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**Instruments of regional economic development  
and their implementation in Hungary**

**PhD theses**

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## **I., Introduction, objectives**

The aim of this paper is to draw a full picture of the instruments of regional economic development, and their implementation in Hungary. It may contribute to a balanced assessment of the instruments, avoiding their overestimation and campaign.<sup>1</sup>

The topic is connected to the frontiers of economics and regional analysis, putting the emphasis on the regional, territorial aspects.

I analyse the following instruments:

- primary instruments
  - directly to enterprises
    - exemptions – national tax exemption, customs free zone, enterprise zone, local tax exemption
    - grants
    - financial engineering – soft loan, micro credit, guarantee, interest rate subsidy, venture capital
    - special instruments – state owned organisation's investment, state's purchase, trademark for local products
  - indirectly to enterprises
    - business infrastructure – industrial park, business incubator, science park, business innovation centre
- secondary instruments – combination of primary instruments according to local conditions
  - clusters
  - micro-regional development plans

Besides surveying the instruments, I verify two hypotheses.

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<sup>1</sup> I have been working in the National Development Office for years, which may have both advantages (more information) and disadvantages (bias, practicality) regarding this paper. I just hope advantages outweigh disadvantages.

1., Economic development policy makers may apply a special set of regional instruments. While economic development in general is shifting towards ‘sterile’ financial engineering, regional economic development is finding flexible instruments that can fit to local conditions.

2., Implementation of the instruments is clearly driven, besides the needs of the economy, by the personal motivation of decision makers and the bureaucracy. Both launching, adjusting or closing the implementation of certain instruments tend to delay.

## **II., Methods**

I applied three different methods for the analysis.

All chapters are based on an overview of the *literature*. Chapter 2 on development policy contains the most extensive overview, including some key studies that are less known in Hungary. These critical studies on the impacts of funds call for new approaches. Chapters 8 and 9 on secondary instruments (clusters, micro-regional development plans) also contain a relatively broad overview of the international experiences, since Hungary has less experience in this field.

*Territorial statistical data* are analysed according to the relevance of the instrument and the availability of information. Chapter 4 on grants, and chapter 7 on industrial parks contain detailed analyses, looking for explanations not just the description of the situation.

A part of chapter 8 on clusters is supported by *interviews*. I spent some days in Korond to understand the balance of competition and cooperation between entrepreneurs of the local pottery cluster.

### III., Results, conclusions

I have results on individual instruments (mainly grants, industrial parks, clusters) and on the system of instruments as a whole (two hypotheses).

#### On individual instruments

1., Regional allocation of *grants* in Hungary, and their impact on cohesion vs. polarisation, have been analysed by different studies. I added analyses at micro-regional level, and on the relationship between grants and investments. From the National development plan (2004-06), per capita grants for developed micro-regions were below the national average, while for disadvantaged micro-regions above that. However, figures for disadvantaged micro-regions were below the regional average (table 1). Allocation of funds resulted in intra-regional polarisation.

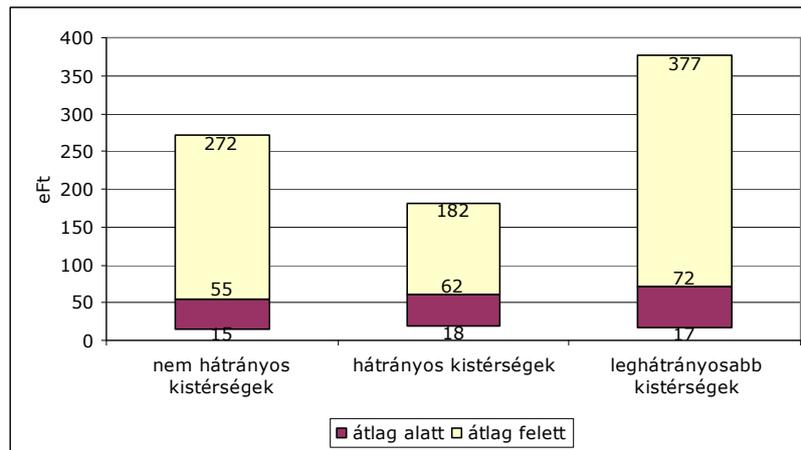
Table 1: Per capita grants by region and type of micro-regions, 000HUF

