INTERDEPENDENCE OF HDI AND BUDGET REDISTRIBUTION WITHIN THE SCANDINAVIAN AND CONTINENTAL SOCIAL MODELS

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Abstract

The role of human capital is becoming more and more actual nowadays. The innovational economies require the certain level of its development and it becomes of primary importance to correspond to these requirements. The necessary level of human capital development puts forward the certain requirements to the social sphere supporting its progress. In its turn, the social sphere fully depends on GDP redistribution. The article considers the way of redistribution of taxes for social system funding and its impact on the human capital development. The research is performed within the Scandinavian and European Social Models.

The type of the article: Theoretical paper.

Keywords: human capital, social model, expenditures on education, expenditures on healthcare, human development index, income redistribution.

JEL Classification: O15.

1. Introduction

Research problem. The research problem has arisen from the fact of appearing the post-industrial innovative economics and new challenges the human resources should correspond to.

Innovation-driven economy presents brand new requirements for the human capital properties, especially such features as receptivity to new ideas, flexibility, creative approach towards the problem solving process, initiative, and ability to “participate” and to work in team, aptitude to be the leader. There is the process of creating a new type of employee, named as an innovation personality as a human capital structure-forming component. This personality has a high level of knowledge, and it is capable of generating and implementing the innovations.

The exact structure that determines the system of conditions for the human capital development is the social model, adopted in the society. Different social models, implemented in the economically developed countries, determine not only the social and economic fundamentals for the human capital development and reproduction, but the psychological aspects of this process also.

There is a tight connection between the level of the human capital development and the social model, adopted in the society. It happens so because the social model itself, the methods of financing the social processes, the social guarantees, the social system orientation and trend, the structure of this system have a great impact on both the human capital growth structure and the ways and directions of its development.

Any social system existing within the society is based on the government and individuals’ investment in this sphere. In their turn, governmental investments depend on the taxation system and capabilities of financing the social processes. Moreover, influencing the consumer spending directly and indirectly, fiscal policy adopted by the state has impact on the economic indicators, changing the level of Human Development Index.

The social systems are based on such fundamentals as GDP redistribution, social payments of employees and employers, and the ways of supporting members of society in need. The social
models adopted in the European countries, use different combinations of these factors, and as a result achieve different results in both human capital development and GDP redistribution.

**Research purpose.** The goal of this research is to analyse the factors of social models, responsible for the human capital development in the region; the state budget is responsible for financing the industries, important for HDI. The redistribution of state budget differs greatly in the countries with different adopted Social Models; as a result the impact of budget redistribution is different. The paper shows this impact on HDI.

**Research aims.** The paper investigates the principal factors of the social systems, their distinctions and the degree of their impact on the human capital development.

These factors are financed via state budget, and the paper analyses the ways of budget redistribution within the Scandinavian and Continental Social Models.

Since the budget depends on the fiscal policy, different types of this policy and their influence on HDI are considered.

**Research methods.** There have been implemented such methods as Qualitative Content Analysis, Statistical methods, Mathematical methods, Method of Grouping, Synthesis. These methods allow discovering the interdependencies and determining the impact of budget redistribution on HDI in different Social Models.

**Research results.** The obtained results allow stating that the state budget has a direct impact on the development of human capital via the taxes redistribution. The ways of funding the particular expenditures responsible for the human capitals growth have been revealed.

**Practical implementation.** Practical implementation of the obtained results is possible via adjustments of budget redistribution in the way having the most favourable impact on the human capital development.

### 2. Methods

#### Interrelations between the Human Capital Development and Macroeconomic Indicators

**Statistical Methods** The ordinary measure for the Human Capital development level is HDI (Human Development Index). There has been made an attempt to find out the correlations between the key macroeconomic indicators and this index. The index itself is an integrated indicator taking into account such factors as population prosperity level (GDP per capita), level of education (measured by Index of education, reflecting the level of education of adult population and level of education of children) and life expectancy. Nevertheless, not only these indicators have great influence on HDI, but a lot of other indicators as well (Korchagin, 2012). The data for years 1993-2007 for 21 European countries (European Statistical Bureau) have been used for processing with the software Statistics_6. As a result the correlation matrix has been obtained (see Figure 1). The HDI has been taken as a dependent variable, and all other factors were supposed to be the independent ones.

