International Relations
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# THESIS

for the Ph.D. thesis of

## Sándor Gyula Nagy

### Measuring the efficiency of EU subsidies

### Efficiency of using the EU-funds in framework of the first National Development Plan in Hungary in the period of 2004-2006

**Supervisor:**

**Dr. András Blahó**
professor, head of department

Budapest, 2008

**Department of World Economics**

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## I. Presenting the theme and explanation thereof

The theme of the research is particularly relevant in consideration of the tripling of the annual EU-subsidies between 2007 and 2013 compared to the period of 2004-2006. For the successful European integration of Hungary, it is necessary to effectively implement the means appropriate in order to ease the differences of regional development. The improvement in the conditions of economic growth is essential for improving the cohesion of the least-developed regions. With help from the EU regional policy, the conditions of competitiveness can be improved by making the region more attractive for investors and by increasing the entrepreneurial spirit to facilitate a faster economic growth.

The cohesion policy is not about redistribution of wealth but is rather about the increase in economic growth. It is not about social transfers, or subsidies spent for consumption, but instead about the provision of development resources in order to help economic growth. Essentially, the development means involved in the EU regional policy are the main factors used to promote competitiveness and economic growth at the EU level.[1]

The possibilities for development in Hungary basically shifted to the EU-financed development assistance. This is mainly due to the state's financial situation. This means that besides the state's co-financing of EU-funds, there are not any budget resources remaining for developments funded solely by the state. This is why the Hungarian development policy is almost equivalent to the Hungarian National Development Plan. This tendency will continue in the period of 2007-2013 and change in the near-future cannot be expected.

Instead of examining the causes of this process, it is much more important to analyse the efficiency of using the EU-subsidies. If Hungary cannot use the financial means of the EU efficiently and effectively, than reaching the goal of cohesion and convergence to the level of the former, developed countries of the EU, will be much more difficult and slower.

***The hypothesis of the dissertation is: the usage of the EU development subsidies is efficient, but not effective.***

The efficiency of the EU-subsidies requires a quantitative approach, where the ratio of the obliged and disposable amount of EU-subsidies can be measured. The effectiveness of EU-

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[1] Kengyel Ákos [2007]: Európai uniós források a 2007-2013 közötti időszakban, In. CEO 2007/1. 14-23. [Resources of European Union in the period of 2007-2013]

subsidies needs a much more complicated and complex approach, than the efficiency. The effectiveness of usage on a project level can be measured by the "added value" of the project; and on the program level by the added GDP growth or employment rate. The following dissertation essentially analyses the project level or micro effectiveness, however it discusses the results of some macro analyses as well (qualitative approach).

The EU-subsidies are flowing into Hungary through three different main sources. On one hand, in 2004-2006 through the operational programs of the National Development Plan, this was the determining part of the Structural Funds. On second hand, there were the community initiatives till 2006, and on the third hand, the Cohesion Fund. The research is handling only with Structural Funds.

## II. Theoretical basis, methods and sources used in research

In order to measure the efficiency of aid, some donor organisations have developed their own evaluation methods. The World Bank Evaluation Group, the European Agency for Reconstruction, Programming and Quality Assurance Division Evaluation Unit and the OECD (Development Assistance Manual) all developed their own manuals, guidelines and evaluation criteria, which reflect the interests and experiences of each institute in relation to their practice.[2] There is further work completed by the Western Michigan University[3], which summarizes and presents the different approaches used to measure the efficiency of aid, however in the European Union there is no one single method which is currently accepted by all member states. The states use different methods and models to measure and forecast the efficiency of EU-funds, and even within one particular state, research institutes or government bodies are further using different approaches. These models mainly measure the gross efficiency of EU-funds and the macro effectiveness on a program level with econometric model calculations and statistics. However, there are a significant number of much less-known methods that may be used in the measure of net efficiency and net effectiveness.

