

Low Fertility and Policy

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Abstract

Since the potential impact of immigration on the ageing of the population is now recognised to be modest, the only significant demographic lever open to policy makers attempting to moderate the rate of ageing is the birth rate. There is a long and successful history of policy being brought to bear upon the reduction of high rates of fertility in current and former developing countries but little policy experience can be brought to bear on raising fertility in advanced economies. This is the issue addressed in this paper.

Introduction

The ageing of populations is a direct consequence, first and foremost, of falling rates of birth. As such, ageing of populations has been underway in European countries for over 100 years. For example, in 1871, 4 per cent of the population of England and Wales was aged 65 years and over compared to 16 per cent in 2007. However, the ageing of populations has only been recognised as a major economic and social issue in the past 30 years. This is essentially because the pace of ageing has picked up in this period and countries are now facing future levels of ageing considerably above the levels that were projected 30 years ago. This situation has arisen because birth rates have fallen to much lower levels than were projected 30 years ago, and have remained low. Ageing has been exacerbated by continuing improvements in expectation of life, again to levels today that are well beyond the levels that were projected by official agencies 30 years ago. Finally, the baby boom generation that came into being in many countries soon after the Second World War will soon be replacing the much smaller generation born in the 1930s and 1940s providing a 'once-only' surge to ageing.

In demographic terms, the once-only impact of the baby boom generation is inevitable and, in general, increases in expectation of life are welcomed as a contribution to the wellbeing of humankind. While immigration can contribute in the short term to the alleviation of labour supply shortages arising from past low fertility, the effects of immigration upon the ageing of the population are modest (McDonald and Kippen, 2001). Consequently, the only significant demographic lever open to policy makers attempting to moderate the rate of ageing is the birth rate. There is a long and successful history of policy being brought to bear upon the reduction of high rates of fertility in current and former developing countries but little policy experience can be brought to bear

on raising fertility in advanced economies. This is the issue addressed in this paper.

Policy and high fertility

The success of policies aimed at reducing fertility from high levels in the past four decades is a much-underrated achievement. Towards the end of the 1960s, the world population was projected to reach 16 billion by 2050 unless fertility fell. Today, world population in 2050 is projected to be around nine billion, an astounding seven billion fewer than was projected just 40 years ago. The message that lower fertility was good news for national economies was accepted by many governments, first in Asia, then in Latin America and more recently in North Africa and the Middle East. In Iran, for example, fertility fell from seven children per woman to two in the 15-year period from 1985. At the level of the individual couple, the idea that the economy and wellbeing of families was threatened by having large numbers of children was also widely accepted. Today, the two-child norm is not only the norm in most advanced countries but also in most developing countries outside of Sub-Saharan Africa. It is important to recognise that in the current context of discussion of policy measures to increase fertility, policy in relation to falling fertility was successful because, in broad terms, the objectives of governments coincided with those of individuals. The cultural supports to high fertility and their conservative institutional underpinnings, seen in the early 1970s as major barriers to rapid fertility decline, proved in the end to be no match for the idea that the opportunity for betterment was associated with lower fertility. This idea came to be held by governments and individuals alike.

The emergence of low fertility

The conventional view as expressed in Demographic Transition Theory was that fertility would fall to the level of replacement, just over two children per woman on average, and remain at that level. With fertility around replacement, a relative balance is maintained between births and deaths and populations take on the 'flat-sided' age distribution of the stationary population¹. Such a population ages only very slowly because of continued mortality decline) and the ageing 'problem' is moderated by the fact that the numbers in the workers ages do not fall. However, fertility in almost all countries did not stop falling when it reached replacement level but continued to fall.

In extreme cases, such as the Republic of Korea, fertility

has fallen rapidly to almost half the replacement level. In large cities in China such as Shanghai, fertility has been estimated to be as low as 0.7 births per woman. These are startlingly low levels of fertility that, if maintained for any sustained period of time, have devastating impacts on age structure. In simple terms, if fertility is half the replacement rate, about one child per woman, the size of the generation being born today, GEN1, is only half the size of the current parental generation, GEN0. GEN3, born only 60 years after GEN1, would be one-eighth the size of GEN0. Such a population is on the road to extinction but long before that happened, within just one generation, the impacts of very low fertility on the size and the age structure of the future labour supply would be crippling to an economy trying to support its rapidly ageing population. Sustained low fertility leads to lower and lower numbers entering the labour force. The competitive edge in an increasingly globalised economy will not be gained by a country with a dwindling, ageing labour force. In each generation of new technology, it is young workers who assimilate the technology working in a complementary way with the management skills, ideas and experience of older workers (McDonald and Temple, 2006). This is the ageing problem in simple demographic terms and it clearly indicates the power of low fertility.

