

EDUCATION AND ECONOMICAL GROWTH - RELATIONS OF CAUSALITY

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ABSTRACT:

IN THIS PAPER WE INTEND TO ANALYZE THE CAUSALITY BETWEEN EDUCATION AND ECONOMIC GROWTH. IN ROMANIA, AND ALSO, IN OTHER STATES IT EXISTS A POSITIVE RELATIONSHIP BETWEEN INVESTMENT AND GROWTH IN EDUCATION. THE EDUCATION CONTRIBUTES TO REVENUE GROWTH TO AN INDIVIDUAL AND IT IS STRONGLY CORRELATED WITH THE REDUCTION OF POVERTY, ILLITERACY AND INCOME INEQUALITY. TO PERFORM THIS ANALYSIS WE USED STATISTICAL DATA AVAILABLE TO THE NATIONAL INSTITUTE OF STATISTICS OF ROMANIA AND ON OTHER SITES IN THE FIELD. SO, WE OFFERED AN INSIGHT INTO ROMANIAN EDUCATION EVOLUTION AND ON THE EDUCATION BUDGET. IN THIS CONTEXT IT SHOULD BE NOTED THAT ROMANIAN EDUCATION IS SITUATED ON TRACK DEVELOPMENT, INVOLVED AND OVERCOME RECESSION AND ALSO IT IS A MAJOR FACTOR IN THE ECONOMIC GROWTH OF A COUNTRY IN THE DEVELOPING WORLD.

KEY-WORDS: EDUCATION, GROWTH, HUMAN DEVELOPMENT INDEX, DEVELOPMENT

INTRODUCTION

Each man faces with various problems which affect his existence directly. During lifetime he is trying to obtain food for himself and his family. He is concerned about his personal life or the life of community of which it is part. He is able to bear the consequences of an economic crisis or to take part to the benefits of general prosperity. All these concerns are dependent by the general development of the economy and society.

Today, we are associating economic growth with “a synthetic expression of chances for a better life and therefore represents a major objective of macroeconomic

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policy.”³ Along time, many researchers have shown interest to identify the causes and reasons for the economic growth of a country. There were few answers directed to education, because through education is transmitted and received knowledge, the education helps ones to form public opinion, and is a supportive factor to labor and helps to maintain a broad social consensus.

The educational system has increasingly placed more in public services, whose dynamics is resulting from a compromised state public (when we say public we refer to parents, children, educators, etc.), and with other sectors of society . After the moment in which during centuries the educational system has been dependent on the Church (in Europe and in other regions), education is then monopolized by the state, standing at the crossroads of some important interests and it can't be isolate by evidence mutations arising in employment, services and finance fields.

Education is considered to be a system, which in its turn is composed of interrelated subsystems and other components, but looked at the macro level in the complexity of its relations with the environment of existence it becomes a substitute.

In the report made by UNESCO, under the direction of Edgar Faure was specified the fact that there are three phenomena that characterize the tendency to generalize the relationship education- economical growth: the first phenomenon is the fact that, on a global scale, education tends to precede economic development - education precedes, the second implies that education consciously prepares people for future society – education provides, and the third point refers to the contradictions of the products of the education system (the supply of skills) and societal needs (demand qualifications): the society refuses a larger or smaller number of items of learning.⁴

HOW EDUCATION CONTRIBUTES TO THE ECONOMICAL GROWTH?

“Global research (. . .) has established unequivocally that education increases individual incomes; that it is positively correlated with macroeconomic growth; that it is strongly correlated with reductions of poverty, illiteracy and income inequality; and that it has strong complementary effects on the achievement of (. . .) lower infant and child mortality, better nutrition, and the construction of democratic societies. The expansion of educational opportunity (...) is in most societies, far easier to implement than the

³ Coralia Angelescu et al., *Economics - Seventh Edition* (Bucharest: Economic, 2005), 217.

