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# **PUBLIC EXPENDITURE - THE BASE FOR EDUCATION DEVELOPMENT**

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*The most valuable of all capital  
is that invested in human beings*  
(Alfred Marshall, Principles Economics)

## ***Abstract***

*The paper advances the idea that although at a regional and global level education is considered to be a promoter of progress and development the investments in this field differ very much.*

*A comparative analysis of education expenses of different countries from all over the world is done in terms of the objectives and indicators measuring the financing initiatives. The results are used as an argument showing that the educational systems need global, public and private support. At the same time, they reinforce the idea that sustainable highly competitive human resources can not be generated unless there are sufficient financial resources.*

**Key words:** education, financing, resources, public expenditure, private expenditure

**JEL Classification:** H52

## **Introduction**

According to the provisions of the Lisbon Agenda (or Lisbon Strategy) adopted in 2002, by 2010 the European Union should become the „most dynamic and competitive knowledge-based economy in the world, capable of a sustained economic growth that could generate more and more jobs, etc....”

Achieving this objective depends on each state’s availability to invest in an education system seen as a system that trains youth into wanting “to know” and that offers them the information they need. The national actions and investments in

research and innovation, their educational and financing policies adopted in this respect, are for the creation of a knowledge-based society.

The rationale of the present paper is based on: the commitment of the International Community as part of the Dakar Action Plan according to which “no country shall be prevented from attaining its educational objectives based on lack of resources” and the Bologna Declaration which stipulated that higher education is to be considered a public asset, a fact which implies a public responsibility to finance and to stimulate financing of this field.

The analyses are based on the data offered by EUROSTAT, the Lisbon Strategy, Global Education Digest 2007, Comparing Education Statistics Across the World, UNESCO Global *UNESCO Institute for Statistics*, EFA Global Monitoring Report Education for All, The National System of Education Indicators, (SNIE), adopted by Romania, etc .

### **1. General Outline on Education**

Economy, information and fund globalization generated countries' participating in the international competition which determined a series of changes within educational systems and the resources used, from both qualitative and quantitative points of view.

Education is, by excellence, both a field of investment and a development factor. The contribution of education and training in the development process was largely recognized and estimates show that investments in education and training generate benefits for both people (private benefits) and society (public benefits), comparable to physical capital investments. (World Bank, 2002)

Human resource investments significantly contribute to productivity growth and constitute the linkage of investments at microeconomic and social level. An estimative study for the OECD (Organization for Economic Cooperation and Development) member countries shows that participation in an additional year of secondary education amplifies economic growth by almost 5%, as a short term effect and by 2,5% as a long term effect. OECD also noticed that improvements in the field of human resources was the cause of the 50% or more annual growths in some EU member countries during the 90's compared to the previous decade. (Com, 2002/ 779)

Education contributes to entrepreneur spirit forming by means of creating the conscience being one's own employee as a career option and by developing the required skills and aptitudes. (ECC, Com, 2002)

In the 90's, the world scene of education was dominated by a new paradigm which put accent on competition, high educational standards and service quality. Later on, in March 2003, The European Council enforced human resource investments as a necessity for promoting European competition, for generating

