours remain in sharp conflict with family responsibilities. Women below age 30 in Singapore, for example, work an average of 52 hours per week.

The principal objection to government policy to promote births is the fiscal objection that other pressing priorities make it difficult to increase budgets for family support. This is a question of relative priorities. While, in the early days of low fertility, governments appeared to give low priority to policy to promote births, the priority of this form of government intervention has clearly risen over time. Many Group 2 countries are now actively pursuing policies to promote national birth rates. They have taken this action because fertility has remained low and because the adverse consequences of sustained low fertility are now more widely evident.

Conclusion

I have argued that low fertility in advanced societies today has been an unintended outcome of two major waves of social and economic change: social liberalism and new capitalism. Both waves have enhanced individual aspirations related to the quality of personal and economic well-being. In differing cultural and welfare environments, both have also considerably diminished the capacity of couples to form and maintain families. The personal desire for intimacy and individuation through family relationships remains strong; however, faced with the new social and economic realities, many people do not achieve their family aspirations. In their support for or promotion of social liberalism and economic deregulation, often through legislation, states have been principal players in the higher risks now associated with family life. Accordingly, I argue, states must also be principal players in restoring the social balance.

Fundamental to public policy are institutional changes that reestablish confidence among young people that they will be able to embark on family

formation with tolerable levels of economic loss and acceptable impacts upon individual aspirations. It is incumbent on governments to take this action as a third wave of social change because they have facilitated the two major social and economic changes that have led to low levels of family formation. Individual preferences are formed in the shadow of the social and economic institutions of the society. The shape these institutions take is within the realm of political choice.

While there may be exceptions, the evidence on balance is strong that the family policies of Group 1 countries have been successful in maintaining their fertility rates at a moderate level of at least 1.5 births per woman. The more significant question, however, is whether fertility can be increased by policy in the Group 2 countries, where, as I have argued, traditional family-centered values make the introduction of pronatalist policies more difficult. There is a growing acceptance in these countries that policy action must be taken, and I have described why state intervention is justified on moral, economic, and social grounds. At least four of these countries have instituted major policy programs to reverse the fertility decline, namely Austria, South Korea, Singapore, and Japan. As yet, policy has failed to have any great impact in the East Asian countries but Austria's fertility rate rose from 1.36 in 2002 to 1.44 in 2004 following the reform of policy in 2002. While small, this movement is in the right direction. I believe that Group 2 countries will eventually succeed in raising their fertility rates through public policy, first because they will consider it necessary to do so and second because their cultural institutions are already shifting toward greater intervention in the affairs of the family. Sharp increases in divorce rates resulting from more liberalized laws are an indication of this. The question is not so much whether fertility will increase in Group 2 countries but how quickly this will happen.

The solution to low fertility lies neither in the moral Right's call for a rolling back of social liberalism nor in the old Left's agenda of rolling back economic deregulation. Both waves of change have achieved many of the desirable outcomes for which they were intended. Most people prefer to live in a society that offers social freedoms and personal choices. Most prefer to work in an environment that rewards enterprise and endeavor. But most people also prefer to have long-lasting intimate relationships and to have children. The solution, therefore, lies in a third wave of social change, a compensatory wave in which the state and other institutions provide a new and substantial priority to the support of family life—especially the bearing and rearing of children. New perspectives on the family are required that recognize the vital social and personal significance of family life and that understand that family life will be played out amid the social liberalism and the new capitalism that are integral to twenty-first-century economies and societies.

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