

## A MARKET FOR HUMAN REPRODUCTION RIGHTS

THEODORE P. LIANOS\*

Athens University of Economics and Business, Greece

**Abstract**

The size of the world population approaches 7.5 billion and is predicted to increase in the 21<sup>st</sup> century. Various studies have estimated that the optimum world population size is around 3 billion. The present note proposes a policy for reducing the world population by introducing a universal law stipulating that each couple will be given three shares, each one representing the right to give birth to half a child. These shares can be traded in an international stock market. Thus, an international market for human reproduction rights will be created where people can sell or buy shares according to the number of children they wish to have. Consequently, on average, there will be one and a half children per family, but families can have none or one, two, three, etc. children, depending on their supply of shares. This policy could reduce world population to approximately 4 billion in about a century.

**JEL Classification:** J11, J12**Key Words:** Human Reproduction Rights, Population, China, Population Controls

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\**Corresponding Address:* Theodore P. Lianos, Professor Emeritus of Economics, Athens University of Economics and Business, Athens, Greece. E-mail: [tplianos@aub.gr](mailto:tplianos@aub.gr)

## Introduction

There is no doubt that our planet is heavily overpopulated. Today (January 2017) the world population is 7.5 billion and is projected to rise in the next decades. According to a recent study by the International Institute for Applied Systems Analysis (Lutz *et al.*, 2014a, 2014b), world population is likely to peak at 9.4 billion around 2070 and then decline to about 9 billion by the end of the century. According to a United Nations study (Gerland *et al.*, 2014), the world population can be expected to grow to 9.6 billion in 2050 and to 10.9 billion in 2100. Despite their differences, both studies predict a thirty percent increase in world population in the next 40 to 50 years.

Attempts to estimate the optimal size of world population seem to agree, albeit based on different methods, that the optimal size is two to three billion (Daily *et al.*, 1994; Pimentel *et al.*, 1994; Pimentel *et al.*, 2010; Lianos 2013, Lianos and Pseiridis 2015). Even allowing for a 50% error, the conclusion to be drawn by comparing the size of current to optimal population is that the Earth is overpopulated (Bergaglio 2016).

The gap between the actual and the optimal size of world population is huge, with catastrophic consequences for the condition of the planet and, by extension, for the masses of people living on it. However, with the exception of China, the leaders of the world, political, religious, etc. refuse to face the problem of overpopulation. Birth control is an issue that no one wants to even discuss. There are well known reasons for the unwillingness of political and religious leaders to confront the challenges of overpopulation, but the urgency of the situation outweighs these reasons.

The present short note suggests that birth control through a market for human reproductive rights may have a strong impact towards reducing population, while allowing people some choice in the matter.

## A Brief Review

Concern about the effects of overpopulation and the proposal for keeping population limited in size has been a millennium-old issue in relevant literature.

Plato, in the fifth century B.C., briefly discussed the optimum size of population and some ways for maintaining it at that level.

In the Republic (Book V), human reproduction activity for women is limited between the ages of twenty and forty, and for men “after the hot period of youth until fifty five”. In the Laws (Book V), Plato speaks of offering incentives in the form of moral rewards and also admonition by the elders to the young. However, if the population of the city exceeds the optimum, “there is the old way...i.e. colonies”. If the city becomes underpopulated because of diseases or wars, immigration could, reluctantly yet out of necessity, be allowed.

Aristotle also believed that regulation of the population was necessary. He thinks that “there must be a fixed limit on procreation of offspring” (Politics 1335b, 23-24).

He also suggests that “it is fitting for women to be married at about the age of eighteen and for men at thirty-seven or a little earlier” (1335a, 28-30). The last suggestion is made for eugenic purposes, but it is clear that it can lead to population growth control. Furthermore, Aristotle recommends, for the same purpose, that “persons exceeding this age (of fifty) by four or five years must be discharged from the duty of producing children for the community” (1335b, 35-38). It is characteristic of the significance Aristotle attributes to population control that he suggests that “if any people have a child, as a result of intercourse in contravention of these regulations, abortion must be practised on it before it has developed sensation and life” (1335b,24-25).