region	total	developed	disadvantaged	most disadvantaged	33 most disadvantaged
Central Hungary	40	40 (0)	55 (+15)	-	-
Central Transdanubia	47	49 (+2)	35 (-12)	-	-
Western Transdanubia	54	54 (0)	50 (-4)	-	-
South Transdanubia	65	66 (+1)	67 (+2)	60 (-5)	63 (-2)
North Hungary	80	80 (0)	73 (-7)	84 (+4)	78 (-2)
North Great Plain	70	82 (+12)	52 (-18)	72 (+2)	66 (-4)
South Great Plain	72	80 (+8)	71 (-1)	58 (-14)	51 (-21)
total	60	55 (-5)	62 (+2)	72 (+12)	68 (+8)

(in brackets: deviation from regional average)  
data: EMIR

Dispersion may be even more important than average. Differences within groups of micro-regions were much larger than differences between averages of groups of micro-regions (graph 1). Thus, allocation of funds may have resulted in reproduction of micro-regional imbalances.

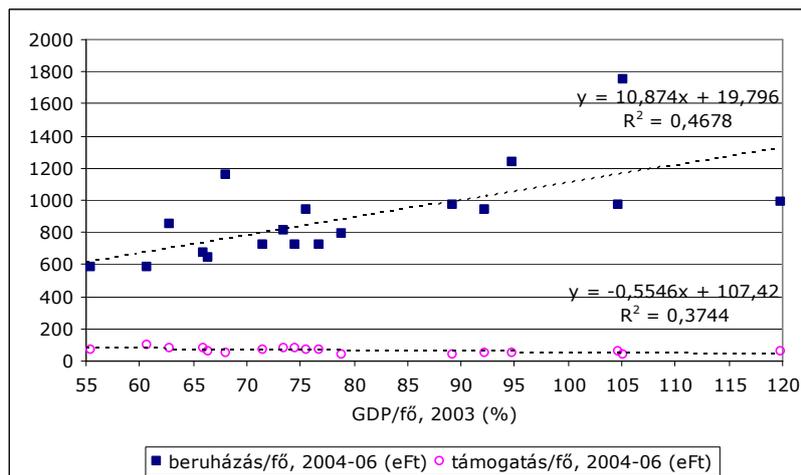
Graph 1: Per capita grants by type of micro-regions (average, min., max.)



developed / disadvantaged / most disadvantaged micro-regions  
 below average / above average  
 data: EMIR

Allocation of funds is a minor factor of regional trends. Investments have a much larger scale. For example investments between 2004-06 amount ten billion HUF, while funds of the National development plan amount only 7% of that. And investments have a totally different regional pattern than funds. Between 2004-06, most investments arrived to developed counties (Budapest, Komárom-Esztergom), and least investments arrived to most disadvantaged counties (Nógrád, Szabolcs-Szatmár-Bereg, Békés) (graph 2).

Graph 2: Regional allocation of investment and grants, 2004-06



GDP per capita, 2003 (%)  
 investment per capita, 2004-06 (000HUF) / grants per capita, 2004-06 (000HUF)  
 data: KSH, EMIR

The concept of „explicit” vs. „implicit” nature of territorial preferences can help analysing various schemes or instruments. It makes clear that regional allocation is driven by key characteristics of the scheme (see investment promotion vs. SME development), rather than special territorial preferences (e.g. extra points for project proposals from determined regions, etc.).

2., In Hungary, *industrial park* is a title that can be obtained from the ministry of economy. Most important criteria include that the park has to reach a minimum concentration of 10 enterprises and 500 employees within 5 years from obtaining the title. Trying to repeat the success of a few industrial parks in Northwest Hungary, hundreds of local governments planned to have their own parks in all parts of the country in the ‘90s. We made it clear that the success is clearly based on the settlement’s potential, especially accessibility, population, industrial tradition. The rate of industrial parks meeting the above criteria is 70% for parks in advantageous settlements and 17% for parks in disadvantageous settlements (table 2). Most of my citations refer to this.