### *Searching for theoretical basis and methods of the research*

HERMES[4]

The first attempt to evaluate cohesion support through model simulations was by incorporating them into the HERMES model, which was originally developed to analyse supply side shocks in the 1970s and 1980s. The full-blown version of the model ran, however,

[2] World Bank Independent Evaluation Group: Evaluation Tooland Approaches:
http://www.worldbank.org/oed/oed_approach_summary.html /2007.06.01./
World Bank Oparations Evaluation Department: Tha First 30 Years. Edited by Patrick G. Grasso, Sulaiman S. Wasty, Rachel V. Weaving. 2003 The World Bank, Washington D.C. 198. o. http://www.worldbank.org/oed /2007.06.09./
European Agency for Reconstruction, Programing and Quality Assurance Division, Evaluation Unit: „Evaluation Guidelines" REvision 1 – May 2005
http://www.ear.eu.int/publications/documents/RevisedEvaluationGuidelines.pdf /2007.06.12./
OECD Development Assistance Manual – DAC Principles for Effective Aid
http://www.oecd.org/document/22/0,2340,en_2649_34435_2086550_1_1_1_1,00.html /2007.07.01./
[3] Ryoh Sasaki: A Review of the History and the Current – Practice of Aid Evaluation, Journal of MultiDisciplinary Evaluation, Number 5, September 2006
http://evaluation.wmich.edu/jmde/content/JMDE005content/PDFs_JMDE_005/Review_of_Aid_Evaluation.pdf /2007.06.29./
[4] Sjef Ederveen, Joeri Gorter, Ruud de Mooij and Richard Nahuis [2003]: Funds and Games, European Network of Economic Policy Research Institutes, Occasional Paper No. 3/October 2003

only in Ireland. These exercises revealed that cohesion support for 1989-1993 raised Irish GDP with 2.6% by the year 2000. The impact on GDP per capita was, however, much smaller, mainly because more favourable economic development reduced emigration from Ireland. Bradley (1995) notes that those sizeable positive spill-overs to the UK are not included in this number.

HERMIN[5]

Each HERMIN model has three broad sub-components (a supply side, an absorption side and an income distribution side) which function as an integrated system of equations. A conventional Keynesian aggregate demand mechanism underpins the absorption side of the model. There is some degree of disaggregation within the sectors which has a supply-side sub-component helping to determine traded (manufacturing) output as a consequence of national price and cost competitiveness. Interest and exchange rates are exogenous to the HERMIN model, and are in accordance with the general assumption that the cohesion economies are 'small' and 'open'.

QUEST[6]

QUEST was developed by the European Commission Service Directorate and is a multi-country model designed to analyse the business cycle, the long-term growth of the Member States of the European Union and the interactions of these states with the rest of the world, especially with the United States and Japan. The QUEST II version of the model identifies stock and flow equilibrium variables at a macroeconomic level, including physical capital and net foreign assets. Furthermore, the macroeconomic level includes money and government debts which are endogenously determined through the effects that wealth has on the influence of the flows of savings, and production and investment decisions of private households, firms and the government. The supply-side of the economy in QUEST II is modelled explicitly to conform to a neo-classical aggregate production function setting potential capacity, with long-run growth rates of this potential determined by the rate of (exogenous) technical progress and the growth rate of the population. Results of simulations may be presented as deviations from a baseline scenario. The model has real interest rates and exchange rates determined

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[5] John Bradley, Edgar Morgenroth and Gerhard Untiedt: Macro-regional evaluation of the Structural Funds using the HERMIN modelling framework, April 2004 http://ideas.repec.org/p/wiw/wiwrsa/ersa03p313.html /2007.07.12./

[6] European Commission (1997), QUEST II. A Multi-Country Business Cycle and Growth Model http://ec.europa.eu/economy_finance/publications/economic_papers/economicpapers123_en.htm /2007.09.05./

endogenously. This allows for the possible 'crowding-out' effects of Structural Funds on the private sector to be taken into account.

E3ME[7]

E3ME, an energy-environment-economy model for Europe, is a multi-sectoral, regionalised, dynamic econometric model of the EU. It is not a Computable General Equilibrium (CGE) model, but a disaggregated time-series, cross-section econometric model, that has benefited from some of the techniques used in CGEs relating to calibration on recent data. The model has been developed for the European Commission under the EU JOULE/THERMIE programme by a team of partner institutes across Europe, led by Cambridge Econometrics. It is designed as a specifically forward-looking model for assessing energy-environment-economy issues and policies. The model therefore combines economic, energy and environment components.

REMI Policy Insight Model[8]

The REMI model has, until recently, been applied solely in North America. However, within the past year some applications have been carried out on structural funds impacts for the European Commission. The model is econometric in origin, but the structure is the same for all market-based economies except for differences in a few key parameters such as the speed of migration response to changes in economic conditions and the response of wage rates to labour market conditions. The model parameters are estimated over a large sample of regions and are used for all implementations of the model. By imposing a structure with pre-estimated coefficients, the REMI model is capable of a much richer representation than would otherwise be available were it to rely purely on indigenous data sources - this is particularly the case for regional applications.

