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MATERNITY CAPITAL AS A TOOL FOR REDUCING CHILD POVERTY IN RUSSIA

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Abstract

Extensive poverty persists against the background of a declining birth rate in the Russian Federation. This fact gives the grounds for asserting maternity capital dysfunction in the demographic sphere and its increasing role in reducing child poverty. The study aims to analyze the practice of providing maternity capital and develop measures to improve its use at the federal and regional levels. Maternity capital is an essential tool of state social policy to reduce poverty among families with children. The methods of economic, regression, and cluster analysis were used during the research. The analysis of the state's actual and forecast expenditures under the maternity capital program for 2009-2018 was carried out with a proviso that it was given for each newborn. A linear regression model is constructed that reflects the impact of maternity capital on families' share in need of improved housing conditions. Features of the practice of providing regional maternity capital in 2018-2020 are revealed. The Russian Federation regions clustered by the level of birth rate and well-being of families with children, using Ward's method on the 2019 data. Authors propose to provide maternity capital for each child at the expense of the National Wealth Fund; to expand the areas of its use that contribute to the development of human potential; to expand Russian subjects' measures to support families based on an assessment of their need. General recommendations on the choice of social policy priorities in the context of four enlarged groups of subjects of the Russian Federation are given.

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1. Introduction

In condition of depopulation of the populace in developed countries, there is a need to stimulate the birth rate through the state's active social policy. The birth rate of first children is due to the natural desire of parents to continue the race. They want to reproduce a new generation, the so-called biological birth rate, which is based on a person's biological needs. The decision to give birth to the second and subsequent children in a family depends on a large number of its residents' socio-economic conditions. The task of the state is to promote the growth of the social birth rate (second and subsequent children in the family) as the most important factor of extensive (due to the growth of the population) and intensive (due to the development of the human potential) economic growth.

From this perspective, child poverty can be viewed as a destructive factor of demographic and economic growth. When the number of children in a family increases, the risks of child poverty increase, too. In this regard, the state takes a set of measures to stimulate the birth rate and reduce poverty among families with children.

Research works on different countries' experience in stimulating social birth rate and reducing child poverty is highly relevant. For example, since 2007, the maternity capital program (hereinafter referred to as the MC[1]) has been implemented in Russia to stimulate the birth rate of second and subsequent (and from 2020 – the first) children in the family. The Pension Fund of the Russian Federation (hereinafter referred to as the PFRF) issues state certificates for the MC at the birth (adoption) of a child and directs funds to the goals selected by the family from the established list: improvement of housing conditions, education of the child, mother's pension, social adaptation and integration into society of disabled children, monthly payments. Thus, when the first and second children are born, the family can receive a Federal MC. As a rule, starting with the third child, the authorities of the Russian Federation's subject, on the territory of which the family lives, pay the regional MC.

However, since 2016 there has been seen a decrease in the number of births in the country, including third and subsequent children in families in a number of regions. Against this background, the proportion of children living in poor families is growing. According to 2018 data, 6.8% of households in the country are poor, 82.4% of which are households with children under the age of 18. In 2018, 22.9 % of children under the age of 18 lived in low-income households. [2]

In connection with the above factual data, the study of the role of the MC in solving the problem of child poverty is a major scientific problem of great socio-economic significance for Russia.

2. Problem Statement

All contemporary studies of the relationship between demography, family welfare, human capital, and economic growth are based on the fundamental works of Malthus (1798) and Becker (1962).

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[1] Federal Law No. 256-FL of 29.12.2006 (as amended on 13.07.2020) "Additional measures of state support for families with children"
[2] The Russian Federal State Statistics Service. Official statistics. Family, motherhood and childhood. Access mode: https://rosstat.gov.ru/folder/13807

In the latest foreign economic literature, the phenomenon of child poverty is primarily associated with deprivation in consumption (Townsend, 1979). In our opinion, the deprivation approach allows us to explain the problems of social birth rate. While assessing the social birth rate phenomenon, the Sen's (1992) Capability Approach becomes increasingly widespread. According to this concept, limited basic capabilities harm social birth rate, and complex functional capabilities harm human potential.

