Structural and Cohesion Funds-projects of Regional Development of EU

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The regional policy of the European Union provides a framework for financing a wide range of projects and investments with the aim of enhancing economic growth in the EU member states and their regions. The three main objectives of the EU's regional policy are: convergence, regional competitiveness and employment, and the European territorial cooperation. Regional policy is implemented through three funds. These are the European Regional Development Fund (ERDF), the European Social Fund (ESF) and the Cohesion Fund.

1. Introduction

The Union makes constant advances in economic integrations, nevertheless, the problems related to regional disparities have not changed significantly. The richest country, Luxembourg, is about seven times as rich as the poorest countries in the European Union, Romania and Bulgaria. This is especially evident in the levels of the social product and uneployment in certan EU regions. The differences among the member states on the level of macroeconomic indicators are certainly big, however, it can be asserted that the disparities in the economic development within certain member states are even bigger. This gap has even spread upon the enlargement of the EU so that these differences have become even more dramatic in the EU-27 in comparison with the EU-15. The regional policy of the European Union is the most important tool used to achieve the so-called cohesion and it means adjustment to new trends and massive restructurings (the development of infrastructure, reduction of unemployment, incentives to industry and all forms of activities) in order to improve the competitiveness of a local economy and thus mitigate the inequalities in the development of the European Union regions. This policy is conducted by financial resources allocated from the European Union budget, through structural funds and the Cohesian fund and consumes one third of the Union budget. The EU common regional policy is not meant to replace national regional policies of the member states since member states have to solve the problems of underdevelopement of their regions by developing infrastructure and attracting investments intended to increase employment in their underdeveloped regions. In conceiving their national regional policies, the member states of the EU are free to build the national regional policy model and select the instruments, institutions and measures.

2. Structural funds and the cohesion fund

Structural funds and the Cohesion fund are part of the European Union regional policy. They are meant to reduce the gap in the development between the richer and the poorer EU member states and regions and to promote economic, social and territorial cohesion. In the financial perspective for the 2007-2013 period, the value of these resources amounts to 348 billion euros, which makes 35% of the total EU budget and is the second largest item in the budget. The status of a structural fund in the 2007-2013 financial perspective was granted to the *European Regional Development Fund* – ERDF, and the *European Social Fund* – ESF. Until 2007, this status was also enjoyed by the *Financial Instrument for Fisheries Guidance* – FIFG and the *European Agricultural Guidance and Guarantee Fund* – EAGGF.

The ERDF was established in 1975, and was meant to aid strengthening the economic and social cohesion through diminishing the differences in the development levels among the regions within the European Union. The fund supports its users through investments into companies (especially small and medium-sized enterprises), investments into infrastructure (research and innovations, telecommunications, energy and transport), and through financial instruments (funds for local development) and the technical support measures. The ESP was founded in 1958, to finance measures to increase employment in the EU member states and regions, especially in less developed ones. The fund resources are allocated to employees and companies adjustments, planning and expanding innovative work organizations, facilitating access to employment and labour market, socail inclusion and non-discrimination in the labour market, stregthening of human capital and development of institutional capacities and improving efficiency of the public administration at the state, regional, as well as local levels.

The Cohesion fund, established in 1993, is meant to support the economy of solidarity in the EU. The beneficiaries of this fund are the member states whose GDP is less than 90% of the EU average. The fund grants financial aid to projects in the fields such as environmental protection and the development of transportation infrastructure. Until the fifth round of enlargement, the beneficiaries of this fund were Greece, Ireland, Portugal and Spain. After the sixth round of enlargement (years 2005/2007), the following states are the beneficiaries: Bulgaria, the Czech Republic, Estonia, Greece, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Portugal, Slovakia, Slovenia, and Romania. In the 2007-2013 financial perspective, financial means from the structural funds and the Cohesion funs are allocated in accordance with the three new goals of the regional policy: goal 1 – convergence/coming together (ERDF, ESF and the Cohesion Fund; goal 2 – regional competitiveness and employment (ERDF and ESF); and goal 3 – territorial cooperation (ERDF). [1]

Convergence means efforts in promoting the conditions for improving growth and factors leading to the real convergence of the poorest developed member states and reagions. Among the 27 member countries, this goal is set for 84 regions in 18 member states. The total number of population in these regions is 154 millions (31% of the EU27), and per capita GDP is lower than the 75% the average in the Union. This goal also includes, and this is in a gradual withdrowal phase, 16 more regions with the total population of 16.4 million and an GDP slightly higher than the defined treshhold, due to the statistical effect resulting from the enlargement of the European Union. The sum available to achieve the convergence goal amounts to 282.8 billion euros, which makes 81.5% of the total means to be allocated to regional policies.