The "matching" method[9]

The basis of the matching method is the method of "statistic twin" analyses. To find a statistic twin to the final beneficiaries of a priority or measure of the NDP is not an easy task. The main analytical question is, what attributes should be chosen for pairing the "twins"? The

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[7] Commission of the European Communities (1995) E3ME: An Energy-Environment-Economy Model for Europe, EUR 16715 EN, Official Publications, Luxembourg

[8] Frederick Treyz, George Treyz, [2003], Evaluating the Regional Economic Effects of Structural Funds Programs Using the REMI Policy Insight

[9] About „matching" method see: F. Stuart Chapin: Experimental Designs in Sociological Research, New York, Greenwood Press, 1974. and Markus Gangl – Thomas A. DiPrete: Kausalanalyse durch Mathingverfahren, in Andreas Diekmann (Hrsg.): Methoden der Sozialforschung, Sonderheft der Kölner Zeitschrift für Soziologie und Sozialpsychologie, Köln, 2004.

more attention that is paid to attributes; the more exact the result will be. At the same time, the great number of calculations made with attributes, the smaller the control group. Thus, this causes the decline of the reliability of the results, which are proven by the experiences of the Rheinisch-Westfälisches Institut für Wirtschaftsforschung Essen (RWI Essen). The RWI Essen, the Institut für Sozialökonomische Strukturanalysen and Prof. Gerd Ronning are researching, supported by financial help from of the European Social Fund, a new methodology for measuring the net effects of the subsidies on the level of the final beneficiaries. This method is not only effective in measuring the efficiency and effectiveness of EU-subsidies, but also the efficiency and effectiveness of different financial aids (e.g. social assistance) as well.

In the research several old research methodologies were combined with the new methodology, according to the expectation of the European Social Fund. The basis of the "methodological mix" is the following:

1. On the basis of the result that monitor the implementation of the program is the target of the research. Analysis of the basic programming documents (e.g. legal texts, rules of procedure), consultation with the experts participated in the implementation, special case studies.

2. To measure the efficiency of the program, two methods were used. On one hand was the well-known cost-benefit analysis, on the other hand was the "matching" procedure, which is an econometric analysis, based on group-comparison.

The point of the methods is the following: a target group has been formed from the individuals involved in the program on the basis of specific indicators (gender, age, living place, education and so on), who have received subsidies from the EU-fund, and a control group (a statistic twin) has been formed with the same attributes regarding the chosen indicators (the same ratio in male/female, age groups, etc.). The two groups have been compared on the basis of having received or not having received EU-subsidies (e.g. getting and keeping a job because of a sponsored training). The differences in the effects show the net efficiency resulting from the EU-subsidies.

3. Comparing the consolidated net effects with the gross effects shown by the monitoring indicators. Further case studies and consultation with experts participated on the program.

4. The results of the program can be measured by conventional, quantitative analyses, which illustrate the results at the program and political level. This traditional method has an immense disadvantage in the analysis of the effect of the EU-subsidies; it does not take into

consideration the cyclical and other distortive factors. This is why its results, for the most part, fail to reflect the reality.

5. To analyse and review the relevance of the goals and strategies a quantitative socio-economic analysis is needed in addition to the document analysis and expert-interviews.

### *The method of collecting and analysing data*

The methods noted above are mostly based on macro indicators and gross efficiency analyses, which, for the main part, fail to reflect the effectiveness of the EU cohesion subsidies in the different member states, and do not show the net effects on the target groups. The information collected in my research demonstrates that the measurement of the effectiveness of EU-subsidies can be executed in three approaches. First, on a program level, the efficiency of the institutional system handling with EU-funds and the gross effects can be analysed. Secondly, the group of potential final beneficiaries has to be analysed on both a program and a project level. Thirdly, the institutes, which are not involved in handling the EU-funds, but which are helping the system by educating, counselling and financing the participants should be analysed.

The methodology of *Project Cycle Management* was the basis to identify the problems and to form the aims of the research, which led finally to the hypothesis of the Ph.D. thesis.

### *The method of the research*

1. Document-analysis.

First, I analysed the main European regulations and the Hungarian legal texts for regional development, the operational programs, the public mid-term analyses and the international and Hungarian literature on measuring the efficiency of EU-funds.