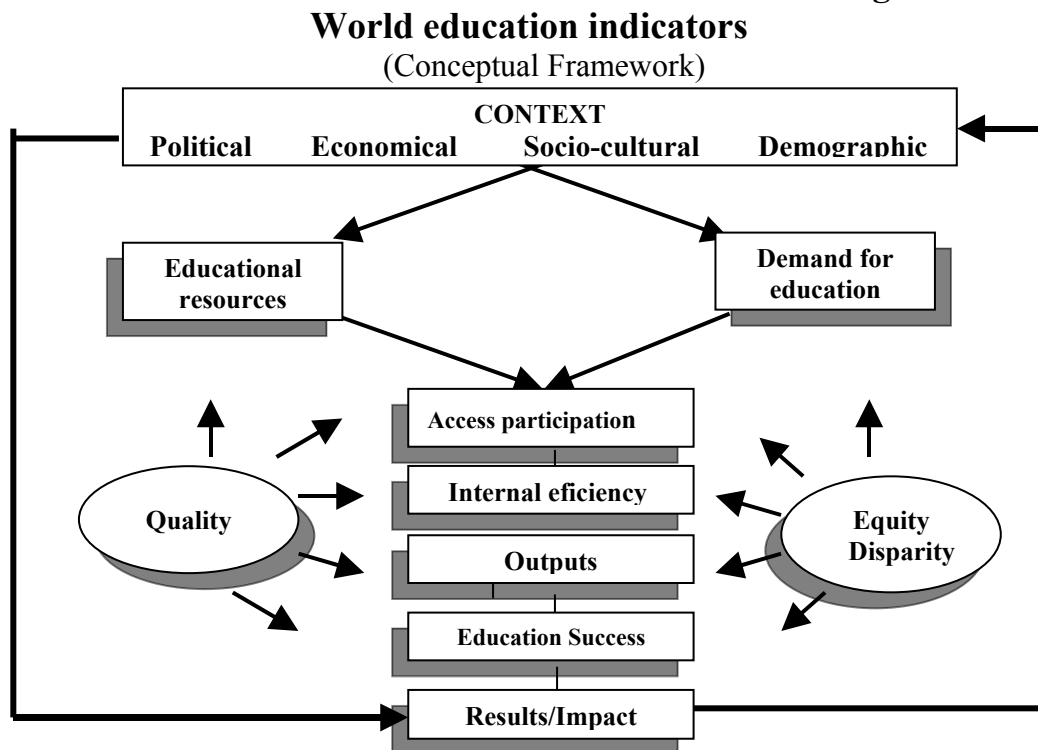
massive growths and reducing unemployment as well as a necessity for the birth of the knowledge based economy.

In this respect, at the annual evaluation report of the European Council, Jan Figel, the European commissioner for education, professional development, culture and youngster cited that “High quality education and professional development are essential for Europe to promote a knowledge based society and to efficiently compete in world economy, on its way to globalization. To support the affirmation the Council invited the member states to a substantial annual growth of human resource investment per inhabitant. But for education and professional development to respond to XXI century challenges the member states have to redouble their efforts and make efficient human resource investments. (EC, Report/2008)

The importance of this objective is set of by the fact that the encountered deficiencies in the educational and development systems find themselves in economic and social evolutions at all levels.

Focusing on educational and development issues offers a new framework for the elements supposed to be essential for the human capital investments efficiency. Thus, education is analyzed in the basis of some indicators which bind together four domains: educational context, educational resources (human, material, financial) the access, participation and results. (Figure 1)

**Figure 1**



Source: World Education Indicators: Conceptual Framework (2003)

The indicator set created by EU is used to monitor the implementation of Lisbon strategy in the member countries, respective for monitoring the progress, assuring comparability and facilitating cooperation (in what concerns positive experience transfer).

The indicators assure the quantitative data necessary for operational description of an educational system or its components, as well as the information for evaluating the functioning manner of this educational system.

Unlike one of the international systems of classification **The National System of Education Indicators (NSEI)**, adopted by Romania, contains a different category of indicators regarding the **quality and efficiency** of the **educational and development system**. With the help of this indicators it can be pursued: the educational resources (financial, material, human), the internal efficiency of the system (the rate of non-promoted pupil, the scholastic survival rate), as well as indicators of education monitoring which firstly reflects the quality of education. (Bîrzea, C, 2005)

Implementing a quality system that could monitor in an objective manner the level of quality and offer the necessary instruments for managing educational institutions with fundamental decisions and actions regarding fund sustainability implies high level funding. Consequently, one cannot deny that the quality of education is highly influenced by the level of financing.

In the educational system of each state a special importance have to be given to its financing mechanisms to law compatibility in the field of state assistance.

When measuring the financing initiatives of the educational system we have to follow five key objectives, respectively:

- a) The absolute level of financing growth;
- b) The variety of income sources for the universities;
- c) The proper use of resources (economic efficiency);
- d) Assuring with complementary financing sources for excellence research and professional development in the prospect of growing international attractiveness;
- e) Assistance for students such as scholarships, grants and credits. (The Competition Council).

Education financing became a key problem of national and international efforts. In respect with the Dakar action project the international community established that “no country shall be prevented from reaching its goals of ensuring education for all because of resource scarcity”.

The international experience revealed that the public superior education financing, in order to respond to the actual needs, is of composed nature:

- a base financing, from State Budget allowances, which is to assure uncommitted access to education, the quality and quantity of the educational process
- a complementary financing, obtained by own means and resources, others than the State Budget.

The total level of education financing constitutes an important problem for those who elaborate educational politics, because they have to identify and mobilize the necessary resources for providing good quality education.