Regional competitiveness and employment contribute to boosting competition, attractiveness and employment in two ways. First, development programmes help regions predict and promote economic changes through innovations and promotion of the knowledge society, entrepreneurship and environmental protection as well as make them more readily available. Second, more quality jobs will be supported by adjusting the labour force and investing into human resources. The criteria for grants meant for the achievement of this goal are met by 168 regions with a total of 314 million inhabitants. A total of €55 billion is allocated for the purposes of achieving the goal of regional competitiveness.

The European territorial collaboration is meant to strengthen the crossboundary collaboration through common local and regional initiatives, to strengthen the transnational cooperation oriented to an integrated territorial development, as well as to promote interregional collaboration and exchange of experiences. The population living in border regions amounts to 181.7 million (37.5% of the total EU population). The total of € 8.7 billion (2.44% of the total amount) meant for the purposes of achieving this goal are distributed in the following way: € 6.44 billion for cross-border programmes, € 1.83 billion for transnational programmes, and € 445 million for interregional collaboration.

The regional policy of the EU is implemented in achieving these three basic goals employing the financial resources from structural funds and the Cohesion Fund through projects and programmes.

3. Institutional framework of regional policy implementation

There is a large number of bodies included in the decision-making procedure and the regional policy implementation. The legislative authority is assigned to the Council of the EU and the European Parliament and they make decisions during a consent granting procedure. The Regional Development Agency of the European Union has competence over any issues within this policy. The right to propose new laws in this area is an exclusive authority of the European Commission, where an important position is the position of the Director General for regional policy. In preparing its proposition, the Commission consults the member states. Very important in decision making in this area is the Regional Comittee whom the Concil and the Commission consult in cases stipulated by this contarct and also in any other cases when one of the two bodies finds it necessary, and especially as regards the issues of cross border collaboration. Each member state is obliged to devise its *National Strategic Reference Framework* – NSRF. In it, each of them define their national strategies in this field and propose all the operations programmes they desire to conduct on their territories. In order to facilitate this process, the European Commission has prepared the Strategic Guidelines on Cohesion, for the purpose of adjusting the project goals to the European Union priorities and of inciting the development of entrepreneurship and innovations, knowledge-based economy and creating as many as possible quality jobs. The states and regions included in this convergence goals are obliged to allocate 60% expenditures to the priorities arising from the European Union growth and employment strategy. In case of the states and regions included in the competitiveness and employment goals this percentage amounts to 75%. The European commission adopted about 450 operations programmes for the 2007-2013 period. Both social and economic partners, as well as civil sector organizations participate in these operational programmes programming and management. On

the level of the operations programme, the member states are obliged to define certain amounts of co-financing. Then the Commission makes a decision which operations programmes they will approve of. In the course of the programme implementation its task is also to supervise the programme activities carried out. Upon the completion of the programme, the member states are obliged to submit reports to the Commission, and it is on the basis of these reports that the Commission reports to the European Parliament, the Council, the Committe for Economic and Social affairs and the Regional Committee on the progress achieved in gaining economic and social cohesion as well as on the manner in which the resources stipulated in this article contributed to it. If necessary, the report is accompanied by appropriate propositions [2]. Before it accesses the European Union, the candidate state is obliged to define appropriate statistical territorial units following the classification implemented by the European Union. The classification of statistical regions is performed following the NUTS methodology (French: Nomenclature des unités territoriales statistiques – NUTS), stipulated in the Union Decree No. 1059/2003 of the European Parliament and the council on adopting the common classification of territorial units for statistic purposes. On accessing the European Union, the statistical classification is officially recognized as NUTS regions of a new member state and, in accordance with the above quoted regulation, member states are not allowed to change the existing classification over the next three year period. The present classification on the territory of each member state specifies three basic levels, NUTS I, NUTS II, and NUTS III. Each territorial unit in the NUTS classification has a specific code and title, hence the territorial units on the same level in one country cannot be assigned the same title. The starting criterion in establishing the NUTS classification are the existing administrative units. In case there are no appropriate administrative units for a certain NUTS level, the NUTS level constitutes by joining a required number of smaller territorial units, also taking into account other relevant criteria such as geographical, socio-economical, historical and geopolitical circumstances, cultural and natural conditions. [3]