2. Interviews.

Second, I made interviews about the experiences, impressions and problems with experts in the financing and education system, application-writers and advisers, final-beneficiaries, and co-workers in the institutional system handling the EU-funds.

3. Survey.

Third, I carried out a survey (in-person or through phone or email) amongst the final beneficiaries on the Regional Operational Program 1.2 (Improving the capacity for tourism) on the experiences from the project proposal through the implementation until the achieved results, and on the effect that the project had on the function and competitiveness of the enterprise. Control data was available through the benchmark indicators published by the Hungarian Central Statistical Office.

*Method of collecting data*

The source of indicators needed for the research may vary. I have to rely on the existing databases in several cases, mainly on the Unified Monitoring and Information System (Egységes Monitoring és Információs Rendszer – EMIR), which contains the financial and administrative data of every single application from handing in till the end of the sustainability period. Only a very limited part of this database is open for public and for research purpose. Further sources of data are the interviews and surveys.

1. The efficiency of the institutional system handling EU-funds at the program level

The needed information and data can be found in the EMIR, in the yearly budget and I acquired data from the interviews and surveys as well.

2. The efficiency of the group of potential final beneficiaries – program and project level

Program level:

- The ratio of the amount of money obliged and the amount of money spent, and by the amount of money withdrawn by the Commission.

This data are available in the EMIR and at the analyses of the Hungarian Board of Auditors (Állami Számvevőszék).

- The "added value" of the EU-subsidies in the Hungarian economy, the added GDP growth and employment, and the synergistic effects.

Measuring these effects is most difficult. The infrastructural development can be measured by the data of the big, preferential developments. The households which were canalised with EU-subsidies, railways or highways built with help of EU-funds. The best methods to forecast the GDP growth added by the EU-subsidies are the econometric models HERMIN and ECO-TREND model (developed in ECOSTAT Research Institute). Such forecasts have been made

in the Hungarian National Bank, in ECOSTAT, in the Hungarian Finance Ministry and in the Hungarian Board of Auditors.

Project level:

- The ratio of the amount of money won and the amount of applied eligible cost of the final beneficiaries (in the special case of ROP 1.2).

I could rely in this case on the data of the EMIR and on the data acquired by the survey.

- Change of the financial situation, competitiveness and productivity of the final beneficiaries during and after the implementation of project.
- The difference between the value added by the project for the final beneficiaries and the situation without the project.

Answering this question there are several methods. The best and most comprehensive method is the "matching" developed by the German research institute Rheinisch-Westfälisches Institut für Wirtschaftsforschung Essen (RWI Essen), the Institut für Sozialökonomische Strukturanalysen and Prof. Gerd Ronning. The resources of this these are far smaller, than it would be needed for implementing a research with the original matching method. Because of that I have chosen to make a survey among the final beneficiaries of one specific program (ROP 1.2) and rely on the benchmark data of the Hungarian Central Statistical Office (Központi Statisztikai Hivatal – KSH) instead of collecting data for a control group.

3. Efficiency of the institutes not involved in handling the EU-funds

- Efficiency of the Hungarian bank-system:
    - o the average time for handing out a bank-guarantee for an application,
    - o the number, total sum and cost of the bank-credits generated for project co-financed by the EU compared to the number and total sum of the EU-financed project in Hungary (in 2004-2006).

Unfortunately the banks were not so keen to share this information with me, most of them answered that they do not have a detached statistic about projects with EU co-financing. I have got some information about the size of this market and the shares of some big banks in Hungary, but this is only informal data from my sources in a multinational bank.

- Efficiency of the education system:
    - o Number of trained application writer and project manager in the period of 2004-2006.

Because of the relative small number of educational institutions, the personal data collection was possible. The main higher education institutes and enterprises informed me about the number of trained application writer and project managers.

- Efficiency of the application writer and advisor:
    - Ratio of project that had resort to the service of an application writer or advisor to the total number of winning projects and all projects.

Collecting this data, another survey would have been needed among the project lost in ROP 1.2. Unfortunately the Managing Authority of ROP was absolutely not helpful at reaching the lost project holders, that's why it was impossible to reach this "control" group in the framework of this research. Among the winner I was able to collect data about the projects, which had resort to the service of an application writer or advisor.

**III. Conclusions**

It was impossible to analyse the entire system of subsidies in one research project. Therefore it was necessary to highlight some specific areas on which to concentrate.

1. The efficiency of the institutional system handling with EU-funds.

2. The efficiency and effectiveness of the group of potential final beneficiaries especially focused on the ROP 1.2 application.