⁴ Apud Nicolae Constantinescu, *Romania's economic history - Volume II* (Bucharest: Economic, 2000), 327.

redistribution of other assets, such as land or capital. In short, education is one of the most powerful instruments known for reducing poverty and inequality and for laying the basis for sustained economic growth, sound governance, and effective institutions.”⁵

In 1973, G. Psacharopoulos requires a new way of analyzing the relationship between education and economic development. This method is based on cost - benefit analysis and serves to show off how paying special attention on education we witness to a sustainable growth. In one of his studies⁶, Psacharopoulos explains why in the less developed countries the rates of rentability in education are higher than in developed countries and how the rates of rentability for general education are higher than the rates of rentability for technical and scientific education.

A. Inkeles⁷ suggests the idea that "modern society" can not exist without adequate personal attitude which is, in an overwhelmingly proportion, the result of education.

In Romania, as in other states, there is a positive relationship between investment in education and economical growth. So, as more attention is on education and as many investments in education are more pronounced, the chances to witness economical growth are higher. So a person with a higher education who graduated from university, records for the entire period of life, a higher income than a person who just graduated high school studies. It should also be noted that this does not stop here and propagates itself in the form of so-called snowball.

What does this snowball mean? The answer is obvious, that in most cases, a person who, throughout life, doesn't graduated a college and doesn't has a higher education register a lower income / restricted, which means that the chances that his followers to be able to complete a college education is minimal (this situation occurs especially in rural areas where there is no secondary education establishments and rental expenses, maintenance, transport and so on are too high for parents to cope).

The fact that education contributes to human development and economic growth has been noticed many centuries ago when Chinese teacher Huari-Tzu said:”If your projects are for one year, resembles wheat. If those are for 10 years, plant a tree. If there

⁵ Apud Emily Hannum and Claudia Buchmann , *The Consequences of Global Educational Expansion. Social Science Perspectives* (New York:American Academy of Arts & Sciences, 2003), 1.

⁶ G. Psacharopoulos, *Returns to Education: An International Comparison* (San Francisco: Jossey-Bass, 1973).

⁷ A. Inkeles, D. B. Holsinger, *Education and Individual Modernity in Developing Countries* (Leiden: Brill, 1974).

are for 100 years, instruct people. Seeding wheat once, you will harvest once. Planting a tree, you will harvest 10 times. Instructing people, you reap 100 times. " ⁸

EDUCATION THROUGH STATISTICAL INDICATORS

In the following analysis we will focus on the education system in terms of its relationship with socio-economical system. As such, we present several indicators, which, in our view, emphasize the limits of Romanian educational development.

In Romania education system had encountered and encountering many difficulties, and this is due to the lack of an economical system, but also a political one adequately able to identify those moments and causes that lead to non-functionality of the Romanian education and failure of certain objectives.

The first indicator is the evolution of the number of educational institutions. According to the data collected by the National Institute of Statistics of Romania (Table no. 1.), in the last 11 years the number of schools dropped sharply, reaching as today to have 70% fewer than the educational institutions in the academical year / 2002-2003.

Table no. 1 Number of educational institutions in the period 2002-2013

School / academic year	Number of educational institutions
2002-2003	23679
2003-2004	18012
2004-2005	14396
2005-2006	11865
2006-2007	8484
2007-2008	8230
2008-2009	8221
2009-2010	8244
2010-2011	7588
2011-2012	7204
2012-2013	7069

Source: National Institute of Statistics of Romania, Statistical Compendium, 2008, 2009, 2010, 2011, 2012, pp.36-37

⁸ Apud Steliana Perț, *Romania's economic history – N.N. Constantinescu Acad. Coordinator, Volume 2* (Bucharest: Economic, 2000), 327.

Also, it can be seen that in the period 2007-2010 the number of educational institutions has remained constant, following that in the scholar / university year 2010-2011 to have a downward trend. It is true that this situation has been reached due to several economical, political reasons, but we consider that the decrease of population in Romania has greatly influenced this situation.

In the following, we present the evolution of the number of graduates by levels of education (primary education, secondary education, vocational training and apprenticeship, post-secondary and foremen, higher education) during 2000-2012.