Category	Smallest number of population	Biggest number of population
NUTS I	3.000.000	7.000.000
NUTS II	800.000	3.000.000
NUTS III	150.000	800.000

Table 1 – *NUTS classification of regions*

NUTS regions are therefore the statistical-economic regions that make the basis for the European Union regional development policy planning and implementation and the NUTS classification absolutely supports the totality of a state. On the basis of the data collected on this level it is possible to satisfy the general and common needs of the population of one region, whether it is the construction of roads, the educational or health care institutions, cultural institutions and anything dealing with the progress of a region and the improvement in the quality of life of the citizens. It is in this manner that the region is in a position to satisfy its general needs, however, adjusted to the ovarall interests expressed on the state level.

4. Cost-benefit analysis of the project

While the member states are responsible for the previous assessment, the task of the EU Commission is to analyse the quality of the mentioned assessment in order that it should accept to co-finance the proposed project and determine the co-financing rate. The regulations of the cohesive policy of the EU requres the cost-benefit analysis (CBA) to be conducted for all the major projects financed by the funds. In order that a uniform quality of the project propositions be ensured, the European Commission has published specific guidelines for the cost-benefit analysis of investment projects financed by these funds. The document on the basis of which the project evaluation is carried out is structured into six parts: 1) Context and goal analysis; 2) Project identification; 3) Feasibility and option analysis; 4) Financial analysis; 5) Economic analysis; 6) Risk assessment. [4]

Figure 1 shows that in case of the financial profitability of the project, the EU does not provide financial aid. It also shows that economic analysis is of predominant importance for project acceptance, hence it will be paid special attention to in this paper.

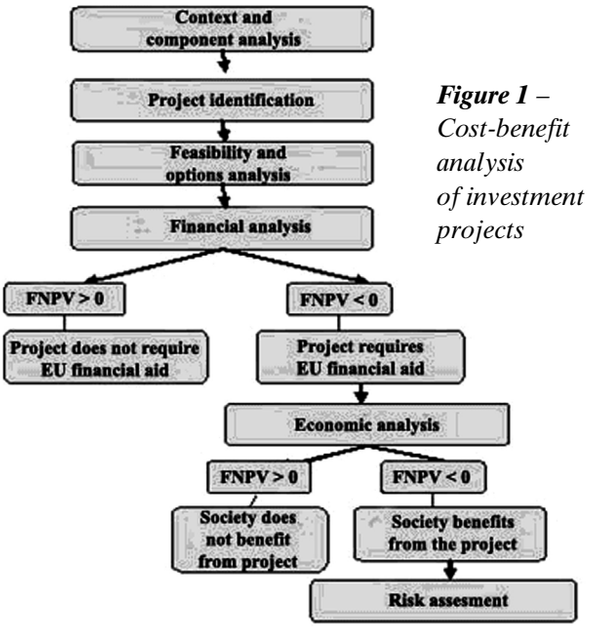

Figure 1 – *Cost-benefit analysis of investment projects*

The first logical step is a qualitative analysis of the socio-economic context and goals that are expected to be directly or indirectly achieved. It is in this part that the connectedness of the project goals and the operations programme priorities and consistency with the EU funds are observed. A clear and full definition of socio-economic goals is necessary to define the project impact. It is, however, often difficult to predict all the effects of a given project. The changes in the benefits also have a large number of constituent parts. While the assessment of social benefits from each project depends on the goals of the economic policy of the partners – participants in the project, the basic means from the Commission's perspective is the logical connectedness of the project with the major goals of the funds involved. In addition to the major goals of individual funds, the project has to be consistent with the EU laws in the respective support sector, especially in case of transportation and environmental protection and in view of the regulations concerning competition.

