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# *Development Trap? Unequal Territorial Patterns of EU-funds Allocation in Hungary*



*Abstract* In this paper we introduce some results about the appropriateness and effectiveness of the Hungarian regional development policy: our main goal is to examine empirically its regional inequalities. After a brief outline of the theoretical frame based on (new) economic sociology, we analyse several databases on more territorial levels and explore some opinions about the issue from personal interviews.

According to the results of the empirical analysis, the question of preferred status seems to be counter-final due to the complex combination of the lack of resources. The respecting relationships imply a kind of development trap, as it is worth becoming beneficiary on the project level, because it means higher support rate and higher amount of support, but being in the preferred status has a negative effect aggregated on the micro-regional level, i.e. it is disadvantageous.

*Keywords* Regional inequalities, development policy, EU-funds

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## 0. Introduction

In this paper we introduce some results of our research concerning the relation between social inequalities and social policy. The general question whether social intervention can reach its goal – such as to reduce or eliminate some aspects of social inequalities – is widely examined in both national and international research projects.

In our PhD-research we investigated the appropriateness and effectiveness of Hungarian regional development policy. Our main goal was to answer empirically whether some mechanisms result in counter-final effect, and to demonstrate the regional inequalities of regional development policy.

In this paper we shortly outline the theoretical frame which can be successfully applied to interpret the connection of regional development policy and (territorial) inequalities on the basis of (new) economic sociology, and to demonstrate some results of our quantitative and qualitative empirical work.

Our research may be interesting as in the course of the quantitative secondary data analysis the problem is examined from an institutionalized point of view: we study whether the institutional regulations and classifications generated and applied by the regional policy itself reach their aim. According to our assumption, they do not, so we expect the institutional regulation of regional development policy to cause unintended consequences.

To examine empirically the counterproductivity of development policy projects, we created complex databases on the project-, settlement- and micro-regional levels, and employ models that are capable to exclude the alternative explanations to gain high internal validity. We expect the empirical investigation of the mechanisms underlying the counterfinal effects of regional development policy to be fruitful for scholars and also policy-makers.

## 1. Short Theoretical Introduction

In our research, we focus our attention on the patterns and territorial inequalities in the distribution of EU development funds (CRESCENZI (2009), LÓRÁND (2011)). The paper presents some of the results of our empirical examinations of this issue. The relevance of this topic comes from the fact that from 2004 there are possibilities in Hungary too gain financial supports offered by EU development programmes, thus it is reasonable to expect unintentional consequences in respect of these resources' distribution. During the exploration of this problem, building on the theory of the new economic sociology in the background, we interpret the system of development policy as something that intends to help common goods to come into existence (OLSON 1997) – or rather to prevent the situation of common bad (see HIRSCHMAN 1995) to come into existence – when it employs institutional devices (ELSTER 1997) in order to enforce territorial equalization principle in the central regulation of the resources' allocation (STIGLER 1989). Our preliminary assumption is that the state fails (TULLOCK 2005) which causes counterproductive effects (SZÁNTÓ 2006, MERTON 2002). In the research, we considerably build on previous studies which discuss (KONRÁD – SZELÉNYI 2000) and empirically show (VÁGI 1991, 1982) reproduction of inequalities in examination of domestic territorial development policy.

We can interpret the framework of the institutional system examined in general by Benedek (2006), on the level of the EU by FORMAN (2000), KENGYEL (2008), HORVÁTH (2001), SZIGETI (2007) putting an emphasis on its special characteristics in Hungary. We argue that changes caused by joining the EU can be considered a strong institutional rearrangement (Csíte–KOVÁCH (2002), KOVÁCH–KUČEROVÁ (2006), KOVÁCH (2008)) but the main characteristics and patterns

of competing for development resources have not changed considerably; therefore questions raised by previous studies still remain (see Voszka 2006).

The novelty in setting these problems may be that *institutional classifications* are involved in the research that are fixed as principles to be applied by the actual development policy. The main goal of our work was to examine the effect of these factors that is, to examine the fulfilment of aims which are set by the regulator itself. We do not intend to examine what effect the development funds have on certain economic-social problems. It would be difficult to specify, as the change of settlement structure is considered to be a slow process, it cannot be interpreted by human standards (FEKETE 2010. 35.). Therefore we intend only to shed some empirical light on the distribution of development funds. In this way, the research may contribute to reveal some factors and mechanisms which determine the distribution of development policy resources on the one hand, and to helping future planning processes on the other.

## 2. Research Question

The actual question of the research to be presented below is whether the *institutional regulation of the distribution* of the European Union development funds in Hungary is successful – taking into consideration its aim; i.e. to enable the less developed territories (settlements, micro-regions) of the country to absorb development funds. In order to reach this objective the government explores – using statistical data – the development level of every micro-region and according to these differences defines for every EU planning period the least developed micro-regions and settlements of the country listed in a *decree*. The importance of the content of this decree comes from the principle of the EU-funds allocation mechanisms, namely that (only) the underdeveloped areas listed by the decree (*preferred* or *favoured* micro-regions and settlements) can apply for development projects with smaller ratio of own sources, i.e. with higher support rate.

