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INVESTMENTS IN EDUCATION AS AN INSTRUMENT
FOR ALLEVIATING INCOME INEQUALITY

The article contributes to the debate on the possibility of reversing the long-term negative trend of deepening income inequality in national, regional and global context through investments in education. The authors specify potential macroeconomic and microeconomic benefits of investments in education, alternative resources of financing investments in education, as well as the causes and consequences of the lack of incentives to invest in education. The findings form the basis for identifying measures that could lead to a change in approach to investments in education, and also could lead to reduction of income inequality and elimination of social exclusion.

Keywords: income inequality; social exclusion; investments in education.

JEL classification: I24; D31; H52.

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ІНВЕСТИВАННЯ В ОСВІТУ ЯК ЗАСІБ ЗГЛАДЖУВАННЯ
МАЙНОВОЇ НЕРІВНОСТІ

У статті зроблено внесок у доволі широку дискусію щодо потенційних можливостей згладжування майнової нерівності в національному, регіональному та глобальному контексті шляхом інвестування в освіту. Конкретизовано потенційні макро- та мікроекономічні переваги інвестування в освіту, описано альтернативні державному джерела фінансування освіти, а також причини та наслідки відсутності зацікавленості інвестувати в освіту. Визначено засоби, за допомогою яких можна змінити підходи до інвестування освіти, що в довготривалій перспективі згладить різницю в прибутках населення та зменшить ризики соціальної маргіналізації частини населення.

Ключові слова: майнова нерівність; соціальна маргіналізація; інвестиції в освіту.

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ИНВЕСТИРОВАНИЕ В ОБРАЗОВАНИЕ КАК СРЕДСТВО
СГЛАЖИВАНИЯ ИМУЩЕСТВЕННОГО НЕРАВЕНСТВА

В статье сделан вклад в широкую дискуссию о потенциальных возможностях сглаживания имущественного неравенства в национальном, региональном и глобальном контексте через инвестирование в образование. Конкретизированы потенциальные макро- и микроэкономические преимущества инвестирования в образование, описаны альтернативные государственному источники финансирования образования, а также причины и последствия отсутствия заинтересованности инвестировать в образование. Определены меры, при помощи которых можно изменить подходы к инвестированию образования, что в долгосрочной перспективе сгладит разницу в доходах населения и снизит риски социальной маргинализации части населения.

Ключевые слова: имущественное неравенство; социальная маргинализация; инвестиции в образование.

Introduction. Identification of risks that have national or regional dimensions, specification of their causes and consequences gets into the spotlight of many theorists, and also many institutions and organizations. The World Economic Forum in its report "Global Risks 2013" identified 50 major global risks that play an important role

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in the early 21st century, as well as 5 primary global risks. From our point view, the fundamental reasons why it is necessary to pay attention to global risks, are as follows: the risks that exist within individual countries or within regions may become global risks, because countries or regions cannot prevent their spread; global risks do not have borders; global risks are not generally predictable in the sense where, when and how actually to take effect; the total number of global risks is increasing; some global risks can intensify in a very short time; global risks are often underestimated or even totally ignored. The main objective of identifying global risks and the specification of the likelihood of their manifestation is to help policy makers prepare alternative scenarios that could alleviate their symptoms, if not completely eliminate. Their absence can have serious consequences and under certain circumstances even the fatal ones.

Theoretical backgrounds and discussion. In the second decade of the 21st century, the global risk of severe income inequality is often given the first place. Growing income inequality in a relatively short time is not an isolated phenomenon of some specific countries or regions but a globally accepted fact. Very rich are becoming richer and inequality within countries expands. This global phenomenon gets into the spotlight not only theorists but also politicians, policy makers, and citizens around the world. At various national and international forums different views are presented on the causes, consequences and alternatives that could eliminate the further deepening of income disparity (The Report of the World Summit for Social development, Copenhagen, 1995; World Economic Forum in Davos, 2013; European Commission, 2013; Legatum Institute 2020C, 2013).