Identifying means that the project is a self-sufficient unit of analysis, i.e., that no significant part of the project is out of the scope of the analysis; indirect and related effects are adequately covered (e.g., changes in the use of other transportation models) and their costs and benefits will be taken into account. As part of support, structural funds are obliged to finance the expenditures of larger projects, i.e.: a) those that include economically inseparable series of works that in turn have a certain technical function, as well as clearly identified goals and b) those whose total price is taken into consideration in defining the contribution of the funds exceeding € 50 million. In case of the Cohesion fund, the projects including the groups of similar projects too, have to be of big enough a proportion so that they may have a significant effect either in the field of environmental protection or in the infrastructure networks of the transeuropean transport. In any case, the total price of the project or a group of projects should, by a rule, not be lower than € 10 million. The projects or groups of projects that cost less than this amount can still be approved of in justified cases. The identification of projects that need a better assessment may in certain cases result in the member states being required to re-consider certain subprojects as one large project and provide additional information in this respect, such as the cost-benefit analysis. [5]

Feasibility does not refer only to engineering aspects; in many cases it also includes the aspects of marketing, management, implementation analysis, etc. Different project options are often adopted so that a socio-economic objective is achieved. The proponent should provide evidence to prove that his/her choice of the project is the best of all the feasible options. In certain cases, the project may be considered feasible from the point of view of the cost-benefit analysis, however, less favourable compared to other alternative options. A typical feasibility analysis is to assert whether: a) local environment is adequate for the project (i.e., there are no physical, social, or institutional barriers); b) the demand for services will be adequate (long-term predictions); c) the appropriate technology is available; d) the degree of infrastructure exploitation is adequate, or the factories do not have any unemployed capacities; e) personal skills and management will be available; f) time horizons and realization; g) environmental protection aspects, etc.

5. Financial analysis

The primary goal of the financial analysis is to calculate the indicators of net returns on the basis of the predicted net cash flow of the project. It consists of a series of interrelated calculations and is expected to include the following components: 1) time horizon of the project; 2) total costs and returns from the project; 3) adjustment to inflation; 4) the remaining value of the investment; 5) financial sustainability of the project; 6) defining the major performance indicators; and 7) defining the rate of co-financing. [6]

The time horizon can be defined as a maximum number of years for which it is possible to make predictions. Predicting the future can be described as a period corresponding to the utility cycle of the product and is long enough to include all impacts in the medium term or a long term. Although the project time horizon is often undefined, it is usually assumed that there is a moment in time when all the assets and liabilities are simultaneously liquidated. The choice of the time horizon length can have a significant impact upon the process evaluation results and the co-financing rate provided by the EU. The time horizon for a majority of projects is 20 years, whereas for production investments it is up to 10 years. Each project proposition has to justify a specific time horizon.

The data on the price of the project are obtained by calculating the total investment costs (land, licences, patents, etc.) and the exploitation costs (labour force, raw materials, energy supply). The international methodology of the financial analysis of the projects based on the money flow proposes that the financial analysis and the investment profitability should be conducted using the total investment costs which are reported on submitting the application (in other words, no costs incurred after will determine either FRR or other indicators).[7] Nevertheless, in certain cases the Commission may allow that certain costs incurred within the total costs prior to submitting the application, be

also included. Certain projects may earn their own income from the sales of products and services. This income will be determined by predicting the quantities of provided services and by relative prices. In certain cases (e.g., in case of railways or aqueducts) the investor need not simultaneously be the body that manages infrastructure, and in such a case the mentioned body will pay the tariff (or a similar compensation) to the investor. This tariff need not include all costs, which in turn contributes to creating a gap in financing. The incomes that should be taken into consideration in the financial analysis are generally those going to the infrastructure owner. However, depending on the case, the Commission may require that the financial analysis is reconciled for both contracting parties.