In foreign literature, birth rate and family poverty are often raised for developing countries. For example, a study by Birdsall and Griffin (1988) notes the close interconnection of high birth rates and poverty of families with children in China, Indonesia, Taiwan, Colombia, Korea, Sri Lanka, Cuba and Costa Rica.

However, the positive impact of financial support measures for families with children is extremely rare. Santiago et al. (2016)'s research results show a significant and positive impact on the birth rates in households with one young child and poorly educated women. Economic incentives do not affect childless families and older and more educated mothers with older children.

In foreign studies, the lack of influence of monetary payments on the birth rate is recorded more often. In particular, there are research works by Palermo et al. (2016) revealing Zambian child subsidy program; an example of the productive safety net program in Ethiopia by Hoddinott and Mekasha (2020); the conditional cash transfer program in Nicaragua by Todd et al. (2012).

Marcio & Amer (2018) stated that in developing countries, an increase in the share of the working-age population and a reduction in the child dependency ratio contribute to an increase in gross domestic product per capita and a reduction in poverty. Families make a compromise decision on the number of births, taking into account budget opportunities that they can invest in childhood. Dang and Rogers (2016) demonstrate an inverse relationship between the number of children in a family and the amount of investment in the education of school-age children in the form of private tutoring.

In more developed OECD countries, child poverty is often linked to parental employment and inclusive economic growth. According to estimates by Thévenon et al. (2018) an increase in state social spending per capita is associated with a decrease in the relative level of child poverty, especially if 10% of the poorest households receive the largest share of total social spending. Wietzke (2015) finds that countries with higher poverty reduction rates tend to pursue active redistributive policies. Bárcena-Martín et al. (2017) conclude that social benefits play a key role in reducing child deprivation in Europe. Social security measures that do not explicitly intend to protect children from deprivation are the most effective.

A research on the impact of birth rates on global poverty has received a new start abroad in recent years. Wietzke (2020) proves that the relationship between birth rate and poverty is not linear at the global level. A decrease in the birth rate can lead to an increase in poverty. It is due to the difference in the birth rate in poor and rich families.

According to Barsukov (2019), Russia is among the "red group" countries that have completed the demographic dividend implementation and entered the phase of irreversible population aging. Popova (2016) proves the positive impact of the regional maternity capital programs on Russia's birth rate. According to Shishkina and Popova (2017), the increase in the birth rate in the Northern regions of Russia is associated with a high need for families with children to improve their living conditions. Iwasaki and Kumo (2019) identified factors that stimulate (housing provision of the population, employment

opportunities for parents) and deter birth rate (poverty, etc.). This combination of factors varies significantly in the regions of Russia.

In previously published works, we prove that excessive inequality and poverty are a challenge to human development (Kormishkina et al., 2019a) and demographic security in modern Russia (Kormishkina et al., 2019b). Against the background of the discussion, there is an urgent need to study practices to reduce child poverty and provide the family with a certain amount of money (capital) at the birth of a child. Therefore, the research subject is maternity capital as an essential tool of active social policy of the state in the fight against child poverty at the federal and regional levels.

3.   Research Questions

We assume that the MC ceases to serve as a birth rate incentive in the current conditions of worsening poverty problems in families with children. It is in demand among low-income households as the only available option for improving the financial situation. This contributes to the limited number of recipients of the capital. The MC funds are not enough to attract the well-off population, especially at the Russian Federation's constituent entities. In recent years, issuing lump sum and regular allowances to low-income families from the MC Funds is also widespread. In response to the decline in the birth rate, the state expands the package of measures to support families with children annually. These measures significantly complicate the regulatory mechanism and require harmonization at the federal and regional levels.

4.   Purpose of the Study

The purpose of the study is to analyze the practice of providing maternity capital and develop measures to improve its use at the federal and regional levels as a tool of state social policy to reduce child poverty.

5.   Research Methods

The study was conducted using general scientific methods, methods of economic, regression and cluster analysis with the help of the software package for statistical analysis Statistica. Ward's method was applicable while cluster analysis. As a measure of proximity between objects, the Manhattan distance is used, which is the average of the coordinates' differences. The information of the maternity capital programme's expenditure for the period 2007-2018 was based on the data of the annual report of the Pension Fund of the Russian Federation. The data of the Federal State Statistic Service on births, living standards and the needs of young families were considered. The Agency RIA Rating from the rating of constituent Russian Federation regions in welfare families with children was also presented. The study of the features of providing regional maternity capital in the Russian Federation regions was conducted according to the normative legal acts presented in the Garant reference legal system.