3. Efficiency of the institutes helping the system through educating, counselling and financing the participants, not involved in handling the EU-funds.

4. The complementary part of the research, was the international overview and comparison to the practices of the former member states.

*The efficiency of the institutional system handling with EU-funds on program level*

The level of EU-subsidies obliged for the financial period of 2004-2006 was above 100% of the available expenditure target in February 2008. This ensures that the attrition caused by future emerging problems will have an insignificant effect on the net financial position of Hungary in relation to the EU cohesion budget. The ratio of payouts is emerging in accordance to the schedule, which makes the probability of the complete and "just in time" payout very high. Regarding this data we can conclude that the institutional system handling the EU-funds on the program level is efficient. The effectiveness, the quality of functioning of the system, is, however, a different issue. During the survey, some information emerged regarding the often unnecessary administrative overload of the final beneficiaries and the illegal behaviour of the Hungarian Tax and Financial Control Administration.

*The efficiency and effectiveness of the group of potential final beneficiaries, and the efficiency of the institutional system handling with EU-funds on project level*

I conducted a survey (in-person or through phone or email) amongst the final beneficiaries on the Regional Operational Program 1.2 (Improving the capacity for tourism) related to the experiences from the project proposal through the implementation until the achieved results, and the effect of the project on the functioning and competitiveness of the enterprise.

Unfortunately the Managing Authority of ROP (in the National Development Agency) was absolutely not unhelpful with assistance in reaching the lost project holders. Thus, this is why it was impossible to reach this "control" group within the framework of this research. As a result, I had no other choice but to rely on the benchmark data of the Hungarian Central Statistical Office, where it was available.

Out of the 93 winners of the ROP 1.2 (listed in the official homepage of the Hungarian National Development Agency) *one winner was not accessible in the official* (the court registered) *address. In four cases the "winners" had not received any subsidies*, because they had not yet contracted with the Agency, but they are still listed as a project "winner" (and have been for more than 2 years).

In the case of voluntary surveys the research is acceptable if the willingness of response in the target group is above 20%. In my case this ratio is above 25% in relation to the number of projects and the sum of the subsidies as well.

In the target group there are several enterprises with turnovers of 0 HUF without employees, and firms with turnovers of billions of HUF (250 HUF is approximately equivalent to 1 EUR) with several hundred employees. During the research it turned out that some enterprises are project-firms, freshly established, while others are conglomerates (e.g. construction firms), which decided to diversify their profile. The enterprises, which have been functioning mainly in the tourism sector for several years, are characteristically in the middle of the group. They have a turnover of 50-250 million HUF, and work with about 5-30 employees. The average subsidy won in ROP 1.2 is about 93 million HUF (372.000 EUR).

The statistical patterns of turnover and according to the region of the group of winners, who have participated in the research, are primarily the same as the pattern of the target group. So we can say *that the results of the research on the target group are statistically relevant regarding the patterns of turnover and according to region.*

*45% of the winners were unable to implement the originally-planned project* submitted in their applications in *regard to the costs and the schedule*. There are two typical reasons for this. In 50% of the cases the reason can be found in the institutional system (slow administration and fewer subsidies granted than originally promised). In the other cases there were "internal" problems, such as failures in the technical planning, mismanagement or construction problems. *More than 80% of the winners could access the entire sum of the contracted subsidy*, but in 20% of the cases the rate of co-financing turned out to be higher due to exceeding the planned budget. In regards to the opinions of the winners, the intermediate body was *unrightfully demanded* to provide *"completion of monitoring documentation" in a quarter of the cases*, which has led to several delays in the payout.

The ratio of administrative costs to the total cost of the project was between 0 and 10% varying amongst different projects. *The subsidy-weighting average cost-ratio to the total cost of the project was 2.37%, which is between 4.75% and 7.9% related to the subsidy* (calculated with 30-50% of EU co-financing) for an average project. In my opinion this ratio is still acceptable bearing in mind that the projects were "hard" infrastructure projects, although it is at the upper, maximum limit of the still-acceptable interval.

It was "the number of created jobs by the project" among the indicators of the ROP 1.2 application, which could have been the most useful index number to use as a comparison with the net and gross effects. The problem with the survey was that every winner gave the *official* number of jobs to me, however it turned out at the individual interviews, that there is a difference between the *real* and *official* numbers of the newly created jobs. This means that no one was honest in answering this question. Thus, this result cannot be considered in the evaluation.