From our point of view, we can identify the following problems that are subject of various debates:

Problem 1 – it is a perception of sharply increasing income disparity within a relatively short time period in different countries, in different regions, as well as in the global context. Sharply rising inequality should be seen as a reflection of the successful response of the fittest individuals on the processes occurring at the beginning of the 21st century, or should be perceived as a phenomenon which involves possible destructive consequences. The arguments are on both sides. Enormous escalation of inequality in a relatively short time in the national, regional and global context can lead theorists to the assumption that this trend becomes very dangerous because contradictions between the super elite and the majority escalate (Wolff, 2012; Davies, 2008; Hills et al., 2005; Stiglitz et al., 2008). Growth of income inequality is not a new problem, but it is getting more acute. The gap between the poorest and richest households is leading to increased number of households located on the margins of society. The risk of economic and social exclusion is very high (Mitchell, 2013; The Europe 2020 Strategy, 2010).

Problem 2 – theorists are more or less consistent in identifying a variety of economic and other contexts of severe income inequality, but the subject of discussions are: when, in what direction and how strong the effects will be. Some argue that the slowing down of economic growth has been responsible for income inequality increase in recent decades. On the other hand, Jackson claims that an increase of income inequality does not necessarily lead to an increase in the rate of economic growth. Income inequality can be significantly reduced or entirely eliminated, even when that deceleration in economic growth occurs (Piketty, 2014; Jackson et al.,

2014). Application of the holistic approach allows eliminating one-sided and incomplete view on income inequality thus creating conditions for more realistic proposals on reducing inequality (Davies, 2008; Jackson et al., 2014).

Problem 3 – there is no consensus on the possibility or impossibility of capturing real income inequality, nor the links between income and wealth inequalities. The realistic interception of income and wealth inequalities can be difficult for various reasons: changes in the methodology; problems of individual assets valuation; tax changes; opportunities for obtaining income or assets are not always legal. There is no clear link between income and wealth inequalities. Households can have very high incomes but may not possess great wealth, whereas households that are in close proximity to the poverty line may possess little or considerable assets (Piketty, 2014; Jackson et al., 2014).

Problem 4 – there is a diversity of views on the justification of intervention in the existing income inequality in terms of their effects in the economy, respectively. In the view of well-being of individual citizens, if the every person has the right of choice and equal chances and opportunities, then each must carry the consequences of their decisions. Mitigation of income and wealth inequalities could hamper progress and mute the driving forces of each society as well as to suppress efforts to find new solutions of the use of scarce resources in the national, regional and global context. One of the most common arguments in the discussion is that the rich create jobs for the poor. The poor people without the rich people would be in worse situation, they would be even poorer (Hayek, 1994). Friedman assumed there is equality before God, in the possibilities and in a result. HE stated that with the freedom of decision-making are consistent only the first two (Friedman, 1992). In reality is rather naive to assume there is equality of opportunities and freedom of choice, and therefore it is necessary to look for solutions.

Problem 5 – passionate discussions are connected with the issues of choice of institutions and instruments that could effectively assist in reversing the trend of rising income inequality. Although a crucial role is attributed to government and institutions of the public sector, simultaneously it is desirable to increase the role of the private and non-profit sectors. To exploit the initiatives of the wealthiest individuals of the world. Most authors are inclined to find solutions and appropriate tools that would provide the equality of access, especially to education and healthcare, with special emphasis on children. They look for also opportunities to strengthen the position of the middle class, which has a high potential of positive intergenerational knowledge transfer and potential capabilities of establishing contacts with other social groups (Jackson et al., 2014; Hills et al., 2005). Also others authors highlight the importance of intergenerational knowledge transfer as well as acquiring the ability to establish contacts with people from other social strata. They emphasize the need to ensure that every child has the opportunity to get a quality education which corresponds to his abilities (Payne, 2006: 49–65, 151–165, 199–210; Brook, 2008: 1–35; Stiglitz et al., 2008: 43–44).

These problems are not easy solvable, and their accumulation can have severe consequences leading to social disturbances, changes of political regimes or instability in the global scale.

One of the problems is the problem of increasing income inequality and one of the ways to stop further deepening of income inequality are the investments in education. In the past, some economists highlighted the importance of knowledge, skills and experience both in terms of their importance for the creation of new products and in terms of the size of disposable incomes, specifically Smith in his work "On the Nature and Causes of the Wealth of Nations" in 1776 (Smith, 1958).

