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THE RELATIONSHIP BETWEEN THE LEVEL OF EDUCATION AND THE DEVELOPMENT STATE OF A COUNTRY

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Abstract

The present paper underlines the fact that the resources allocated to education and the structure of the educational act must be correlated to the level of development of a country, at a certain moment. For Romania, the conclusions impose a reallocation of resources towards the secondary education and a reorganization of the tertiary education. The developing countries need medium skilled labor force because the emerging markets do not have the financial and technological capacity to sustain innovative fields with highly skilled workers. Romania is in this last situation. Yet, the educational system has continued producing university graduates that the economy could not absorb. Consequently, a large part of them have emigrated, looking for a proper compensation of their contribution to the production system. So, the main challenges for Romania would be to match the specializations to the market demand and to substantially reduce the public spending for the tertiary education.

Key words: education, growth rate, level of development
JEL classification: I20, I30

1. Introduction

The new theory of the economic growth underlines the fact that the education has a strong impact on the economic development from two points of view. First of all, the human capital is an input in the production function, thus explaining the options for the investment in education and, secondly, the factors that involve the endogenous growth – especially the technological progress – are correlated to the human capital stock because either it is supposed that it directly determines new technologies or new knowledge, or it is an essential aspect for the research field that generates technology and knowledge. In the same direction it comes the opinion of Harmon, Oosterbeek and Walker [2000], arguing that the more educated countries are developing faster due to the fact that the school enables the labor force to innovate new technologies and to adapt the existing ones to the local production. Consequently, the economies that are inside the technological frontiers have greater opportunities to develop faster [Barro and Sala-i-Martin, 1995]. This is why the growth in the regional capacity of generating and using the human capital may be one of the most important policies

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of regional development in order to ensure the success of the future high-tech economy. As Gilmore [1999] noted, the human capital is the result of the learning institutions that, in their turn, represent the educational support of the regional economies.

The level of education is influencing not only the growth but also the economic productivity of a country: the states with a rapid growth in the number of persons that enroll the school have experienced a raising productivity and an improvement in the quality of the labor force [Lange and Topel, 2005]. This idea is argued by Gilmore [1999] who considers that the education is preparing the labor force for the productive participation inside an economy, also offering other national benefits: an educated citizen is more able to take part in the local or regional decisions. The influence that education has on the productivity was also analyzed on different periods of time. Lange and Topel [2005] consider that on a long period of time (15-20 years) the estimated impact of education on the productivity is much greater than on a short time (5 years).

Only the human capital accumulation is not always a determinant factor of the economic performance. The contribution of human capital depends on the efficiency of its accumulation: those countries that have inefficiently allocated their resources have little benefits from their investments in human capital, in terms of economic growth [Sianesi and Van Reenen, 2000, 5]. The efficiency of resource allocation is defined by Judson as a ratio between the level of the obtained results and the maximum level possible to be attained in a country, considering the actual global budget and the actual costs for each educational level [Judson, 1998, 337-360]. The analysis made on a few countries, both developed and developing or less developed states, show the fact that, in spite of the considerable differences existing between the actual and optimal schooling rate, some economies seem to allocate their educational resources in an optimal way.

2. Education and the Economic Development

Some of those who analyzed the effect that different educational levels have on the development of a country were Sianesi and Van Reenen [2000]. They noticed that in the case of the primary school, a 1% growth in the schooling rate determines an increase of 2% of GDP per habitant in the less developed countries from the developing ones, while for the OECD states this effect wasn't noticed. An increase of 1% of the enrollment rate in the secondary school would determine a raise of 2,5 - 3% for the developing countries and up to 1,5% for the OECD ones. As it can be seen from this study, the impact of the raising educational rate, on different levels, varies from one country to another, according to the level of economic development, existing a "positive correlation between the economic growth rate and the human capital accumulation at the primary level for the poor countries, at the secondary level for the medium income ones and at a superior level for the rich states" [Judson, 2002, 209–231]. This idea is also underlined by Cowling, who considers that the specific factors for each country are shaping the nature of the entrepreneurial talent and the impact that the education has on performances [Cowling, 2000, 785-789].