Low fertility and delayed childbearing

Fertility first fell below the replacement level in western Germany in the late 1960s. For many years, most demographers considered that the emergence of below replacement fertility in advanced economies was a temporary phenomenon caused by changes in the timing of births. When births are delayed, the annual fertility rate will fall. If delayed births then occur at later ages, the annual fertility rate can be expected to rise so long as birth intentions are eventually met. Demographers developed 'tempo-adjusted' measures of fertility that invariably indicated that the 'underlying' level of fertility was higher than the current level in low fertility countries (Bongaarts and Feeney, 1998; Kohler and Ortega, 2002; Rodríguez, 2006). As time goes by and expected rises in fertility do not occur, the estimated levels of these tempo-adjusted rates have been revised downwards. Counter to the assumption of the tempo-adjusted methods, delayed births have a tendency never to occur. Because almost all advanced economies have experienced the delay phenomenon but not all have very low rates of fertility (under 1.5 births per woman), the extent of non-occurrence of delayed births very clearly is contingent upon the social and policy context. Nevertheless, the notion that low fertility rates were a purely temporary phenomenon helped to delay action on the part of governments to support or increase fertility levels.

Government tardiness in taking policy action

Forty years on, Germany's fertility rate remains below replacement level and is now seriously below that level. Even with the growing realisation that very low fertility was

not necessarily a temporary phenomenon, governments have remained slow to take policy measures to support the having of children (pronatalism). The reasons were many (McDonald, 2006a). For some countries, pronatalism was tainted by its past associations with fascism and eugenicism. Pronatalism when expressed as failure on the part of women 'to do their national duty' was seen as antifeminist. In a crowded world facing environmental difficulties, it was argued that low fertility could be beneficial rather than detrimental. Immigration can be posed as an alternative to pronatalism (Howse, 2006). State-sponsored pronatalism was portrayed as an invasion of the rights or the privacy of individuals to determine freely the number of children they want to have. As pronatalism involves public transfers (in whatever form) from those who do not have children to those who do, those opposed to family support policies on this ground argued that, because the decision to have a child is a private choice, those who make this decision should themselves bear the costs and consequences of their decisions.

Most of the above objections to pronatalist policies have faded in significance as the seriousness of the issue of future ageing and labour supply has been absorbed by policy makers. The continuation of low rates of fertility over extended periods of time and recognition of the detrimental impacts of sustained low fertility upon future labour supply has changed the situation at the governmental level. Most governments now accept that children have a social value and therefore there is a justification for the support of families with children by government. In 2005, in reporting to the United Nations survey on population policy, all 31 countries in the world that had fertility rates lower than 1.5 births per woman reported that they considered their fertility rate to be too low and 35 countries reported that they had policies in place that were intended to increase or sustain the national fertility rate (United Nations, 2006). At the intergovernmental level, the Commission of the European Communities' Green Paper, *Confronting demographic change: a new solidarity between the generations*, albeit in a relatively understated manner given its significance, also suggested that policies to increase fertility were a desirable direction.

However, one major obstacle to policy remains. Very low fertility rates are a new global experience. There is almost no previous experience of policy making in this area. In these circumstances, governments have been cautious. As with most new areas of social policy, there is a tendency to seek 'the silver bullet', the policy approach that is affordable, politically acceptable and effective. However, before using the silver bullet, governments want strong supportive evidence of what the bullet should be and how effective it will be. As I argue below, this is a policy black hole.

Explanations of low fertility

Low fertility has been described as an unintended consequence of two major waves of social and economic change:

social liberalism and labour market deregulation (McDonald, 2006b). These waves of change have given rise to two important changes for individuals that relate to fertility: the provision of gender equity through an opening up of opportunities for women beyond the household and risk aversion among young people of both sexes in increasingly competitive and less secure labour markets.

