

# **THE IMPACT OF TAXATION AND TRANSFER CHARGES ON THE LEVEL OF INEFFICIENT EARNINGS IN SELECTED OECD COUNTRIES**

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## **A SUMMARY**

For more than 200 years, economists have asked with the basic question: why some countries have become rich, while others are poor. For years, an attempt has been made to solve the problem of how poorer countries can enter the path of sustainable development, reduce poverty and achieve relative prosperity in the long run. The development economy tries to face the problems of the intensifying division of the world into rich and poor. At the end of 1940, there were such large differences between countries that it was not possible to explain the sources of this asymmetry in terms of state equipment in production factors, the level of technology or the implemented economic policy. Experiences after the war show that economic growth is a necessary condition, but it is not enough for economic development. Countries without a proper distribution of income and wealth will not be able to reduce inequality. According to the opinion of economists interested in development issues, there is a growing number of evidence that the growing inequalities are not favorable to economic development.

Issues concerning inequality of income distribution are important both from a scientific point of view and from a practical point of view. The level of income stratification is intensively explored and is the object of interest and analysis of many researchers from around the world. This subject was already explored in the 1950s in the context of economic growth by S. Kuznets - American economist, winner of the Bank of Sweden Award named after Alfred Nobel in the field of economics in 1971. The fact that the issue of inequality in income distribution is heuristically fertile is demonstrated by the receipt of this prize in 2015 by A. Deaton for the analysis of consumption, poverty and prosperity. The issue of income inequality is both descriptive, but also normative. The second trend indicates the importance of interdisciplinarity in the approach to research, because this problem can not be reliably analyzed only from the point of view of strictly economic conditions.

The contemporary concept of economic inequalities refers to the differentiation in the division of assets, income, expenditure or wages. On the contrary, income inequalities refer directly to the disproportion in the distribution of income. Economic inequalities have existed since the beginning of history, however, at the end of the 20th century, the rate at which the income

stratification began to build up took on a worrying nature. The distribution of prosperity in the world as well as in individual countries is asymmetrical. In addition, the existing income stratification systematically extends its scale and depth. At the turn of the last decades, the phenomenon of increased inequality is noticeable.

The emerging large income inequalities carry with them the enlargement of the sphere of poverty, whose further growth has been recognized as one of the main dangers for the future of the world. The latest UNICEF report, dedicated to inequalities and poverty of children, indicates that the growing inequalities significantly affect not only the current life of the youngest, but also their opportunities and chances in the future. Furthermore, the existing diversity may also contribute to reducing the future generations' income perspective. Global disparities have also been reflected in the UN Agenda on Sustainable Development Goals (SDGs). The issue of inequality concerns Objective No. 10 which states - "Reduce inequalities in countries and between countries". Therefore, the deepening of inequalities in highly developed countries is so worrying. Recognizing the importance of the issue of income stratification, special attention was paid to taxes and transfer payments at work, whose appropriate structure may contribute to reduction the level of income inequality in the long term.

In the last forty years, the level of income stratification has significantly increased in most OECD countries. In particular, the disproportions between the poles of poverty and wealth have increased. In 2014, 10% of the income of the richest exceeded 9.5 times more than the income of 10% of the poorest. In comparison, in the 80s of the last century, this ratio was 7: 1. At present, income inequalities are beating all records. According to the "Reward Work, Not Wealth" report (published by Oxfam International), the 26 richest people in the world have comparatively as many assets as 3.8 billion of the poorest people. In 2017, as much as 82% of the wealth produced in the world went to 1 percent of the richest. Over the last decade, the wages of ordinary employees have grown by an average of 2% per annum, while at the same time the increase in wealth of billionaires was 13% per annum. In 2018, billionaires increased their total assets by \$ 762 billion. Such a sum would be enough to eliminate the extreme poverty in the world sevenfold.

The current level of income disparities in OECD countries contributes to a properly designed policy to reduce it. An important contemporary role of the state should be to counteract the effects of the sharp worsening of income inequalities. For this purpose, social policy is subordinated, whose task should be to ensure income growth and the standard of living of

citizens, while at the same time maintaining relative macroeconomic equilibrium. The welfare economics, for example, is looking for a way to improve the standard of living of the society and whose advocates recommend, in a situation of considerable income stratification, to support transfer payments by the state of people at the lowest level of the social ladder.

