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BASIS AND RECOMMENDATIONS FOR RADICAL RAISING OF THE TOTAL FERTILITY RATE

Annotation. The birth rate in agricultural, industrial and postindustrial societies is analyzed. The factors influencing the value of the total fertility rate are described. It was revealed that the main factor on which the considered coefficient depends is the size of the full economic benefit for the family from the birth of a child. The essence of the demographic transition is revealed. Recommendations are given for raising the total fertility rate by two or more times.

Keywords: *demography, population size, demographic policy, demographic crisis, fertility, depopulation, maternity capital, demographic transition*

§1. Initial data

Three of my articles serve as the basis for formulating recommendations for a radical increase in the birth rate.

First article. The article «Scheme and principles of school education, which by the age of 18 will form a spiritual free, creatively developed, healthy and patriotic-minded specialist» says [6, p. 245-246.]:

Parents and society should not be afraid that any unique abilities of the child will be undeveloped due to a lack of education - there are an insignificant number of outstanding and genius people, and the rest, in accordance with the law on 99% of people, after appropriate training, can successfully perform over 99% of works [6, p. 16-21].

Family costs about 100 average salaries to raise and raise a child up to 18 years old [6, p. 16]. After 18 years, the family is forced to support an actually adult for 5 years (that is, 60 months), plus pay him the cost of the very education at the university and also give money for entertainment, that is, approximately additionally 100 average salaries must be spent on a young person. As you can see, the costs of a family for raising a child under 18 can be assumed to be equal to the costs of a family for a young person to receive a higher education.

Thus, if a family with two children is financially ready to give their offspring a higher education, then, in terms of the level of financial burden on the family, this is tantamount to raising four children under 18 years old, giving them specialized secondary education.

The implementation of this method alone is capable of radically raising the birth rate: **reducing the financial burden on a family by half allows you to potentially count on a twofold increase in the total fertility rate!**

The total fertility rate in the country depends on:

1) from religious attitudes in each individual family,

- 2) from the distribution of roles between father and mother in housekeeping in each individual family,
 - 3) from the amount of income of each individual family in cash and in kind,
 - 4) from the feeling that the next generation in each separate family will live better or worse than the previous one,
 - 5) from the number of children born to the previous generation in each individual family,
 - 6) from the levels of infant and adolescent mortality in the country,
 - 7) from the degree of difficulty of young people entering adult social life,
 - 8) from the accessibility of individual entertainment (the ability to attend all kinds of shows, travel, and so on),
 - 9) from the total number of extramarital intimate relationships in society,
 - 10) from the legal and financial influence of the state on the institution of the family, including material assistance, the adoption procedure, the alimony system [6, p. 137-144] and so on;
 - 11) from the number of children born to famous public figures;
 - 12) from cultural attitudes in society related to childbirth (expected age at marriage; the approved amount of time that parents should devote to raising a child, and so on);
 - 13) from the intensity of propaganda of childbirth in the media,
- as well as other factors, therefore, *the adoption of the school education scheme described in this article does not necessarily double the average fertility rate - the fertility rate may increase, for example, by one and a half times, or two and a half times, or by another amount.*

To keep the population constant, the average fertility rate should be about 2.1 children per woman, but for many modern countries (for example, USA, Canada, Cuba, Brazil, Chile, Australia, Thailand, Vietnam, China, Iran, South Korea, Japan, Russia, Ukraine, Hungary, Poland, Germany, Norway, France, Great Britain, Spain, Italy, Serbia and other states) is currently below 2.0 [7].

Numerical example. If in the considered state the average fertility rate is 1.5 children per woman, then the use of the school system described in this article can potentially increase the average fertility rate by about half - up to 3.0 children per woman (and without any additional financial costs both on the part of society and the state, and on the part of the family); that is, the average fertility rate in this country can be expected to be between from 2.0-2.5 and 3.5-4.0 births per woman.

Second article. In the article «Differences of modern marriage from traditional and principles for improving the quality of heterosexual marriage in a modern society» given principles for improving the quality of heterosexual marriage in the modern world [4, p. 157-158]:

«1. Equal rights for women in different types of relationships

Modern society does not give equal rights to women in different types of relationships: an official wife has more rights than a constant mistress; a woman in a

long-term relationship, or a common-law wife, therefore, such current forms of relations as an official wife, a woman in a long-term relationship with one man (about a year or more) such current forms of relationship must be recognized as an official wife; constant mistress and common-law wife. This principle saves women from years of fruitless relationships, and makes men more responsible approach to relationships.

2. Only mutual love

In modern society, moral coercion of a man to marriage is widespread in order to obstructions the birth of an illegitimate child with him or his girlfriend. There are also other goals of moral compulsion of one of the future spouses to marry. This should not be so: the basis for marriage should be only and exclusively mutual love between a man and a woman.

3. Any form of marriage

Any form of marriage should be sufficient - oral or written, as well as certain behavior: running a joint household or systematic financial assistance should be the basis for the recognition of such a relationship as an official marriage. This principle makes it possible to recognize almost all types of long-term partnerships as marriage. Principle 3, like Principle 1, removes women from years of fruitless relationships, and forces men to approach relationships more responsibly.