The educational financial sources are grouped into two main categories, as follows:

- public sources;
- private sources.

The public sources come from central, regional and local authorities meanwhile the private sources come from students, ménages and nongovernmental organizations.

The relative importance of each type of financing source, be it public or private, significantly varies from one state to another, going from total state education financing in countries like the Netherlands, Finland or Sweden, to student supported tuitions in other states. Some administrations do not have the possibility to provide enough resources for assuring the primary education, which highlights the international community's role of educational donor. The foreign assistance is not always enough organized, coordinated or adequately sustained.

For non-EU countries, the system of education financing can be described as dependent mostly on the private sector (in the US, for instance, only half of the education-driven money comes from public sources).

## **2. Public Expenditures on Education: Indicator of the Amount of Investments in the Field of Interest**

Among the indicators frequently used for measuring the investments in education it is pointed out the one that measures the expenses for education (Adomniței, C, 2007)

As main indicators for measuring the government engagement for education, we use: public expenditure for education, as the weight in GDP or per inhabitant, and the weight of public expenditure for education in the State Budget, that reflects the level at which the area can compete with other sectors that consume resources from the State Budget.

Public expenditures for education include the expenses made by the schools, universities and other public and private institutions involved in providing or supporting educational services. Regarding this type of expenditure, it is important

to show that it does not contain all expenses for education, because they are expenses made by the family. For example families buy manuals and didactic material or pay private professors who teach their children besides the public institutions of school.

An index such as the weight of public expenditure in the GDP is relevant because of its intrinsic quantitative information (the assigned percentage) and for appreciating in what percent (reported to general assigned resources, as for example those for education and defense) is education a priority of the public politics at a moment.

This indicator reflects accordingly the importance given to education compared to the other public services provided by the state. As well the assignments on levels of education reflect the priority offered to a certain level. Public expenditure for education mark out the percentage of the national financial resources assigned by the Government in a financial year to educational services.

Generally the public financing of education is weak: 3-4 percent of the GDP sometimes even less than 3%. All the countries members of Organization for Economic Cooperation and Development (OECD) invest a considerable percentage of the national resources in education. Here by if we take into consideration only the funds coming from public resources, OECD countries spend together 5% of the GDP for the primary, secondary and superior schooling institutions.

In average European Union member countries spend a little over 5% of the GDP for education and professional development financed from public resources, with substantial differences between the member states. The figure equals the one of USA and overpasses Japan's.

At global level, the expenditures with education grew in the past 10 years, in nominal terms as well as weight in GDP and per pupil or student. Here by the developed nations increased their public expenditures with education with 41%. In 2004 the world governments were investing in education the equivalent of 2.5 milliard dollars (at the parity of the purchasing power- PPP) which represents 4.4% of the world's GDP. (Table 1)

**Table 1**

**Public expenditure for education by regions**

Region	Expenditure with education		
	% of GDP	PPP \$ (in milliards)	% of the total in the region
<b>Arabic States</b>	4,9	77,8	3,2
<b>Central and Eastern Europe</b>	4,2	164,0	6,7
<b>Central Asia</b>	2,8	7,7	0,3
<b>Eastern Asia and Pacific Asia</b>	2,8	441,7	17,9
<b>Latin America and the Caribbean</b>	4,4	186,5	7,6
<b>North America and Western Europe</b>	5,6	3355,6	55,1
<b>South and Western Asia</b>	3,6	169,1	6,9
<b>Sub-Saharan Africa</b>	4,5	59,9	2,4
<b>International level</b>	4,4	2462,2	100,0

Source: Global Education Digest 2007, Comparing Education Statistics Across the World, UNESCO, Institute for Statistics, p. 9.

The statistical data regarding the investments in education indicates significant discrepancies between different regions and states of the globe, which reflects, in fact, the inequalities in the development level and respectively in the financial power of these. The sub-developed countries have little percentages assigned for education, fewer than 2% sometimes 1% (Equatorial Guinea).

At European level, between the years 2000 and 2003, the education expenditure increased as weight in the GDP but after that decreased from 5.17% in 2003 to 5.09% in 2004. Among the European states which increased their education expenditure it stands out Greece (with 0.3% of the GDP) and Bulgaria (with more than 0.3% of the GDP). The greatest financial deficiency in European education and personal development is generated by the diminishing contribution of the private sources (companies and people) in mixture, not as a substitute, with public financing.

