DEMOGRAPHICAL DYNAMICS AND RUSSIA'S CRISIS OF THE FAMILY INSTITUTION

Irina Shmarova – Oksana Shubat

Abstract

Since the start of the 2000s, Russian demographers have been actively discussing the crisis of family as a social institution. Many researchers point to this very crisis of family as the main reason for depopulation. Since all scenarios of official demographic forecasts envisage declining fertility, the study of the possible manifestations of the crisis of the family institution appears pertinent and is the subject of this research.

Our paper presents the results of time series analysis of demographic indicators that are commonly associated with the manifestation of the crisis of family. We modelled the trends and described the specifics of the dynamics of these indicators.

The results showed that certain indicators that characterise negative changes in the institution of family fell in the 2000s. Other indicators during this period either did not have a clear trend or did not show an unambiguous growth trend. Some indicators did not reveal a negative trend even in the long run.

We conclude that as of today, there is no manifestation of the crisis of the social institution of family in Russia at the behavioural level. Evidently, the negative demographic trend forecast for Russia in the long run could be related to other factors.

Key words: crisis of family, demographical dynamics, modelling, time series analysis

JEL Code: J11, J13

Introduction

One of the challenges faced by Russia at the turn of the 20th and 21st centuries is depopulation. Indeed, the population of the country has been gradually declining since 1996, the greatest decrease was in the period from 2000 to 2006. Despite the fact that in 2010 this negative trend was overcome, there are few reasons for optimism. Components of total population size changes show that the increase of the population size is mostly caused by net migration. Moreover, according to official demographic projections, the Crude Birth Rate in

the country will decline and natural decrease will grow. It is important to note that these negative trends are predicted in all forecast variants – high, medium and low (*Demographic projection*, 2017).

Many scientists consider the crisis of the social institution of family to be the most important reason for depopulation and weakening of the demographic potential of Russia. Most actively in the Russian demographic science, it began to be discussed at the turn of the 2000s, when researchers began talking about changing the life values of the population, reducing the attractiveness of the family, marriage and rearing several children (Antonov, 1999). These transformations led to the formation of negative demographic trends – the reduction in the number of registered marriages and the increase in the number of divorces, illegitimate childbirth and abortion, the reduction in the number of families with three or more children (Zritneva, 2013). Decreasing of birth rate and its consolidation at the level that does not provide the simple replacement of the population is the major negative consequence of family institution crisis.

The problem of low fertility is not new for the world demographic science. N. Balbo, F.C. Billari and M. Mills note that the topic of low fertility dominated fertility research in advanced societies (Balbo, Billari, & Mills, 2013). In such a case researchers explore different determinants of low fertility. Economical reasons are often regarded as fertility determinants. However, S. Freedman and A.Thornton (Freedman & Thornton, 1982) show that income is not always positively related to fertility. A.C.Liefbroer (Liefbroer, 2009) investigates fertility intentions as a proximate determinant for actual fertility behavior. Stability of family relations and its influence on fertility is another relevant topic. Upon that two opposite points of view may be found in the literature. Thus, S.M. Myers (Myers, 1997) shows that solid marriage and compatibility between spouses encourage parenthood and higher-order childbearing. His results, however, disprove the theory that couples who lack marital solidarity and are unhappy with their marriages use childbearing as s strategy to increase solidarity and reduce marital uncertainty (Friedman, Hechter, & Kanazawa, 1994). Rijken and Liefbroer (Rijken & Liefbroer, 2009) show that couples are most likely to have children if they do not have too much negative interaction, but nor interact in a very positive way.

The aim of our study is to explore the dynamics of demographic indicators that are commonly associated with the manifestation of the crisis of family in the Russian society. We believe that such a study is relevant in the context of the projected fertility decline and population decrease in the country.

1 Data and Methods

1. In our study we used data of Federal State Statistics Service for the period from 2000 to 2015. This period was chosen because of the fact that since the beginning of 2000s the topic of family institution crisis has become particularly relevant in Russian demography.

2. During the analysis time-series the following indicators that are commonly associated with the manifestation of the crisis of family in the Russian society were explored:

- The number of registered marriages (per 1,000 population);
- The number of registered divorces (per 1,000 population);
- The number of children left without parental care (absolute values and ratio, i.e. the share of these children in the total number of child population);
- The share of children born out of wedlock (in the total number of births);
- The share of children registered in Russian population accounting agency only by mother's statement, i.e. without paternity recognition (in the total number of births);
- The number of abortions (per 1,000 women of fertile age and per 100 childbirths).

We also analysed data on the number of large-scale households (with three or more children). Since such information is collected in Russia only in the process of the Population Censuses, we compare the results of two last Censuses of 2002 and 2010. We studied the share of these households in the total number of households with children.