## 3. Methodological Description

In the analysis, we investigate empirically whether the *regulation* described above *facilitates the absorption of development funds*. To carry out the analysis, we have built – and aggregated on several different territorial levels<sup>1</sup> – complex statistical databases<sup>2</sup> containing all the information needed to fill the variables in this general model below:

$$\hat{Y} = b_0 + b_1 \times X_R + b_{2...n} \times X_{Cl...n}$$

<sup>1</sup> While data-processing and interpretation of the results special attention should be paid to the fact that territorial analysis has its own methodology and system which is in connection with the use of statistical data in territorial analysis (see Dusek 2004., T.E. 2005.). This is because in the statistical analysis of territorial inequalities the indicators have different values – that is they show minor or major inequalities – depending on what territorial unit we have as the basis of analysis. This mechanism coming from the choice of the given territorial unit is named scales effect (Dusek 2004. 115.). The direction of distortion is systematic and tendentious – in the case of simple statistical methods and correlation. Using the same statistical method we can see that the higher aggregation level we investigate, the less territorial inequalities can be shown (Dusek 2004. 117., 119.). The changeability of territorial units results in another problem, the zoning effect. It derives from the fact that a given territorial unit can be divided into subparts of the same number in alternative ways. Statistical analysis on alternative divisions results in different degree of territorial inequality (Dusek 2004. 118–119). Thus it is needed to take into account these factors even if it is not referred or mentioned constantly during the analysis.

<sup>2</sup> In the course of quantitative data analysis we do not present and refer to the p-values or significance levels of the test results as we employ statistical data and there is not necessary to further generalize to the 'whole' population, i.e. we examine the real situation.

In the equation<sup>3</sup> the dependent variable (Y) measured the amount of EU development funds allocated (source: downloaded from the webpage of National Development Agency, Hungary), the main explaining variable (regulation,  $X_R$ ) contained the information – coded in a dummy format – if the micro-region or settlement is a preferred micro-region or not (source: recoded from and according to the decree list). We applied a specified impact analysis design (*regression discontinuity design*) in the course of data analysis to ensure statistical control (see Moksony 2005). Furthermore, we introduced more relevant statistical data<sup>4</sup> (as control variables;  $X_{Cl...n}$ ) on the actual regional level (source: downloaded and merged from the webpage of the Hungarian Statistical Office) in order to reach higher level of internal validity (Moksony 1985), i. e. to control the estimation for as many alternative and potentially distorting explaining factors as possible and to measure the net effect of the regulation (Moksony 2006).

## 4. Results of Data Analysis

### 4.1 Selected Quantitative Results

Considering the results of the secondary statistical data analysis, the effect of being preferred seems to be frequently controversial, counter-final in the light of the intended objectives.

Analysing the development fund indicators of the micro-regions of the Great Hungarian Plain – taking it as an example – the before mentioned experience can be seen well-marked in the case of the development-fund absorption rates of the preferred rural development micro-regions. The main question here is whether being classified as preferred, favoured rural development micro-region provides better options to gain development funds (AVOP; Agrár- és Vidékfejlesztési Operatív Program; ARDOP; Agrarian and Rural Development Operative Programme) which were directly designed to support rural- and agrarian investments. The results of Table 1. do not confirm this presumption. The difference between the preferred and not preferred rural development micro-regions can be most easily seen, if we examine the last column of the table, the so-called ‘rural-development multiplier’, which we calculated as a ratio: the value belonging to the favoured rural-development micro-regions was divided by the value belonging to the not preferred micro-regions. So this simple indicator reflects in one single number how the preferred micro-regions were more likely to acquire development funds. After surveying these numbers, it can be seen that the highest difference between the micro-regions is in the case of the total amounts of the OPARD-funds: the preferred rural development micro-regions applied for only 68 percent of the total amount of OPARD-fund applied by the non favoured micro-regions. That is, the micro-regions preferred because of their agrarian and rural profile applied for a *smaller* share of agrarian- and rural development funds. However, the value of the rural development multiplier in the case of all the variables is under 1, so it can be concluded that the *preferred rural development micro-regions perform regularly worse* compared to the not preferred micro-regions in the case of rural development funds.

<sup>3</sup> To investigate the relations between the variables we mostly use comparison of means, logistic and linear regression method. The latter ones makes us capable to show the relation between variables with the help of a single indicator (MOKSONY 2006. 54.).

<sup>4</sup> We should take into consideration the role of this kind of statistical control as for causality analysis real experiment is the most suitable method regarding internal validity due to randomization. When we control alternative explanations statistically – that is, in the case of quasi-experiment tests – we get weaker internal validity. However ‘*regression discontinuity design*’ enables us to get a level of internal validity similar to the experimental methods but without the need of randomization (MOKSONY 2005. 99.).

TABLE 1 ❖ Differences of project absorption

Dependent variable		Mean	Standard deviation	R.D.M.
All AVOP projects (p.)	0	88,80	50,10	0,89
	1	79,20	33,79	
AVOP projects won (p.)	0	51,70	24,34	0,97
	1	50,00	24,18	
Total amount of AVOP funds (HUF)	0	2 017 305 663,30	1 335 799 644,64	0,68
	1	1 377 044 974,13	775 492 996,75	
Total amount of AVOP funds won (HUF)	0	1 178 452 305,30	559 099 678,77	0,72
	1	852 042 399,33	590 956 391,67	

Abbreviations: 0 = not preferred rural development micro-regions, 1 = preferred rural development micro-regions; R.D.M. = Rural Development Multiplier: the quotient of the values of preferred rural development micro-regions and not favoured micro-regions.