A report of UNESCO's Institute for Statistics (UIS) points out that the entire region of Safari Africa spends less on education than a single country as France, Germany, Italy or Great Britain. (Figures 2 and 3)



Figure 2

**The world distribution of public expenditure for education - selected countries in 2004 -**

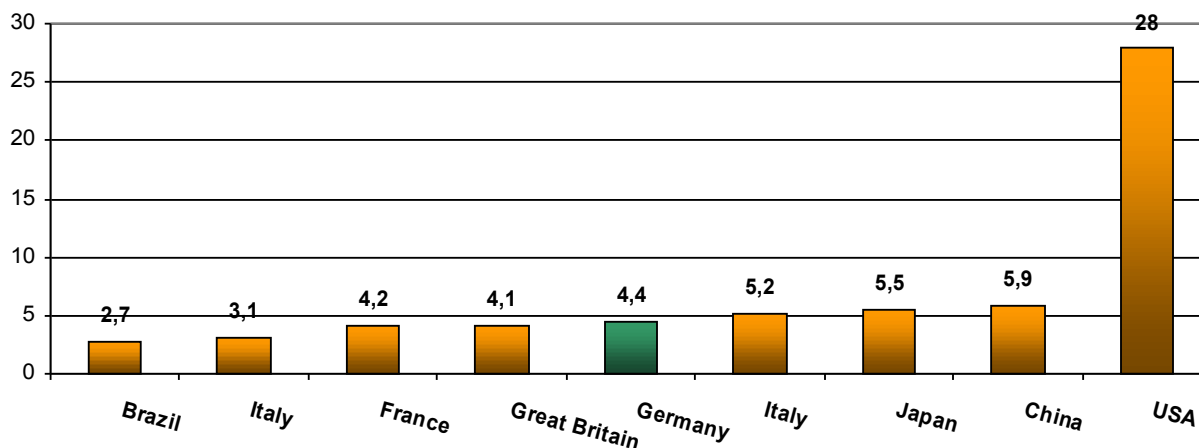
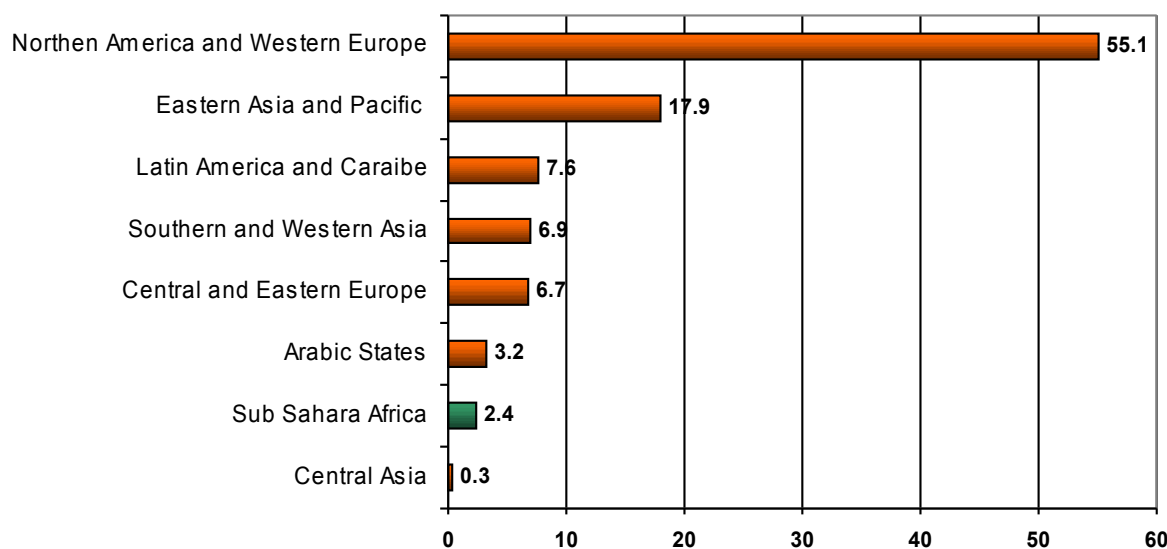


Figure 3

**The world distribution of public expenditure for education - selected regions in 2004 -**



Source: Global education spending concentrated in a handful of countries, *UNESCO Institute for Statistics*, October 2007, No. 03.

In order to have a comprehensible outlook on the status of education financing, one should take a close look to the number of the school population, the level of education expenditure as well as the GIP achieved.