Gender equity and fertility

Most advanced societies have a recent history of differentiated family roles for men and women where men specialised in wage earning while women specialised in homemaking and caring for relatives, especially children (the male breadwinner model of the family). These 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 the movement toward greater freedoms for the individual. Subsequently, relative to men's opportunities, women's education and employment opportunities have increased dramatically. Education and market employment can be described as individually-oriented institutions – institutions that deal with people as individuals. Other social institutions deal with individuals as family members or have assumptions about family membership built into their organisation. These can be labelled as family-oriented institutions. The principal example, of course, is the family itself but it is not uncommon that the tax-transfer or social welfare systems have a family orientation. Also, institutions such as schools or companies through their specification of school and work hours or working conditions may operate on the assumption that there is someone (a woman) at home looking after the children. Incoherence between the levels of gender equity in individually-oriented institutions and family-oriented institutions leaves women facing a stark choice between work and family. I have argued that low fertility is correlated with the degree of incoherence. Fertility will be lowest where the male breadwinner model of the family remains firmly entrenched and governs the organisation of family-oriented institutions (McDonald, 2000). There is a considerable economic dimension to the gender equity argument, the mechanism being the lifetime earnings lost to women through having children (opportunity costs).

Labour market deregulation, risk aversion and fertility

Young people today have high economic aspirations generated by globalisation and increased education levels. However, the competition engendered by labour market deregulation has led to wider variations in earnings, job security and career progression among today's young people than was the case among their parents' generation. Under these conditions, young people tend to become risk-averse. Investment in one's human capital has become the essential hedge against economic risk, the optimal path of risk aversion. This involves considerable commitment to self and to one's employer through time in education and long work hours. As a consequence, more altruistic endeavour, such

as family formation is put on hold while human capital is accumulated. For various reasons, the relationship or birth delayed can become the relationship or birth that does not eventuate.

In sum, young people today are influenced by their perceptions of the extent to which the institutions of their society are supportive of those that have children. This is especially the case for young women. If young women perceive that important institutions remain structured by the male breadwinner model of the family, some will constrain the number of children that they have – and, in making this decision, they may well be supported by their male partners. Likewise, if some young people have the perception that having children presents too great a risk to their economic wellbeing, the fertility rate will fall.

The Commission of the European Communities' Green Paper supports such an institutional explanation of low fertility: 'If appropriate mechanisms existed to allow couples to have the number of children they want, the fertility rate could rise overall' (Commission of the European Communities, 2005, p.5). This statement forms the basis of the further discussion in this paper. It contains two important propositions:

1. Low fertility can be reversed through changes to social institutions (appropriate mechanisms) that enhance the private choice to have children, and
2. The fertility desires of individuals are such that, if realised, national fertility levels would be sufficient for the achievement of an adequate overall level of fertility.

I have argued the validity of these two propositions on several occasions and have cited a wide range of relevant empirical research (McDonald, 2000, 2006a; 2006b). However, recent evidence for a small number of very low fertility countries in Europe calls the second proposition into question. It is important to note that the validity of the second proposition is vital to the validity of the first proposition. If the second proposition is false, then, unlike the experience with the decline in fertility from high levels to replacement, government policies to increase fertility may not be matched by equivalent motivations on the part of individuals.

Policy and low fertility

There have been several reviews of the impacts of policy upon fertility (Neyer, 2003; Sleebos, 2003; Grant *et al.*, 2004; d'Addio and d'Ercole, 2005; Gauthier, 2005; McDonald, 2006b). These studies, while tending to support the view that policy can have a positive impact upon fertility, generally find, at best, only small effects for any one policy. A recent review of fertility or, more correctly, family policies by Neyer (2006) confirms the importance of gender equity considerations and asserts that it is essential that policies aim at mothers' labour market integration.

However, she also makes the very important point that:

... these policies also exert an effect through their symbolic meaning. The lack of childcare services, low benefit levels, long parental or care leaves, and gender-segregating policies signal to women that it might be difficult, if not impossible, to combine employment and motherhood.

Neyer 2006, p.16

In other words, policy to avert very low fertility needs to be broad-based and to involve fundamental changes in social institutions (see also, McDonald 2000). In the end, it is the perceptions or symbolic meanings that count most, not the direct econometric impact on births of any one policy. Individual policies may have a small econometric impact on births but their real significance is in adding to the perceptions of young people of the adequacy of the overall level of societal support for those who have children. In keeping with this approach, the policy reforms that I have advocated in Australia have been comprehensive, rather than piece-meal (McDonald, 2003). They are concerned with changing the nature of society such that families are better able to combine work and family. A recent comparative study by Koppen (2006) of the impacts of education upon progression to a second birth in France and Germany confirms this conclusion. She found that, in both countries, the level of progression was higher for educated women than for those with low education but that this relationship disappeared in Germany but not in France once the husband's education was taken into account. She attributes the difference in behaviour in the two countries to the continuation of a breadwinner model of the family in Germany compared to a model of gender equity in France where a woman's labour force participation and fertility are not contingent on her husband's income. Overall, France has a much higher fertility rate than Germany has.