**Social Policy in European Countries: Contemporary Stage**

**Method of Content Analysis** The qualitative content analysis has been used for revealing the contemporary tendencies in the development of social policy in European countries. Both classical authors and modern researchers, working in the area of social policies and human capital development, have been included in the process of analysing the data.

The data of the state budgets of European countries have been used for deriving the peculiarities of contemporary procedure of funding the social processes in these countries.

**Social Model and the Human Capital Development**

Such methods as analysis, synthesis and qualitative content analysis have been employed for
determining the types of social models adopted within the European countries. These methods allowed to organise the information about different characteristics of European social models in the table (see Table 1).

**Income of State Budget and Human Capital Development**

Analysis, synthesis and qualitative content analysis allowed revealing the factors of the macro economic development of the national economy conformable to the certain type of fiscal policy. The figures (see Figure 2 and Figure 3) demonstrate the results of analytical processing the data on different types of fiscal policies and their impact on Human Development Index within the country.

**Dependencies between Budget and Human Capital Development Index**

*Mathematical Methods and Method of Grouping.* For discovering the dependencies between the budget expenditures and the human capital development index the average HDI (Human Development Index) for all four models adopted by European countries have been calculated and demonstrated in Table 2. Anglo-Saxon model is used in the United Kingdom and Ireland, Scandinavian – in Sweden, Norway, Denmark, Finland and Iceland, and Catholic model – in Spain, Portugal and Italy. The Continental model is used in very many countries, and some of these countries, being in their essence the economies in the process of transition to the new economic formation, have rather low level of economic development. No formal method for clustering these countries was employed, and the countries were divided into two groups – well-developed ones and less-developed ones – only according to their GDP per capita. So, several countries being the new members of the European Union still have rather high GDP per capita. As a result, the following groups were done for the further processing: Group I (Continental I) – France, Germany, the Netherlands, Czech Republic, Poland and Group II (Continental II) – Estonia, Lithuania, Latvia and Hungary. This division was proven in the other researches (Popova, 2008, Popova, 2011, Stetjuha, Popova, 2011, Strelchonok, Popova, 2012).

Then two models have been chosen for the further processing: the countries with the Scandinavian social model demonstrate the highest index value; nevertheless, the countries of the Baltic region, representing the focus interest for the authors of the article, adopt the Continental social model. It is the reason for selecting these two models for further comparison.

**Budget Investments in the Social Sphere and Human Capital Development**

*Method of Grouping.* It has been proven that the social expenditures have the significant impact on the Human Capital development. Tables 3 and 4 demonstrate the expenditures on Education, R&D, healthcare system, poverty prevention and social protection of population. There are two models represented in the tables, Scandinavian and Continental ones. Moreover, the Continental model has been subdivided into the countries with high economic development (Continental I) and rather low economic development Continental II). The expenditures are shown in two forms – as a percentage of GDP and in money terms, in PPS per capita.

**Budget Investments in the Social Sphere and the Returns**

The content analysis has been employed for discovering the returns from the investments in social sphere.
3. Results

**Interrelations between the Human Capital Development and Macroeconomic Indicators**

![Table 1. Correlations between HDI and macroeconomic factors](image)

**Figure 1.** Correlations between HDI and macroeconomic factors.

The indicators, directly involved in HDI calculation (GDP per capita in PPS, the level of population education, the level of the life expectancy), are not taken into account in this investigation. Therefore, the Human Development Index correlates with the existing level of poverty in the country by 0.84, with the level of employment by 0.77, with the level of tax burden by 0.86, with the governmental expenditures on the social protection of the country population by 0.97. The level of correlation with the volume of investments in innovation development, R&D and new technologies is also rather high; it is 0.80.