The project analyses generally use fixed prices. i.e., the prices reconciled to inflation and fixed in the base year. If, however, the change in the relative relations of prices are expected – for example, when the regulatory body is expected to allow for the tariffs to rise in accordance with the inflation rate reduced for the productivity growth, and when the input (e.g., energy substances) prices are expected to rise by a higher rate, then the current prices are used in calculations. In case fixed prices are used in calculations, a real (r) discount rate is used; when current prices are used, the nominal discount rate is used (n):

$$(1+n) = (1+r)*(1+i), \quad (1)$$

where i is the inflation rate. [8]

Among the income items in the final year under consideration there is the remaining investment value (e.g., undischarged debt, undischarged assets such as premises and plants, etc.). The remaining value will be analysed only if it results into real returns for the investor. The remaining value is calculated in two ways: a) analysing the remaining market value of the fixed assets, in such a way as if they should be sold at the end of the time horizon under consideration and b) through the remaining value of the total assets and liabilities. The discount value of each future net income after the time horizon should be included into the remaining value. In other words, the remaining value is the value that should be repaid.

A project is financially sustainable when it is not exposed to risk of running out of money (cash) in the future. Cricially important for the financial sustainability of the project is the compatibility between the money inflows and outflows in different time periods. Financial sustainabiity is achieved if a cumulative net cash flow is more than zero in each year of the project cycle.

The performance indicators used in the financial analysis are the financial net present value (FNPV) and the financial rentability rate (FRR). Both indicators are calculated for both the investments and the capital. To discount the financial flows into present ones and to calculate the net present value it is necessary that an appropriate discount rate be calculated first. The key principle is the opportunity cost of capital. To get the support from the European funds, the project and its FNPV has to be negative, and the FRR has to be lower than the discount rate applied. Empirical resarch show that projects from the fields of industry, telecommunications, etc. are most frequently characterised by positive values of the indicator of financial return on investment, whereas the values of these indicators in the projects in the fields of environmental protection, water supply, transportation etc., are most frequently negative.

When the financial analysis shows that an investment is not profitable from the financial point of view, it is necessary to determine the cofinancing rate that the EU is expected to cover from its funds or from other sources. Naturally, the project must first be subject to economic analysis and prove that it earns a benefit for the society. Structural funds cover a maximum of 75% of the total allowable, and, as a general rule, at least 50% of allowable public expenditures in case measures are applied in the regions included in the goal of achieving convergence. In case the regions are part of the member state covered by the Cohesion fund, the EU contribution may grow, in specific and and legally justified cases, (a) to a maximum 80% of the total allowable costs and to a maximum of 85% of the total allowable costs for most distant regions; (b) to a maximum 50% of total allowable costs, and, as a general rule, at least 25% of allowable public expenditures in case the measures are applied in the regions included in the goals of regional competitiveness and territorial cooperation. [9]

6. Economic analysis of the project

The economic analysis of the project serves to assess its contribution to the economic progress of a region or a country. On the contrary, the financial analysis is applied to determine the project's contribution to the welfare of the infrastructure owner. The key concept in the economic analysis are the accounting (shaddow) prices based on the social opportunity costs instead on current, market prices. The economic analysis should include the following elements: 1) fiscal corrections; 2) monetization of market effects and externalities; 3) conversion of market into accounting prices and 4) calculations of an economic performance indicator.

Certain elements of the financial analysis are pure transfers with no economic importance, therefore it is necessary that corrections of fiscal effects be made. The

financial support to the investor from the part of the govenment is a pure transfer which does not create any value but is a benefit to the investor only. To correct such deviations it is necessary that the following general rules should be applied:

- All input prices should be net, without VAT and other indirect taxes – taxes paid by the project customers are then paid by the project owner to tax administration and the tax administration in turn returns these taxes to the customers in the form of public expenditures.
- The input prices, including earnings, should include all direct taxes – employees get net earnings, the taxes go to the government that transfers them to the employees, the retired, their families, etc.
- The resources (support) obtained from public entities are transfer payments, hence they should be left out of the incomes in the economic analysis.

Regardless of the general rules, the transfer payments and indirect taxes are in certain cases included into the calculations of project externalities. Typical examples are taxes to energy prices that are meant to discourage environment-related externalities. In this case, as well as in similar cases, including these taxes into the project costs may be justified, however, double counting should be avoided in evaluation (e.g., including both energy taxes and the assessment of external environmental costs into evaluation).