The highly developed countries included in the OECD have an active policy of income redistribution that is implemented through the fiscal system. They show clear differences, both in terms of the scale of income inequalities, as well as the model of their policy of reducing them. The Scandinavian countries are characterized by a low income stratification, in which the tax systems in them can be defined as neutral. Belgium, France, Italy, the Czech Republic, Estonia, Slovakia and Slovenia are also characterized by a relatively egalitarian division of income, however, these countries have a highly progressive taxation. The level of diversity in the United States, Portugal, Turkey, Israel, Chile and Mexico is above average with a small role of taxes in reducing them. On the contrary, in the English-speaking countries (Great Britain, Ireland, Canada, Australia, New Zealand), as well as in Japan and Korea, income disproportions are significant, despite the high tax system progression.

This may probably indicate that a high level of income inequality is not inevitable and may result from the impact of economic policy responses, which, if properly designed, may reduce inequalities created by market forces. The high level and growing trend of income and asset inequalities is one of the most important problems of the modern world of today. Income stratification can have multiple negative economic, social and political consequences.

The aim of the study is to examine the relationship between the level of primary and secondary income inequalities, and the level of taxation and transfer payments. For this purpose, a detailed correlation analysis was carried out and single-equation econometric models were developed, which describe the relationship between the Gini coefficient before taxation and social transfers in selected OECD countries for analysis and factors affecting the level of this measure in 2004-2015. From a methodological point of view, econometric models have not been constructed so far, which describe the relationship between the level of income inequality in selected highly developed countries and factors regarding transfer payments (on the public expenditure side) and taxation (on the side of public revenues) which have an impact on this level. The analysis of income distribution is a very important area of research, because it deals with the problem of heterogeneity in the standard of living of particular groups of society and has not been undertaken in this context so far. The phenomenon of income inequality was analyzed only in

terms of: changes in the measurement of income inequality over time, the relationship between income and household size, and the relationship between the level of income inequality and selected measures of the labor market and economic development. Conclusions from the analysis may have application values for the purposes of economic and social policy by indicating the economic policy tools that contribute the most to reducing inequalities in the distribution of income.

The problem of the research is the answer to the question:

- Does the scale of transfer payments and tax receipts affect the level of income inequality?

The following specific questions of ancillary nature have been identified for the purpose:

- What taxes have a decisive impact on income stratification?
- Which of the redistributive tools contribute the most to reducing the inequality of income distribution?

The main hypothesis comes to the statement, that the level of primary and secondary income inequalities is determined by the scale of expenditure on transfer payments and the level of tax revenues, and that social transfers, to a greater extent than taxation methods, reduce the level of secondary income inequalities.

This thesis consists of five chapters, from the introduction and ending. In the introduction, a preliminary conceptualization was made and the direction of the research was proposed.

In the first chapter entitled "Social inequalities and income inequalities", the notion of equality and the related inconsistency of postulates were first defined, to be able to consider the issue of inequality of income versus effectiveness in the further part. In this chapter, special attention was also paid to the issue of inequality and distributive justice, as well as the views of representatives of various ideologies about it. The phenomenon of inequality is very complicated and has a multidimensional character. An important issue is economic diversification, where the problematic issue is the combination of positive and negative effects. Inequalities in terms of income and assets are usually a factor determining the very difficult life situation of the poorest social groups. On the other hand, the existence of economic inequalities may be beneficial, provided that they are socially acceptable. Different symptoms of inequality often have a common denominator. For this reason, at the end of the chapter the relationship

between social inequalities and economic inequalities is presented.

The second chapter focuses on the issue of income inequality. At the beginning, the concept of income inequality was presented and their causes were specified. The increase in income inequalities is not inevitable, but results from a combination of economic processes such as globalization or technological progress and economic policy responses that can mitigate the disparities created by market forces.

In this chapter, considerations related to the functional and subjective division of income were also made. Finally, the consequences of income inequalities have been described. The most important potential economic cost of high and growing inequalities is the weakening of economic growth. Therefore, four main trends have been presented, presenting the channels through which income inequalities affect growth. Low economic growth means that the existing economic diversification is more difficult to accept for most societies than in the case of noticeable economic growth. Inequalities in income can lead to adverse economic, social and political consequences. The most important ones include: the growth of socially unacceptable behaviors, the increase of social unrest, widening of poverty areas, accumulation of assets in the hands of a small group of people, as well as the necessity to increase state burdens for social policy purposes.

