FACTORS LIMITING INVESTMENT IN HUMAN CAPITAL IN MACEDONIA
(Factori care limitează investiţia în capitalul uman în Macedonia)

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Abstract

There is a strong link among investments in human capital, economic growth and human development. Since human capital (improvements in the quality of human labour) is embodied technical progress in labour (knowledge and skills), the economic development depends on advances in technological and scientific knowledge, economic development depends on the investments in human capital.

The first part of the paper outlines the two key concepts related to investment in human capital - the basic economic concept and the human development concept. The second part is related to the limitations regarding the investment in human capital in Macedonia, expressed through four major dimensions: 1) poverty and inequality; 2) economic policy; 3) absence of a clear link between economic growth (GDP per capita) and human quality of life (HDI) and 4) the access of individuals to the capital market and to information.

Keywords:
Investment in human capital; Human development; Economic growth and development; poverty and inequality; Economic policy.

Rezumat

Există o strânsă legătură între investițiile în capitalul uman, creșterea economică și dezvoltarea umană. De-vreme ce capitalul uman (îmbunătățirea calității muncii oamenilor) încorporează progresul tehnic în muncă (cunoștințe și deprinderi), și dezvoltarea economică depinde de avansul cunoștințelor tehnologice și științifice, dezvoltarea economică depinde de investiția în capitalul uman.

Prima parte a lucrării subliniază cele două concepte cheie în legătură cu investiția în capitalul uman – conceptul economic de bază și conceptul dezvoltării umane. A doua parte este legată de limitările privind investiția în capitalul uman în Macedonia, exprimate prin patru mari dimensiuni: 1) sărăcie și inechitate; 2) politica economică; 3) absența unei legături clare între creșterea economică (PIB per locuitor) și calitatea vieții oamenilor (HDI) și 4) accesul indivizilor la piața capitalului și la informații.

Cuvinte cheie:
Investiții în capitalul uman; Dezvoltare umană; Creștere și dezvoltare economică; Sărăcie și inechitate; Politică economică.
1. Concepts related to investment in human capital

Different development policies have over time developed in line with the basic premises of schools of economic thought. Initially, the classical school of economic thought treated the individual as a "good" which was valued depending on its current or potential contribution in the profit of "a company". Thus, individuals were treated similarly as a production means, while the basic goal of the development process was the growth of income.

With the appearance of more awareness towards the unequal distribution of income in the 1970s, the concept of basic needs emerged, which in its forefront brought to the surface the need to provide existential means for each individual, such as food, health protection and education. In the meantime, the concept of capabilities of people was launched, according to which the level of life quality of people should not be considered according to the average level of income, but according to the capability of individuals to lead a healthy life, to educate themselves, to self-respect and to actively participate in the social achievements of a society. According to this concept, the growth of welfare of individuals is directly linked to the freedom of choice and human rights. The growth of individual capabilities leads to a greater freedom in their choice, which consequently leads to greater welfare.

Basically, it could be concluded that by the end of the 1980s, the central issue of development was focused on the growth of income and not on the growth of quality of life. Therefore, the development strategies were oriented towards production and left no significant space for improving the welfare of individuals.

Finally, in the beginning of the 1990s, the human development concept emerged; stressing that economic development ultimately should result in growth of quality of life of individuals, while the goal of the development process was to expand the capabilities of individuals by placing them in the focus of the efforts for development.

Consequently, when speaking about investment in human capital we can refer to two key concepts: 1) the economic concept, and 2) the human development concept.

1.1 The economic concept

The economic concept is closely related to the investments in the human capital which are mostly gained through education and on-the-job training. According to this concept, investment in human capital is important due to the fact that individuals are viewed from two perspectives - 1) consumers of goods and services and 2) producers of goods and services. As consumers they determine the future production of the economy and consequently the character and the tempo of the economic development, while as producers they have a direct influence on the level of the future output. Thus the economic concept puts an emphasis on the future production capacity (human capital) of individuals and their contribution in generating income at macro and micro economic level.