Source: Own calculation on a complex data-base containing the micro-regional level data of the National Development Agency.

In order to refine the previous results, we step down to micro-level data and examine directly the Regional Development Operative Program (RDOP) projects of the Hungarian Development Plan (HDP I.). Though the effect of the decree-level institutional regulation of being preferred or favoured seems to be also problematic: in Table 2. we presented the results of linear regression models estimating the effects of being preferred micro-region and preferred settlement respectively on different absorption indicators. Except for the variable of support rate, all of the 'b'-coefficients are negative, i.e. the preferred micro-regions and preferred settlements perform worse than their more developed partners. For example, a project-application coming from a favoured micro-region has nearly 37 millions HUF *smaller* contacted total sum of the investment on average – only to take the highest difference –, and if a project comes from a favoured settlement, it has 46 million HUF drawback on average taking the same – and in this case also the highest – indicator. Only the support rate is influenced in the expected, i.e. the officially aimed positive direction: the projects of the favoured micro-regions have on average 2,2 percentage higher support rate, and the projects of preferred settlement have on average a 4,1 percentage advantage:

TABLE 2 ❖ Effects of different levels of regulation

Explaining variables. Dependent variable (millions HUF/%)	Coefficients	Preferred micro-region or not	Preferred settlement or not
Total sum of funds won	Constant	215,601	213,060
	'b'	-19,492	-25,025
Granted total sum of the investment	Constant	267,343	262,766
	'b'	-35,548	-45,816
Total sum of funds contracted	Constant	218,201	214,418
	'b'	-22,814	-26,827
Contacted total sum of the investment	Constant	268,234	263,140
	'b'	-36,891	-46,497
Amount of funds paid	Constant	210,937	206,883
	'b'	-24,857	-29,433
Support rate	Constant	84,398	84,280
	'b'	2,208	4,074

Source: Own calculation on a complex data-base containing the project-level data of the National Development Agency.

We can unfold the connections above, if we analyse further the effects of the regulations separately. For this we use the variable ‘amount of funds paid’ as this is an indicator representing a realized and already absorbed fund, and first take the preferred micro-regional status. The initial effect is again replicated by the results of the first model (Table 3: M1): a project from a favoured micro-region has on average 25 million HUF smaller amount of fund compared to a project from a not disadvantaged micro-region. At the first step, we calculated and included a new variable in the linear regression procedure (Table 3: M2) so as to control the impact of the factor arising from the obvious differences of the circumstances (for this we constructed a principal component containing several aspects of information – number of population, rate of unemployment, number of enterprises per capita – about the actual micro-region all at once. The results of this calculation show that after controlling for the features of the micro-region the effect of favoured status decreases to -8,6 million HUF, i.e. the disadvantage of the preferred – less developed – micro-regions may be explained *partly* by their disadvantaged circumstances itself. But it can not be said that the drawback is fully due to these factors, as there is still a remarkable negative impact related to the preferred micro-regional status. In the next model, we applied another dimension of the development level of the micro-regions investigated: the rate of favoured settlement was treated as a new explaining factor. According to the results of this model estimation (Table 3: M3), the amount of funds paid is smaller (i.e. the effect of this variable is negative; -0,18 on average with every 1 percent) with a higher level of preferred – underdeveloped – settlements in the micro-regions. But the more important outcome is that in this model also – now controlled for the share of underdeveloped settlements – the self-employed impact of being preferred micro-region is still negative: a project coming from a favoured micro-region – no matter how high or low the ratio of preferred settlements is – has smaller ( $b^2 = -16,067$ ) amount of fund paid on average. Finally, we included in the estimation both of the former control variables beside our main explaining factor, and there seem to be again an unfavourable effect (Table 3: M4). Separated from the – in this final model positive – effects of the features of micro-regions and the rate of underdeveloped settlements, the impact from the institutional regulation of being preferred micro-region is negative: a project from a favoured micro-region has an average nearly 11 million HUF less amount of funds paid compared to the more developed territorial units.

TABLE 3 ❖ *The net effect of preferred micro-regional status on the amount of funds paid (HUF)*

Constant, explaining variables	Models (M1–M4) constant and ‘b’ coefficients (million HUF)			
	M1	M2	M3	M4
Constant	210,937	201,977	214,300	200,983
$X_{\text{preferred\_micro-reg.}}$	-24,857	-8,605	-16,067	-10,733
$X_{\text{dev.level of micro-reg.}}$	-	24,108	-	24,393
$X_{\text{rate of preferred settl.}}$	-	-	-0,183	0,048

Source: Own calculation and edition on a complex data-base containing the project-level data of the National Development Agency.