Consequently, the development of these indicators will facilitate substantially the development of HDI.

**Social Policy in European Countries: Contemporary Stage**

Formation of contemporary social policy within the well developed European countries started in the 60es of the XX century. The most suitable explanation of this fact lies in the area of high dynamics of transformation of economic and social structure, taking place under the influence of technological revolution and change in labour organisation. Knowledge and professional qualification of employee turned to be the key principle factor of production; this fact was supported by the development of such theories, as Human Capital Theory, Quality of Life Theory, Quality of Working Life Theory. All these theories are of great importance for any contemporary research, dealing with human capital development or arrangement the production efficiency issue (Popova Y. (2008)). They also determine the social model adopted in the certain society. Social model is the structure of arrangement of the social and economic relationships, adopted within the country.

The nature of governmental social policy under the condition of well-developed industrial society is changing; this idea belongs to Finnish scientist Pekka Kuusi (Kuusi, 1985).

According to him, nowadays the social policy is oriented on supporting the whole nation and, as a result, is supposed to be the national patrimony, while the decades ago its target was defence of weak, poor and needy.

And it is really so – the model of the state with well-developed system of social defence of population is in the process of evolution, and it is in transition to the model of high-level quality of...
population life state. The whole range of countries has proclaimed in their Constitutions that these
countries are the social states, or the Welfare States. The scientists interpret these categories from
the position of government implementing the complete complex of social and defensive functions,
and responsibility of government for providing the principal social needs of the country residents
including the creation of favourable conditions for developing the civil society (Webster’s Desk

There are also scientists who determine the category of Welfare State from the position of
rational, fair and equitable distribution and ensuring prosperity of every member of society; while
the concept of “social state” is considered as a democratic state under the rule of law providing the
powerful social policy and developing the national social market economy; this economy is oriented
on the stable support of high living standards and society high level of population employment
(Fomina, 1995). It also ensures the implementation of rights and freedoms for all citizens; this
economy establishes the modern and available for all residents systems of education, health-care,
culture, social support, provision and servicing, help to poor, weak and needy people within the
state (Social State, 2002).

The analysis of existing economic indicators of the social models of the state in the well-
developed countries demonstrates that the government fundamental functions comprise regulation
of the incomes of population and generation of the prerequisites for high living standards. The
established characteristics of the social model of the state comprise the following components:
- High expenses of the society on the employees’ compensation (about 40-60% of GDP);
- Well-balanced system of the incomes of population, allowing preventing their high
differentiation (not more than 1 to 10 for the marginal quintile groups);
- Well-developed system of social defence; the government expenses on social system are
not below the level of 20-25% of GDP;
- The sufficient share of social expenses in the government budget is directed on supporting
the health care system (about 7-9% of GDP) and education (about 4-6% of GDP).

The peculiarities of social policy implemented in the well-developed industrial countries
consist in the fact that it is oriented not only on defence of the individual from the social risks (loss
of income due to disease, disability or old age) but mostly on prevention of the sharp material or
social inequity. Its target is provision of the high level of social support and help to the population
in need, as well as securing the availability of high-quality healthcare system and education system.

The latest decades the list of social functions provided by the government, has significantly
increased due to such social services as employment provision, social patronage (regular home
visits by nurse), arranging the life environment for the disabled people, implementation of the
programmes of rehabilitation for certain social groups, governmental programmes of support and
establishing the necessary conditions for certain categories of population and regions (Krasnova,
2000).

The government employs the budget for financing the social programmes as well as it does its
best for developing the institutes of compulsory and voluntary social insurance and individual
insurance; it becomes the central subject of implementing the social functions in society.