Since much private and public expenditure are designed to increase the future production capacity (human capital) of individuals, it is of great importance to allocate funds intended for their development in areas where they will give the highest positive contribution. In this respect, the role of the state is very important for:
- Equal access of individuals to the capital market.
1.2 The human development concept

The human development concept is one step ahead compared with the "pure" economic concept with regard to the understanding and importance of investment in human capital. Practically it incorporates within itself the economic concept. In fact, the human development is a process of expanding the human choice in respect of the possibilities for a human being to have a long and healthy life, to be sufficiently educated and to have a decent standard of living. Apart from these basic components which are incorporated in the basic measure of the concept - Human Development Index (HDI) - of importance are also the components such as: political freedom, guaranteed human rights and human safety. The human development concept is concentrated on three processes: 1) the process of growth of human capabilities; 2) the process of income distribution; and 3) the process of participation of individuals in creation of income.

According to this concept, the individual should be the in the focus of development process. Decrease in poverty and greater equality in the distribution of income must be a priority - in order to create equal and better opportunities for all individuals. Accordingly, human development concept places a decisive importance to the state and could be exemplified in the following way:

- The state can reduce the percentage of allocations from the central budget anticipated for activities which have small or insignificant contribution for human development. Therefore, a decrease in the Macedonian military budget would practically mean that more state funds would be released for investment in areas such as education, healthcare and social security.

- The state may reallocate the funds anticipated for human development, to those activities where most individuals would benefit. In this manner, the state will create equal chances and possibilities for all individuals through equal distribution of funds anticipated for human development.

- In this context, when speaking about the link between the human capital and human development, we primarily refer to the potential (future) productivity (efficiency) of the economy. Therefore, the greatest attention is paid to investments in the human capital of individuals in respect to secondary education - especially the vocational education. It is so, because these investments have the highest positive contribution to the economic development of the state. However, this is a statement of purely economic aspect and belongs to the previously mentioned "economic concept" of understanding investments in human capital. The things change when seen from the aspect of the human development concept. Namely, from the aspect of this concept, investments in secondary education have lesser contribution on the overall level of quality of life due to the limited coverage - benefiting a smaller group of people, than investments in primary education. Investments in primary education have greater influence on the quality of life for more individuals. Evidently this does not
mean that the concept of human development suggest that investments in higher levels of education should not be undertake. On the contrary, they are necessary for the economy. The main "remark" of this concept is about the distribution of human capital among the population, which might have strong influence on individual's quality of life.

• The state may reduce to the greatest possible extent the mistakes regarding the distribution of funds intended for social assistance of individuals.

2. Factors limiting investments in human capital in Macedonia

2.1. Poverty and inequality

The presence of poverty and inequality in a country is directly undermining individual welfare. The investment in human capital is strongly determined by the reduction of poverty rate. Many researches show that if a poor family gets additional income, it will significantly increase its consumption for education, and thus have a positive impact on the education of children especially with regards to secondary education. Cross-country studies on the determinants which have an impact on secondary education show that in countries with more equal distribution of income, the rate of enrollment in secondary education is higher.

Assessments made on the relation between income (consumption) and health care are rather rare, but those that exist suggest that the income of a household has a significant effect on the demand for health care.

It is interesting to note that within different families there are differences to the choice of allocation of resources required for investment in human capital. Such differences, apart from being a result of different cultural traditions and habits, is primarily a result of who controls and have the decision making power over the income in the family. Most frequently when the woman is controlling the income of the household, a relatively higher portion of income is spent on investments in human capital.

As seen below in Chart 1, poverty in Macedonia is in expansion and the general impression is that the problem is completely marginalized and inadequately treated by the government. The Head Count Index shows that 29.6% of the total population in the Republic of Macedonia lives below the poverty line, established at the level of 70% of the median equivalent consumption of households, and is one of the greatest in Europe. However, the Poverty Gap Index is 9.3% and it shows the average proportionate shortage of income for the entire population, or the total shortage of income for the poor people in order to reach the poverty line.
Growth in poverty has resulted in an increased number of household beneficiaries on social welfare (in 2004, approximately 12% of the total number of households in the country). The ‘Gini index’, which is a measure for inequality in the distribution of income among the population, at the beginning of the transition accounted for 22%, while today it is approximately 30% - which is considered as a moderate level of inequality. The moderate level of the Gini index should be understood as a moderate equality in the distribution of poverty among the population. In other words, among the population there is an equal distribution of a certain level of poverty, instead of income.

When the economy is faced with high levels of poverty, the investment in human capital of the overwhelming majority of households is predetermined to be low – this is also the case with Macedonia. Under such circumstances, most frequently it is recommended to have a faster economic growth as a logical measure for combating poverty. However, it is evident that the distribution of income (economic growth) and its changes in the course of time play a decisive role in reducing the level of poverty in a country.

