# **Social Differentiation Under Complex Economic Conditions**

M.M. Makhmudova<sup>1</sup>, A.M. Koroleva<sup>2</sup>, I.V. Denisova<sup>3</sup>

### Abstract:

The current stage of the economic development is characterized by the deterioration of the economic situation in Russia associated with the considerable decrease in the world prices for energy, the aggravation of international economic relations on the background of mutual restrictive measures taken by Russia and the West, the devaluation of the ruble and internal inflationary processes.

The article describes the economic essence of inequality, its causes and consequences. The work analyzes statistical data for 2013-2016 on the dynamics and structure of the cash income of the Russians, sources of their formation and use under complicated conditions of the macroeconomic instability. The peculiarities of regional and sectoral differentiation of the population's cash income are revealed.

Based on the analysis of the main statistical indicators characterizing the level and differentiation of the Russians' income, the conclusions about the modern trends of the social stratification of the Russian society have been formulated.

**Keywords:** Cash income, consumer spending, regional differentiation, purchasing power, real wages, inequality, income concentration index.

JEL Codes: J10, J19.

<sup>&</sup>lt;sup>1</sup>Federal State Budget Educational Institution of Higher Education Industrial University of Tyumen, <u>mushkam@inbox.ru</u>

<sup>&</sup>lt;sup>2</sup>Federal State Budget Educational Institution of Higher Education Industrial University of Tyumen, <u>annalitik@mail.ru</u>

<sup>&</sup>lt;sup>3</sup>Federal State Budgetary Educational Institution of Higher Education Tyumen State Medical University of the Ministry of Healthcare of the Russian Federation, <u>irina\_78\_78@mail.ru</u>

### 1. Introduction

The inequality in distributing income is one of the most important problems of the modern economy because it has an impact on the social and economic stability of the social development. The problems of inequality are especially exacerbated during a crisis in the economy because there is often the situation when rich people become richer and poor people become even poorer. Under these conditions, it becomes especially urgent to research the dynamics and structure of the population's cash income to define challenging directions for their regulation.

## 2. Methods

General scientific methods were used during the research. On the basis of scientific abstraction, changes in the level of the Russians' cash income for 2014-2016 were analyzed. In addition, the Delphi approach and data matching method were used. The use of the graphic interpretation of data and the method of grouping them made it possible to describe the dynamics and structure of the main indicators characterizing the modern trends in the standards of the Russians' lives. The information was taken from the Central Statistical Database (CSD) of the Federal State Statistics Service. The purchasing power of the population's cash income, the amount of the average population's income per capita, the structure of cash income and the Gini coefficient were used as indicators characterizing the degree of the cash income differentiation.

# **3.** Analysis of Theoretical Approaches to Researching the Inequality Problem

In terms of the macroeconomic approach, it is important to study the income inequality because of its impact on the economic growth. In the works of Simon Kuznets, the Nobel laureate (Kuznets, 1955), it was pointed out that a sustainable growth of the economy contributed to reducing the level of inequality. The main reason of this mechanism at the beginning of the XXth century was the industrialization. Due to it, the population moved from the poor agricultural sector into the richer industrial one. Initially, it contributed to increasing inequality, but as the number of employed in the industry as compared with the agriculture increased, the inequality in income distribution decreased. Representatives of international financial institutions – the World Bank and the International Monetary Fund – agreed with this approach. They insisted on the need to accelerate the economic growth to resolve the problem of poverty.

However, subsequent researches stated that in order to reduce inequality, ensuring economic growth may not be enough (Rajan and Zingales, 2004). Thus, the statistical researches of Milanovic, Lindert and Williams argued against the fact that the beginning of the industrial period came with the equalization of the population's income (Milanovic *et al.*, n.d.; Mikhailova *et al.*, 2017).

Most seriously Kuznet's theory was criticized in the works of Thomas Piketty (2014). According to him, inequality is an integral feature of capitalism, and its reduction between the First World War and the 1970s is a result of shock events and tax policy rather than a consequence of the market economy evolution. In this regard, Piketty notes the threat of increasing the wealth of a small group of households because it strengthens their economic and political power. It is possible to correct such situation by progressive taxation and coordination of intercountry tax policy to avoid the possibility of exporting capital abroad (Lyubimov, 2016).

The analysis of theoretical approaches has shown that the impact of inequality on the economic growth can be both positive and negative (Chignano, 2015). Thus, a high level of inequality will reduce the chances of economic growth in the following cases. Too high level of inequality causes an increase in the voters' demands to toughen taxation, reduction of their trust in the government and business, which decreases incentives for investment and disrupts the basics of the economic growth (the theory of "endogenous fiscal policy") (Benabou, 1996; Perotti, 1996; Persson and Tabellini, 1994). In addition, considerable inequality is a stimulus for political instability and social tension (Alesina and Perotti, 1996; Keefer and Knack, 2000).