**Social Model and the Human Capital Development**

There are four principal types of the social models on the area of the European Union. They
are as follows:
- Scandinavian model; its fundamental principle is egalitarianism, the social benefits are
distributed between all the members of society on the fundamental of equality;
- Anglo-Saxon, or Liberal model supposes the provision of social benefits to all who are in
need via the state system of welfare, while the main part of the population of the country
accumulate the social funds;
• Continental, or European, or Bismarck model assumes that the social support is given to those who have already been represented on the Labour Market, and it fully depends on the social accumulation of this exact person;

• Mediterranean or Catholic Model is based on the principle that the family has the main role in supporting its socially unprotected members.

The Table 1 below summarizes the main features of the presented models.

<table>
<thead>
<tr>
<th></th>
<th>Scandinavian Model</th>
<th>Anglo-Saxon Model</th>
<th>Bismarck Model</th>
<th>Mediterranean Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expenses on social support</td>
<td>High</td>
<td>High, the taxpayers ask the decrease in taxation burden</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Employment</td>
<td>High, stimulated by the government</td>
<td>High</td>
<td>High, the part-time employment is widely spread</td>
<td>Low, the majority of women do not work</td>
</tr>
<tr>
<td>Principle source of financing</td>
<td>Government and local authorities; taxation re-distributing</td>
<td>Government for unemployed taxes re-distribution, while the social insurance for employed people</td>
<td>Market; the social insurance</td>
<td>Market; local authorities; family support; self-support.</td>
</tr>
<tr>
<td>Level of poverty</td>
<td>Low</td>
<td>Moderate</td>
<td>Moderate</td>
<td>High</td>
</tr>
<tr>
<td>Re-distribution</td>
<td>High</td>
<td>High</td>
<td>Moderate</td>
<td>Low</td>
</tr>
<tr>
<td>Private provision of social support</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

The table is based on Grigorieva, 2008; Popova, 2008.

According to the opinion of numerous researchers, there are many factors of the social models, which provide the success of the definite model in the certain region. In the meantime, the classics of the human capital theory have determined the whole range of the factors, which have the paramount importance for the human capital development (Becker, 1964, Kendrick, 1974, Shultz, 1968, Shultz, 1971). Thus, the social systems are determined primarily by the ability of the government and population to ensure and secure the existence of the certain standard of living in the country, and this standard is to stimulate the economic growth, that is possible only in case if the population have the incentives to self-development. Thereby, the social model is to provide the population with the opportunity not to survive only but also to have the stimuli for the extended reproduction. To support this function the population has to have the certain level of disposable income, the social protection in case of this income decline, as well as the possibilities for social and professional development. At the same time, the human capital advance supposes the creation of conditions within the country, and these conditions are to promote the increment in life expectancy, including healthy years of life increase, when the person is capable of working for the benefit of the society. Then there should be the material protection of the society members, since the physiological needs of people are always prior, and they are to be satisfied on the certain high level. Another condition is arrangement of possibilities for intellectual development of all members of society since the contemporary economic-driven societies put forward this requirement for the human capital. One more demand is enhancement of economic and democratic freedom allowing all members of society to show the best skills, knowledge and characteristics. Then the last but not least there is a demand to support the ecologic protection as a factor having a huge impact on the human health.

Apparently, there are certain factors which are significant for the human capital development and for the social policy. These factors are as follows: level of wellbeing within the country (via the
indicator of GDP per capita, in PPS), level of employment, level of society stratification (Gini coefficient and quintile coefficient), investments in education and science and in healthcare system (both % of GDP and expenditures per capita in money terms, in PPS), labour productivity (via index of Labour Productivity), etc.

Since the same factors are responsible for the social system indicators and for human capital development, there is a logical conclusion about the importance of state budget for the human capital development.

**Income of State Budget and Human Capital Development**

Accordingly, the problem of raising funds for the state budget becomes one of the primary ones for the human capital development. The problem of raising funds for the budget is closely connected with the type of fiscal policy adopted within the certain country. Nevertheless, it is possible to group the countries according to certain formal characteristics.