We meet with the comprehensive theory of human capital at the end of the 1950s and early 1960s. Schultz and Becker belong to those economists who enriched the theory of human capital regarding the justification of a modified approach to work, as well as regarding the arguments for investing in education and other activities that ultimately lead to the new quality of primary production factor – labor (Schultz, 1963; Becker, 1965; 1993). Schultz in his work "The Economic Value of Education" states that expenditures on education are not consumption expenditure, but an investment, which requires the analysis of its return. The benefit of his work can be described as the generalization of knowledge about the formation of human capital and its impact on economic and social development. The importance of investments in education consists in the fact that they create the conditions for greater freedom of choice (Schultz, 1963). Becker took the view that education evaluates human capital analogously as investments of firms increase their physical capital. Acquiring education implies certain costs. The major cost is the time taken to studying. Entities make decisions with respect to the opportunity cost (Becker, 1993). Becker and Murphy in their article "Education and consumption effects of education from the perspective of households and in view of the labor market" highlighted different effects of investment in education. The estimated yields of investment in education are 7–15% (Becker et al., 2007: 9). They also pointed out the problem of exact capturing of investment efficiency in education, also noting that it is necessary to pay attention to this issue because the growth of yields from investments in education can lead to a growing interest of parents in ensuring education for their children.

From other economists who focus attention on a new understanding of the capital and its effects, the need for investment as the primary condition not only a quantitative increase of capital but particularly an increase in the quality characteristics of capital may be mentioned economists who developed the theory of endogenous economic growth. Among the authors this theory should be noted Romer who perceived capital as the unity of physical and human capital, also highlighting the need of quantitative and qualitative increase of capital. Improving the quality of capital is not only necessary but almost essential for successful solutions of problems, for discovery of new innovative practices. Capital determines the economy's efficiency, and therefore investments in education and scientific research are the prerequisite for increased competitiveness of the economy and prosperity of society as a whole as well as of individual entities (Romer, 1986, 1990).

In economic theory we do not find an unambiguous interpretation of human capital, but we come across the basic attributes common for most its definitions. This is the concept of human capital in terms of the sum of congenital and acquired skills and knowledge, innate talent, but also the acquired ability to think creatively, be adaptable to constantly changing conditions and inventive in creating the new. Human capital also includes others attributes: personal nature, relationship with

other people, health, morality. In this sense, investments in human capital can be seen as the investments in universal development of entities.

Economic theory provides a number of impulses that can be used to address the issue of entities motivation regarding the investment in education. If it is assumed rational behavior of entities, these entities will consider the investment in education and the yields that education brings. They will consider whether additional money spent on education will be compensated by higher incomes, respectively non-cash benefits. If they expect a positive difference can also expect a willingness to make investments in education. Investment in education does not guarantee automatically obtaining an attractive job or change in social status, but at least provide a more realistic chance to succeed at a competitive labor market. Economic theory also points to the existence of certain irregularities, which may lead to motivation loss. Expectations of positive yields from investment in education may not be satisfied in some cases. It may be a variety of yields from investments in education with regard to race, sex, religion, political engagement, or in the case of placement at various labor markets, because the same knowledge, skills and abilities will not necessarily be valued equally.

An objective necessity and real willingness to invest in education are confronted with the resources available. Entities can use their own resources or resources acquired on the basis of loans, domestic or foreign. There is no full consensus about whether investment in education should be carried only from domestic sources, especially public sources or they should be more foreign. The most frequent arguments justifying the need to cover investments in education from public sources are these: acquiring education should not be the domain of rich people; everyone should have access to it; everyone should be allowed same standards; with education are associated not only internal but also external effects.

Possibilities of governments are limited and governments are bound to keep public finances on a level sustainable in the long term. It is important to create adequate legislative conditions that will allow investments in education from alternative sources. In favor of using alternative resources may be mentioned the argument that the preference of long-term financing of investments in education from public resources often leads to abuse of the right to education, which can be characterized as formal involvement in educational process or high passivity and arrogance against the obligation to obtain a education, which the society deems necessary. The consequence is low efficiency of investments in education. One of the proposed solutions is participation of all entities in investments in education.