The lack of the developed financial market deepens the problem of inequality. It also prevents the implementation of reasonable investment activity by low-income citizens, which generally reduces the total production volumes (Galor and Zeira, 1993; Sibirskaya *et al.*, 2016). In other words, high inequality reduces the opportunities of low-income strata of the population to invest in the human capital (Fershtman *et al.*, 1996; Hassler *et al.*, 2007). The volume of domestic demand has an impact on the possibility of implementing the latest technologies and the speed of scientific and technical progress. In this regard, due to high inequality, a narrow domestic market will hamper opportunities for the economic growth (Koroleva, 2015).

However, situations where the increased inequality will contribute to accelerating the economic growth can be described as follows:

1. Considerable income inequality is an incentive for improving productivity, investing, and taking risks to increase profitableness (Mirrlees, 1971). For example, a higher income level of the educated people motivates others to get education (Lazear and Rosen, 1981; Khamatkhanova and Khusnutdinova, 2017).

2. Substantial income inequality contributes to the growth of aggregate savings, and as a result, increase in the capital stock. This is because better-to-do people are less likely to consume (Bourguignon, 1981; Kaldor, 1955).

In general, it is possible to talk about the economic, social and political consequences of inequality (Malkina, 2016; Dudin *et al.*, 2018). Economic consequences of inequality are expressed in the reduction of the population's income and the aggregate demand, which leads to a slowdown in the economic growth, as noted in the works of J. Keynes and N. Kaldor. Some researchers note that

### 532

inequality has an impact on the cyclical nature of the economy because in the countries where there is high income differentiation fiscal policy is more procyclical (Woo, 2009).

Political consequences of inequality that are especially peculiar of developing countries. If market reforms come with high stratification of the population's income, the number of those who support reform is reduced. The research made by Bouveta and King on 32 OECD countries showed that the increase in inequality caused the increase in the number of voters who vote for the left, and vice versa (Bouveta and King, 2016).

According to some researchers, social consequences of inequality are expressed in the consolidation of social strata, which is associated with investments in the human capital (Corak, 2013). In addition, inequality is expressed in the deterioration of the life quality, reduction of opportunities to obtain social, educational and medical services (Zuevskaya *et al.*, 2017), and in general decrease in the level of happiness (Delhey and Kohler, 2011). Thus, we can state that income inequality is an important component of the modern economy that has an impact on the socio-economic and political development of the society.

*Figure 1.* Dynamics of the Average Russians' Income per Capita for 2013-2016 (Social status and standard of the Russian population's life: statistical bulletin, n.d.)



The modern dynamics of the Russian population's average income per capita are described by a stable growth trend. Thus, in 2016 the Russians earned the average monthly cash income of RUB 30,775, which was 1% higher than the value of the previous 2015, and 18.7% higher than that in 2013 (Figure 1).

However, the annual decline in the real income of the population recorded in the Russian economy shows worsening of the life standards in the country. Thus, while in the 2013 precise period the real income of the Russians had been 104% of the level of the previous year, under the macroeconomic instability this value started declining, and in 2016 it was on the level of 94% as to the previous period. It is necessary to note that the Gini coefficient that shows the degree of the population's income differentiation has been increasing over the recent years (Table 1). 534

Table 1. Gini Index in Russia from 1992 to 2016

Year	1992	1994	1996	1998	2000	2002	2004	2006	2008	2010	2012	2014	2016
Gini index	0.289	0.409	0.387	0.394	0.395	0.397	0.409	0.415	0.421	0.421	0.42	0.416	0.414

The regional differentiation of the population's life standards, which is peculiar of the Russian economy and substantiated by a combination of economic, social, political, historical and other factors (Makhmudova, 2015), intensified under complicated economic conditions in 2014-2016. The adequate and purposeful social policy of the local authorities is of paramount importance in forming a decent standard of living in regions under the reduction of the state's financial capacity. Thus, in 2015 in several regions the provision of various forms of compensation and timely indexation of income during the period of inflationary price growth caused a considerable increase in the average population's income per capita (Mahmudova, 2015). These regions include the North-Western Federal District, the Far Eastern region, where in 2015 the cash income grew by more than 13% as to the level of the previous 2014 (Figure 2). In the central part of Russia, as well as in regions of the Southern District and in the Caucasus, the Russians' income during this period grew by more than 11% as to the previous period.