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5. Everyone feels good after divorce

The legal system should ensure that ex-spouses maintain good relations after divorce; in addition, both former spouses, and not only the mother, should take part in raising common children. If most ex-spouses are in bad relations in society, then this is the fault of the country's legal system, not the ex-spouses. This principle directs the solution of problems arising in the process and after a divorce, not to the former spouses, but to an independent third force - to the force of law, which should balance the interests of all parties and not allow the weak to offend.

Third article. In the article «System of public balance equations» is described [5, p. 319-321]:

«system of equations is obtained that links together the gross domestic product and the tax system of the state under consideration with the costs of children, adults and the elderly:

$$\begin{cases} GDP_S = G + M + D \\ G = K_{GD} * D \\ GDP_S = K_{FM} * M \end{cases} \quad (1)$$

The system of equations (1) can be called social balance equations; the equation $G = K_{GD} * D$ can be called the formula (equation) of the youth pension balance, and the equation $GDP_S = K_{FM} * M$ can be called the formula (equation) of the return of adults to the whole society.

GDP_S is the total GDP of the society in the year under review.

GDP_S is absolutely everything that was produced by the society in the reviewed year, without exceptions.

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$GDP_S = GDP$ (official GDP of the country) + GDP (shadow economy) + GDP (self-produced GDP and consumption) + GDP (unpaid assistance) + GDP (other)

(quote break)

G – is all the financial costs of society in a given year for the birth, upbringing and education of children until the moment when they do not start working.

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M is all the financial costs of society in the year under consideration for all the expenses and savings of adults.

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D is all the financial costs of society in the year under review to support the existence of unemployed elderly people, including some savings that the old people make, as well as the costs of their funerals.

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K_{GD} is the life and death ratio of a society

K_{GD} is a dimensionless quantity and can be measured in both units and percentages.

$$[K_{GD}] = \frac{[G]}{[D]} = \frac{rub}{rub} = 1$$

Children are the coming future of society, and non-working elderly people are society's passing past, so working adults should not spend more money on old people than on children, so K_{GD} in a society which is increasing its numbers should be greater than 1.

K_{FM} is the ratio of financial burden on adults in society.

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K_{FM} is a dimensionless quantity and can be measured in both units and percentages.

$$[K_{FM}] = \frac{[GDP_S]}{[M]} = \frac{rub}{rub} = 1$$

K_{FM} directly depends on the level of tax burden in society: the higher the level of tax burden, the greater the ratio of financial burden on adults in K_{FM} society.

$K_{FM} > 1$ and $K_{FM} \neq 1$, since the costs of society for adults cannot exceed all the income of society (if you do not borrow money).

The general meaning of the system of social balance equations is as follows:

GDP_S is everything, absolutely all the income of society for the year.

$G + M + D$ is everything, absolutely all the expenses of society for the year.

As you can see, in any society, it is equal to all the expenses of society for the year (if you do not borrow money).

In the system of social balance equations, the key is the K_{GD} coefficient, which connects the values of G , M and D , preventing them from existing independently of each other.

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$K_{GD} \neq \text{const}$, which allows society to regulate itself.»

In general, as you can see, although the birth rate depends on many factors, there is the main and basic one among them - this is the money factor.

§2. The main factor that regulates fertility. Demographic transition

The main and most important factor on which the size of the total fertility rate depends (the total fertility rate or simply the fertility rate) is the size of the total economic benefit for the family from the birth of a child.

If it is economically profitable for the family to have the next child, then the couple will try to do so.

If it is not economically profitable for the family to have the next child, then the couple will try not to have a new child.

Definition № 1. The full (total) economic benefit for a family from the birth of a child is the sum of the economic benefit for the family plus economic assistance from the state or local community.

Definition № 2. The economic benefit for a family from the birth of a child is the amount of income in kind and (or) monetary equivalent that a child brings to the family of his parents during both their lives.

If the full economic benefit for a family from the birth of an only child is negative, then such a family will try to have one child or remain childless.

Example № 1. Examples of societies with high economic benefits are agricultural societies built on manual labor:

1. Economic aid from the state is zero.
2. Help from the local community is non-zero, but small.
3. There is no pension burden.
4. Children begin to work at the age of 5-6, helping their elders to work in the field or take care of farm animals.

As you can see, in agricultural societies based on manual labor, children are economically beneficial for the family, since from an early age they not only work for their own food, but also for the growth of the general well-being of the family. In such agricultural societies, the limiting factors for population growth are the lack of suitable land for growing crops (and, as a result, hunger), plus the poor quality of medical services.

Example № 2. Examples of societies with average economic benefits from birth of children are industrial societies built on manual and mechanical labor:

1. Economic aid from the state is zero.
2. Help from the local community is zero.
3. The pension burden is small.
4. Children begin to work from 6-12 years old in factories and factories.

As you can see, in industrial societies built on manual and poorly mechanized labor, having a large number of children is no longer as profitable as in agricultural societies built on manual labor. In such industrialized societies, the limiting factors for population growth are the expenses of secondary education and the poor quality of medical care.