In the third chapter, titled: "Taxation and social transfers as a tool to reduce inequality", a tax policy and a social policy describing the equitable distribution of income were described. Inequalities in income are a prerequisite for state interference in the market mechanism, therefore special attention is paid to the characteristics of the concept of redistribution, its types, tools, as well as motives and objectives. It is assumed that the most commonly used instrument for mitigating inequalities in income of the public is the personal income tax. The collected public revenues are financed, for example, Social benefits and transfers for social groups that do not receive income from work, and also free public goods are provided. Both transfers of money and various taxes are instruments by which the state can effectively mitigate the differences in the distribution of income, and thus influence the maximization of social well-being. In addition, the economic and ethical arguments associated with the sense of social justice speak for the need of these actions. Finally, a model image of various social policy systems originating from different social philosophies is presented.

The fourth chapter focuses on discussing the level of income inequalities chosen for the analysis,

which is the Gini coefficient. Subsequently, the criteria taken into account in the selection of countries for analysis were presented. In the next step, an assessment was made on the level of tax revenues, transfer payments as well as the primary and secondary income inequalities. In this chapter, on the basis of my own statistical analysis, the positive impact of taxation and social transfers on the level of income inequality has been proven.

The last chapter begins with the discussion of the empirical data analysis method, which is an introduction to the later econometric modeling. Next, the explained variable and potential explanatory variables were defined. In order to examine the relationship between the level of income inequality and the level of transfer payments and taxation, for each country two econometric models were constructed - one model with all explanatory variables regarding transfer payments, and the second one concerning taxation. Then, verification tests of the results obtained and interpretation of structural parameters of econometric models were carried out. Finally, a correlation analysis was conducted between the level of secondary income inequalities and the level of transfer payments and tax expenditures.

The dissertation ends with conclusions from one's own analysis and the author's observations, which were formulated on the basis of the material presented in the dissertation.

The work uses national and foreign literature on the subject, addressing the issue of income inequality, tax systems, transfer payments and social policy. The research was based on statistical data aggregated by the Organization for Economic Cooperation and Development, the World Bank and Eurostat. The following research methods were used: the method of collecting and analyzing materials, the historical method, the descriptive method, the comparative method, the method of analysis and criticism of the literature and also statistical and econometric methods.

The time range of the study covers the years 2004-2015. This is conditioned by the availability of statistical data related to expenditure on transfer payments and due to this it was not possible to extend the time range. The countries selected for the analysis belong to a highly developed group and are characterized by available data with different levels of tax revenues and expenditure on transfer payments. The criteria have been met by the selected 23 OECD countries: Austria, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Norway, Poland, Sweden, United Kingdom, United States, Belgium, Czech Republic, Greece, Iceland, Latvia, Portugal, Slovakia, Slovenia, Spain and Estonia.

The issue of income inequality has become one of the most current socio-economic problems in the recent years. The main reason that the issue of income inequalities has become so exposed is the significant deepening of income disparities in many highly developed countries (including European ones). The increase in income inequalities was observed not only in countries conducting liberal economic policy, but also in countries usually perceived as more egalitarian. The analysis of income distribution is a very important area of research, because it deals with the problem of heterogeneity in the standard of living of particular groups of the society. Household income is not the only one, but it still remains a key variable that differentiates the quality of life of the inhabitants of a given country. In turn, income disparity is a premise for state intervention in the market mechanism. This intervention takes place through the process of collecting public revenues and making expenditures that lead to the secondary redistribution of the income of the society. These sources finance, among others, Social benefits and transfers for social groups that do not receive income from work, and also free public goods are provided.

The conducted analysis showed that selected OECD countries are diverse in terms of income inequalities. The assessment of economies on the basis of the Gini coefficient before tax and social transfers indicated that the level of market income inequalities among the surveyed countries is the lowest in Iceland, Norway, Slovakia and Denmark, and the highest in Ireland, Portugal, Greece and the United Kingdom. The assessment of the Gini coefficient after taxation and social transfers showed that the level of inequality after income redistribution is the lowest in Slovenia, Denmark, Norway, Slovakia and the Czech Republic, and the highest in the United States, Great Britain, Latvia and Portugal. In turn, the results of the analysis of the impact of taxation and transfer payments on the level of income inequality proved that in 2004-2015, income stratification was reduced to the greatest extent through taxation and transfers in Finland (by 45.9%), Slovenia (45.3%) , Belgium (44.3%), Ireland (43.5%), Austria (43.4%) and the Czech Republic (43.3%). On the other hand, in the smallest degree taxes and transfers reduced inequalities in the United States (by 23%), Canada (by 27%) and Latvia (27.5%). It results in that selected OECD countries conduct an active policy of income redistribution implemented through the fiscal system. The Gini index for disposable income (after taxes, social contributions and social transfers) is on average 36.92% lower than in the analogous indicator designated for market revenues (before taxation, subsidence and social transfers). The high level of primary income disproportions currently existing in OECD countries calls for an active redistribution policy. It is up to the authorities of each country to decide to what extent expenditure instruments will be used to reduce inequalities and in what way the tax system will

be used.