Along these lines, although 15% of the global population with the age between (5-25 lives) in Sub Sahara Africa the governments of these countries spend on education only 2.4% of the global resources assigned to education. To contrast Northern America and Western Europe are responsible for more than a half of the global expenditure for education. In this context is relevant to declare that these countries include less than 1% of the scholastic aged population.

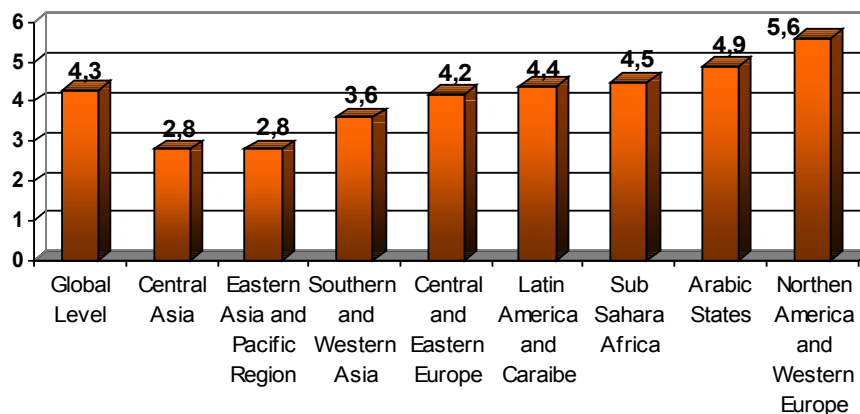
A special situation is found in Eastern Asia and The Pacific Region, situated on the second place at global level as expenditure for education, with a percentage of 18% of the global expenditure, while they hold 28% of the global GDP and 29% of the scholastic population.

The statistical analysis point out that USA is the biggest investor in education. The USA budget for public expenditure designed for education is almost as big as all the regions together: Arabic States, Central and Eastern Europe, Central Asia, Latin America and Caraiibe, Southern and Western Asia and Africa.

The differences regarding education expenditure on regions diminish if they are analyzed by regional GDP, but North America and Western Europe unfasten from the other regions. (Figure 4)

Figure 4

**Global and regional expenditure for education - as weight in the GDP -**



Source: UNESCO Institute for Statistics database

Acknowledgement of the fact that the level of public expenditure for education depends on the socio-economic development, results in the need to analyze this expenditure taking into account the revenues by groups of countries, respectively countries with low, under average, upper average and high revenues.

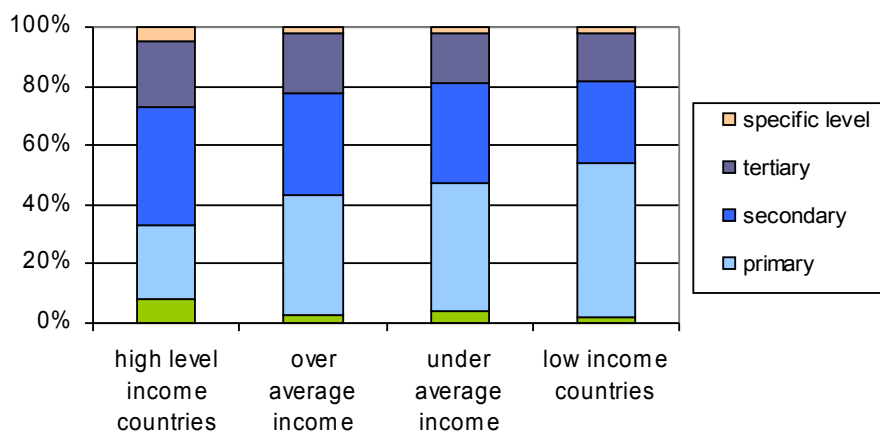
The expenditure for education as percentage in Gross National Product (GNP) is the result of several factors that include the government capacity to collect internal revenues, capacity which is diminished in low budget countries. It is

relevant that even though the rich countries tend to spend more, from the national income, on education, there are little differences between groups of countries by social-economical level in what concerns the total assignments for expenditures with education. The average is around 16% for low level revenue countries and draws up to 17% in average and over-average income countries but in high level income countries tend to descend because the benefits from social well-being are bigger.

The public expenditures for education significantly differ in the case of groups of countries selected by income, in the assignments for levels of education. (Figure 5)

Figure 5

**The contribution to public expenditure for education by level and groups of countries**



Source: EFA Global Monitoring Report Education for All , 2008, Education for All by 2015 Will we make it ?, p.147.