Table no. 2 Number of graduates by level of education in the period 2002-2012 (thousand)

School / academic year	secondary education	High school	Vocational education and apprenticeship	Post-secondary education and foremen	university
2002-2003	307,5	173,7	83,3	25,33	103,4
2003-2004	296,7	172,3	77,7	22,6	110,5
2004-2005	265,2	177,6	152,9	18,5	108,5
2005-2006	231,8	185,3	150,2	15,9	112,2
2006-2007	219,5	187,6	133,8	12,7	125,8
2007-2008	207,8	218,2	113,1	13	232,9
2008-2009	204	202,1	100,9	17,6	214,8
2009-2010	199	204,9	89,8	19,2	191,3
2010-2011	229,6	202,2	43,7	21,3	186,9
2011-2012	184,6	187,5	4,6	23,4	136,7

Source: National Institute of Statistics of Romania, Statistical Compendium, 2008, 2009, 2010, 2011, 2012, pp.36-37

Correlated with the decline of schools, the number of graduates of vocational education decreases continuously, reaching the 2011-2012 school year to 4,600 graduates.

2007-2010 is a period of rising higher education, where the number of graduates exceeds 200,000, but in 2012 we are witnessing a sharp decline from 136 700 graduates.

At the end of the 2011-2012 school year, the highest number of graduates is in secondary education where we recorded over 184,000 graduates.

We appealed to these statistics to highlight the magnitude of the effort that was made by our country regarding the educational system, in a time where things are different in developed countries. It is true that Romania is a country that tends for developing and that is hard to start, but this things should be analyzed very good because of these it depends the economical growth and development and therefore our future as a people.

The third indicator, which is the most significant for educational system, refers to the education budget. To be more specific, we analyze the percentage of GDP in Romania distributed on education system.

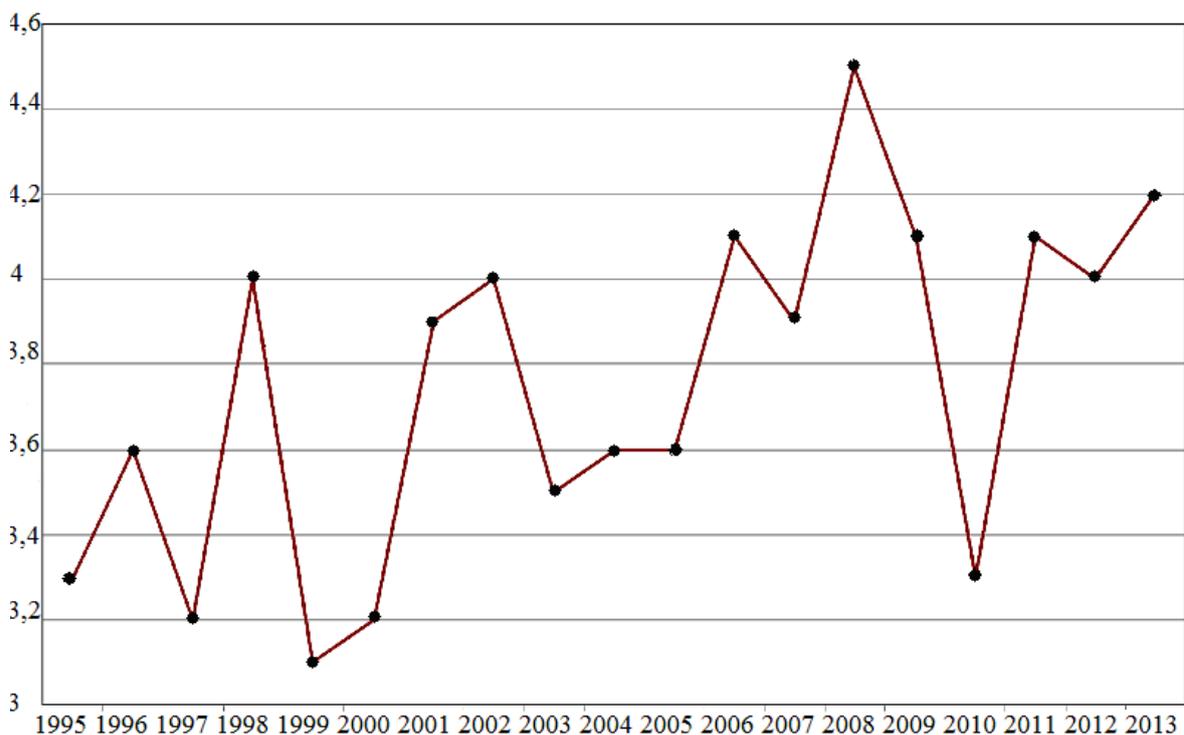


Figura nr. 19 - - Budget for Education in P.I.B. (%) from 1995 to 2013

According to the data, we can see that in the analyzed period, the lowest percentage of GDP allocated for education is recorded in 1999 with a rate of 3.1%. The budget allocated for education varies from year to year. Thus, in 2008, the year in which it accrues