The other control regulation concerning a lower territorial level (preferred status of settlements lagged behind) shows similar disparities. In this case we also need to start the exploration of the effects from the basic two-variable model (Table 4: M5): it says that – as it can be seen

in the relevant part of table 2. – the projects handed in from a preferred / underdeveloped settlement have on average almost 30 million HUF less total amount of funds paid. Controlling for the previously introduced micro-regional development-level factor (principal component), the extent of the drawback of the favoured settlements decreases (Table 4: M6) from the initial -29,4 value to -18,6 million HUF. The next model takes into consideration the other alternative explaining variable; the overall rate of settlements in a disadvantaged position (Table 4: M7). The results show that if we control for the relative frequency of favoured settlements in the micro-region, a project coming from a preferred settlement has on average 22,8 million HUF less total amount of funds paid. And this dimension of disadvantage also seems to consist according to the results of the final model (Table 4: M8) containing all the two alternative factors examined separately previously and the main explaining variable. In this case the average lack of funds paid for a project handed in from a lagging behind settlement – aside from the (positive) effects coming from the development features of the micro-regions and the level of underdeveloped settlement – is close to 27 million HUF.

TABLE 4 ❖ *The net effect of preferred settlement status on the amount of funds paid (HUF)*

Constant, explaining variables	Models (M5–M8) constant and 'b' coefficients (million HUF)			
	M5	M6	M7	M8
Constant	206,883	203,335	210,945	196,981
$X_{\text{preferred\_settlement}}$	-29,443	-18,612	-22,773	-27,733
$X_{\text{devlevel of micro-reg.}}$	–	23,667	–	25,509
$X_{\text{rate of preferred settl.}}$	–	–	-0,139	0,208

Source: Own calculation and edition on a complex data-base containing the project-level data of the National Development Agency.

Staying at the project level and using the same database of the Regional Development Operative Program (RDOP) we also calculated the so-called effect of interaction between the preferred settlement variable and support rate variable constructed by multiplying their values with each other as explicated below:

$$\hat{Y} = b_0 + b_1 * X_{\text{preferred\_settlement}} + b_2 * X_{\text{support\_rate}} + b_3 * X_{\text{INTER}} \quad , \text{ that is}$$

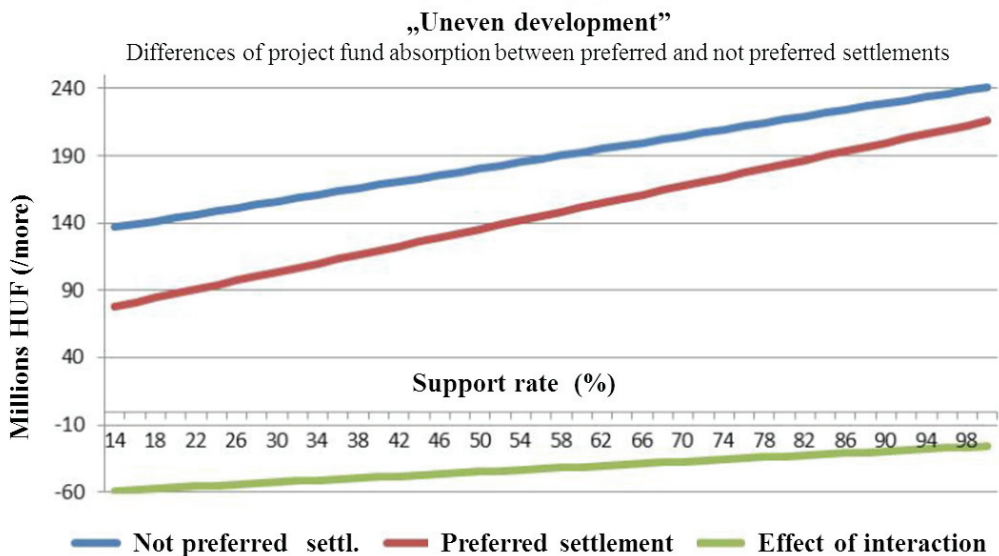
$$\hat{Y} = b_0 + b_1 * X_{\text{preferred\_settlement}} + b_2 * X_{\text{support\_rate}} + b_3 * X_{\text{preferred\_settlement}} * X_{\text{support\_rate}}$$

This special kind of indicator measures the effect of one variable from the interaction in the function of the value of the other variable from the interaction. Thus the – symmetric – indicator quantified this way can inform us about the effect of one variable depending on the value of the other variable. In our analysis, the main focus is on the effect of the favoured status of settlements, so we rearranged the regression equation in order to estimate the impact of being a preferred settlement in the light of the value of the support rate – as presented below:

$$\hat{Y} = b_0 + b_2 * X_{\text{support\_rate}} + (b_1 + b_3 * X_{\text{support\_rate}}) * X_{\text{preferred\_settlement}}$$

Using this ( $b_1 + b_3 * X_{tam.arany.}$ ) formula we can calculate the actual value of the examined effect from the preferred status at every possible value of the support rate. The interaction effect itself is positive ( $b^3=0,387$ ), which means that with higher support rate a higher positive effect of the preferred status can be expected (this is illustrated in Figure 1. using a green line with positive slope). This relationship itself could be regarded as a fortunate result, as it would imply that if the support rate is high enough, then the disadvantaged settlements can benefit more from the institutional regulation. However, if we calculate not just the interaction effect but the actual effects separately for the not preferred and the preferred settlements we can conclude that the positive effect is only a quasi positive effect. Actually the level of fund absorption is initially higher in the case of the more developed, i.e. not favoured settlements, and these applicants preserve their better position: although in the case of the preferred settlements the line representing the level of fund absorption is more steeped – due to the original positive value of the interaction effect –, this steepness is not high enough for the settlements lagging behind with preferred status to catch up the more developed ones – at least in the range of realistic values of the support rate with a natural maximum of 100 percent. So it can be stated that although the effect of the interaction is positive at higher value of support rate, we witness a higher effect of the favoured status, it is still insufficient to eliminate the drawbacks of the underdeveloped settlements – not to mention to enable the latter ones to overtake the settlements in better positions.