A World Bank study, made in 2003, shows an essential factor that has led to the growth and development of the Asian tigers: the good allocation and the high quality of education. The same idea is mentioned by Lee [2001] and Lall [2001] who analyze the way in which the resource allocation has evolved on different educational levels in East Asia, starting with the '70s. In an incipient level of development, East Asia has focused on primary education, attaining an almost 100% rate for this learning cycle, in 1970. This fact

facilitated improving the quality and raising the resources allocated for the secondary and tertiary educational levels. The schooling rate has considerably grown for these levels, especially after the '80s. A good example for this is given by the Korean Republic, where the schooling rate for the tertiary education was 16% in 1980, 39% in 1990 and 68% in 1996. This exponential growth went together with the level of development. There are different opinions regarding the cause-effect relationship. There is a positive correlation between the level of education and the level of development – and this one is not very much criticized – but, in what it consists the causing factor – the education leads to the economic and social evolution or the socio-economic state determines the increase in the enrollment rate in various educational levels – there are many controversies. In our opinion, both possibilities have to be considered. The pressure of an economy on the labor market may change the individual options in choosing the level of education. If there are some favorable situations, such as the attraction of foreign investments or high rates of investments, the growing market imposes pressure on the labor force demand, more and more qualified, fact that determines the increase in the equilibrium labor price for this category and imposes judgments in terms of opportunity costs that lead to prolonging the schooling period in order to obtain higher future incomes. But, in this situation it is very important that the growth process be consolidated on a long term, the short and medium term oscillations being able to change the individual behavior in the favor of the present incomes. This would determine the abandonment of the formal education process. Romania is a good example for this. The enrollment level in various educational forms has oscillated and often has decreased until 2004-2005. The personal failures in covering the marginal costs of education after its finish, the ultra-specialization phenomenon that led to the decrease of the incomes of high-skilled persons, the economic prolonged stagnation that fostered the pessimism, all these have caused the inutility feeling related to the "acquisition" of an additional educational stock. Once the economic trend has changed, the descending slope was stopped, the taste for education reappearing especially for the secondary and tertiary level, where the market started to develop a growing demand. The optimistic forecasts related to the general economic situation, the increase in the labor incomes and the higher demand for the medium and high skilled labor force have led to the individual decision of acquiring an additional education.

On the other side, there is indeed a direct relationship between the level of development and the education [Lucas, 1988, 3-42]. The educational system is a complex one, which is improving itself due to the experience gained through learning and to the resources allocated for it. These resources, especially the financial ones, are related to the income level per inhabitant but also to the budgetary priorities. While the states are developing, the necessities related to the infrastructure and to the social spending become less pressing, so that additional sums may be allocated to some fields, in other circumstances considered to have secondary importance, such as culture, education, environment, etc. It is no surprise why the Northern countries, such as Norway, Finland, Sweden, Holland, with very high GDP per inhabitant, have one of the most successful learning systems, offering education at low costs due to the possibilities that the states have in allocating the public resources for these fields. It is known the fact that the interest for creating and protecting the stock of human capital, manifested through the public policy, is a vital element for the modern societies [DeVol, 1999, 2]. It is true that the educational problem do not have to be judged according to a pattern that may be applied in any context, because it presents different facets, depending on the level of development, on the established goals, the international context, etc. There are significant differences in the resources allocated for the education between countries.