2.2 Economic policy

The economic instability which emerged immediately after the independence of Macedonia, primarily as a result of the price liberalization and foreign trade, was neutralized within a short period of time with conventional economic measures which in their essence carried the policy of restrictiveness of the aggregate demand. The restrictive monetary and fiscal policy, in combination with the wage policy and limited banking placements contributed to partial macroeconomic equilibrium (equilibrium on the money market, but not on the integral market). At the same time it contributed to a decreasing of the living standard of the population and in an increase in the unemployment rate. This economic policy has not undergone any significant changes for a decade (see Chart 2).
Chart 2 shows that as a result of the policy of restrictions of the aggregate demand (which is basically a well-known policy of IMF and the World Bank) low inflation rate is accompanied by high levels of unemployment what is directly related to the stagnation of the investment activities. Simply saying, the low consumption of the public sector, enterprise sector and the household sector, which are result of a low budget deficit (low capital investments), high interest rates and still "frozen" wages in the public administration, which absorbs a great part of the labor force in the country, accompanied with the high poverty and inequality, are forcing the economy into the trap of equilibrium at a low level of output and a high level of unemployment (see Chart 2).

The existing restrictive macroeconomic policy is to a large degree limiting the public investments in human capital. The creators of the macroeconomic policy must take into consideration the fact that the restrictive individual consumption, as a segment of the policy of restrictive aggregate demand, may lead to: 1) deepening inequality in income - as a result of inconsistency in the distribution of human capital; 2) lower average level of labor force skills; 3) higher level of crime and 4) higher fraction from the population depending on the public social welfare.\textsuperscript{14}

### 2.3 Absence of a clear link between GDP and human quality of life (HDI)

The Human development index of Macedonia is 0.793 (see Tables 1 and 2), by which Macedonia is among the countries with medium level of development.\textsuperscript{15} According to the ranking, depending on the level of human development index, Macedonia holds the 60-eth place, out of 175 countries in the world in total.
The level of human development index shows that there is no automatic link between the growth of the income per capita (economic growth) and the level of human development - HDI (see Chart 3). Disparities between these two components are mainly a result of inequality in the distribution of benefits (income), respectively how and to what extend the generated income is converted into a quality of living. We say that the economic growth is successfully converted into quality of living if it generates higher level of employment, provides greater security of the population, makes possible for more equal distribution of income, makes possible for development of democracy and enchases human rights and freedoms.

### Table no. 1 - Components required for the calculation of HDI in Macedonia- 2002

<table>
<thead>
<tr>
<th>Country</th>
<th>Life expectancy</th>
<th>Adult literacy rate (%)</th>
<th>Gross enrollment rate for all three educational levels</th>
<th>Real GDP per capita (PPP $)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macedonia</td>
<td>73.05</td>
<td>96.0</td>
<td>70.0</td>
<td>6.470</td>
</tr>
</tbody>
</table>


### Table no. 2 - Human Development Index (HDI) of Macedonia for 2002

<table>
<thead>
<tr>
<th>Country</th>
<th>Life expectancy index</th>
<th>Completed education Index</th>
<th>Adjusted GDP per capita Index (PPPS)</th>
<th>HDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macedonia</td>
<td>0.810</td>
<td>0.870</td>
<td>0.700</td>
<td>0.793</td>
</tr>
</tbody>
</table>


Note: * data from the Human Development Report 2005, UNDP.
The HDI in Macedonia (0.793) is significantly differs from the average HDI of the highly developed countries (0.911) from two reasons: 1) the component – income, i.e. the real GDP per capita (PPP), indicates great differences between Macedonia (0.700) and highly developed countries (0.920). The average GDP per capita in Macedonia (6470 US$) is approximately 18.400 US$ lower that the one in the highly developed countries (24.904 US$) and imply serious limitation for human capital investments; 2) the component – knowledge, where the difference is rather significant. Namely, the index of acquired education (completed education index) in Macedonia is 0.870, while the average value of that index in the highly developed countries is 0.940. The gross rate of enrollment at all the three levels of education in Macedonia is 70%, while in the highly developed countries - 87%. This is another indicator about the importance of investments in human capital for the human development.

2.4 Access of individuals to the capital market and to information

The growth rate of investment in human capital depends on the model of economic growth and the distribution of private and public resources, which to a great extend are determined by the policy of the government. The state intervention may significantly contribute to mitigating the market failures which have a tendency to prevent investment of individuals in their human capital.