In 2005, the advanced economies of the world could be divided into two groups: Group 1 included countries that had fertility rates between 1.7 and 2.0 births per woman while Group 2 consisted of countries with a fertility rate around or below 1.4 births per woman. Only one advanced economy, Canada, had a fertility rate lying between the two groups, and its rate was closer to that of the Group 1 countries. There was a very distinct cultural divide between these groups. Group 1 included all of the Nordic Countries, all of the English-speaking countries and all of the French and Dutch-speaking Western European countries. Group 2 included all of the Southern European countries, all of the German-speaking Western European countries and all of the advanced East Asian economies. It is hard to conclude that this divide is due to mere chance. Indeed, there is a strong case that the divide is a divide between those societies that are organised to provide social support to those who have children and those that are not. Again, it is the overall perception of family support that is important not the detailed differences in specific policies.

Designing effective policy

An interesting recent paper by Neyer and Andersson, consistent with the argument that I have made above, concludes:

Investigations into the effects of family policies on fertility need to consider both the normative or symbolic connotations of family policies and their correspondence with societal development

Neyer and Andersson, 2007, p. 9

Also consistent with what I have argued, they observe that it is the totality of policies and the way that this totality is perceived within the given context that is important. Any one policy may have different effects across space and time because the totality of policies and the way they are perceived may vary. However, somewhat inconsistently in my view, these authors also argue that policy impact can and should only be measured through observation of individual behaviour in relation to a particular policy within a particular context, preferably while all other policies remain constant. They say that policy can only be evaluated using sophisticated statistical methods applied to highly detailed, historical data relating to individuals within one context. They illustrate their point with four studies of the impacts of policies upon fertility behaviour of individuals in Sweden. Interestingly, none of these analyses consider the perceptions of the individuals involved. They also conclude that:

Macro-analytical investigations based on aggregate indicators contribute little to our understanding of the impact of family policies on fertility.

Neyer and Andersson, 2007, p. 12

Counter to this, I argue that our understanding of the causes of low fertility and of effective policy regimes is greatly enhanced by comparing aggregates across countries because cross-national comparisons enable us to focus upon the significance of broad differences in social institutions and policies. The argument that I have made above about the difference between Group 1 and Group 2 countries is a macro-analytic investigation based on an aggregate indicator. The conclusion that very low fertility is associated with a totality of policies and societal organisation that is founded on the male breadwinner model of the family has emerged from this type of cross-national research. The next stage, in my view, is to conduct an audit of a nation's family policies and assess each policy against a set of desirable criteria (McDonald, 2003, 2006a). It is then possible to specify a comprehensive reform package. Indeed, an individual policy on its own may not be measured to be effective (in Neyer and Andersson's terms) but it may be a necessary component in a total package that provides young people with the confidence to form families. Its effect may be more evident in its absence than in its presence. Eventually, the proof of effectiveness comes through the trend in an aggregate measure (total births) because it is the aggregate measure that governments are aiming to change.

Thus, I emphasise a policy approach based upon theory and logic and as much empirical evidence as is available but I would caution against policy being formulated only on absolute proof of the efficacy of any individual policy especially under the near-to-experimental conditions that Neyer and Andersson require. To me, this is too much like a quest for the silver bullet. Most countries do not have the data that Sweden has; citizens of most countries do not react in the same orderly way to government policies that the Swedes do. No country in the past 20 years has had the roller-coaster fertility trend that Sweden has had. Social policy makers in most countries are not in the position that they are able to experiment with the level of the dosage of a given policy; they must take their chance based on the available evidence. To await indubitable evidence is equivalent to doing nothing. In the context of very low fertility, countries cannot afford to do nothing until the indeterminate day when adequate data and adequate research are available.