It also appears a change at the individual level. The increase in the welfare state generates a relocation of the available resources from the primary needs to the superior ones, such as education, culture, free time. Moreover, the high level of the income is changing the ratio between labor and the free time in the favor of the second one. If we add to this the change in the ration between the present income and the future income in the favor of the second one, it results an increased desire of continuous educational activities, formal and non-formal ones. In this way it appears a stimulating process, the increase in the incomes leading to the raise in the educational accumulation, which will foster future additional incomes. This process shapes an income-education spiral with consequences not only at an individual level but also at a macroeconomic one. In a study conducted by Moretti [1998] in USA it is shown that, in the '80s, each additional learning year has led to a medium increase of the income with 5,8%; in the '90s this coefficient has almost doubled, reaching up to 10,9%. The workers with a better level of education have higher revenues because even when they have the same responsibilities it is considered that the productivity of the higher skilled people is greater. As a particular phenomenon, Moretti noticed that a 1% increase in the number of the persons with tertiary education would determine a 1,3% increase in the incomes of the high-school graduates and a 2,2% of those with post-high-school revenues. The idea is undertaken by Sianesi and Van Reenen [2000] who show that the well trained employees have an important influence on the productivity of the less trained ones, generating a knowledge spill-over inside the firm and, in this way, raising the firm's innovation capacity. In this context, we do trust in the Schumpeterian idea, launched by Nelson and Phelps [1966], according to which there is a straight correlation between the human capital stock and the economic growth through the capacity of technological progress induction. The high level of instruction means increased innovation capacity, which can determine technological advance and innovation monopoly, fact that creates competitive advantages generating high profits [Moretti, 1998]. It was noticed that the firms' location in the cities with an educational level over the average determines an increase in the investments in technologies and in new equipments. The production function changes in the case of an additional instruction, the proportion of the physical capital being more and more significant, compared to labor. In this way, the ratio capital/labor is changing [Acemoglu, 1996, 779-804]. Even since 1966, Nelson and Phelps have noticed that the new technologies are favored by the increase in the educational stock [Nelson, Phelps, 1966, 69-75].

Regarded from the two main points of view, the ratio education/development is a relevant one, showing that the modern economies cannot be functional in the absence of a major preoccupation for the qualitative development of human capital.

We want to underline that the relationship between education and development does not have to be regarded only from the economic point of view. The development process is a more complex one that, apart from the economic growth, also involves social and cultural evolution, environment protection, healthcare, etc. The level of instruction has influences on the social life. It is noticed that the educated persons are interacting easily and efficiently not only inside the groups but also in front of the law, norms and social conventions. Such a behavior creates a harmonious environment in which the negotiating costs are very low. Understanding the democratic value, for example recognizing the liberties and the limits of the interference between the politic and the public sector, the acceptance of the arbitrage of the democratic institutions, knowing the laws and the consequences of breaking them, the respect for the property, all these are attitudes that develop in time. They are influenced by

the educational factors, formal and non-formal ones, being specific especially for the developed states' members.

3. Conclusions

Countries with increased growth rates of the educational level are faster developing, on medium and long term, than those that do not invest in human capital. A more educated population does not mean only a more harmonious society, but also an increased capacity of absorbing and creating technology through the innovation process. Moreover, while the national boundaries are just simple lines without capacity of restricting the free movement of factors of production, the higher skilled persons will be able to take advantages easier and more efficient from the new opportunities of the global economy.

Between the education and the development there is a strong correlation, in both directions. Yet, the determinant factor of the process seems to be the educational one, fact that can be observed in the case of the less developed states such as Kenya where it was induced a change, both at institutional and economic level, by the presence of an elite, educated in the Occidental universities, who came back in the birth place.

Once surpassed the initial development stage, education becomes a way towards the welfare state. Yet, the impact of education being essential for the progress of a nation, it is necessary that the state interfere in initiating and supporting the institutions responsible for the education process, under all its facets – formal, non-formal and even informal. As we have shown, the ways of involvement have to be careful chosen and permanently adapted, especially according to the level of development. On contrary, it may appear the situation when the economic effect tends to zero, although there are made investments in education. It is also the case of Romania, after the 1989, when the lack of professional perspective and the inadequate remuneration have determined the migration of the high-skilled labor force towards other states, more developed. The result was a major disequilibrium on the labor market, on long term, and a significant loss in the national income.

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