The next step in the economic analysis is to include and calculate socially relevant effects for which no market value exists. It is necessary to check whether such effects are identified, quantified and whether they are assigned real money value. An appropriate conversion factor can, in addition to the financial, include non-market benefits the project creates. In case a conversion factor is not defined or in case the project does not earn income, alternative approaches are used. The most frequent method is willingness to pay. It can be estimated indirectly, by observing the customer in a similar market, or directly, by learning what his attitudes are. In case of certain outputs for which it is not possible to identify the customers' willingness to pay for them, long-term marginal costs can be applied. In empirical assessments, the willingness to pay is most frequently higher than long-term marginal costs. Externalities are not always possible to express adequately by the customers' willingness to pay for the goods, by long-term marginal costs or a conversion factor based on prices on border. Hence it is sometimes necessary that externalities be assessed separately.

The ruling prices arising from imperfect markets and the public sector policies in forming prices mos frequently do not reflect the opportunity cost of the input. In most cases this can be important in the project evaluation, hence financial data may offer a wrong picture of the project importance. The deviation of market prices from socially opportunity costs may be present in less developed countries, however, also in developed countries (e.g., free land, electric energy prices below long-term marginal costs, non-economic prices of water, etc.). Whenever significant price deviations affect certain inputs, the proponer of the project should take this issue into consideration in the course of project evaluation and use accounting prices that can better illustrate the socially opportunity costs of resources. The critical input in infrastructure-related investment projects is labour force. Distorsions in earnings are frequent in practice due to an imperfect labour force market, other macroeconomic impabances, high unemployment rate etc. In such cases, the project proponent should resort to correction of nominal pays and use accounting earnings (shadow sallaries). Shadow sallaries are sensitive to regional differences, since labour is a less mobile factor in comparison to capital. In an economy characterised by high unemployment, the opportunity cost of labour force used in the project may be lower than the real sallary rates. Additional employment is primarily a social expenditure. This is the engagement of labour force resource by the project which thus becomes unavailable for alternative social purposes. A relevant benefit is an additional income earned by creating jobs and this is taken into account in evaluating the direct and indirect net outputs resulting from the project. Hence it is important that the project effect should be assessed in the following cases:

- It is necessary to check the losses of employment in other sectors as a result of the project: gross benefits from employment may overestimate the net effect.
- The project is sometimes said to maintain the jobs that would otherwise be lost. This may be relevant for renovation or modernization of the existing factories. This type of the argument should be supported by an analysis of cost structure and competitiveness with and without the project.
- Certain goals of structural funds are oriented to concrete employment goals (e.g., the young, those long unemployed) and it can be important that different effects per target groups should be taken into consideration.

In certain cases, in cases of no absolute currency convertibility, the parametre in the analysis is the conversion currency rate as an economic price of foreign currency. The more the currency rate differs from the official exchange rate, the higher the likelihood of depreciation or appreciation, which may affect the project performance significantly. Generally, it is best to use a

Standard Conversion Factor (SCF) since it reflects the same distorsions as the conversion currency rate, and besides, it can be used together with other specific (for certain sectors) conversion factor(s). The SCF value is assessed on the basis of the export and import values, using the following equation:

$$SCF=(M+X) / ((M + T_m) + (X - T_x)), \quad (2)$$

where M = imports, X = exports, T_m = import payments, and T_x = export payments.

In defining conversion factors attention should be paid to how social expenditures are affected by the deviations of market prices from 1) marginal costs for internationally non-exchangeable goods, e.g. local transport services and 2) the price on border for internationally exchangeable goods, e.g., industrial products. The key empirical factor for the decision whether the prices on border should be taken into account are the differences in prices in the country (per regions, per different customer categories, etc.). In case of non-excahngeable goods, a standard conversion factor or a specific conversion factor are aplied, determined on the basis of long-term marginal costs or customer willingness to pay for the goods. [10]