3. To identify the specifics of the dynamics of these demographic variables we analysed the basic indicators of time series – absolute and relative. To model trends we estimated regression models and used ordinary least squares as the method for estimating the parameters of the models.

2 Results

We obtained the following results through our research:

1. A great number of indicators that characterise negative changes in the institution of family fell in the 2000s:

- From 2000 to 2014 the number of abortions per 1,000 women of fertile age decreased by 54%;
- The number of abortions per 100 childbirths decreased by 71.5%;
- The number of children left without parental care decreased by 55%;

− The share of such children in the child population decreased from 40% to 21%;

− The share of out of wedlock childbearing decreased from 28% to 21.6%.

In the process of analysis, we estimated the regression models characterising the trends of the studied indicators (Table 1).

Tab. 1: Trends in dynamic of indicators that characterise negative changes in the institution of family

Indicator	Trend equation	R^2	F-statistics (p< 0.001)
The number of abortions per 1,000 women of fertile age	$T=54.82 - 1.995t$ (0.438) (0.048)	0.992	0.806
The number of abortions per 100 childbirths	$T=166.877 - 8.592t$ (3.391) (0.373)	0.976	6.241
The share of out of wedlock childbearing	$T=31.238-0.534t$ (0.648) (0.067)	0.824	65.524
The number of children left without parental care	$T=135902.32 +3958.636t -587.174\, t^2$ (5600.878) (1516.398) (86.715)	0.962	6553.729
The share of children left without parental care	$T= 0.336+ 0.039t - 0.003t^2$ (0.020) (0.005) (0.000)	0.952	0.023

Source: authors' calculations

As follows from the data presented, from the beginning of the 2000s, unambiguous downward trends are observed for the number of abortions and the share of out of wedlock childbearing. The dynamics of other two indicators can be described by second degree polynomials. Until 2005-2006, these indicators unsteadily grew, slightly decreasing in certain years. However, afterwards the considered indicators steadily and annually decreased.

2. Some indicators that characterise the negative changes in the institution of the family did not decrease in the period under the study. At the same time, they did not show an unambiguous growth trend. These relate to the diverse rate (Figure 1), the number (and share) of children registered in accounting agency only by mother's statement, i.e. without paternity recognition (Figure 2). The last indicator grew quite significantly in the early 2000s. Despite the fact that since 2007 it has been falling rapidly, we did not consider this trend to be stable and attributed it to indicators with unstable dynamics in the surveyed time period.

3. The following indicators that characterise positive changes in the institution of family grew in 2000s:

− the number of registered marriages (per 1,000 population) for the period from 2000 to 2015 increased by 27.4%;

−   between the two Russian Censuses (2002 and 2010) the proportion of families with three or more children has slightly increased (table 2).

Fig. 1: Divorce rates (per 1,000 population)
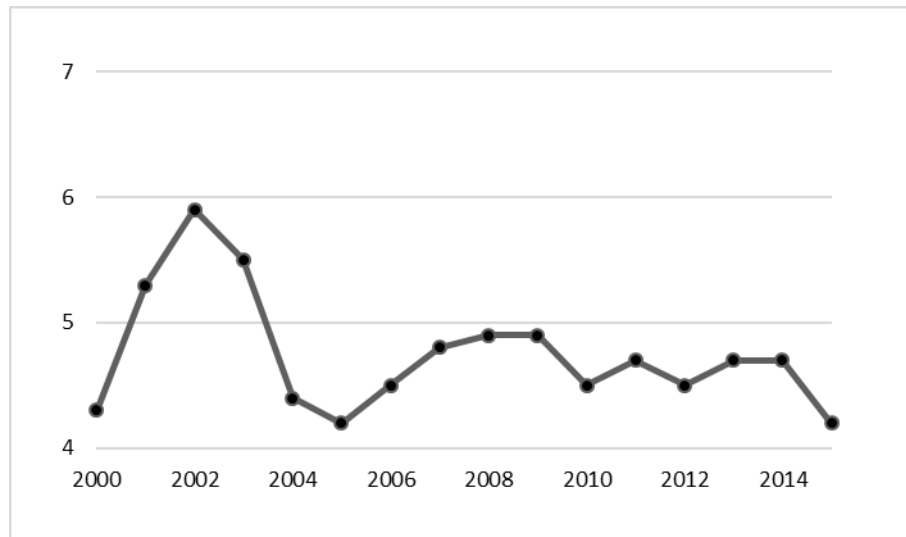
Source: Population Indicators of the Federal State Statistics Service
http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/population/demography/