FIGURE 1 ❖ Differences of fund absorption



Source: Own calculation and edition on a complex data-base containing the project-level data of the National Development Agency.

So far we can conclude that both on micro-regional level and project level the effect of the institutional regulation officially planned and expected to enable the areas in disadvantageous position to catch up for the less underdeveloped ones in the field of the absorption of European



Union development funds proved to be unsuccessful. These empirical results imply that the less developed applicants – no matter micro-regions or directly projects – are at a disadvantage during the competition to gain development funds.



Now, we turn to a special group of projects in the Hungarian development policy and analyze the so-called *priority projects*. Everyone may admit that the priority projects are rather a special kind of development intervention considering the fact that the decision about the refusal or acceptance of a particular priority project is taken by the government itself. So in this case there is not that kind of competition to acquire the fund as we may suppose it in the previously analyzed instances, rather there is some kind of administrative decision – even if we take into consideration the evaluation process itself during which two separate professional reviews are included with recommendation about being supported or not. There is another angle why the priority projects can be regarded as extremely important policy instruments: *“a priority project is in priority because it contains such important development – either on a national or on a regional level – that can not be managed in other project budget due to its monetary dimension and uniqueness”* (K.D. 2007).

The data of the priority projects can be achieved from a given part of the webpage of the National Development Agency in a single Microsoft Excel table, which was supplemented during our work with further factors; additional variables from other sources. We assume that this information is important to be shared, as the tables shared on the internet include only the status of an actual priority project: the result of the governmental decision whether the project is supported, must be improved further, or rejected. From this divide we created a dummy variable – with a value 0 indicating that the priority project was refused and with a value 1 indicating that the priority project was supported or it needs still some elaboration –, so in this analysis the main question and our dependent variable can only be the decision, more properly the probability of being supported. Accordingly, we will apply likelihood-ratio calculations and logistic regression models in the course of data analysis.

The first numbers show the regional disparities of the possibilities of having a supported priority project: we assembled a simple cross-tabulation of the regional affiliation and the status of support; furthermore we calculated and included in the last column the odds to be supported separately in every region. The values imply that there are great differences in the probability of winning a priority project (see Table 5.): in most cases of the regions the numbers are under the value 1 – the notable value which means that the likelihood of having a supported project and a rejected project is the same; values over 1 indicate bigger possibility to be successful at having priority projects accepted, and values under 1 signifying worse performance in this field. So in the regions of Dél-Alföld, Dél-Dunántúl, Észak-Alföld, Észak-Magyarország and Közép-Dunántúl, the priority projects do not tend to be as fruitful as they are in the traditionally and well-known more developed regions – Közép-Magyarország and Nyugat-Dunántúl (in the latter cases the numbers are already twice as high; 1,8 odds to have a supported priority project) . Thus, it is obvious that it is more difficult to have a granted priority project in the less developed regions, but the inequality becomes even more significant, if we consider the difference between the odds of the group of regional priority projects and the national level priority projects: the national ones have more than 6 times higher odds to be supported.

TABLE 5 ❖ Regional differences of the odds of priority projects to be granted

In the cells shown: frequencies		Status (government decision)		Total	Odds of a priority project to be granted in the region
		Not granted	Granted		
Regions	‘Dél-Alföld’	100	37	137	0,37
	‘Dél-Dunántúl’	41	16	57	0,39
	‘Észak-Alföld’	85	56	141	0,66
	‘Észak-Magyarország’	50	44	94	0,88
	‘Közép-Dunántúl’	55	48	103	0,87
	‘Közép-Magyarország’	51	96	147	1,88
	‘Nyugat-Dunántúl’	40	73	113	1,83
	National projects	17	105	122	6,18
<b>Total</b>		439	475	914	(1,08)

Source: Own calculation and edition on a complex data-base containing the project-level data of the National Development Agency.

Besides the regional dimension of differences, we also analyzed the effect of territorial development on the odds of having an accepted priority project. The first explaining variable in the related models was the proportion of the preferred micro-regions in the county from which the priority project was invited in the evaluation and decision-making process. According to the results of the logistic regression model (Table 6: M9), the effect caused by this so-called rate of underdevelopment is negative ( $b' = -1,7$ ), but perhaps it is more effective for us to investigate the antilogarithm of the ‘b’ estimates, which transforms the raw ‘b’ values into the more easily interpretable odds ratio. Thus, it can be stated that there is – in this case as well – a remarkable inequality: with a higher proportion of preferred – i.e. less developed – micro-regions at the county level there is a lower odds ratio ( $b'$  antilog.=0,18) to have a supported priority project. However, in the group of the counties where there are not any favoured micro-regions, there is a higher possibility of the priority projects to be accepted: numerically – as it can be seen from the value of the constant in the same logistic regression model – nearly twice as high odds ratio ( $b'$  antilog.=1,95) can be measured; in other words it is much more likely to have a successful priority project in the more developed counties.