The analysis following the principle of publicity of the target group illustrates that *74% of the final beneficiaries have a homepage on the internet*, which is far too low considering that these enterprises are working within the tourism sector. Even lower is the rate of firms, which explicitly show on their homepage the fact that the EU-cofinanced the project: 27% of the target group. Furthermore, only half of them, *14% of all enterprises, are complying with the rules of publicity of the National Development Agency*.

Amongst the results of a specific project there should have been synergic effects. *63% of the projects with about average subsidy (75-150 million HUF, 300-600.000 EUR) and with*

*subsidy much above the average (above 150 million HUF, 600.000 EUR) showed some synergic effect*, while I have measured the same only on 18% of projects with a subsidy less than the average (less than 75 million HUF, 300.000 EUR). The synergic effects among the projects are basically structural construction (public roads and junctions, street-lightings), the creation of systems of public utilities (drinking water, sewerage, electricity) and landscaping of the neighbourhood. *These results highlight one of the most important principles of the European Union; the principle of concentration.*

The most important result of project on the final beneficiaries is the improvement of competitiveness. Through the examination of this, I had to consider that some of the projects were recently finished. Thus, due to this lack of elapsed time, 18% of the projects were unable to be measured or examined. Where I was able to measure this, I had to weight the result with the sum of subsidy to make the result statistically relevant with the target group.

In the case of projects with a very low subsidy (less than 25 million HUF, 100.000 EUR), there was a measured 7% improvement in the competitiveness, of which 2.7% was the result of EU co-financing. In the case of projects with a subsidy less than the average (between 25-75 million HUF, 100-300.000 EUR), there was a 9% improvement in the competitiveness, of which 2.1% was the effect of the EU-subsidy. *This means that projects receiving an EU-subsidy below the average (less than 75 million HUF, 300.000 EUR) had a very small effect on improving the competitiveness of the final beneficiaries.* These enterprises comprise more than half of all the beneficiaries. The competitiveness of enterprises whose project had received an average subsidy (75-150 million HUF, 300-600.000 EUR), improved 8.57% of which 3.8% was a result of the EU co-financing. While this means a significant improvement, of which the effect of EU-subsidies should be appreciated, it is still far from satisfactory. The competitiveness of enterprises, whose project had won a subsidy much higher than the average (above 150 million HUF, 600.000 EUR), improved 17.5% of which 10.8% was the effect of the EU co-financing. These account for 17% of the target group. We can observe in the case of ROP 1.2 of the Hungarian National Development Plan that *with the implementation of the principle of concentration, the competitiveness of final beneficiaries can be improved relevant to EU-cofinanced projects. However, in the frame of ROP 1.2 the dispersion of subsidies caused a significant effect only in the case of 17% of all the final beneficiaries.*

I introduced and analysed the functioning of the Hungarian monitoring system of EU-subsidies basically through my experience as a monitoring expert of HEFOP 4.1.1 (Human

recourses Operational Program – Improving the infrastructure of the Centres for Integrated Regional Vocational Training) and through information that has been gained from interviews with experts and co-workers of the OMAI (Directorate for Managing Subsidies of the Ministry of Education and Culture) and ESZA Kht. (European Social Fund non-profit ltd.).

In the monitoring system in Hungary bigger change have been introduced on several occasions since 2004. *The decrease in the number of "administrative" reports* for the final beneficiaries was an important step; however it *did not mean a decrease in the amount of "administrative" work.* Thus, this measure simply increased the reporting period to half a year. This helped the final beneficiaries only at first sight, because without continuous monitoring and control, the problems and failures would eventually appear later rather than sooner, what has made it much more difficult to revise. Imagine correcting a failure in a public tender after contracting with the proposed winner a half year later, when the contract turned out to be illegal. Or imagine correcting an invoice, which turned out to be formally bad, after half a year. It can easily happen, if a problem arises in February and the monitoring report for the first half of the year arrives in July. *It would be necessary for the monitoring expert to conduct a monitoring visit in the middle of a reporting period in order* to examine the intended correction, to follow up and to improve the implementation of the project, as well as to help prevent problems emerging half a year later.