Example № 3. Examples of societies with low economic benefits from births of children are modern post-industrial societies:

1. Economic aid from the state is small.
2. Help from the local community is zero.
3. The level of the pension load is high.
4. Children start working at the age of 22-25 after receiving higher education.

As you can see, in post-industrial societies based on services and mechanized labor, having a large number of children is no longer as profitable as in industrial societies. In such postindustrial societies, the main limiting factor for population growth is the high level of spending on higher education.

It is in the high level of financial and time expenditures of the family on the upbringing and education of the child that the essence of the demographic transition is hidden, which led to a multiple decline in the birth rate in many countries in the 19th and 21st centuries.

§3. The main factors affecting the total fertility rate

1. Social balance.

If the proportions of the social balance are observed, society develops harmoniously: there is money for the elderly, there is money to increase the population, and the level of taxes is acceptable. If the proportions of social balance are violated, as, for example, calculations for Russia in 2010-2016 show [5, p. 322-323], then the society in question dies out.

2. Age at the start of employment.

The financial well-being of the family directly depends on the age of the beginning of labor activity: if this age increases, then the birth rate falls, and vice versa.

3. The cost of getting an education.

The more years it takes a child to receive the education that is usual for a given society, the greater the size of the financial burden falls on the family.

In general, the more expensive education, the lower the birth rate, and vice versa.

4. The coefficient of life and death of society.

If the life and death coefficient of a society grows, then the birth rate in a society grows, and vice versa.

5. State support for the birth of a child.

The amount of state assistance for the birth of a child is usually small, therefore, it does not have a significant effect on the birth rate, which means that such assistance is not needed. For example, in Russia this assistance is called maternity capital, and its size in the early 2010s was more than 350-400 thousand rubles (the size of maternity capital in the Russian Federation by years, in thousand rubles: 2010 - 343,4; 2011 - 365,7; 2012 -

386,7; 2013 - 409,0; 2014 - 429,4 [1]) while raising a child under 18 costs about one hundred average salaries in the country [3, p. 16] or about 2-3 million rubles (average salary in the Russian Federation by years, in thousand rubles: 2010 - 20,9; 2011 - 23,4; 2012 - 26,6; 2013 - 29,8; 2014 - 32,5 [2]), and getting a higher education by a young person will cost a family the same amount [6, p. 245], that is, state aid covers only about 15% of the required amount. The problem with state aid is that it shifts the attention of society from important factors that can really radically raise the birth rate, to an unnecessary, secondary factor.

6. Protection of women from sterile relationships.

The availability of intimate relationships in the modern world has led to the fact that many women are trapped in sterile relationships with selected men - their chosen ones do not marry, thereby preventing women from having children from them.

7. The protection of men from the alimony system set against them.

One of the reasons why men do not want to tie the knot is the alimony system, which gives women an advantage: "Traditional society gave priority in marriage to the husband.

Modern society does not provide any advantage in marriage to either husband or wife. There were practically no divorces in traditional society, and in modern society a woman has an advantage after a divorce, especially a woman with children "[4, p. 153]. The alimony system should focus on maintaining a high birth rate, for example, the alimony system, which pays 15% of the salary for each of the children born to an ordinary man, but no more than 75% of his entire salary, or 10 average salaries for each of the children born for a wealthy man with high incomes [3, p. 137-144].

§4. Recommendations for a radical increase in the total fertility rate

If the total fertility rate in a society is less than 2.1 children per woman, then in this society the fertility rate is insufficient, and the implementation of the following recommendations will radically, without special financial costs, raise the size of the fertility rate:

1. To observe the proportions of social balance.
2. To not allow the coefficient of life and death of society to fall below one.
3. To reduce the duration of schooling in theoretical subjects.
4. To reduce the number of places in higher education institutions.
5. To reduce family expenditures on time and money for schooling.
- 6.

Formulation № 1. Increase family spending in terms of time and money for learning higher education.

Formulation № 2. The salary, which is much higher than the average in society, should be received only by those who have studied at a higher educational institution.

7.

Formulation № 1. To train 90% of young people in the usual, in-demand specialties by the age of 17-18.

Formulation № 2. The average salary in society should be received by a person who studied in an ordinary school and received a normal, in-demand specialty by the age of 18.

8. Eliminate or radically reduce the level of state support for the birth of a child.

9. To equate other forms of long-term intimate relations with marriage, at the same time, without fail, removing the advantage for women from the alimony system, making it equal for both parents and aimed at maintaining a high fertility coefficient.

10. As an auxiliary measure, try to enhance the effect of some of the factors that affect the total fertility rate and described above in this article.

All of the above methods, after their implementation, in total can give an increase in the total fertility rate by 1.5-2.5 times or more; that is, a country with a combined fertility rate of, for example, 1.8 could increase it to 4.5 or more.

Conclusions:

1. The essence of the demographic transition is a significant increase in family spending on the upbringing and education of a child.

2. The main factor on which the total fertility rate depends is the size of the full economic benefit for the family from the birth of a child.

3. Recommendations are given that will allow countries with insufficient total fertility rate to increase its value by two or more times.

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