The increase in the role of social benefits in maintaining the Russians' decent live standards is also indicated by the growth of their share in the total structure of the population's cash income during the period under analysis. Thus, while in the precise 2013 the ratio of social transfers in the total income of citizens had been 18.6%, in 2016 their ratio increased up to 19.1% (see Fig. 3). The decline in the entrepreneurial activity in the Russian society substantiated by the increased risks of bankruptcy and nonpayment of the small business sector is reflected in the reduction in the share of income from the entrepreneurial activity in the total structure of the Russians' cash income during the period under analysis.





The increase in the ratio of other earnings in the Russians' income in 2015 under the decline in the activity of the real estate market is presumably due to the financial short-term speculation of citizens on the foreign exchange market. The decrease in the share of cash income earned by the population from selling foreign currency, their property in the context of the decrease in the purchasing power of money and the ruble devaluation caused the increase in the share of wages in the total structure of cash income up to 45% in 2016. One of the characteristic features of the Russian society is its substantial and stable stratification. Today the income of the most well-to-do citizens is 16 times higher than that of the poorest people (The income gap of the Russian population continues to increase, n. d.). According to analysts, Russia has long and unequivocally been one of the countries with a high degree of inequality. The model of social stratification that has developed in Russia today characterizes a highly differentiated society (Rassadina, 2006).

The stable polarization of Russians' incomes is evidenced by the distribution of citizens in terms of the cash income shown in Figure 4. Permanent indexation of the population's income caused a reduction of the number of citizens who have the minimum income of down to 6% of the total number by 2016. It is also noteworthy that under the economic crisis the share of the well-to-do population in the structure of the Russian society has increased up to 19%.

*Figure 3.* Structure of the Russians' Cash Income, in % as to the Total (Living standards of population: statistical survey, n. d.)



Thus, it is possible to assume that today the poverty in Russia is declining, while the economic inequality is increasing. The unequal distribution of incomes in the Russian society is proved by the relative stability of the Gini coefficient, which is 0.413 today (Figure 5). Under the conditions of inflationary growth of prices and reduction of the production volumes, which are peculiar for the modern Russian economy, the aggregate consumer demand also declines (Mahmudova, 2016).

The dynamics of the purchasing power of the Russians' cash income are described by a stable tendency of its decrease during the analyzed period. Thus, in 2016 the correlation of the citizens' average income per capita and the living wage considerably lagged the level of the 2013 pro-crisis period (Figure 5). 536

*Figure 4.* Allocation of the Russian Population by the Size of Average Cash Income per Capita, in % as to the Total (Living standards of population: statistical survey, n. d.)



*Figure 5.* Dynamics of Indicators on the Russians' Life Level (Living standards of population: statistical survey, n. d.)



~ . .

# 4. Conclusion

Thus, it is possible to make a conclusion that the social stratification of the Russian society is its stable feature throughout the analyzed period. In the context of economic tension in the country the problem of the population's income differentiation has become more acute, and the inflationary price increase on the consumer market together with the Russians' actual income decrease cause the growth of poverty risks, especially for low-income strata of the population. At the same time, strengthening of the regional differentiation of the population's income predetermines social inequality and can intensify the internal migration processes and exacerbate the situation on regional labor markets. In this situation the implementation of a purposeful anti-crisis social policy of the state that complies with the new conditions is actualized.

### **References:**

Alesina, A. and Perotti, R. 1996. Income Distribution, Political Instability, and Investment. European Economic Review, 40 (6), 1203-1228.

Benabou, R. 1996. Inequality and Growth. NBER Working Paper. No. 5658. July.