An increment of the government budget always means some degree of tightening the fiscal policy, which, as a rule, results in frustration of population (Grekoff, 2012). It has a poor influence on the existing democratic freedom, decreases the level of economic freedom, and changes the balance and coherence in the society. Certainly it is naturally has a negative impact on the human capital development, since these mentioned components determine the level of human capital in the region. Consequently, the restrictive tightening fiscal policy is to result in increase in direct investments in the human capital on the one hand, and on the other, it will indirectly decrease the level of human capital via the indices responsible for different kinds of freedom in the country. The final conclusive and definitive impact of this type of fiscal policy on the human capital development depends on the balance between direct and indirect components of this influence.

**Figure 2. Influence of restrictive fiscal policy on HDI**
In its turn, the fiscal policy liberalization will affect in an opposite way (Grekoff, 2012). It will increase the human capital indirectly and decrease it in a direct way.

![Diagram of Fiscal Policy and HDI](image)

**Figure 3.** Influence of fiscal policy liberalisation on HDI

And the final ultimate impact is again not unambiguous. The situation in every country requires the precise accurate analysis including the procedure of assessment of all components of the fiscal policy and the result of their implementation and their reflection on the human capital development.

Accordingly, it is important to distinguish the point in setting the fiscal policy, which allows maximum increment of the human capital within the country. It is not possible to work out the recommendations common and actual for all countries, since every country has its own approach towards the business and own system of social needs provision. Consequently, this approach, existing in the country, predetermines the degree of fiscal policy tightening.

The countries with liberal fiscal policy redistribute the national income in favour of the business subjects. In this situation businesses have the principal burden of financing the healthcare and education within the country, and government ought to have possibilities to increase the national debt by either inner or external resources. This type of policy can be applied in the country where the minor businesses are developed or there are all necessary conditions for their rapid successful development. The minor business adapts quickly to the altering market conditions, it is not so subjected to the effects of global economic markets, less mobile in terms of changing the country and the capital is not subjected to changing the country either. Moreover, to provide the process of fiscal policy liberalization the country should have rather high level of tax burden, or in other words, to have enough reserve for lowering the tax rates. In case the taxation is minimal, the
government has no possibility to provide this type of policy.

If the government has an intention to follow the tightening (restrictive) fiscal policy, the national income is redistributed in favour of the government, and accordingly the principal burden of provision the population with social protection or social benefits lies on the government. This process ought to be more efficient than these industries financing by business sector. So it is implied that the government is to be not only strong enough, but also just and fair and provide the just redistribution of the national income via the social sector. This type of policy is good for the markets with high degree of monopolization and with poor conditions for development of minor businesses and poorly developed ones. It is also employed by the countries with high possibility of capital outflow.

Tightening the fiscal policy will have the most important influence on big business, while the minor businesses suffer in minimal degree. Moreover, in case of employing the policy of liberalization on such market with big businesses existence the most easing the restrictions will be done for big businesses and minor businesses will practically not feel the effects of this liberalization, and it will have impact on part of the national economy but not the whole country. Then, the policy of taxation tightening can be good for the countries, which have no additional sources for the national debt increment. In this case the process of tightening the taxation system and decreasing the government expenditures is the only way of raising funds for financing the social sphere and providing other functions of government and state.

This policy can be employed in countries where the level of tax burden is very low, and an increase of taxation burden is the only method to change the situation within the country. If the level of taxation is too low, the taxes lose their function of economy regulator.

The choice of the following fiscal policy cannot be referred to the social model. Every country chooses its own way of the problem solution. Nevertheless, it is necessary to remember that the high level of income redistribution via taxation system facilitates and promotes the development of human capital (Burkhanoff, 2006).

**Dependencies between Budget and Human Capital Development Index**

The research under consideration deals with the average HDI for every social model adopted within the countries and taxes redistribution employed in these countries.

The tax burden within the countries with Scandinavian social model is very high, in case with people and businesses with high income the tax burden significantly exceeds the limits determined by Laffer (Laffer, 2009). Nevertheless, the results of this restrictive fiscal policy are very favourable for the human capital development in these countries. The HDI proves this idea (see Table 2).