6. Findings

6.1. Maternity capital as a tool for stimulating the birth rate and reducing non-monetary poverty at the federal level

MC's first payments started in 2009 and in 2018 totaled 2,339.5 billion RUB over 10 years (Table1).

Table 1. Indicators of the maternity capital at the federal level, billion RUB

Indicator	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Actual expenses of the PFRF under the MC program for the year	42	97.1	171.6	212.4	237.5	270.9	328.6	365.3	311.8	302.3
Use of MC to improve housing conditions, as a percentage of actual expenses for the year	62.5	80.0	96.8	99.3	99.0	98.6	87.4	83.9	97.5	95.6
Specific MC payments for each child born in the current year, thousand rubles	23.8	54.3	95.5	111.7	125.3	139.4	169.3	193.4	184.5	188.4
Estimated expenses of the PFRF while calculating the maternity capital for each newborn child - for a year	0	548	622	677	726	766	854	852	874	873

- in % of the value of the NWF	-	20.3	22.3	25.2	25.0	17.5	16.3	19.5	23.3	21.6

Analysis of the PFRF's expenditures under the maternity capital program for 2009-2018 allowed us to draw a number of conclusions. Firstly, the growth of PFRF expenditures under the MC program is not accompanied by a steady increase in the country's birth rate. Secondly, the most popular use of the federal MC is to improve housing conditions. For these purposes, from 80% to 99% of the funds paid to the PFRF under the MC program are allocated annually. Most families purchase housing with mortgage loans, which are subsequently repaid at the MC funds' expense. High demand for the MC is confirmed: at the end of 2018, 62% of families have completely spent it. Thirdly, the federal MC provision only for one (second or subsequent) child in the family eliminates the possible positive effect. The amount of specific expenses of the PFRF under the MC program for each newborn is 2-2.5 times less than its absolute sum (since 2015, 453026 rubles). In 2018, they amounted to 188.4 thousand rubles or 15.7 thousand rubles per month for the year. This amount can cover the deficit of a low-income family's monetary income in the case of receiving lump-sum payments at the expense of the MC. However, the material wealth of a large family will not significantly increase.

The implementation of the MC program through the PFRF led to a significant deficit in its budget, which is repaid at the National Wealth Fund of the Russian Federation (NWF). The Fund is formed from oil and gas revenues of the budget of the Russian Federation. It is sufficient to provide a federal MC for each newborn child in the family. Table 1 shows the results of calculating government expenditures over the past period in the case of providing maternity capital for each newborn child. [Reference: they were calculated as the product of the total number of newborn children (except the number of children who died before 1 year) by the absolute amount of the maternity capital three years after birth]. They do not exceed 25 % of the Fund's resources. The actual expenses of the PFRF are usually lower than the accrued ones. Only two-thirds of families use the accrued MC when they reach the age of three. On the one hand, under this program, the state's expenses with maternity capital payment for each newborn will increase by 2.5-3 times. On the other hand, this will reduce government spending by eliminating payments that duplicate the maternity capital (subsidies for mortgage loans to families with children, regional maternity capital).

The preferential use of MC for housing purchases reduces the number of young families registered as needing better housing. However, it is not enough to exclude property deprivation in large families. Thus, in 2012-2018, the number of young families in need of improved housing conditions decreased by 23.6%, while the number of large families increased by 5.7%.

To assess the MC's impact on the need for families to improve their housing conditions, a linear one-factor regression equation was constructed based on the data for 2009-2018. (Figure 1).
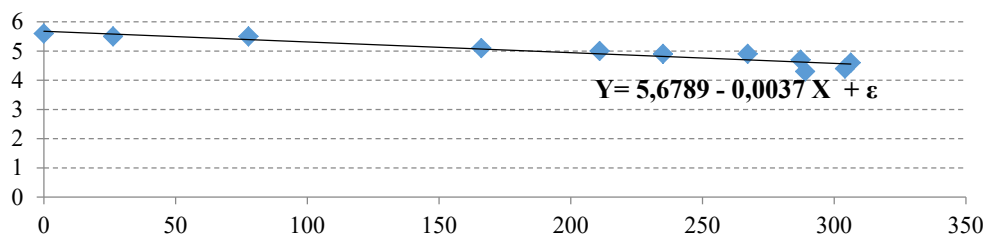
Figure 1. Linear dependence of the share of families registered as needing housing on maternity capital aimed at improving housing conditions (trend line Y - Share of the number of families registered as needing housing in the total number of families (at the end of the year),%; X - Maternity capital used to improve housing conditions in the current year, billion rubles.)