The research conducted in the dissertation clearly indicates the existence of a significant relationship between the level of primary and secondary income inequalities, and the level of taxation and transfer payments. The basic tools of redistribution, which have a particular impact on income inequalities in society, are transfer payments (retirement benefits, invalidity pensions, benefits for the unemployed, benefits for families) and taxation (tax on income and capital gains of natural persons, social security contributions, property taxes, consumption taxes).

The econometric modeling was carried out to explain the mechanism of changes in the analyzed phenomenon of primary income inequalities. The constructed econometric models showed the dependence of the impact of tax revenues on the one hand and transfer expenditures on the other hand on the level of income inequality. Econometric models for primary income inequalities measured by Gini coefficient before tax and social transfers were well-matched to empirical data. It turned out that both the tax system and money transfers have a very significant impact on the level of income inequality. The tax and redistribution policy in the analyzed countries takes various forms. The applied tests showed that the level of expenses for retirement benefits, invalidity pensions, for unemployed persons and families and the level of tax revenues on income and capital gains of natural persons, property tax, goods and services, and social insurance contributions in each of the analyzed countries OECD in a different way have a statistically significant impact on the level of primary inequalities in household income. The results of the calculations indicate that the assessment of structural parameters are not burdened with significant errors, and the values of determination coefficients are sufficiently large. Estimated econometric models can also be useful for economic forecasts and analyzes because they provide precise quantitative information both about the direction and the strength of these relationships.

Further research focused on the correlation analysis of secondary income inequalities, because primary inequalities are not the final form of income inequality. The analysis showed that:

- there is no statistically significant relationship between the level of secondary income inequalities and the level of expenditure on retirement benefits and the level of property tax revenues.
- there is a clear correlation between the level of secondary income inequalities and the level of expenditures on unemployment benefits and the level of tax revenues on income and capital



gains of natural persons, as well as income from social security contributions. The higher the expenses for unemployment benefits of a given state, the lower the secondary inequalities appear in it. In addition, with the increase of income from tax on the income and capital gains of natural persons or the income from social contributions of a given country, the level of secondary income inequalities decreases.

- there is a significant relationship between the level of secondary income inequalities and the level of expenses for family benefits and expenditure on invalidity pensions, as well as the level of tax revenues on goods and services. The higher the expenses for family benefits or expenses for invalidity pensions of a given state, the lower the secondary inequalities appear in it. In addition, in countries characterized by high tax revenues from goods and services, there are lower secondary inequalities.

From the analyzed types of transfer payments, financial transfers in the form of benefits for families and benefits for invalidity pensions have the greatest impact on reducing the level of income inequalities measured with the Gini coefficient after taxation and social transfers. The biggest impact on the final level of income inequalities on the taxation side is influenced by taxes on goods and services and income from tax on income and capital gains of natural persons.

The results of the research fully confirmed the hypothesis put forward in the thesis that the level of primary and secondary income inequalities is determined by expenditure on transfer payments and tax receipts. In addition, the analysis showed that social transfers to a greater extent than taxation methods reduce the level of secondary income inequalities. Nevertheless, it should be emphasized that taxes can also effectively support this impact. Both money transfers and taxes of various kinds are instruments by which the state can effectively reduce the differences in income distribution, and thus influence the maximization of social well-being. Conclusions from the analysis have application values for the purposes of economic and social policy by indicating the economic policy tools that contribute the most to shaping inequalities in the distribution of income.

The occurrence of negative phenomena in the economy, including the rapid decline in the living standard of a significant number of citizens and the existence of a vast area of poverty with the simultaneous increase in income inequalities, are important areas of life that the average citizen can not cope with alone. The intervention by the state in reducing the scale of these pejorative phenomena is most desirable. Each country should focus on introducing regulations and rules

so that income inequalities are minimized rather than increased. Inequality that's left, will grow. In order to reduce inequalities in fact, a coordinated economic policy of the state is required, based on the one hand on strengthening certain institutions and on the other hand on the skilful use of tax policy and social transfers policy. The methods of limiting income inequality by the state include the use of progressive fiscal taxation and the redistribution of part of the revenues thus obtained through the social welfare system, as well as various social services that would reduce the negative consequences of market operation and create social protection for people at the lowest ladder level social.