Table 2: Development of industrial parks by settlement’s potential, 2007

settlement’s potential	meet both criteria		meet one criteria		meet no criteria		total	
advantageous	21	70%	7	23%	2	7%	30	100%
medium	21	35%	13	22%	26	43%	60	100%
disadvantageous	5	25%	7	35%	8	40%	20	100%
total	47	43%	27	25%	36	33%	110	100%

data: ministry of economy

In 2000 we forecasted that the rate of industrial parks meeting both criteria will be around 55-60% for parks that obtained the title in 1997-98, and lower than that for parks that obtained the title in 1999 (Kullmann-Hegyí 2000). Our forecast proved to be correct: in 2007 the rate of industrial parks meeting both criteria is 53% for parks from 1997-98, and 22% for parks from 1999 (table 3).

Table 3: Development of industrial parks by year obtaining title, 2007

year obtaining title	meet both criteria		meet one criteria		meet no criteria		total	
1997	21	75%	4	14%	3	11%	28	100%
1998	20	43%	10	21%	17	36%	47	100%
1999	8	22%	13	35%	16	43%	37	100%
total	49	44%	27	23%	36	32%	112	100%

data: ministry of economy

3., *Clusters* became fashionable in Hungary in the early 2000s. Dozens of “potential clusters” have been identified, however, none of them have high number of enterprises or long history. Description of the pottery industry in Korond (Hungarian village in Romania) as a cluster may highlight the differences between “potential” and “real” clusters. Korond can be described as a cluster due to the following features:

- Strong sectoral concentration, high number of entrepreneurs and employees in pottery.
- Long tradition, inherited from generation to generation.
- Proven flexibility – successful changing of technology, products and markets several times.
- Presence of competition and cooperation, or common services (see education, innovation and technology transfer, quality assurance and marketing).
- Extensive exports, above average incomes.
- Presence of additional industries (e.g. rural tourism).

However, the Korond pottery cluster has its imperfections as well.

- Lack of vertical disintegration – only production and trade have been split (due to the nature of the products).
- Lack of specialisation – all entrepreneurs produce and sell all types of pottery.

4., As the fair trade movement or the kiva.org website became alternatives to international aid campaigns, perhaps similar initiatives may evolve and become alternatives to national “aid” schemes. The question is whether the civil society can take over and efficiently manage such functions of the state.

#### On the system of instruments

1., Instruments of regional economic development progress in two directions (table 4).

- Financial engineering is spreading, providing solutions to financial problems for high numbers of SMEs. Regional preferences are not typical. It refers to market failure in its narrow definition (ensuring efficiency).
- Indirect instruments (science parks, innovation centres) and secondary instruments (clusters, micro-regional development plans) are spreading as well, adapting to local conditions. Explicit regional preferences and decentralisation is typical. They refer to market failure in the broad sense (ensuring fairness).

Table 4: Instruments of regional economic development

<b>instruments</b>	<b>starting period</b>	<b>scale</b>
<b><i>primary instruments</i></b>		
exemptions = national tax exemption = customs free zone = enterprise zone = local tax exemption	developed countries: from '50s; Hungary: from '90s	ten thousands; national tax exemption, customs free zone: hundreds; enterprise zone: tens
grants	developed countries: from '60s; Hungary: '68, and from '90s	thousands
financial engineering = interest rate subsidy = guarantee = micro credit = venture capital	developed countries: from '80s; Hungary: guarantee and micro credit from 2000s, venture capital just launched	guarantee, micro credit: ten thousands; venture capital: hundreds
business infrastructure = industrial park = science park = business incubator = business innovation centre	developed countries: industrial park and incubator from '50s, science park and innovation centre from '80s; Hu: industrial park '68, and from '90s, incubator from '90s, science park and innovation centre from 2000s	industrial park: hundreds; incubator: ten; science park and innovation centre: unique
<b><i>secondary instruments</i></b>		
clusters	developed countries: from '90s; Hungary: from 2000s	tens
micro-regional development plans	developed countries: from '90s; Hungary: just launched	tens

Table 4: Instruments of regional economic development (continued)

