

## Problems of structural funds evaluation on regional level in Slovakia

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### Abstract

Paper deals with methodological problems of the structural funds impact evaluation on national and regional level in Slovakia. Comparison of methodological approaches used in Slovakia and in the rest of the Europe is the core issue of this paper. The result of this study lay in the offering the new methodological approaches that should be used in Slovakia on national and regional level with aim to improve quality of structural funds evaluation and implementation process.

**Key words:** Structural funds evaluation; macroeconomic models; model HERMIN.

### 1 Introduction

Slovak republic became the member of the EU from 1<sup>st</sup> May 2004. As a legal member of the EU, Slovakia can use structural funds of the EU. Structural funds are one of the main EU regional policy tools which main aim is to achieve economic and social cohesion in the Europe Union. Slovakia, as new member of the EU, has started to use Structural funds from shortened programming period 2004-2006. At the present Slovakia is slowly starting to use financial sources from new programming period 2007-2013. By the end of the first programming period the questions of structural funds impact evaluation on national and regional level starts to be more important for Slovakia. It is clear that efficiency of structural funds must be on highest importance not only for EU but also for each member country, because with the same “budget” they can reach different results. Each country can support different priorities which will activate different economy sectors and results to different level of development.

Slovakia still suffers from high regional disparities. That is why the efficiency of the structural funds utilization must not be on high importance only on national but also on regional level. From these points of views tools for structural funds impact evaluation on national and regional level seems to be very important in Slovakia.

First part of this paper describes and analyzes the present state of the tools used in Slovakia for structural fund impact evaluation on national and regional level. The second part deals with the approaches used for structural funds evaluation in other EU countries. The last part

compares selected methods with aim to find the best possible offer - best possible method for Slovakia.

## **2 Structural funds evaluation in Slovakia**

During the shortened programming period 2004-2006 Slovakia was compulsory to prepare only ex-ante and ex-post evaluation of the structural funds. Ex-ante evaluation was already done and ex-post evaluation is obligatory to be done at latest till 2009. Ex-ante evaluation was done after each year of the structural funds implementation and for each operational program. These evaluations do not cover the direct impact of the structural funds, because they are focusing more on problems of the implementation and on financial of stage of the implementation.

The ex-ante evaluation of the programming period 2004-2006 was the first relevant experience of structural fund evaluation for Slovakia. Europe Commission defines only basic frames for this type of evaluations - concrete selection of the methods is up to each member state. In this first evaluation in Slovakia there were not used complex econometrics models for structural funds impact evaluation. For ex-ante evaluation in Slovakia were mostly used methods like SWOT and trends analyses computing of the efficiency of the funds regarding to estimated effects. Except these methods also model SHADE (Share + development), ODAPI (Observing – Describing – Analyses – Programming – Improvement) and LAN were used in Slovakia.

By preparing ex-ante evaluation of the new programming period 2007-2013 there were already used macro econometrics models. For ex-ante evaluation of this new programming period, two econometrics models (HERMIN and CGE) were developed in Slovak Academy of Science. Using these models several variants of new National strategic and reference framework were evaluated.

This approach of evaluation is more effective and useful than methods and approaches used in former programming period, because it make possible to flexibly react on changes in programming process a gives comparable results to another countries. This is very contributory to decision making processes and for strategic materials preparation.

Even trough the situation that the new approaches in structural funds evaluation has started to be used in Slovakia on national level, there are still missing the relevant models and experiences in evaluation of structural funds impact on regional level. This situation is not very favorable for Slovak regional policy. Tools and methodologies that would radically improve quality of decision making on regional level are still missing in Slovakia. [1]

## **3 Structural funds evaluation in EU**

When analyzing the approaches, methods and tools used for structural funds evaluation in EU, we there must be firstly clearly defined the level of evaluation. There exist several approaches and tool which ate mostly divided by the level of evaluation.

In the literature are these levels describes in most of the cases as follows:

- **“micro level”** – impact evaluation of concrete projects and their contribution for the region
- **“mezzo level”** – impact evaluation of the group of the projects on one goal from operational program. (for example evaluation of decrease in unemployment as a consequence of some employment program)
- **“macro level”** – using these types of methods all impacts and factors of policy are taken into account. These types of methods are suitable for evaluation of the structural funds.

From methodological point of view methods used on “micro level” are mostly methods like case studies, CBA – Cost benefit analyses, Input – output models, CGE models etc. These methods are usually used for project ranking according to their efficiency, without any further impact on wider environment (region).

As it was already mentioned group of “mezzo level” methods serves for impact evaluation of several projects on one goal. These methods also does not take in to account all factors (using former example – by evaluation impact on unemployment they ignore problem of salaries) Use of these methods are useful by evaluation smaller supporting programs or programs with shorter duration.

“Macro level” methods are characteristic by the fact that they are trying to cover all possible influences and factors. There exists wide range of methods – macroeconomics models – used for different policy impact evaluation. On another hand the also exist different opinions on their applicability. Concrete method selection depends on several factors.