The problem with the monitoring system, furthermore, is that the monitoring expert and the beneficiary have no prescribed or regular consultation. The big question is whether there is a need for a consultation and a regular monitoring visit on behalf of the final beneficiary. Recently, *most of the applicants and final beneficiaries view the monitoring expert as an "authority" and they do not dare to, or do not want to, ask for help.* They mainly regard the well-intentioned proposals as an "attack", because they do not realise that the monitoring expert and intermediate body are working for them and not against. The blame lies with the system itself as well. To implement the project with the original content (financially, in schedule) it is in the interest of the system as much as it is in the interest of the final beneficiaries.

*Regarding the facts, we can say, that the efficiency of the institutional system has improved in the analysed time period, but there is need for further developments, especially in developing the monitoring system and "in appreciating and helping" the independent research in the field of efficiency and effectiveness by the departments of the Hungarian National Development Agency.*

*The efficiency of using the EU-subsidies of the final beneficiaries is quite acceptable however the effectiveness of subsidies is especially in synergic effects and improving the competitiveness problematic.*

**Efficiency of the institutes not involved in handling the EU-funds**

Regarding education, the bank-system and the application writers and advisors, we can conclude that the educational system is following a reactive strategy. The educational institutions and private training centres rarely act as initiators in the market, and so the market-following strategies are common. There was a lack of useful "application writer" training or "EU-project manager" training until the middle of 2003. The Corvinus University of Budapest had a leading role in training experts, application writers and project managers through the trainings: "EU Sources and Program management 2004-2006" and "Project management". These trainings were vital in order for the small and medium sized enterprises (SME's) of capital importance in exploitation of advantages of EU-membership to become familiar with the practical knowledge of earning and utilizing EU-subsidies. Following the tendencies of the market, we can say, that *from the second half of 2007 there has been no need for the application of writer training*. After the recrudescence of interest for application writer training in 2004-2005, almost everyone who was interested participated in a training. In higher education, the "application writing" is available almost everywhere, as alternative subjects in graduate education programs. The bigger training centres (universities and private schools as well) all reported, that from the second half of 2007 there were not enough applicants for the trainings to make it worthwhile to launch them. Lot of training centres tried to launch "project management" training after recognizing the lack of peoples' interest in applying for writer trainings, but the number of participants could not reach that of 2004-2005, if there were a sufficient amount of applicants at all.

I planned to measure the efficiency of the Hungarian bank-system with indicators as to the average time for handing out a bank-guarantee for an application, and the number, total sum and cost of the bank-credits generated for the project co-financed by the EU. I then planned to compare these factors to the number and total sum of the EU-financed projects in Hungary (in 2004-2006). Unfortunately *the banks were not so keen as to share this information* with me.

*Most of them replied that they do not have a detached statistic about projects with EU co-financing.*

To measure the efficiency of the application of writers and advisors I planned to calculate the following indicator: ratio of the project that had resorted to the service of an application writer or advisor, to the total number of winning projects and all projects. Collecting this data, another survey would have been needed among the project *lost* in ROP 1.2. Unfortunately the Managing Authority of ROP was extremely unhelpful (again) at contacting the lost project holders and this is why it was impossible to use this "control" group within the framework of the research. From amongst the winners I was able to collect data about the projects, which had resorted to the service of an application writer or advisor.

***2/3 of the projects with a subsidy much greater than the average*** (more than 150 million HUF, 600.000 EUR) ***had resorted to the service of an application writer, which is the average ratio*** among the winning projects in the case of ROP 1.2. All of the project-holders with subsidies near the average had resorted to some kind of service of an application writer or adviser, out of the final beneficiaries who participated in the survey. Furthermore, only half of the projects with a subsidy less than the average (less than 75 million HUF, 300.000 EUR) had resorted to the services of an application writer.

***The complementary part of thesis is the international overview and comparison to find practices of the older and the new member states***

The practices of the long-standing members of the EU have some useful lessons for Hungary. We can find some excellent precedents not just for functioning and for the regulation of the institutional system, but also for development strategies, human resource-management and project management as well.

One of the implementable lessons of the international practice for Hungary is the functioning of "intermediate bodies". Secondly, a lesson to be learned is the establishment of regional advisory centres or agencies for potential applicants. The intermediate body is a public or private body or service which acts under the responsibility of a managing or certifying authority, or which carries out duties on behalf of such an authority vis-á-vis beneficiary

implementing operations. [10] The Italian, German or Scandinavian practices could be used as a model for Hungary. One thing that was in mind of the decision makers at the foundation of the Swedish Regional Decision Groups, the German second level intermediate bodies the so called "Business Partners" and the Italian "development agencies" was to: implement the principle of regionalism and subsidiary. This was to delegate the process of making and preparing decisions to the lowest possible level, the closest to the potential applicants; at the regional level to generate more and better project proposals. The free-of-charge or preferential counselling is contributing to the efficient and effective usage of EU-subsidies at project level. This process has just recently commenced in Hungary.