Thomas Robert Malthus, in his *Essay on the Principle on Population* (1798), states that population increases when the means of subsistence increase, unless prevented by three powerful and apparent checks, namely moral restraint, vice, and misery. The last two are to be avoided. Moral restraint is defined as “our obligation not to marry till we have a fair prospect of being able to support our children”.

In recent literature, concern about population growth has been expressed in three studies published in the mid-fifties by Huxley (1956), Nelson (1956), and Osborn (1958), and, of course, a little later, by Ehrlich’s *Population Bomb* (1968).

There have also been populationist periods during which high fertility rates were favoured. After the devastating thirty years’ war in Europe and the wars of Louis XIV that ensued, efforts were made to stimulate population growth, particularly in France. The same was true for the periods after the World Wars I & II in many European countries.

### **Misdirected Efforts**

Warnings by scientists about the current state of the planet and the obvious environmental and social problems related to overpopulation do not seem to have a sufficient impact on the reasoning of world leaders who manage world affairs, namely governments, political and religious leaders, the United Nations, etc. For example, the recent Paris Agreement about climate change seems to ignore -or pretend to do so- that the real root of the problem is the need to supply goods and services to satisfy the needs of peoples that continue to grow in size by two hundred and fifty thousand every day. Overpopulation in most countries, as well as overconsumption by wealthy nations, is ignored in the hope that *deus ex machina*, that is technology, will continue to take care of the problems our inertia allows to accumulate.

Despite the many serious problems created by overpopulation, population control is a very sensitive issue. Typical of the prevailing political climate regarding population control is a statement by Babatunde Osotimehin, Executive Director of the UN Population Fund, which is as follows: “The ICPD Programme of Action marked a fundamental shift in global thinking on population and development issues. It moves away from a focus on reaching specific demographic targets to a focus on

the needs, aspirations, and rights of women and men” (United Nations. 2015). This comment may be taken as indirect criticism of the population policy of China, but it also indicates that population controls will not become part of the world political agenda in the near future.

### **China’ One Child Policy**

In the recent past, many nations have seen the risks of overpopulation and have taken measures to discourage the large family model. The idea of introducing birth control has been gaining ground, but so far this is done through providing information to younger couples, encouraging the use of contraceptives, and using moral suasion. The only exception is China’s one-child policy introduced in 1980.

The one-child policy introduced by the Chinese government allowed some exceptions, mainly in the cases of rural areas and minorities. Even so, the policy brought about two undesirable results, one of which had been expected, namely, problems related to the social insurance system, and one that had not been anticipated, at least not to a high extent, namely, the disequilibrium between boys and girls born.

However, the one-child policy has been criticised not so much for the undesirable effects it caused, as for the violation of human rights and personal choice. The options of zero and one child are indeed limiting one’s freedom of choice. However, the evaluation of China’s one-child policy in the field of ethics should take into account the burden imposed by the present situation on the choices of future generations. The undeniable need for world population reduction is a crucial factor in this respect.

In 2016, China changed its population policy to two children for all families, which is expected to affect mainly urban populations.

### **International Stock Exchange for Human Reproduction Rights**

In this note we are proposing a different way for reducing the size of the population through imposing restrictions while allowing each married couple to have more choices. In short, our proposal for ‘one-and-a-half children’ is as follows:

- (i) Every couple, on their wedding day, whether the ceremony takes place in church, at the City Hall, or in an attorney’s office, will be given three shares by the government, each share entitling the couple to having half a child. Each share will represent the right of the couple to participate in the creation of the next generation and all couples will have equal rights.
- (ii) These rights will be tradable in the world market. Thus, a couple in Canada who wish to have two children can buy one share from a couple in China. Similarly, a couple wishing to have three children would have to buy three shares, and so on. If no couple wishes to sell shares and if all couples wish to have two children, the one-and-a-half policy becomes a one-child policy in practice.
- (iii) There are people who do not wish to, or cannot, have children, people who are

happy with one child and people who will be tempted to sell one or all of their shares to earn some money. It is certain that there will be people in all countries who would be able and willing to buy shares. Thus, the one-and-a-half child programme will also become an income transfer programme, probably from relatively rich people to relatively poor ones, within each country and between countries.