Fig. 2: The share of children registered in Russian population accounting agency only by mother's statement, i.e. without paternity recognition (in the total number of births)
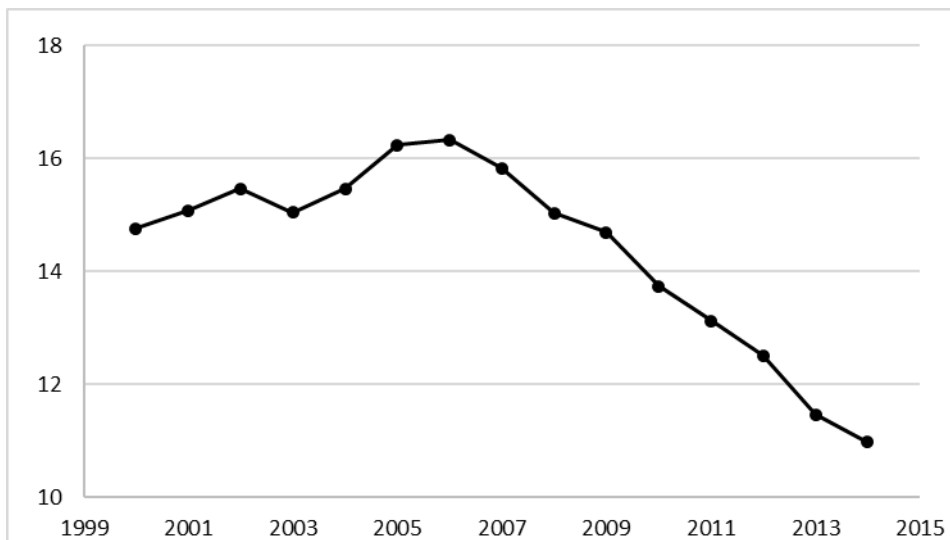
Source: Population Indicators of the Federal State Statistics Service
http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/population/demography/

Tab. 2: Share of households with three and more children in the total number of households with children in Russia

	2002	2010	Increase, %
Share of households with three and more children under 18 years old in the total number of households with children, %	6.59	6.99	6.07

Source: authors calculations based on data of Federal State Statistics Service (*Results of*, 2010)

Discussion and Conclusions

Our research enabled us to conclude that as of today, there is no manifestation of the crisis of the social institution of family in Russia at the behavioural level. Indeed, the dynamics of key demographic indicators that are commonly associated with this crisis shows that its negative manifestations are decreasing. The results of some other studies show that the crisis of the social institution of family is also not manifested at the cognitive and emotional levels and the young generation has a steady image of the family, which is necessary primarily for the birth and upbringing of children (for example, Shubat, 2015). The research of values and attitudes of the Russian youth confirm that the family practically always heads the hierarchy of life values (Kuzmin, 2006; Akyulov, 2011).

Therefore, negative demographic trends predicted for Russia should be explained by other factors. For instance, some researchers note that in the minds of the Russians there is a marked discrepancy in assessing the importance of the family and children. The family is on the top of the hierarchy of life values, while the rating of children in this system is much lower (Kuzmin, 2006). In youth's perceptions the value of good family does not always correlate with the value of children (Akyulov, 2011). Such kind of incongruity may negatively influence the fertility dynamics. However, the state's efforts aimed at correcting social norms and stereotypes can positively influence the demographic dynamics and improve demographic projections.

Another factor that may have a negative impact on the realisation of reproductive potential and restrict reproductive behavior of the Russians might be a generally low level of income and a high degree of its differentiation among different groups of population. Indeed, the ratio of the average income of the richest 10% of the population to the average income of the poorest 10% is rather high in Russia. In 2014 it was 16.0 (*Population Indicators*, 2017). This is higher than in most European countries (*OECD*, 2017).

Among the indicators that could also affect the demographic dynamics of recent years, we can mention changes in the structure of the female population of the country, changes in the average age of motherhood. On the whole a very balanced approach is needed to make demographic predictions and assess the current situation in the sphere of population reproduction, taking into account both the dynamics of demographic indicators, as well as the changes in life values and reproductive plans of the population.

The continuation of our research we see in the study of regional specifics of demographical dynamics. The fact is that historically there is a high regional differentiation in the majority of demographic, economic and social indicators in Russia. In our opinion, the improvement of demographic trends in the whole country is impossible without eliminating the imbalance in the levels of these indicators in the regions. Therefore, the future researches should be focused on studying the features and identifying the reasons of regional differentiation. These researches might have great practical relevance to the correction of family policy and also the development of national demographic policy.

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Contacts

Irina Shmarova

Ural Federal University

620002, 19 Mira street, Ekaterinburg, Russia

i.v.shmarova@urfu.ru

Oksana Shubat

Ural Federal University

620002, 19 Mira street, Ekaterinburg, Russia

o.m.shubat@urfu.ru