One of the organic components of domestic resources are private resources of households and firms. If a household perceives higher education as a prerequisite for successful placement at the labor market, ensuring higher income and higher standard of living it will have an incentive to modify its behavior in the direction of reducing consumer spending and increasing savings. In case of lack of own resources, households have a chance to get necessary funds through loans. Change in access to credit, particularly overcoming the fear of credit and overcoming the perception of loans as something immoral can play an important role. A demonstration effect or an effect of imitation can also be significant in this context direction. Similarly, it is desirable to change the behavior of firms. Firms can financially contribute to the for-

mation of specific human capital. A direct and flexible application of acquired knowledge creates the preconditions for growth of performance and competitiveness of firms. Long-term effects can be achieved by applying appropriate policies. Investments in education would be a priority for governments and firms, because they can create conditions for better functioning of labor market. Several authors point to a minimum willingness of firms to participate in education of their employees. Firms consider that investments in education are a problem of employees themselves (Hwang et al., 2007; Stiglitz, 1997; Stiglitz et al., 2008; Uppenberg, 2009; Supporting Investment in Knowledge Capital, Growth and Innovation, OECD, 2013). Firms can play an important role in financing the applied research. It is not possible to unambiguously state that participation in the applied research and promotion of specific capital are typical forms of firm behavior.

Countries may also acquire external sources. The possibility of acquisition of having resources assumes the awareness of subjects, knowledge of foreign languages, the ability to formulate their requirements in projects to attract those who will decide on projects. It is an area that can actually help create sufficient resources but it requires participation of several entities, specialized workplaces with professionals who have mastered all the nuances of processing such projects. Often, there are formal errors which can be a ground for refusal for an otherwise perspective project. Getting resources is only the first step. What is important is a clear understanding of the efficiency of the resources use, resulting in the improvement of education quality with a consequent impact on performance growth and economy's competitiveness, but also on the growth of well-being and quality of life.

Results. On the basis of a diverse spectrum of theoretical views on the importance of investments in education it is possible to identify potential macroeconomic and microeconomic benefits of investments in education for individuals, households, firms and for society.

Arguments that ground potential macroeconomic benefits of investments in education are the following: investments in education create scope for improving the quality of resources, the growth of their productivity and thereby the competitiveness increase and economic performance; create space for greater labor mobility; create a scope for increasing the possibility of the application of new scientific knowledge into practice, acceleration the conversion of inventions into innovations creating space for the use of previously unknown resources, or the use of new advanced technologies that save the existing resources; investments in education create space for the implementation of structural changes which were not practicable due to the unavailability of skilled labor; create scope for increasing employment (decline of the unemployment rate) and decrease pressure on public social expenditure; create scope for alleviating social tensions, elimination of sharp social conflicts, democratization of the society; create space for securing the long-term equilibrium rate of economic growth, the growth of society welfare as a whole and for individual members.

We can identify also the arguments that justify potential microeconomic benefits of investments in education. From our point of view, investments in education create: a more realistic chance of obtaining a job; a more realistic chance of achieving higher than average labor income; a more realistic chance of improving the well-being and quality of life for those individuals who choose to invest in education; a scope for

increasing self-confidence, self-esteem, satisfaction and growth of labor productivity; a space for intergenerational transfer of knowledge, and a more realistic chance of placing at the labor market of future generations; a space for change in social status; a chance to liaise with people from other social classes; a scope for increasing the willingness to participate in the activities of society and contribute to solving the problems of local community and society.

Highlighting the need for investments in education showing the potential macroeconomic and microeconomic effects of investments in education is desirable, but without real resources we cannot expect a positive change. Combination of public and private, internal and external resources may become an acceptable solution here. We can meet with different perceptions of the use of public resources or private sources, as well as internal or external sources.