The limited period of the analysis (payments under the MC program are made only for 10 years) does not allow us to build a multi-factor model suitable for forecasting. At the same time, the parameters of statistical significance of the obtained equation (multiple correlation coefficient of 0.94; determination coefficient of 89%; average approximation error of 2.4%; Fisher's f-criterion value of 72.38; Student's t-criterion value and p-values) meet the requirements for a qualitative model and confirm the positive impact of the MC on the level of need for improving housing conditions. An increase in the maternity capital amount aimed at improving housing conditions by 1 billion rubles will reduce the share of families registered as needing housing by 0.0037% (with other factors unchanged). However, the low values of the regression coefficients (0.0037) and elasticity (0.15) Y from X demonstrate a weak influence and necessitate the comprehensive application of state housing policy measures in the fight against non-monetary poverty.

6.2. Regional maternity capital as an instrument of active social policy of the Russian Federation subjects

Since 2011-2012, most Russian regions have introduced a regional MC as an additional measure to support large families. Theoretically, the less well-off a region is in terms of the birth rate and well-being of families with children, the higher the value of the MC should be. In practice, the subjects of the Russian Federation pay the maximum amount of regional maternity capital. They do not experience acute problems with birth rates (compared to the average Russian level) and provide a satisfactory level of well-being for families with average incomes. In 2018, the maximum payments were provided in the Yamalo-Nenets Autonomous Okrug (in 2018, the sum was 334524 rubles; from 2020 it is 500,000 rubles). In four subjects of the Russian Federation, they amounted to 200 thousand rubles per recipient (Nenets Autonomous Okrug, Kabardino-Balkarian Republic, Khabarovsk territory, Kostroma region). Only in the Kostroma region, the birth rate and well-being of families with children were less than the Russian Federation's average level. In the Kabardino-Balkarian Republic, the birth rate was high despite the extremely low family welfare level.

According to 2018 data, regional MC was paid in the amount of 100 thousand rubles or more to one recipient from both poorly developed regions with low birth rate (Novgorod, Pskov, Orel, Tambov region, Republic of Mordovia, Karelia, etc.) and regions urban centers (St. Petersburg, Moscow oblast,

Krasnodar Krai). Seven of the Far Eastern Federal District (FEFD) ten entities with income and birth rate above the average in Russia were also paid.

In 32 subjects of the Russian Federation, lump-sum payment of the MC per recipient ranged from 50 to 95 thousand rubles. Among them are several depressed regions with low birth rates (Ivanovo, Bryansk region, Altai territory, etc.). In 9 regions of the Russian Federation, the sum was less than 50 thousand rubles. The amount of 50 thousand rubles or less has weight only for families in extreme poverty, and cannot be a source of global improvements. In such a low amount, MC is transformed into a benefit to cover the current deficit of the family budget. In this connection, such subjects of the Russian Federation should either significantly increase the amount of the maternity capital (Ulyanovsk, Volgograd regions), or abandon it and direct the released funds to other social support measures (Tyumen, Nizhny Novgorod regions, Krasnoyarsk territory).

More and more subjects of the Russian Federation are abandoning the MC. In 2018, there were 9 such regions, and in 2020 – 15, including lagging behind in terms of birth rate and family welfare (the Republic of Crimea, Adygea, Kostroma region). There is an expansion of the practice of introducing additional conditions for providing a regional MC. It is possible in the form of a minimum income (Sevastopol, Astrakhan, Pskov, Rostov, Chelyabinsk regions, the Republic of Buryatia, Mari-El, Kalmykia), improving housing conditions (Amur region), providing one-time or regular payments at the expense of the MC. According to the study, the Russian Federation subjects make these decisions in connection with existing budget restrictions at the regional level.

