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TRENDS AND OUTLOOKS

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R95 **Russian Economy in 2021. Trends and outlooks**. **(Issue 43)** / [V. Mau et al; scientific editing by Kudrin A.L., Doctor of sciences (economics), Radygin A.D., Doctor of sciences (economics), Sinelnikov-Murylev S.G., Doctor of sciences (economics)]; Gaidar Institute. – Moscow: Gaidar Institute Publishers, 2022. – 568 pp.: illust.

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The review “Russian Economy. Trends and Outlooks” has been published by the Gaidar Institute since 1991. This is the 43th issue. This publication provides a detailed analysis of the most significant trends in the Russian economy, global trends in the social and economic development. The work contains 6 big sections that highlight different aspects of Russia’s economic development, which allow to monitor all angles of ongoing events over a prolonged period: global economic and political challenges and national responses, economic growth and economic crisis; the monetary and budget spheres; financial markets and institutions; the real sector; social sphere; institutional changes. The work is based on an extensive array of statistical data that forms the basis of original computation and numerous charts confirming the conclusions.

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5.6. Fertility and birth order in Russia by regions: a pandemic impact?[1]

Analysis of fertility trends in the Russian Federation by regions and by children of different birth orders (i.e. first child in the family, second child, etc.) in 2021 is necessary because of the expected impact of the COVID-19 pandemic on birth rate in the previous year. Most births in 2021 reflect reproductive decisions made during the first and second waves of the pandemic, i.e. the period of the "first shock" caused by the spread of the new virus and restrictive measures. Studies show that there was a very strong tendency to postpone childbearing during this period resulted in the decline of birth rate in some countries comparable to the decline after the economic crisis in 2009.[2] However, studies available[3] suggest that the impact of the pandemic on the birth rate may vary significantly across different birth orders: in a number of Western European countries, couples having at least one child were more frequently refusing family expansion plans in the first wave of the pandemic compared to childless couples. This explains the need to consider fertility trends in 2021 separately for children of different birth orders. The need to study interregional differences is associated with a sharp disbalance of Russian regions in the severity of the epidemic process, measured in particular by such an indicator as excess mortality.[4]

On the whole, the 2021 fertility trends in Russia contradicted the assumption that the first waves of the pandemic would result in a significant reduction in the reproductive activity. As shown in *Fig. 28*, the countrywide Total Fertility Rate (TFR) in 2021 remained practically at the level of 2020 (as it was already noted in the previous section).

As for fertility rate of different birth orders, the trends that were observed in the preceding 4-5 years, i.e. a gradual decline in the birth rate of the first and the second child and growth in the birth rate of the third and subsequent children, have continued. As a result, the contribution of third and subsequent children to total fertility continued to grow in 2021 (*Fig. 29*; the contribution is defined as the ratio of the TFR calculated for the third and subsequent children only to the Total Fertility Rate calculated for all children).

Regional fertility trends in 2021 were also broadly in line with those of previous years. This can be demonstrated by the Spearman rank correlation between the regional fertility rates for 2021 and the average regional TFR for the preceding five years. This correlation coefficient is quite high (0.71) at the 99% of significance value (for certain birth orders it is in the range of 0.6-0.7 at the same significance value).

1 This section was written by: *Kazenin K.I.* Candidate of Philological sciences, Director, Center for Regional Studies and Urbanism, IAES RANEPA, Researcher of the Gaidar Institute.

2 See, e.g. *Sobotka T., Jasilioniene A., Galarza A. A., Zeman K., Nemeth L. & Jdanov D.* Baby bust in the wake of the COVID-19 pandemic? First results from the new STFF data series (Preprint). 2021, March 24. URL: https://doi.org/10.31235/osf.io/mvy62

3 *Luppi F., Alpino B.* and *Rosina A.* The impact of COVID-19 on fertility plans in Italy, Germany, France, Spain and UK. Preprint. 2020. DOI: 10.31235/osf.io/wr9jb

4 *Kobak D.* Excess mortality reveals Covid's true toll in Russia. Significance, 18: 16-19. 2021. URL: https://doi.org/10.1111/1740-9713.01486

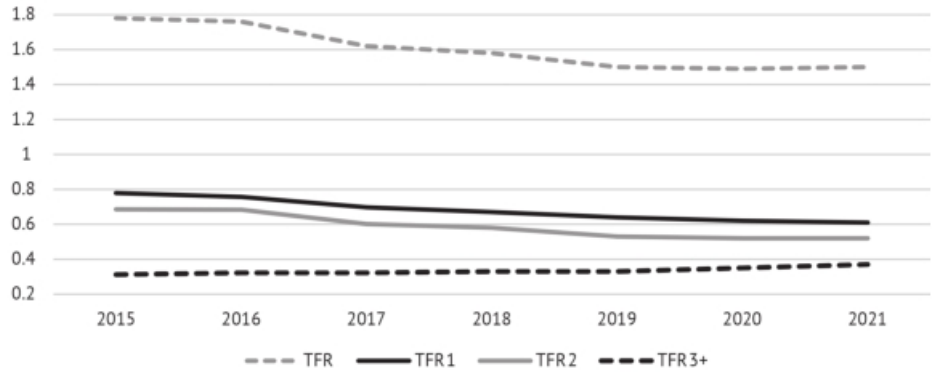

Fig. 28. Total fertility rates for all children and by birth orders (children per one woman)

Source: Rosstat.