The most discussed “macro level” methods in EU at the present are macroeconomics models focused on structural funds impact evaluation. The biggest advantage of these methods is that they give opportunity to estimate impacts of Structural funds in advance. That enables the policy maker to find the best possible way for sources allocation. These methods also enable to evaluate already implemented programs in very flexible way and to measure direct impact of the policy on basic macro economic indicators as GDP, unemployment etc. These direct impacts are purify from another influences (additional state support) so policy makers policy makers can for example clearly investigate what share of annual GDP growth was directly caused by the support form structural funds. In EU environment are frequently used for structural funds evaluation models HERMIN and QUEST.

Another example of methods used on “macro level” is adjusted Input-Output method which was several times used for Community Support Framework impact analyses. This method was used on regional level in formal East Germany, in Mezzogiorno region in Italy and on national level in Greece, Ireland, Portugal and Spain.

Some macro level approaches are based on common statistical treatments. De la Fuente a Vives 1995 has measured the impact of the European regional development and public infrastructure and education investment fund on level of incomes in several Spanish regions.

[2]

Frequently used tool is also a panel data analysis which is based on time series relationships investigation. Ederveen, De Groot a Naus [3] used this method for structural funds impact evaluation in 13 countries from 1960 till 1995.

From all above mentioned methods are at the present the most frequently used already mentioned macro econometrics models, which usage is also supported by the Europe commission.

#### 4 Analyses of the available methods

In EU environment there exist several methods which were practically used for structural funds evaluation in different EU countries and regions. The development of the new model is very difficult and expensive, so actual experiences from different EU countries suggest adapting existing models for usage in particular country or region.

This part of the paper therefore briefly describes the main outcomes of the analyses and selection of the existing econometric model suitable for evaluation of the structural fund on regional level in Slovak environment.

Six existing econometric model were selected for analyses. Each model was in details analyzed from following points of view (criteria).

- (C1) Practical usage for structural funds impact evaluation
- (C2) Possibility and practical usage for evaluation on regional level
- (C3) Suitability for evaluation during whole programming period (ex-ante, mid-term and ex-post evaluation)
- (C4) Data- intensive point of view.

Wide spectrum of information and data were collected and analyzed for each criterion.

According to these analyses, selection of the most suitable model for Slovak regional environment was made. This selection was made with usage of the multicriterial analysis according to following conditions:

- Criteria were consistent with analyzing point of views (criteria).
- Alternatives were defined as six selected models:
  - Model HERMIN
  - Model QUEST
  - Model REMI
  - Model E3ME
  - Beutel model
  - CGE Model
- For improving the objectivity of the multicriterial analysis the criteria weights were determined with usage of the Satty matrix.

Results of the weight determination from Saaty matrix and results of the multicriterial analyses can be seen in table 1 and 2.

**Table1. Criteria weights according to the Saaty matrix**

Criterion (C)	Weight (W)
<b>C1</b>	0,123
<b>C2</b>	0,275
<b>C3</b>	0,062
<b>C4</b>	0,540
<b>Total</b>	1

Source: [1]

**Table2. Evaluation and results of the multicriterial analysis**

Criteria/ Alternatives	C <sub>1</sub>	W <sub>1</sub>	C <sub>2</sub>	W <sub>2</sub>	C <sub>3</sub>	W <sub>3</sub>	C <sub>4</sub>	W <sub>4</sub>	Result
<b>HERMIN</b>	6	0,123	9	0,275	8	0,062	10	0,540	<b>9,12</b>
QUEST	4	0,123	4	0,275	4	0,062	8	0,540	<b>6,16</b>
REMI	4	0,123	10	0,275	8	0,062	7	0,540	<b>7,52</b>
E3ME	3	0,123	8	0,275	8	0,062	3	0,540	<b>4,69</b>
BEUTEL	4	0,123	10	0,275	8	0,062	5	0,540	<b>6,44</b>
CGE	4	0,123	2	0,275	2	0,062	2	0,540	<b>2,25</b>

Source: [1]

According to these results the most suitable model which should be adapt for Slovak environment on nation as well as on regional level is the model HERMIN.

## 5 Conclusion

The accuracy of this result was explicitly confirmed also by results of the Slovak Academy of Science, where independently of this work the model HERMIN was also selected for evaluation the Structural funds impact on national level in Slovakia. After the selection of the model HERMIN the detail analyses of the model was done. This detail analyses was focused on data inputs needed for regionalization of the model HERMIN in Slovak environment. Slovak regional statistics suffers from lack of quality and consistency, therefore neither after huge amount of effort it was not possible to prepare regional HERMIN model. On the another hand, this analytical work has prepared detail guide for the regional data adjustment as inputs to HERMIN model as well as the list of statistical data which needs to be available for successful “regionalization” of the HERMIN model.

## References

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