Upon the correction of price deviation it is possible to calculate the economic internal rentability rate (ERR), economic net present value (ENPV) and the cost-benefit coefficient. To obtain these indicators of economic performances of a project it is neccesary to determine the discount rate, and in the economic analysis it is the social discount rate. It reflects the social standing on how the future benefits and costs should be assessed as related to the present ones. Literature and international practice offer a succession of different approaches to the interpretation and selection of the value of the social discount rate to be adopted. The European discount rate of 5%, however, can be justified in different ways and can be a standard landmark for the EU funded projects. The difference between the ERR and FRR is in that the former applies accounting prices or the opportunity costs of goods and services instead of imperfect market prices and includes all the social and environmental externalities as broadly as possible. Due to the fact that now externalities and shadow prices are taken into account, a majority of projects with low or negative FRR will have a positive ERR. Upon an actualization with a 5% discount rate, every project with an ERR lower than 5% or with a negative ENPV should be carefully evaluated and even rejected. The same applies to the cost-benefit coefficient lower than 1. In certain exceptional cases, a negative ENPV can be accepted in case of important monmonetized benefits, however, these should be presented in detail because such a project will make only a marginal contribution to the goals of the EU regional development policy. In any case, the report on assessment should confirm, conclusively and with structural argumentation supported by adequate data, that social benefits exceed social expenditures. [11]

7. Risk assessment

Risk assessment means defining the likelihood with which a project will achieve satisfactory results. A recommended risk assessment procedure is based on:

- Sensitivity analysis, as the first step, which means the effect of the anticipated changes in variables determining the costs and benefits of a project;
- The second step is a study of likelihood distribution for selected variables as well as calculations of anticipated value of the project performance indicator.

The purpose of the sensitivity analysis is to select critical variables and model parametres, i.e., those whose variations, whether positive or negative, have a most significant effect upon the internal returns rate and the net present value of the project and cause the most important changes in these parametres, in comparison with the value used as the best estimate in the basic case. The criteria that should be adopted in the selection of critical variables vary depending on the project, hence they have to be accurately assessed from one case to another.

A combined analysis of certain “optimistic“ and “pessimistic“ values of a group of variables can be useful in presenting different scenarios within certain hypotheses. To define optimistic and pessimistic scenarios, it is necessary that extreme values within the scope defined in the likelihood distribution should be selected for each critical variable. Then the performance indicators are calculated for each hypothesis.

When the critical variables are defined, and for the purpose of risk analysis, it is necessary that each of them be allocated a likelihood distribution defined by a precise scope of value around the best assessment used in the basic case and calculate the assessment index. With an increase in the complexity of the cost-benefit analysis, even for a few variables, the number of combinations will soon become too high for a direct procedure. Having in mind the above stated, it is possible to use the Monte Carlo method for investment projects, implementing an appropriate software for calculations. This method consists of repeating a random extraction of a set of values for critical variables, within respectively defined intervals and then calculating the performance index for a specific project. [12]

8. Effects of the EU regional policy

Effects of the EU regional policy are, as a rule, diffcult to evaluate for the simple reason that reagional policy is not easy to separate from other sources of economic growth and, also, the level of development the economy would reach had there not been interventions through the regional policy instruments cannot be easily determined. Since the period of the regional policy implementation in the 2007-2013 period has not yet been completed, the effects of regional policy can be viewed only for the previous period. According to the EU research for the 2000-2006 budgetary period, an additional 0.9 euro of investments from other sources is allocated per each euro spent in the implementation of common cohesion policy in the regions using the funds from the convergency goal. Also, in the regions using the funds allocated for the regional competitiveness and employment goals, additonal 3 euros of investments are allocated per each euro invested through the EU cohesive policy. The programmes within the regional competitiveness and employment were of paramount importance for the creation of new jobs. Estimates are that more that 450 000 new jobs have been created in the six countries in which the evaluation was conducted. A large number of small and medium-sized enterprises have in this period received financial resources from the European Union funds. The Spanis programme of support to small and medium enterprises alone provided financial support, advice and training for 227 000 small and medium-sized enterprises (around 28% of the total number). The evaluation of the Staiermatk programme in Austria proved that 75% of business development related projects were conducted by small and medium-sized enterprises, much more than expected. In Great Britain, around 250 000 small and medium-sized enterprises were supported through various measures in this country's regions.