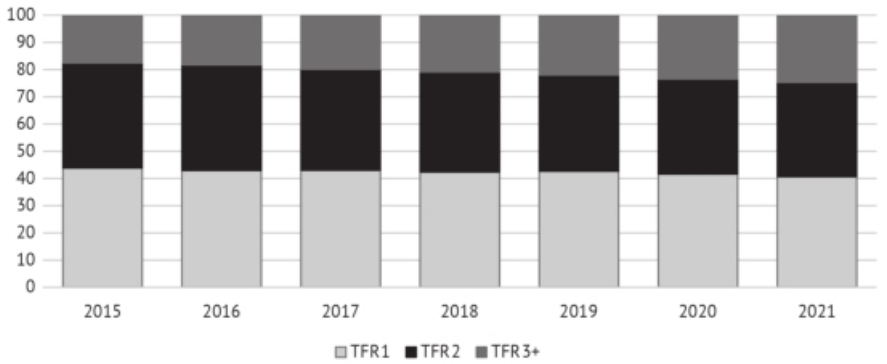

Fig. 29. Contribution of birth orders to Total Fertility Rate, %

Source: Rosstat estimates

The study of the correlation between regional fertility rates for 2020 and the average values for 2015-2019 is also very similar. This suggests to state that there are no significant "failures" recorded in the fertility dynamics across regions in 2021.

The TFR decreased in 2021 compared to the previous year in 51 regions out of 85 subjects of the Russian Federation. A decline in the first child birth rate in 2021 was observed as in 2020 in more than 3/4 of regions (in 2021 it was recorded in 66 regions and in 73 in 2020). As for the rise in the birth rate of third and subsequent children, it was recorded in 61 regions in 2020 and in 70 regions in 2019. Thus, the contribution of third and subsequent children to the total fertility rate in 2021 increased in most regions: in 76 regions the contribution of third and subsequent children to the TFR increased in 2021 compared to 2020 (an average increase of

1.2 p. p.). Moreover, the positive contribution of third and subsequent children to the total fertility rate has also increased by about 5 p.p. compared to the previous year vs 2020.[1] In other words, the relatively high level of multiple births in 2021 has strengthened its importance as supporting factor of the Total fertility rate continuing its decline in first and second births.

In the context of regions (*Table 10*) the TFR dynamics was varied for all birth orders marked by the most significant decline in the Far East and Volga Federal okrugs. The decline in fertility of first children was observed in every Federal okrug (the largest decline in the Far East and the North Caucasus), while growth in the third and subsequent children was recoded also in every Okrug (maximum in the Volga Federal okrug and minimum in the North Caucasus Federal okrug).

Table 10

Changes in Total Fertility rate (for all children and for children of different birth orders) in 2021 vs 2020 by Federal okrugs, on average, %

	TFR	TFR1	TFR2	TFR+
CFO	-1.1	-3.8	-0.1	2.8
SFO	0.0	-3.2	0.7	3.8
FEFO	-2.6	-7.2	-2.6	4.7
NWFO	-1.4	-3.7	-1.7	3.4
SFO	-0.2	-0.5	-2.4	3.7
NCFO	-2.1	-5.1	-2.9	1.2
VFO	0.4	-3.0	0.6	6.5
UFO	0.4	-2.8	0.5	5.2

Source: Rosstat estimates.

An assessment of the impact of pandemic on fertility trends in Russian regions in 2021 can be made by examining the dependence between fertility dynamics in a given year and features of the first two pandemic waves across regions.

A preliminary analysis shows that this dependence was not statistically significant. This is evidenced by the results of a regression analysis that examined the dependence of the change in TFR (for all children and for children of certain birth orders) in the regions in 2021 versus 2020 based on various parameters indirectly indicating the extent of the first two pandemic waves in the region. These parameters include:

(1) excess mortality in the region in Q2-4 2020; (2) change in life expectancy in the region in 2020 compared to 2019 according to Rosstat; (3) frequency of pandemic-related search queries in the region in Q2-4 2020 according to Yandex search statistics. The change in fertility in the region did not show any significant association with any of these parameters. This conclusion suggests that fertility in the Russian Federation was not significantly affected by the pandemic in a given

1 The contribution estimated using the following methodology: *Zaman K., E. Beaujon, Z. Brzozowska*, and *T. Sobotka*. Cohort fertility decline in low fertility countries: Decomposition using parity progression ratios, Demographic Research 38(25): 2018. C. 651–690.

year along with maintenance of fertility trends in 2021 for children of different birth orders observed earlier.

What might explain this situation, especially in respect of declining fertility in a pandemic in several other countries? To answer this question, factors which might influence the fertility of third and subsequent children are of particular interest, since it has shown, as we have seen, an overall growing "supportive" effect on fertility in 2021. Such factors include, first of all, the subsidy of Rb 450 000 for large families aimed to purchase housing, introduced by the Federal Law of 3 July 2019, as well as a number of state support measures provided to large families as part of mortgage lending.

The continued rise in the birth rate of third and subsequent children even amid pandemic suggests that the outcome expected from these measures has been achieved to some extent. Interestingly, the introduction (Amendment No. 256-FZ) of measures for third and subsequent children in 2020 (primarily maternity capital payments at the birth of the first child), was not been able to halt the decline in the birth rate of first children.

The stability of fertility in Russia in 2021 does not mean, however, that the 2022 ongoing pandemic will not have a negative impact on fertility. The fact that fertility reduction from "external shocks" is possible is indicated, in particular, by the results of focus groups conducted by RANEPA in seven Russian regions in May-June 2021. One of the matching points of most focus group participants was the recognition of high risks of parenthood in the unstable socio-economic situation associated with the coronavirus pandemic.