⁹The statistical data with which we made Figure 1 - Budget for Education of GDP (%) from 1995 to 2013, are available on www.eurostat.com

the highest percentage of GDP allocated to education throughout the entire period analyzed, we have a 4.5%, two years later only 3.3% of GDP is allocated.

All those oscillations are the result of an imbalance, which over long periods will have serious consequences. It is also true that the percentage allocated to education depends by the evolution of Romania's Gross Domestic Product, but education should not be marginalized because, as we have seen, it contributes to the development of a state and the growth of the state.

In this regard, experts believe that the positive effects of education appear most clearly in the long term, which is indubitable. Thus, Krueger and Lindahl demonstrates that increasing the duration of studies have insignificant effects on short-term to G.D.P but has significant effects on long-term (10-20 years).¹⁰

Human Development Index (HDI) is another indicator that characterizes the literacy, education and the standard of living in a society. Many researchers had taken into account, in elaboration of sociological studies, human development index. Adrian Gorun writes that “It is very known that the sizes of human development are expressed by the *human development index* (H.D.I.) that has values between zero and 1000. As a synthetic indicator of the human development, the human development index is calculated depending on the following indicators: longevity, education level (evaluated as a weighted arithmetic average between the literacy degree and the degree of encompassing in different forms of education) and Income per inhabitant.”¹¹

EDUCATION – A COMPETITIVE FACTOR IN THE ECONOMICAL GROWTH

The economical growth may be accomplished only if we are taking into account the global social context, and the creation to a solid market for low qualifications which is a solution for underdevelopment, unemployment and poverty, and a first step towards a knowledge-based economy.¹²

An important part in the economic development of a country is played by competitiveness. Steliana Pert and many other researchers believe that education

¹⁰ Apud Emily Hannum and Claudia Buchmann, *The Consequenc of Global Educational Expansion. Social Science Perspectives*, (New York: American Academy of Arts & Sciences, 2003).

¹¹ Adrian Gorun, *Social development and globalization. Human development and current global problems(case study)*, (Targu Jiu: Academica Brancusi, Nr.2/2011), 10. Accessed May 15, 2013, http://www.utgjiu.ro/revista/lit/pdf/2011-02/1_ADRIAN_GORUN.pdf

¹² David Ashton, *High skills: the concept and its application to South Africa* (Journal of Education and Work, Volume 18, Number 1 / March 2005), 19-32, Accessed May 17, 2013, doi:10.1080/1363908052000332294

transforms itself into a factor of competitiveness, and this is true because at the level of Global Competitiveness Index, education plays an important role.

Table no. 3 Sources of competitiveness according to the Global Competitiveness Index

Primary factors: Institutions Infrastructure Macroeconomic stability Health and primary education	Key components of increasing the competitiveness of any economy
Factors that enhance efficiency Higher education and professional training Goods market efficiency Labor market efficiency Degree of sophistication to the financial market Extent of absorption of the new technology Market dimension	Source of increasing economical efficiency
Factors based on innovation and sophistication Degree of sophistication in business Innovation	Pillars of economies based on innovation

Source: Global Competitiveness Report 2008-2009, World Economic Forum, Switzerland, 2008

CONCLUSION

From our study it can be seen that education is the key element in the economical growth of a country, even if we were and we are in economic crisis, education has always manifested as a major factor for development and economical growth.

We conclude by outlining some important aspects: while over time education has encountered many difficulties which led, of course, the slow development of the Romanian

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economy, we can say that all these barriers / impediments led the Romanian education on the trajectory of development, involvement and exceeding contradictions and crisis of development.

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