<b>instruments</b>	<b>regional preferences / possibility for decentralisation</b>	<b>spread in Hungary → impact on regional disparities</b>
<b><i>primary instruments</i></b>		
exemptions = national tax exemption = customs free zone = enterprise zone = local tax exemption	national tax exemption, customs free zone: implicit regional preferences; enterprise zone, local tax exemption: explicit regional preferences / decentralisation not typical	national tax exemption, customs free zone: NW-Hungary → polarisation; enterprise zone, local tax exemption: East-Hungary → cohesion
grants	implicit regional preferences / decentralisation not typical	investment promotion: NW-Hungary → polarisation; SME development: balanced → neutral
financial engineering = interest rate subsidy = guarantee = micro credit = venture capital	regional preferences not typical / decentralisation not typical	balanced → neutral
business infrastructure = industrial park = science park = business incubator = business innovation centre	explicit regional preferences / decentralisation is typical	industrial park: NW-Hungary → polarisation; incubator: East-Hungary → cohesion; science park, innovation centre: Central-Hungary → polarisation 1
<b><i>secondary instruments</i></b>		
clusters	explicit regional preferences / decentralisation is typical	neutral
micro-regional development plans	explicit regional preferences / decentralisation is typical	neutral (started in most disadvantaged micro-regions)

- There is no strong regional economic development instrument with an automatic impact on cohesion. In order to reduce imbalances, most instruments need to be focused on depressed regions, as part of an integrated economic development policy.
- Some of the most effective programmes (see Grameen Bank, fair trade) have been evolved for years or even decades, learning from their successes and failures. To enable the launching of such programmes, flexible financing mechanisms need to be invented.

We can accept hypothesis No. 1.

2., Instruments of regional economic development are shaped by two factors.

- First, by the development of the economy, obviously. In developed countries both the development of the economy and the adjustment of the instruments have long track records.
- Second, by the slower development of the state. In Hungary – and probably in most similar countries – all instruments are implemented with significant delay and/or distortion (see delay of a sustainable micro credit scheme; unjustified number of industrial parks or clusters; political influence of grants or the leader programme; odd story of enterprise zones). Reasons can be described with the concept of government failure and rent seeking.
- The conclusion can be drawn: the state should avoid the implementation of instruments with large number of discretionary decisions. Such instruments should be applied by better controlled market, civil or local organisations.

Thus, we can accept hypothesis No. 2.

## V., Publications

### *Articles, chapters*

- Ádám Kullmann (1999): Attempt to quantify the effects of the motorway between Füzesabony and Polgár on regional development. – Falu Város Régió, 7., p. 18-20.
- József Nemes Nagy – Ádám Kullmann – Attila Fekete – Pál Szabó (2000): „Public” and „market” ways of regional development in the 1990s. – Területi Statisztika, 3., p. 203-220.
- Ádám Kullmann (2000): Development paths of industrial park sin Hungary. – Space and Society, 2-3., p. 63-72.
- Ádám Kullmann – Gábor Hegyi (2000): Industrial parks in Hungary. – Falu Város Régió, 6., p. 17-19.
- Péter Heil – Ádám Kullmann (2002): Challenges of regional policy in the door-step of the EU. – Innovative region, challenges and chances. Zsuzsanna Gergó (ed.) Veszprém University, Veszprém, 20002, p. 129-139.
- chapters: Zoltán Barna – Anna Molnár (eds.) (2003): Introduction to EU funds for local governments, The structural funds and the cohesion fund. Magyar Közigazgatási Intézet, Budapest
- Ádám Kullmann (2007): Studies and evaluations on the National development plan. – Köz-Gazdaság, 1., p. 159-156.
- Ádám Kullmann (2008): Some dilemmas about the development programmes of the most depressed Hungarian micro-regions. – Falu Város Régió, 3., p. 69-73.

### *Conference presentations*

- Ádám Kullmann (2002): The rationale of economic development schemes. 3<sup>rd</sup> conference of young experts in regional development, Győr, 11-12<sup>th</sup> Oct. (host: Hungarian Academy of Science, Centre for Regional Studies)
- Ádám Kullmann (2002): Some territorial aspects of enterprise development schemes. 7<sup>th</sup> national conference of PhD students in geography, Budapest, 25<sup>th</sup> Oct. (host: Eötvös Loránd University, Regional Science Department)