Thus, in the social policy of the Russian Federation's subjects, the regional MC is transformed from a measure of stimulating large families to a one-time allowance to maintain the current income of low-income families.

6.3. Compromise of regional social policy: stimulating the birth rate or reducing poverty among families with children under budget constraints

In the context of budget constraints, the Russian Federation subjects have to optimize their spending on social policy by choosing tools (MC, one-time or regular social benefits, subsidies, etc.) and their amount, taking into account the severity of the crisis in the social sphere. Clustering of the Russian Federation subjects in terms of birth rate and welfare of families with children will help determine the position of the region and place emphasis on the choice of social policy tools and determination of the conditions for their application. Clustering was performed for two indicators. Experts of the RIA Rating Agency calculated the maximum possible cash balance of an average family with two children after minimal expenses. This allows us to assess not only the monetary side of poverty but also the family's prosperity, taking into account the different price levels in the subjects of the Russian Federation for the minimum consumer basket necessary for life. The total birth rate – the number of births per 1000 people (according to Federal State Statistic Service), also reflects the population density in the Russian Federation subjects.

Based on the cluster analysis results, a dendrogram of associations of Russian regions in clusters is constructed. Based on it, 8 clusters of Russian subjects were identified. They have a similar position in terms of the analyzed indicators. In Table 2, the clusters are arranged to increase the maximum possible

cash balance of an average family with two children after the minimum expenditure. To allocate these clusters, the minimum step for this indicator was used of 4 thousand rubles (Table 2).

Table 2. Clusters of the subjects of the Russian Federation by birth rate and well-being of families with children

№ п/п	Indicator ranges		Subjects of the Russian Federation grouped by birth rate and family welfare.
	Number of births in 2019 per thousand people.	Maximum possible cash balance of a family with two children after minimum expenses in 2019, RUB per month.	
1	10–16 (20)*	4000 (-1018)* – 9000 (11500)*	Kabardino-Balkaria, Chechen Republic, Karachay-Cherkess Republic, Republic of North Ossetia-Alania, Republic of Ingushetia, Republic of Dagestan, Republic of Kalmykia.
2	8–9	5000-9000	Pskov Region, Ivanovo Region, Altai Region, Bryansk Region.
3	7,5 – 9	10000-12000	Kirov Region, Novgorod Region, Smolensk Region, Tambov Region, Oryol Region, Kurgan Region, Kostroma Region.
	8 (7,5)*–10,5	12000-14000	Jewish Autonomous Region, Ulyanovsk Region, Republic of Mari El, Republic of Adygea, Kaliningrad Region, Tver Region, Sevastopol, Republic of Crimea, Saratov Region, Republic of Mordovia, Vladimir Region.
4	8–11 (13,6)*	15000-19000	Penza Region, Stavropol Territory, Altai Republic, Chuvash Republic, Rostov Region, Volgograd Region, Ryazan Region, Republic of Karelia, Krasnodar Territory, Kursk Region.
5	9 (7,6)*–11 (12,7)*	20000-23000	Khabarovsk Territory, Vologda Region, Omsk Region, Tula Region, Samara Region, Primorsky Territory, Nizhegorodskaya Region, Astrakhan Region, Novosibirsk Region, Yaroslavl Region, Orenburg Region, Udmurt Republic, Republic of Buryatia, Voronezh Region.
6	8,5–12 (18,6)*	24000-29000	Tomsk Region, Republic of Tyva, Sverdlovsk Region, Kaluga Region, Trans-Baikal Territory, Chelyabinsk Region, Republic of Bashkortostan, Lipetsk Region, Republic of Khakassia, Perm Territory, Belgorod Region.
7	9 (7,2)*– 13	30000-39000 (43000)*	Kamchatka Territory, Republic of Tatarstan, Amur Region, Arkhangelsk Region (without autonomy), Kemerovo Region, Murmansk Region, Irkutsk Region, Leningrad Region, Krasnoyarsk Territory, Republic of Komi, Republic of Sakha (Yakutia), Tyumen Region, Moscow Region.
8	10,5 (9,1)*–13	52000-89000	Magadan Region, Khanty-Mansi Autonomous Okrug-Yugra, Saint Petersburg, Chukotka Autonomous District, Nenets Autonomous District, Yamalo-Nenets Autonomous District, Sakhalin Region, Moscow.