Individuals in Macedonia are faced with a particular problem which comes from the degree of openness to the capital market access and the information required implementing investments in human capital. Namely, the possibility of individuals to invest in their human capital is extremely reduced, primarily because of restricted supply of credits that might be used for such types of investments, as well as due to the high interest rates (usually exceeding 13%) which serve the general policy for maintaining macroeconomic stability with "expensive money". Data from the State Statistical Office show that Macedonian households spend 0.5% on education and 3.0% on health care of their children, out of the total available annual income, which in average is 193,778.00 denars (approximately 3.135 euros, or monthly approximately 216 euros).\(^{17}\)

The limited access to information is also reducing investments in human capital in Macedonia. Restricted flow of information especially affects poor and insufficiently educated individuals who most frequently are not aware at all about the benefits from the investment in human capital.

The state can stimulate private investments in human capital through relevant legislation aimed at free flow of information.

3. Conclusion

The investment in human capital means investment in the quality of life of future generations. Two basic concepts can be identified when the issue of investment in human capital is in focus: 1) the economic concept and 2) the human development concept.

The economic concept is closely linked with the investments in human capital which are mostly gained through education and on-the-job training. The future production capacity of the individuals and their contribution to growth of the income, according to this
concept, depends on the level of acquired human capital.

The concept of human development incorporates within itself the economic concept. It represents the process of increase of the choice of the people - in regard to the possibilities for leading a long and healthy life, being well educated and having a decent living standard - which is closely related to investments in human capital.

The main gaps identified in this paper regarding investment in human capital in Macedonia are the rising poverty and inequality in the country, inconsistent economic policy of the government, non-existence of relationship between growth of the GDP per capita and the quality of living and the difficulties to access to the capital market and to information.

Notes:
1. The Concept of basic needs is known by the three following characteristics:
   a) It puts a special emphasis on the income growth through development of labor intensive productions (this refers to countries with pronounced surplus of labor force);
   b) This concept puts the key role in the struggle for poverty reduction on the state. In this context, it gives emphasis to the following areas of special importance: mass education, healthy potable water, assistance in family planning and health care services; and
   c) The concept supports the idea for as greater participation of people as possible in the social developments, instead of passive acceptance of help from the state.
Therefore, it could be said that the basic idea of the concept of basic needs is: Income + Public Services + Participation.
3. Human capital is defined as a sum of production skills, talent and knowledge of the individual.
6. The Human Development Index is a measure of average achievements in basic human capabilities (human development). It is based on three components and is not exclusively focused on the economic wealth – as is the case with GDP. For more details regarding this see in: Jahan, Selim (2002): Measuring Human Development: Evolution of the Human Development Index, Oxford Training Course - 2002, UNDP and QEH.
7. Human Development Index estimation is carried out in three consecutive phases, where: The first phase reveals which of the three above-mentioned components: live expectancy (X₁), achieved education (X₂) and real GDP per capita (X₃) is scarce in the relevant country. For estimation of component indexes the following equation is used:
   \[ I_{ij} = \frac{(X_{ij} - \min X_{ij})}{(\max X_{ij} - \min X_{ij})} \]
   where Index \( I_{ij} \) is scare indicator for \( j \) - country in regard to \( i \) - variable, whereas, maximal and minimal component values are standardized and fixed for all countries. Scarcity of a particular component sets the country in range 0-1. Third component index estimation – income, is carried out with the equation:
   \[ W(y) = \frac{\log y - \log Y_{\text{max}} - \log y_{\text{min}}}{\log Y_{\text{max}} - \log y_{\text{min}}} \]
   In the second phase scarcity Index \( I_j \) is determined: \[ I_j = \sum_{i=1}^{3} I_{ij} \]
   In the third phase Human Development Index (HDI) is count.
8. Subventions of public companies (monopolies), and overstaffed public administration, amidst others, are included here.
9. 20.6% of the total expenditures of the central budget, i.e. 5.5% of the GDP, for the year 2005, are aimed for defense and public security.
11 Ibid.
15 According to UNDP methodology, the countries, depending on their human development index, are divided into three groups, such as:
   a) Countries with high human development - over 0.800 HDI,
   b) Countries with medium human development – from 0.500 to 0.800 HDI,
   c) Countries with low human development - below 0.500 HDI.

Bibliography

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