The countries with rather low economic development keeping to the Continental social model try to follow this way. For example, Latvia has increased the value added tax, income tax from the enterprises, social insurance payments for the population. However, the result of this activity is not positive for the human capital development (see Table 2).

**Table 2. Average Human Development Indices**

<table>
<thead>
<tr>
<th></th>
<th>Anglo-Saxon model</th>
<th>Continental model</th>
<th>Scandinavian model</th>
<th>Catholic model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average HDI</td>
<td>0.956</td>
<td>0.911</td>
<td>0.963</td>
<td>0.938</td>
</tr>
</tbody>
</table>

The highest index value is demonstrated by the countries, representing the Scandinavian model. At the same time, the countries of the Baltic region, representing the focus interest for the authors of the article, adopt the Continental social model. It is the reason for selecting these two models for further comparison.
Budget Investments in the Social Sphere and Human Capital Development

Table 3 demonstrates that the measure in GDP percentage does not show the real situation. For example, the percent of GDP spent on Education, is higher in the Continental model II, in countries with rather low economic development than in Continental I (5.471 and 5.175, respectively). However, in money term the sum spent in well-developed countries is more than twice higher than in Hungary, Estonia, Lithuania and Latvia.

Table 3. Expenditures on Education and R&D within Scandinavian and Continental models (% of GDP and mln. PPS)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Model</th>
<th>Scandinavian</th>
<th>Continental (total)</th>
<th>Continental I</th>
<th>Continental II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education, %GDP</td>
<td>7.04</td>
<td>5.282</td>
<td>5.175</td>
<td>5.471</td>
<td></td>
</tr>
<tr>
<td>Education, PPS</td>
<td>1923.53</td>
<td>927.81</td>
<td>1165.11</td>
<td>512.55</td>
<td></td>
</tr>
<tr>
<td>R&amp;D, %GDP</td>
<td>2.549</td>
<td>1.473</td>
<td>1.879</td>
<td>0.763</td>
<td></td>
</tr>
<tr>
<td>R&amp;D, PPS</td>
<td>690</td>
<td>317.37</td>
<td>452.86</td>
<td>80.26</td>
<td></td>
</tr>
</tbody>
</table>

The expenditures on R&D manifest the readiness of the countries to invest in the knowledge-based economy and it seems to be natural that countries basing their economic growth on science-intensive technologies invest in this sphere. Nevertheless, the countries of group II spend on science 8.6 times less than the Scandinavian countries. It is also apparent that a high level of development of human capital is no less important than other components of the economy. The best example to demonstrate this idea is Finland. This country directed the main funds in investment in human capital, and this allowed the country to gain one of the highest positions in the world economic ratings. Consequently, there is good experience of investing funds in human capital, but not directly in the economy. These investments can bring a higher level of development, and permit real breakthroughs in different spheres, including different branches of economy.

Table 4 demonstrates the expenditures for healthcare system per capita in PPS (unfortunately, there are data available only starting from year 2003 in Eurostat (European Statistical Bureau)), expenditure for poverty overcoming per capita in PPS (information starting from year 1997, (European Statistical Bureau)) and expenditures for social protection per capita in PPS (information starting from year 1997, European Statistical Bureau).

Table 4. Expenditures on healthcare system, poverty overcoming and social protection within Scandinavian and Continental models (mln. PPS)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Model</th>
<th>Scandinavian</th>
<th>Continental (total)</th>
<th>Continental I</th>
<th>Continental II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health, PPS</td>
<td>2713.25</td>
<td>1993.59</td>
<td>2376.7</td>
<td>1323.14</td>
<td></td>
</tr>
<tr>
<td>Poverty, PPS</td>
<td>178.31</td>
<td>84.84</td>
<td>121.06</td>
<td>21.44</td>
<td></td>
</tr>
<tr>
<td>Social protection</td>
<td>70965.81</td>
<td>10436.31</td>
<td>15488.66</td>
<td>1594.7</td>
<td></td>
</tr>
</tbody>
</table>