Low level and average income countries dedicate almost half of their expenditures for education to primary education. This percentage decreases with the growth of the income level at only 25% in high level income countries. The average for secondary education reveals that low income countries assign the lowest level (28%) and at a close level we find the other three social-economical categories (between 34% and 40%). In the case of tertiary education it floats a little over average in three social-economical categories (low income countries 16% and 20% in over average income countries). The percentage is a little bit superior in high level income countries.

In each group of countries it is observed that in high level income countries and over average level income countries the secondary education receives the highest percentage (being a priority) while in average level income countries the

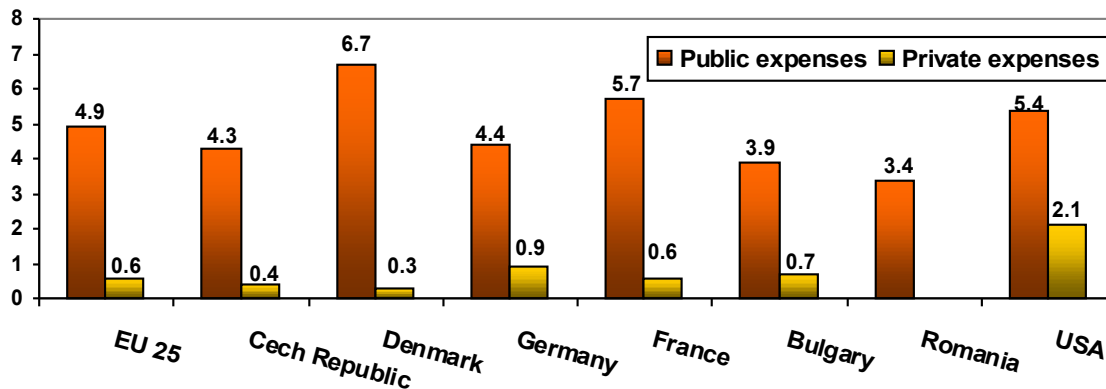
secondary level of education has assigned a lowest percentage that the primary level of education.

### 3. Where Does Romania Stand?

Statistics show that Romania is one of the countries with a high degree of human development (DHD)\*, due to the fact that it surpasses the 0.800 level. Nevertheless, in EU countries classification, performed from the human development perspective, Romania is situated at the bottom of the top, with a 15 points difference from the next in line.

Romania approaches the EU average as far as the weight of expenditures for education in public expenditures is concerned. (Figure 6)

Figure 6  
Percentage of public and private expenses  
for education within the GDP (comparative data-2003)



Source: Europe in figures, Eurostat yearbook 2006-07, European Communities, 2007, p.97.

Article 2 in The Law of Education 84/1995 stipulates that “In Romania, education is a national priority”. However, in absolute figures, the sums assigned for this sector is among the littlest in Europe. Thus in 2006 the budget for education was almost five times shortened than the one in Holland, state with a population half than Romania’s.

A paradoxical situation is encountered where institutions have the necessary amount of resources, and have, yet, a poor quality of education. The question that arises is “What exactly influences results?”. Although we might feel the need to provide a simple explanation, that low quality may be explained by *the inefficient use of allocated funds*, one should keep in mind that each state’s educational

\* Education is a component of the human development degree(DHD)

system is based on educational policies and different implementation procedures. By turns, all these depend on people (the ones applying the procedures), but also on each institution's specific educational culture.

The strategic objective of an efficient educational system should be the sustainable generation of high level competitive human resource, purpose for which is to be assigned enough financial resources. Therewith, the ones who elaborate the politics, in budget assignments for education shouldn't focus only on the levels of financing but on the way the funds are used.

### **General conclusions**

Implementing a high quality educational system implies at every state level a lot of funding. The investments in education reflect the disproportions in development levels and financial power of states and deepen furthermore the discrepancies between various regions and states around the world. The present day development advantages represent the basis of future advantages because well-developed states can afford investing in the educational system that will provide values in the long run.

Because of the fact that there are governments that cannot afford sufficient resources for mere basis education, there should be more concern for the increase in role of public and private donors, both national and international.

Upon deciding on the level of education financing, policy decision-makers should take into account the fact that investing in the human resource could have a great contribution to the increase of productivity, development and progress, as a whole.

The well-educated human resource may make the difference in the way a country or an organization functions. !

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