- (iv) This policy can be applied in each individual country suffering from overpopulation, e.g. China, India, Indonesia, etc. However, since the population problem is universal, the full impact of the policy will become apparent if its application is universal. Thus, it is desirable that the policy should have the support of all governments as well as the support of various institutions, e.g. the Church and other social organisations. It is very likely that some governments that favour the large family model would prefer not to adopt the one-and-a-half child policy. However, if international demand for shares is high and a substantial sum of money is received by those who sell one or more of their shares, then popular demand for the adoption of the plan in these countries would be strong.
- (v) In addition to reducing world population, some other positive side-effects are also possible. For example, the black markets for adoption of children existing in some (perhaps many) countries would disappear. Also, very substantial money flows would be directed from rich families and countries to poor ones. Of course, negative side-effects are bound to emerge, as in the case of unintended pregnancies of married women who have sold their shares.

Variations of the basic idea are possible. For example, some people may argue that the right to give birth to children should be given to men and women and not to married couples, since there are many people who wish to have children but not to get married. In other words, the right to give birth to a child is an individual right, distinct from the way couples decide to live. Furthermore, instead of each share corresponding to half-a-child, different values may be given, e.g. 0.6 or 0.4, depending on the rate of population decline desirable.

To facilitate exchanges of reproduction rights, an international stock exchange can be established where reproduction rights will easily and at a minimum cost be sold and bought. Thus, a couple in one geographical region could very easily buy (or sell) a reproduction share from (or to) another couple living in a very distant place.

Needless to say, such a scheme of population reduction will often be violated, at least in the beginning. Problems of non-compliance will certainly arise and no easy treatment is available. However, fines and other measures of an administrative nature can be used so that compliance may be encouraged and non-compliance discouraged. Information about the problem of overpopulation and moral suasion can contribute towards acceptance of the proposed solution by the public.

## Comments

It is worth mentioning, in support of the one-and-a-half children proposal, that China's one-child policy was accepted, as the Chinese government claims, by 76% of the population. This can be interpreted as indicating that a policy or a rule, if applied generally, is not necessarily perceived by the public as a coercive restriction. It is reasonable to assume that our proposal would be accepted by a higher percentage because it allows wider choice.

In the history of the world, social problems have been solved or limited to manageable proportions by the imposition of rules, by motivating economic forces, and by a combination of both. Of course, monetarising a problem will not necessarily lead to the best solution, but it is often better than letting things run their own course. Under current circumstances, if population growth is left unchecked, Parfit's repugnant conclusion will certainly be verified. Our proposal for a one-and-a-half child policy is a combination of legislation and economics that also allows a degree of choice.

Reduction in population worldwide will be followed by a general drop in demand for goods and services and a period of deflation and unemployment will arise, at least during the first stages. It is unlikely that price flexibility would be a substantial remedy for the fluctuations of demand and, therefore, very active government policies of demand and income redistribution will become necessary.

We do not expect our proposal to be widely accepted and implemented at present. As we noted in the Introduction, people in a position to raise the issue of overpopulation prefer to remain silent. However, presenting and discussing ideas such as this one is a good way to make people and authorities think about the problem and to be ready to discuss the issue of overpopulation and the risks it entails.

If such a plan is generally adopted, world population would be reduced to half within three to four generations, i.e. in about one century.

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