The table demonstrates that the level of investments in these spheres cannot be even compared between the countries presenting the Scandinavian model and countries, presenting the Continental model, especially if we take into consideration the countries of group II. The expenditures for health care system is more than twice higher in the Scandinavian model than in Continental II, the expenses for fighting poverty are higher in Scandinavian countries by 8.32 times than in countries of Continental II and for social protection – by 44.5 times. The situation with well-developed countries of group I is a bit better and the difference is not so significant, but is still great: Scandinavian expenses for health are higher than expenses of Continental II group by 1.14 times only, but for fighting poverty by 1.47 times, and for social protection – by 4.58 times. It is obvious that the Scandinavian countries spend much more for the areas responsible for the human capital development. The priorities are absolutely different. It is reasonable from the position of...
In this case we consider the same. It is possible to speak about the interdependence between

The Economist, 2007) by the fact of absence of the correlation between

an Capital Development would be much higher, proving the

y investments for countries with

developing the human capital

an economy.

Budget for the spheres de

rather low economic development is still very problematic, since they have a lot of

well developed European countries, without any reference to the adopted social system, realise this

low standard of living)
support (because of the chosen social model) and low level of personal savings (consequences of

prepared for the pension from the very first year of working activity), low level of governmental

funds since they lived in the Soviet Union, moreover, there is n

post

funds, employment becomes the most influential factor in the country. It is the situation the Baltic

countries have found themselves in. The government has chosen to follow the Continental model,

but population has rather low level of accumulated social funds (it is the consequence of being the

post-soviet country – the part of population, reached the pension age, have no accumulated social

funds since they lived in the Soviet Union, moreover, there is no tradition in these countries to get

prepared for the pension from the very first year of working activity), low level of governmental

support (because of the chosen social model) and low level of personal savings (consequences of

low standard of living) become the prerequisites for great impact of employment. In these countries

work is the only way to survive.

If the social provision was on the level of well developed countries of the same Continental

model, it is possible to assume, the indices of Human Capital Development would be much higher,

the living standards would be improved and the countries would at last reach the level of well-

developed countries.

**Budget Investments in the Social Sphere and the Returns**

The impact of financing the social sphere on human capital development is indisputable. The

well developed European countries, without any reference to the adopted social system, realise this

and are ready to invest in this area. However, the issue of heavy investments for countries with

rather low economic development is still very problematic, since they have a lot of areas demanding

the investments, and every country determines the priorities itself.

Nevertheless, there is a powerful argument in favour of financing the social sphere and not

only for the human capital development. It is possible to speak about the interdependence between

the investments in human capital and the development of national economy. The expenditures of

budget for the spheres developing the human capital facilitate the development of other areas of

national economy. By all means these expenditures achieve the target not at the same moment but

after several years, and only then they are capable of influencing the human capital, improving the

situation with human education, health and employing the human rights. This fact allows assuming

that the above-mentioned investments have indirect impact on macro indicators and with the certain

time lag. The existence of this time lag is proven by the fact of absence of the correlation between

these investments and macro indicators in the same span of time (Stetjuha, Popova, 2011). Nevertheless, it is logical to assume that there ought to be the interdependence between such
indicators as level of poverty, disposable income, labour efficiency and investments in education or healthcare. The research (Stetjuha, Popova, 2011) demonstrates the existence of this interdependence but with certain time lag.

According to this research, the social protection affects Gini coefficient with the time lag of 10-8 years, but there is no dependence between these investments and the quintile coefficient. It means that the funds invested in the social protection sphere improve the differentiation of monetary income of population after 8-10 years. Gini coefficient is used as a degree of deviation of actual income stratification from equal distribution of income among the population of the country. These funds moderate the degree of the social stratification in monetary income in general, but at the same time, they do not change the actual situation in the groups with the highest and the lowest incomes within the country.