* The values of "outliers" from the indicator range for the corresponding cluster are shown in parentheses.
Source: author's development according to the Federal State Statistic Service of the Russian Federation and the rating agency "RIA-rating".

General recommendations on the choice of social policy priorities are given in four enlarged groups of the Russian Federation regions.

In the first cluster regions, social policy may not contain additional measures to stimulate the birth rate. Measures to reduce poverty among families with children, develop human potential, and provide social services to large families should be key priorities.

In the second, third and fourth clusters, a comprehensive social policy is necessary, aimed at stimulating the birth rate and reducing poverty among families with children through targeted social support. Economic recovery in depressed regions is possible due to the organization of large all-Russian and district (by federal districts) centers for children's recreation in the territories of the least developed regions. Federal co-financing is necessary because of the low level of their socio-economic development.

In the regions of the fifth and sixth clusters, the key task of the social policy should be material stimulation of the birth rate. Reducing poverty among families with children is possible through measures that increase parents' level of employment, not through social security.

Most regions of the seventh and eighth clusters can abandon regional measures to stimulate the birth rate, and focus their social policy on increasing the availability of quality education, health, sports and recreation services, as well as promoting employment of parents. For the Russian Federation regions with a low population density, attracting families to permanent residence is an absolute priority.

7.   Conclusion

The analysis of the practice of providing maternity capital at the federal and regional levels verifies the hypothesis about the dysfunction of the maternity capital as an incentive to increase the birth rate and its transformation into a measure of reducing poverty among families with children. We confirm this by the following conclusions. Firstly, the right to receive maternity capital at the federal level once at the birth of the second (or subsequent) child (from 2020 twice for the first and second child in the family) levels its specific value for each child in large families. The more children there are in a family, the less significant the federal MC's specific amount for each child. Therefore, public spending under the MC program is not sufficient to reduce the reproduction of poverty and stimulate the development of human potential. The maternity capital payment for a large family with three or more children cannot ensure equal opportunities for everyone even in double amounts (for the first and second children). Secondly, the MC's attractiveness is reduced for middle-and high-income families due to the refusal to index its amount from 2015 to 2019. Thirdly, the sum of the regional maternity capital in most Russian Federation subjects is extremely low. It is sufficient only to cover the household's current budget deficit at the birth of the third and subsequent children. Fourthly, the MC at both federal and regional levels was initially used only in times of crisis. However, it has been used permanently as a source of lump-sum payments when a child reaches one and a half or three years of age. This contributes to spending in low-income families in the current period and deprives children of a source of capital expenditure in the future. Thus, it exacerbates inequality of opportunities. The MC used in this way turns into a regular child benefit to maintain low-income families' current income.

The use of the maternity capital primarily for improving housing conditions contributes to reducing non-monetary poverty. However, the regression and elasticity coefficients' low values in the constructed regression equation indicate that the amount of state support is insufficient.

The amount of regional MC in the Russian Federation subjects is determined taking into account not the birth rate, but the budget capacity of the region. Since 2018, the number of the Russian Federation subjects that completely refused to pay MC, as well as paying MC only to low-income families, has increased.

To achieve demographic growth of the population, it is necessary to transfer the authority to stimulate the birth rate to the federal level and pay maternity capital at the expense of the National Wealth Fund at the birth (adoption) of each child in the family without additional conditions, regardless of the region of residence. At the regional level, the released budget funds will strengthen the targeted social support system for large families with children, taking into account the level of need.

While maintaining payments of the federal maternity capital only for the first and second children in the family, methodological recommendations should be developed for the subjects of the Russian Federation on the use of the regional MC as a social policy tool, taking into account the birth rate and well-being of families with average incomes. For this purpose, the article's recommendations for groups of Russian Federation regions can be used.

In any case, it is necessary to refuse to spend the MC on one-time monetary payments. For this purpose, other measures of state targeted social support should be provided. It is vital to expand the possible areas of its use for purposes that contribute to improving the quality of the social resource and narrowing the reproduction of poverty by guaranteeing minimum starting conditions for each child.

Acknowledgments

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