The other aspect of this territorial dimension is investigated from a less gradual point of view: we divided the units of analysis into two different groups depending on the mean value of the variable: proportion of the preferred micro-regions in the county. For the projects above the cut point values were coded with 1 (signifying a higher rate of underdevelopment), and the other ones were coded with 0 (signifying the counties with less – under the average – lagging behind micro-regions) as described below:

If  $x \leq 50\%$ , then the value of the new variable = 0 ( $N = 402$ ),  
 If  $x > 50\%$ , then the value of the new variable = 1 ( $N = 407$ ).

So this dummy version of the original variable may reveal more visible and more distinct differences. Applying the logistic regression model in this case fulfills this expectation (Table 6: M10): although the raw ‘b’ estimate of the explaining variable is smaller than at the previous model, the antilogarithm of the indicator proves to be higher ( $b'$  antilog.=0,32) and marks more

notable disparity. It means that if a priority project proposal is given in from a county where the maximum share of the favoured (underdeveloped) micro-regions is fifty percent, then it is one and a half times more possible to be supported – see the antilogarithm value of the ‘b’ in the case of the constant(=1,53) –, while in the case of the counties with higher rate of underdeveloped micro-regions, the odds ratio is only 0,3 – i.e. it has only one-third likelihood to have a successfully accepted priority projects proposal.

TABLE 6 ❖ *The effect of the rate of underdeveloped micro-regions on the odds to be granted*

(N = 809)		b	antilogarithm of b coefficients
M9	X <sub>proportion of underdeveloped micro-regions</sub>	-1,699	0,183
	Constant	0,667	1,948
M10	X <sub>rate of underdeveloped micro-regions_dummy</sub>	-1,149	0,317
	Constant	0,425	1,529

Source: Own calculation and edition on a complex data-base containing the project-level data of the National Development Agency.

As demonstrated by the empirical results above, it cannot be stated that the decision-making processes of development policy would be more egalitarian on a higher level; i.e. on the governmental level: the priority projects also seem to lack any kind of spatially harmonizing impact. Rather, we had to face the fact that these particularly important and outstandingly expansive investments are more easily realized – or realized at all – by (co)financing with European Union development funds in the more developed regions and areas of the country.

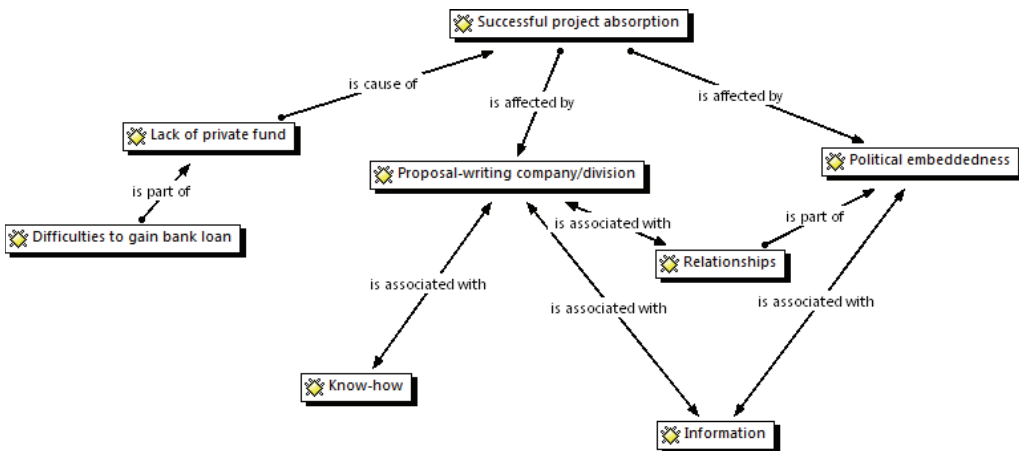
#### 4.2. Results of the Qualitative Research: Responses from the Interviews I.

Based on the results of the personal interviews conducted with different types of actors and stakeholders in the EU-funded project application system – self-government leaders and representatives of municipalities, project managers of micro-regional development associations, proposal-writers and project managers of project firms; i.e. members of the project class – we can shed some light on the factors behind the relations explored above, or the mechanisms laying in the background of the quantitative data.

According to the opinions of the respondents (see Figure 2.), the success of the application and project management can be traced back – on the one hand – generally to the *scarcity of resources*. This scarcity of resources means in the field of proposal writing and project generation itself the lack of own funds. As in the process of competition for development funds some of the participants – no matter if they are municipalities, enterprises or non-governmental organizations – do not possess privately the necessary financial resources to complete their project budget. This shortage of resources is even aggravated by the fact that these actors – just because of their disadvantaged circumstances – can obtain bank loans only limited or with restricted conditions – if they can at all – to complement their development projects and provide the own contribution. Thus, the results from the qualitative data highlight an objective impediment which is originated in the lack of resources. There is even an opinion that the acquisition of the European Union development funds depends solely on the own financial resources. Another dimension relating to this shortage of resources is the method of *subsequent financing*, which – beyond the very existence (or lack) of the necessary private resources – demands the availability of further free

monetary frame to start and to finalize the first phases; accounting periods of the projects. This problem emerges as an extremely important factor, as it does not concern the applicants of the excessively underdeveloped areas alone, rather it proves to be a complicating factor of the project funding system as a whole, impeding all the financially less strong stakeholders.