The level of households’ consumption depends on the investments in education with time lag of 3-9 years (Stetjuha, Popova, 2011). The interdependence between the budget expenses on education and such component of aggregate demand as consumption of households is quite explainable. The households will always invest in education, considering it to be the investment in the future incomes. The part of this investment is done by the government, and the higher is the level of government investment in education, the bigger part of the households disposable income will be spent on consumption of goods or services but not on investment in education. It is supposed to be interesting that the impact of the government investments in education is prolonged, and allows the households to immobilize the funds from the investments in education and consume more goods and services, increasing indirectly the GDP.

It is interesting this interdependence does not exist in such countries as Germany and Czech Republic (both countries belong to group II of Continental model). The level of governmental financing of education in these countries is traditionally very high. The higher education is offered to the population and it is financed by the government structures. The same situation happens to the secondary education. Therefore, the population of these countries traditionally do not plan any increase in their expenditures for education and relies on the government in this sphere.

Another logical assumption concerns the impact of budget expenditures on education on Disposable Income of population and GDP, since they influence consumption. This assumption is also supported, these expenditures influence the macro indicators with time lag 3-8 years (Stetjuha, Popova, 2011), promoting and facilitating the economic growth.

It means, if the countries of group II invest more in, at least, social protection and in education, they will benefit the facilitated economic growth in the nearest future.

4. Conclusion

1. The paper presents correlation matrix between the macro factors important for the social model and responsible for HDI; the factors with correlation more than 0.7 are considered for the further analysis

2. The paper considers the social systems of the European countries; the changed paradigm shows that the social policy is mostly oriented on supporting the whole nation and, as a result, is supposed to be the national patrimony, while the decades ago its target was defence of weak, poor and needy.

3. The paper presents the short summary of fundamentals of four social models functioning in the European Union.

4. The analysis of existing economic indicators of the social models demonstrates that the government fundamental functions comprise regulation of the incomes of population and generation of the prerequisites for high living standards. If it is so, the budget and state income redistribution have serious impact on HDI. The paper shows the dependence between the type of fiscal policy within the state and the level of HDI.

5. The results of analysis show that the uniformed approach to the way of funding the social spheres – the percentage of GDP – does not work in the countries with less-developed
national economy and with Continental social model. The financing of these areas is substantially lower in these countries compared to the countries with Scandinavian model.

6. The increased financing of social sphere has impact not only on HDI but also on national economy and level of society stratification in the nearest future.

5. Discussion

The goal of this research is the analysis of the interdependencies between the human capital development shown via HDI and budget expenditures on social sphere.

The paper investigates the principal factors of the social systems responsible for the human capital development in the region and influencing HDI. Moreover, there is also considered the indirect influence of investments in the social sphere on the national economy in general, not only on HDI.

The European countries are grouped in accordance with the fundamental of the social model functioning on their territory. There are also cardinal factors of grouped countries under consideration in this paper.

The research demonstrates the high degree of correlation of the social policy and indices, participating in the HDI calculations. Consequently, all the expenses on the social policy, implemented by the government, promote the development and extended growth of the human capital.

The research shows the contemporary stage of the social policies and the shift of their focus from supporting only poor and needed to the whole nation; this fact facilitates the development of human capital. Moreover, there have been discussed the basic values determining the high level of HDI in the region.

The paper considers the conditions which are supposed to be necessary for implementing the definite type of fiscal policy, oriented on the development of the human capital of the region.

There is also apparent evidence that the budget expenditure demonstrated in the form of GDP percentage do not present the vivid picture; for real analysis it is necessary to present the budget expenditures in the money term.

The research under consideration reviews the time lag between the investments in the social spheres and the return from these investments as a main reason of impossibility of determining the probably significant importance of these expenditures. It means, this type of budget expenditures provide not only the human capital development but also the indirect facilitation of the national economy.

The type of social model adopted within the country, has a cardinal influence on HDI. The most favourable for HDI growth is Scandinavian model. This research result has special importance for the countries with Continental social model and low level of economic development: changing the way of budget redistribution can facilitate the development of human capital and national economy and decrease the level of society stratification.

References