Understanding the need of investment in education could be reflected in ensuring an adequate level of education characterized by flexibility and adaptability to a constantly changing economic reality. Without stereotypes' elimination and without application of inventions in education, it is not real. Stereotypical approach to education and learning, superficial approach to education and concentration on testing, early termination or extension of study are the signs of poor motivation, and therefore, insufficiency. A wide-spread idea that education is not critical for getting a job has a very negative impact. Of course, the growth of investments in education does not guarantee automatically positive effects. An important role could have inventions and their application in education.

Change in approaches is desirable on both sides and on various levels of education. The teacher should exercise creative and active forms of teaching; to formulate problems that do not have explicit solutions; allow confrontation in class; lead students to work independently; teacher should simultaneously perform the function of a controller and a coordinator. Students should participate in the creation of educational content; should learn to formulate their views and to argue; to confront their views with other views; should be able to use the newest information and communication technologies.

The need for investment in human capital, with particular regard to investment in education is different in individual countries. Countries that give due attention to investment in education can now collect fruit in the form of high performance and competitiveness of their economies, also in the form of higher quality of life. Countries that only proclaim the need to invest in education are confronted with many related problems.

Investments in education are justified, although the effects cannot be expected immediately. Underestimation of the urgency of changes in the approach to investment in education is present in many OECD countries, but also in several EU countries it is a serious problem.

Public spending on education as a percentage of GDP is an indication how country allocates its limited resources. 11 countries of the OECD and the EU spend more than 6% of GDP on education (Norway, Denmark, New Zealand, Sweden, Finland, Ireland, Iceland, UK, Belgium, Cyprus, Malta), 3 countries spend less than 4% of GDP (Japan, Greece, Romania). Low public spending on education, that do not exceed 5% of GDP have also other countries as: Italy (4.3%), Slovakia (4.1%),

Hungary (4.7%), Chile (4.5%), Turkey (4.1%), Bulgaria (4.1%), Croatia (4.3%) and Latvia (4.9%). Similarly, there are significant differences between public spending on R&D as percentage of GDP. Countries that spend more than 3% are South Korea, Israel, Sweden, Finland, Japan. Less than 1% of GDP spend 13 countries from which 4 countries spend less than 0.5% (Mexico, Chile, Cyprus, Romania). The share of public expenditures on education as well as R&D as percentage of GDP has not changed significantly upward in the OECD and the EU countries in the early 21st century. Empirical data show that people with upper secondary education, but especially people with tertiary education were less affected by the recent global financial and economic crisis. The average duration of the transition to the first significant job was only 5 months for people with tertiary qualifications, 7.4 months for the upper secondary level and 9.8 months for people with lower education levels (OECD Education database and Eurostat for non-OECD Countries, 2008, 2013; Eurostat, 2013; Key data on Education in Europe, 2012: 18).

Conclusion. Understanding the need for generating resources necessary for the realization of investments in education as an organic part of the investment in human capital is reflected in the modification of the stereotypical behavior of individual subjects. Durability of changes in behavior is conditional upon adequate yields of investments in education. Yields from investments in education affect the performance and competitiveness of the economy as well as the economic level and quality of life for all members of society. At the same time it should be noted that the impact of investments in education differs depending on how different entities participate in the creation of sources, and especially on their allocation. Growth of differences between costs and yields to the disadvantage of yields will result, most probably, in preference to current consumption.

Despite the increasing costs for securing an adequate educational level and despite the discussions on the need of multisource financing investments in education public funding remains main form. Despite the urgency of increasing the educational level, despite the proclamations about the need to increase investments in education a reality is still unfavorable.

Innovations in education aimed at increasing adaptability and creativity in solving problems are not in themselves a guarantee of higher quality of education. Another condition is a change in the approach of direct and indirect participants in education. Very negative impact can have the fact that acquiring upper secondary education or university education does not guarantee employment, or higher income, or welfare in general.

It can be assumed that in a situation where education is seen as a prerequisite for finding a job, assurance of higher income level or higher standard of living can lead to higher willingness of households and firms to make investments in education from private sources. Sustainability of changes in behavior is conditional upon adequate yields from investments in education. Measuring the benefits from investment in education is an important priority in research. Another important priority should be a more accurate capture of the cost of getting education that meets the requirements of the labor market in the 21st century.

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