An efficient transportation system is a key factor of regional competitiveness and development. This area is one of the key domains of the cohesion policy. During the 2000-2006 period, significant funds were spent for road transport (47% of the total funds allocated for the development of transportation) and railway transport (31% of total funds). Investments into airports also helped reduce the problems to reach certain regions, especially the most distant ones. The evaluation report on investments into transport infrastructure in the regions included into the convergence programme point that the built infrastructure improved the connections between the regions and other national centres and reduce the time for travelling by 20-50% on average. Besides, a significant effect upon the employment level was recorded, due to conducting massive relief works. [13] The direct effect of investments upon transportation is also observed in the rise of employment, primarily in the construction sector. Furthermore, the demand for building material and machinery increases. These effects are evidently short-term and last during the works. The long-term effects of an investment depend on the existing of additional investments into a certain region, on labour force characteristics, development level of entrepreneurship, etc.

On the other hand, it must be recorded that the flaws are sometimes inappropriate maintainance of certain stretches of, primarily, railway and road transportstion, incompatibility of national priorities with the EU priorities (despite recommendations, only five large countries have a developed network of fast railways), insufficient employment of certain potentials, such as the Danube, as well as insufficient engagement of certain financing sources, such as the public-private partnership (only a small number of larger projects have been completed using this form). The cohesion policy has significantly contributed to environmental protection as a basic precondition of sustainable development and a better quality of living, as well as to enforcing the legislature in the field of environment. Around 13% of funds was spent on the water supply, water protection, waste recycling, sustainable energy sources, protection from noise and air pollution investment projects. Best results have been achieved in the domain of water supply. [14]

The European Union regional policy has not brought only investment projects; it ha salso brought a strategic approach to the development of transportation infrastructure and environmental protection. It helped harmonize environmental principles with the goals and measures of other sector policies. This harmonization has been achieved; however, full integration has not yet. Similarly, strict environmental standards and rules ensured that the financed projects are environmentally-friendly, designed to work consistent to the ruling legal framework in the environmental domain and that their effects on environment are controlled in the course of their execution.

9. Conclusion

The existence of common regional policy on a supranational level is justified by the fact that the differences in the development levels of the regions can be corrected efficiently only employing the mutual efforts of all the member states. Economic and social differences among the member states that are most often reflected in disproportions in the level of the social product and in unemployment, urged the policy creators to develop a common regional policy, along the existing national regional policies. The importance of the supranational regional policy is reflected in the fact that it is only on the European Union level that necessary and sufficient re-

sources can be collected for the purpose of developing less developed regions and thus reducing the high price certain member states would otherwise be forced to pay. It is also important to stress the role of regional policy as an efficient coordination mechanism between the member states. Namely, the lack of collaboration among the member states results in a negative competition and the undesired effects of certain measures that are unilaterallly enforced by certain member states. An uncoordinated enforcement of national policies may result in unloyal competition, thus reducing the positive effects for all the member states, and consequently the benefits of the European integration process. The institutional framework of the state – project proponent must be such that it offers well established institutions that have at their disposal the professoonals on respective regional levels, that will assess the development needs and stress the priorities to be translated into feasible project propositions for the support to development as well as implement the development projects and programmes that can be financed by the structural and the Cohesion funds.

Clearly defined procedures for employing the means from these funds ensure an easier implementation of the project and a better monitoring of project goals achievement. The project proponents are expected to supplement their project proposition with a cost-benefit analysis of the project. It is for these purposes that the European Commission published a *Guide to CBA of investment projects*. The cost-benefit analysis of investment projects encludes the following: 1) context and goal analysis; 2) project identification; 3) feasibility and option analysis; 4) financial analysis; 5) economic analysis; 6) risk assessment. Special attention is paid to the economic analysis of the project since it is to show whether the society is better off with this project or without it. The project proponent also has to be acquainted with the NUTS classification of regions and the National referent strategic framework in order that he should know which type of investment is appropriate for a given region.

The European Commission identified globalization, demographic changes, safe and renewable energy sources as major challenges for European regions in the period to come. Accordingly, there is already a debate on how these challenges can be incorporated into the regional policy for the following period, from 2014 till 2020. This is of special importance for Serbia too, because Serbia is expected to become a member of the European Union by 2020. Consequently, the priorities and the rules to be defined for structural funds will apply to Serbia too. Practically, the priorities and the rules defined for structural funds will be reflected in the IPA resources as well. At the moment, the efforts of the Republic of Serbia have to be oriented towards establishing the structures for employing the IPA resources and the preparation of projects to ensure an easier use of the IPA resources and later the structural funds and the Cohesion fund.

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