FIGURE 2 ❖ Results from the interviews



Source: Own categorisation and edition from the opinions in the interviews by ATLAS.ti

#### 4.2.1. Related Quantitative Results

In order to investigate whether the disadvantage described above and directly caused by the monetary conditions generally pervade the project proposal system, it may be fruitful to analyze deeply the quantitative data. If the applicants struggling with the shortage of financial resources are really lagging behind, it may confirm the phenomenon explored in the interviews.

We use the data of the projects from the period of the National Development Plan (NDP I.; 2004-2006), as these can already been treated as closed, i.e. the trends appearing in the data may not change yet. In this case as well, we analyze all the supported projects without sampling (N=11720), but we excluded the ones which were funded without competition (the priority projects and the central projects). The complex multi-level calculations (see Table 7) provide a rather remarkable result about the question raised: the first part (Table 7: M9) of the outcomes shows the effect of the preferred status of the micro-region on the support rate regarding the project level, and aggregated on the scope of the institutional regulation, i.e. micro-regional level. The values of the regression coefficients imply that on project level both the applicants from preferred; i.e. underdeveloped micro-regions are at advantage – because their projects are realized with 5,5 percentage higher support rate on average –, and aggregated on the micro-regional level the average level of support rate is higher ( $b=8,4$ ), as well. These results confirm that it is worth being favoured in the European Union funds based Hungarian project allocation system, because the preferred applicants can implement their projects with smaller own financial resources – due to the higher support rate.

TABLE 7 ❖ *The effect of preferred status on project and micro-regional level*

MODEL	VARIABLES OF THE MODEL	PROJECT LEVEL	MICRO-REGIONAL LEVEL
M9	Constant	58,485	57,087
	DEPENDENT V: Support rate	5,519	8,377
M10	Constant	27,340	3541,649
	DEPENDENT V: Amount of funds paid (million HUF)	18,767	-2430,598
M10.c1	Constant	-27,445	1186,649
	DEPENDENT V: Amount of funds paid (million HUF)	13,687	-2776,071
	CONTROL V: Support rate	0,936	41,243
M10.c2	Constant	-26,178	661,304
	DEPENDENT V: Amount of funds paid (million HUF)	4,031	-357,584
	CONTROL V: Support rate	0,946	49,033
	Development level	-9,229	4122,595

Source: Own calculation edition and aggregation on micro-regional level on a complex data-base containing the project-level data of the National Development Agency.

The further part of table 7. also reveals the positive impact of the favoured status where we estimated the effects on the total amount of funds paid (Table 7: M10-M10.c2). The latter is higher in the case of the projects coming from preferred micro-regions in the case of the two-variable model and also in the models containing additional control variables. The estimation of the simple two-variable model (Table 7: M10) quantifies the difference of the dependent variable – total amount of funds paid – when we shift from the group of not preferred micro-regions to the group of the preferred ones. The extended model (Table 7: M10-M10.c1) – containing the first additional variable; support rate – makes the same estimation simultaneously controlled by the aforementioned alternative explaining factor (support rate). In the final model (Table 7: M10.c2), we included another control variable – development level of the micro-region; a principal component constructed from 5 indicators as described earlier –, thus the coefficients of this model present the net effect of being preferred micro-region – aside from the impacts of the value of the support rate and the micro-regional development level.

The results of the first basic model (Table 7: M10) indicate that – on the project level – the effect of belonging to a preferred micro-region is positive: a nearly 19 million HUF higher amount of funds can be observed on average. After controlling – the initially likewise positive – the effect of support rate (Table 7: M10.c1), the independent impact of the favoured micro-regional status decreases a little, but remains positive ( $b^1=13,7$ ). And in the final model (Table 7: M10.c2)– which estimates the effect of our main explaining variable, the values of the support rate and the development level of the micro-regions considered to be constant – there is still a positive effect: if a project is given in from a preferred micro-region, then the sum of funds paid is 4 million HUF higher on average.

In so far, as all of the models investigated above are examined aggregated on the micro-regional level, we obtain respectively the opposite results – that is, the effect is negative: only to mention the results of the final model (Table 7: M10.c2) illustratively – aside from the positive

effects of the support rate and the context of the micro-regions – in the group of the favoured micro-regions the amount of funds paid is 357,6 million HUF smaller. This casts doubt on the advantageous impact of the institutional regulation of favoured micro-regional status because it means that when we move from the group of not preferred micro-regions to the group of the preferred ones, the average level of fund absorption is lower.

To sum up briefly, the advantageous impact of being preferred micro-region can be detected only on project level; on territorial level it seems to be rather a disadvantage. Thus, we may conclude that the results of the empirical research above reveal an essential problem of the project fund allocation system: it is worth being involved in the institutional regulation of being preferred on the *project level, as an applicant* – because this brings both higher rate of support and higher amount of funds paid in the projects. However, generally speaking, the micro-regions considered to be the accumulation units of drawbacks and inequalities can not reach any kind of advantages – thus generating a kind of *trap* in development policy. So to say the favoured status as an institutional regulation is advantageous and reaches its objective initially intended, but on territorial level its effect is not advantageous so it is in this respect counterproductive.