This is not an argument that research of the type that Neyer and Andersson advocate is not valuable; new information is always valuable to policy decision making and helps to clarify human behaviour. However, social policy is often urgent and, as such, it is not at all unusual that it is hit-or-miss based on the best information available at the time. Neyer and Andersson's (2007) classic example of policy that had an impact on fertility was the introduction of the so-called 'speed premium' in Sweden, an approach to parental leave that favoured a shorter interval between the first and second birth. Indeed, the policy clearly had an effect upon the interval between the first and second births in Sweden. However, the implementers of this policy did not design the policy on the basis of empirical research; the policy was based upon theory and upon assessment of the adequacy of existing conditions against principles of social policy. It is only after a policy has been in place for some time that we are able to make an assessment of its effect. Having made an assessment, using Neyer and Andersson's arguments, it is not necessarily the case that the same policy will be equally effective in another time or place. Social policies are usually abandoned not because they have been shown to be ineffective but because they are no longer consistent with a set of desired social principles.

The low fertility trap hypothesis

To summarise, policy approaches to very low fertility need to be derived from an assessment of a country's family support policies and practices in the light of the widely agreed causes of low fertility. Any existing knowledge of the impacts of policies from within the country or from other countries should be considered. Then, a comprehensive reform package needs to be defined that is specific to the existing institutional arrangements in the particular country. The reform package needs to be assessed against social policy principles. It is expected that the reform package will

be radical; a programme of reform that literally changes the nature of society. I have argued (McDonald, 2006b) that governments have facilitated the two major waves of social change that have led to low fertility and it is therefore incumbent upon governments to restore the balance through a comprehensive range of family support policies. In taking such actions, governments are also able to influence perceptions. They can provide the perception that children are valued by the society and that this society intends to support those who have children.

Given the comprehensive nature of reform that is required and the existing low levels of family support in very low fertility countries, it can be expected that effective policy measures will be expensive to governments. Depending upon the context, such policies are likely also to upset existing social norms and values and to have potentially major implications for economic relations especially the conditions and costs of employment. These are major obstacles and so it is not surprising that governments have been slow to act. While there is no change, children become scarcer and the society becomes less child-oriented. Young people then become more convinced in their perception that they will be severely penalised (relative to others) if they have children, and that the government has little or no interest in their predicament. Finally, the negative economic impacts of very low fertility are remote from the present. In the short to medium term, having no children or only one child enhances the living standards of both individuals and nations. While most evidence to date has suggested that young people would prefer to have an average of around two children (van Heer, 2002), the persistence of the conditions and perceptions surrounding very low fertility may lead to a lowering of these expectations and the rise of a substantial section of young people who want no children or only one child.

In these circumstances, as argued by Lutz *et al.* (2006), there is a potential for the development of a low fertility trap, a self re-enforcing mechanism that keeps fertility at a very low level. Lutz *et al.* argue that as fewer women have children, the relative opportunity cost rises for those who do have children. This then provides a further stimulus to rising proportions not having children – a trap from which there may be no escape. This argument is backed by the fact that, where the total fertility rate has fallen below 1.5 births per woman, there is almost no instance of it rising again above that level.² Also, there is new evidence that, in some countries, very high proportions of cohorts completing their childbearing (those aged 40 in 2005) have no children or only one child (Frejka and Sardon, 2007). For example, among women born in 1965, around 30 per cent in West Germany and 25 per cent in Italy had had no children. In the Russian Federation, 37 per cent had stopped at one child. However, Eurobarometer data for 2006 still indicate that ideals remain relatively high in all very low fertility countries with the exception of Austria. On the other hand, the shift in stated ideal family size in Germany between 2001 and 2006 is extraordinarily high casting some doubt on the meaning of these data (Testa, 2006).

In sum, there is a theoretical logic to the low fertility trap hypothesis, and actual behaviour (as distinct from expressed values) seems to be supporting the hypothesis in a few countries. Whether valid or not, in relation to future labour supply, there is no question that countries cannot afford to have their fertility rate remain well below 1.5 births per woman for extended periods of time. On the precautionary principle, this calls for rapid and vigorous policy action:

... any attempt to stop a demographic regime change in

the very low fertility countries is of high urgency and some of the measures recommended by McDonald [2006a] should be implemented by governments with priority and determination. In this context the conventional linear thinking in terms of gradual and reversible fertility trends leading to gradual changes in its consequences should be abandoned and replaced by a systems thinking approach including the possibility of non-linear responses and positive feedback loops including tipping points and irreversible regime changes.

Lutz *et al.*, 2006, p. 189

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Notes

- ¹ This means that the numbers at each age are very similar until the older ages when people start to die off in larger numbers.
- ² The only exceptions are Denmark and Canada where fertility dipped slightly below 1.5 for a very short period.

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