- Bourguignon, F. 1981. Pareto Superiority of Unegalitarian Equilibria in Stiglitz' Model of Wealth Distribution with Convex Saving Function. Econometrica, 49(6), 1469-1475.
- Bouveta, F. and King, Sh. 2016. Income inequality and election outcomes in OECD countries: New evidence following the Great Recession of 2008-2009. Electoral Studies, 41, 70-79.
- Checchi, D., Ichino, A. and Rustichini, A. 1999. More Equal but Less Mobile? Education Financing and Intergenerational Mobility in Italy and in the US. Journal of Public Economics, 74(3), 351-393.
- Chignano, F. 2015. Trends in income inequality and its impact on the economic growth. Bulletin of International Organizations, 10(3), 97-133.
- Corak, M. 2013. Income Inequality, Equality of Opportunity, and Intergenerational Mobility. The Journal of Economic Perspectives, 27(3), 79-102.
- Delhey, J. and Kohler, U. 2011. Is happiness inequality immune to income inequality? New evidence through instrument-effect-corrected standard deviations. Social Science Research, 40(3), 742-756.
- Dudin, M.N., Fedorova, I.J., Ploticina, L.A., Tokmurzin, T.M., Belyaeva, M.V. and Ilyin, A.B. 2018. International Practices to Improve Economic Security. European Research Studies Journal, 21(1), 459-467.
- Fershtman, C., Murphy, K. and Weiss, M. 1996. Social Status, Education, and Growth. Journal of Political Economy, 104(1), 108-132.
- Galor, O. and Zeira, J. 1993. Income Distribution and Macroeconomics. Review of Economic Studies, 60(1), 35-52.
- Hassler, J., Mora, J.R. and Zeira, J. 2007. Inequality and Mobility. Journal of Economic Growth, 12(3), 235-259.
- Kaldor, N. 1955. Alternative Theories of Distribution. Review of Economic Studies, 23, 83-100.
- Keefer, P. and Knack, S. 2000. Polarization, Politics and Property Rights. World Bank Policy Research Working Paper, No. 2418. August.
- Khamatkhanova, M.A. and Khusnutdinova, G.F. 2017. The Characteristics of the Formation of Income of Multi-Child Households under Conditions of a Financial Crisis. European Research Studies Journal, 20(2B), 364-377.
- Koroleva, A.M. 2015. Concept of cyclical development of the economy in the modern macroeconomics. Economics and Entrepreneurship, 12(2), 242-245.
- Kuznets, S. 1955. Economic growth and income inequality. American Economic Review, 45(1), 1-28.
- Lazear, E.P. and Rosen, S. 1981. Rank-Order Tournaments as Optimum Labor Contracts. Journal of Political Economy, 89(5), 841-864.
- Lyubimov, I. 2016. Look at the evolution of income inequality: Piketty vs. Kuznets 60 years later. Economic Policy, 11(1), 27-42.
- Mahmudova, M.M. 2015. Positive dynamics of wages of the population in a large industrial region as the result of anti-crisis management in the context of economic instability. Management Issues, 6, 106-111.
- Mahmudova, M.M. 2016. Regional differentiation of the development of the national consumer market in the context of a crisis decline in the purchasing power of the population's income. Economics and Entrepreneurship, 1(2), 238-241.
- Makhmudova, M. 2015. Regional differentiation of the Russians' living standards at the modern stage. Economics and Entrepreneurship, 12(3), 1141-1145.
- Malkina, M.Yu. 2016. Institutional bases of income inequality in the modern economy. Journal of Institutional Studies, 8(1), 100-120.

- Mikhailova, S.S., Moshkin, N.I., Tsyrenov, D.D., Sadykova, E.T. and Dorzho-Nimaevna D.S. 2017. A Spatial Analysis of Unevenness in the Social-Economic Development of Regional Municipal Units. European Research Studies Journal, 20(2B), 46-65.
- Milanovic, B., Lindert, P. and Williamson, J.G. (n.d.). Measuring ancient inequality. World Bank Policy Research Working Paper No WPS 4412.
- Mirrlees, J. 1971. An Exploration in the Theory of Optimum Income Taxation. Review of Economic Studies, 38(114), 175-208.
- Perotti, R. 1996. Growth, Income Distribution and Democracy: What the Data Say. Journal of Economic Growth, 1(2), 149-187.
- Persson, T. and Tabellini, G. 1994. Is Inequality Harmful for Growth? American Economic Review, 84 (3), 600-621.
- Piketty, T. 2014. Capital in the 21st century. Cambridge, Harvard University Press.
- Rajan, R. and Zingales, L. 2004. Saving Capitalism from the Capitalists. Princeton University Press.
- Rassadina, M.N. 2006. Differentiation of the population's income: problems and solutions. Economic Sciences, 216(56) http://novainfo.ru/article/9230.
- Sibirskaya, E., Yamykh, E., Eldyaeva, N., Dubrova, T. and Oveshnikova, L. 2016. Strategy of Systemic Development of Entrepreneurial Infrastructure of Regional Economy. European Research Studies Journal, 19(2), 239-262.
- Social status and standard of the Russian population's life: statistical bulletin http://www.gks.ru.
- Woo, J. 2009. Why do more polarized countries run more procyclical fiscal policy? The Review of Economics and Statistics, 91(4), 850-870.
- Zuevskaya, T.V., Ignatov, S.V., Ushakov, V.F., Pachganova, S.S., Sadrieva, E.V., Aksenov, V.V., Pavlov, P.I. and Gatiyatullina, L.R. 2017. Concept of life quality in sociology and medicine (references review). Medical Science and Education of the Ural, 18(4), 184-187.