#### 4.3. Results of the qualitative research: responses from the interviews II.

However, among the causes of lagging behind or being successful in the processes of project generation and fund absorption the factors – related to the financial shortages and strengths – described above based on the interviews and also analyzed with quantitative methods can be regarded as only one of a more differently interdependent group of factors. In the opinions of the respondents, more elements could be discovered – connected to a different aspect of the scarcity of the resources, too (see Figure 2). One of these elements is the *lack of activities* – organizationally separated – assisting and relieving the course of assembling project proposals, on which the investor or applicant can rely. Since the success of proposal writing and the phase of planning of projects needs and supposes – according to the respondents' opinions – the availability of *knowledge and skills* which do not always exist in the case of all potential applicants. Those employees or staff members who have already been handling such tasks for a long time are far more experienced with proposal documents and in this respect they have the know-how and expertise that is required to prepare these materials precisely and accurate.

It seems to be actually irrelevant whether this complexity of particular skills and knowledge is accessible *within the organization itself* – even as a separate proposal writing department, or just as a few staff members specialized directly for this purpose –, or this knowledge is achieved as a service sold by the market in the form of tender or proposal writing companies. These two options are equivalent from the perspective that both supposes the existence of – eventually financial – resources. In this way – another – source or aspect of inequalities is created for those applicants being in less advantageous conditions. The proposal writing companies and their employees incorporated obviously wider, deeper and more extensive knowledge. And this can be taken into consideration as a cause for the respondents' opinion which declared that it is not even rewarding for a smaller organization – for example a self-government of a small settlement or the small- and medium-sized enterprises – to employ or train colleagues who have expertise of every given area in depth, because on the one hand their education may be fairly expansive, and on the other hand it is likely that during their work it will be necessary for them to rely on their specific knowledge only rarely (project proposals with specific themes or areas are created only occasionally). Unlike the proposal writing companies – it can be much more promising for

them to invest into the training or employing of a person with experience and knowledge in a particular field as this member of the staff may carry out for different clients the same kind of works and duties that require the specific knowledge.

#### 4.4. Summary of the results

According to the secondary data analysis, counterfactual patterns of the institutional regulation of the European Union funds absorption could be explored: on micro-regional level (1) the preferred rural development micro-regions have a smaller rate of both projects and funds compared to the developed, i.e. not beneficiary territorial units. Project level data of regional development projects implied that (2) the support rate is influenced positively by the governmental regulation: in the preferred settlements and micro-regions the average level of support rate is higher, however (3) in both cases of micro-regional and settlement level, the effect of preferred status proved to be disadvantageous: even in the control-variable models, the projects from preferred territorial units have on average smaller amount of funds paid than their developed counterparts. The (4) positive value of the interaction effect can be regarded as favourable outcome, although a higher value would be more desirable, as the overall tendencies show that this advantage of the underdeveloped, i.e. preferred settlements is not high enough to help the less developed ones to catch up. In the case of the especially remarkable priority projects (5), a clear regional dimension of inequality could be measured concerning the odds to have a granted projects and the (6) distribution of the underdeveloped micro-regions seemed to be a significant factor in this case as well: the higher presence of preferred micro-regions decreased the odds of the priority projects to be granted. The results of the qualitative research (7) revealed three main factors influencing the success of development project absorption: besides the indispensable economic capital a kind of cultural or human capital, furthermore social resources or personal relations prove to be necessary elements. In the light of the qualitative research results (8) the institutional regulation seemed to work as a kind of development trap: some more detailed analysis on different levels revealed a controversial role of the preferred status.

#### 5. Conclusions

Above we introduced some results about the appropriateness and success of the Hungarian regional development policy – our main goal was to answer empirically whether mechanisms resulting in counter-factual effects can be explored, i.e. to demonstrate the regional inequalities of regional development policy. After shortly outlining the theoretical frame by interpreting the connection of regional development policy and (territorial) inequalities on the basis of (new) economic sociology, we carried out analysis on several databases on more territorial levels and explored some opinions about the issue from personal interviews.

According to the results of the empirical analysis, we can conclude that both on micro-regional level and project level the *effect of the institutional regulation* of the absorption of European Union development funds – officially planned and expected to enable the areas in disadvantageous position to catch up with the less underdeveloped ones – *proved to be unsuccessful*. These empirical results imply – in accordance with the related EU-level results (BRADLEY 2006, CRESCENZI 2009, ESPOSTI – BUSELOTTI 2008, MARTIN-TYLER 2006) – that *during the competition to gain development funds the less developed applicants are at a disadvantage*. More precisely, the quantitative (secondary statistical analysis) and qualitative (interviews) outcomes show that preferred status seems to be counter-factual due to the complex combination of the lack

of resources. Moreover, the respecting relationships imply a kind of *development trap*, inasmuch it is worth becoming beneficiary on the project level, because higher support rate and sum of support can be achieved, but on micro-regional level the impact of being preferred is negative, i.e. disadvantageous.

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