As methodological advice I would recommend the "best practice" of the Irish FÁS and British ECOTEC to the Hungarian decision makers. The competition for the position of an intermediate body or agency would make the system efficient, reliable, accountable and successful. The basis of the good functioning of this model lies in the preconditions, in the transparent and distinct selection process. The concentration of the tasks in an intermediate body can lead to a quick and client-friendly functioning, if the selection process is adequate. In this case the concentration means that one intermediate body manages the selection, the contracting, the financial and professional monitoring and the evaluation of all of the projects, on the same priority level.

The Portuguese practice in the period of 2000-2006 can be extremely useful in improving the system of the project selection mechanism. In Portugal, the project proposals were allowed to be handed in anytime until the conclusion of the budget period. This system gives potential applicants the chance to make a professionally valid and elaborated project proposal without restricting them with unaccommodating deadlines. This system ensures the enterprises that during the budget period they can rely upon that type of subsidy whenever a new development idea arises. For this type of subsidies the submission of project proposals is continuous and their evaluation is periodic (every quarter-year). Only the best project proposals in a given period are granted subsidy, however a number of good quality proposals, which are not granted subsidy, are automatically pushed forward to the next evaluation period. This ensures that the fluctuation of quality amongst the project proposals is avoidable.

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[10] „Any public or private body or service which acts under the responsibility of a managing or certifying authority, or which carries out duties on behalf of such an authority vis-á-vis beneficiaries implementing operations." In. COUNCIL REGULATION (EC) No 1083/2006

*The difference between net and gross effects in the practice*

The most adequate model for measuring gross effects in Hungary is the ECO-TREND model developed by the ECOSTAT Government Institute for Strategic Research of Economy and Society. The ECOSTAT have modelled scenarios for Hungary with the help of the ECO-TREND model. In the ECO-TREND model it is possible to compare the analysis of the different scenarios with the run of four indicators.

In the scenario "flexible orientation, efficient state" the model calculates in accordance with a fully achieved Convergence Program (handed in the European Commission by the Hungarian Government, a plan to achieve the Maastricht criteria) and with the 90% efficient usage of EU-funds. In this scenario all the indicators are the best, which can be explained partly by a high rate of using EU-funds and partly by a changed budget structure, which greatly improves economic convergences. In the version "inflexible state structures, cyclical budget expenditures" the model expects to not achieve the Convergence Program and calculates with the usage of 70% of the EU-funds. The basic scenario calculates with a roughly achieved Convergence Program and with the usage of 80% of the EU-funds. The damage caused in this rather pessimistic version, related to the basic version, is higher than the gain in the optimistic version compared to the basic scenario. The cause for this can be found in the stronger tendency of cyclical budget expenditures.

Significant differences have emerged in the cases of two indicators. One is the GDP at purchasing power parity, which time series divert in the different scenarios about 5% until 2020. The second case is the income of households, which time series diverts less than that of the (PPP) GDP. Altogether the difference in household incomes of the two scenarios diverting from basic lies in 1%. The budget deficit also diverges minutely from the basic scenario. This means that the income of the enterprises changes the greatest amount amongst the three analysed sectors (state, household and enterprises), the state behaviour and the efficient usage of EU-funds greatly affects the income and wealth of the entrepreneurial sector. [11]

The hypothesis of this research that *the usage of the EU development subsidies is efficient, but not effective* is true.

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[11] dr. Cserháti Ilona, Keresztély Tibor, Varga Zsuzsa [2007]: Az EU-transzferek szerepe a hosszú távú felzárkózásban. [The role of EU-transfers in the ong run convergencel] In. A gazdaságelemzés módszerei 2007/I., ECOSTAT, Budapest, 2007. november, 65-69.o.

The first part of the thesis is proved to be true by the number of the EMIR, which shows that the ratio of the amount of money obliged and the amount of disposable EU-subsidy lies, for the period 2004-2006, at nearly 105% of that in February 2008. This means that maintaining the payout ratio at the spending of 100% of the EU-subsidy until the end of 2008 is possible. The second part of hypothesis is also true regarding the evaluation of the ROP 1.2 projects.

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