University doctoral (PhD) dissertation abstract

RELATIONSHIPS BETWEEN EMPLOYMENT AND RURAL DEVELOPMENT WITH A SPECIAL VIEW TO THE NORTHERN GREAT PLAIN REGION

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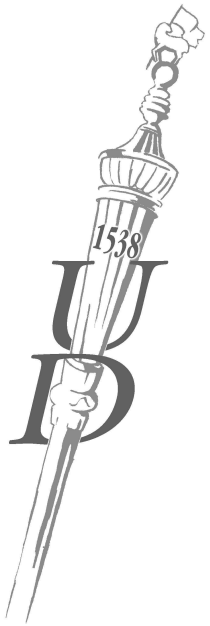

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9. Mártha B. (2005): The aims and achievements of the national SAPARD Program. (A hazai SAPARD Program célkitűzései és eredményei.) In: Agrárgazdasági, vidékfejlesztési és informatikai nemzetközi konferencia, (Szerk.: Debreceni Egyetem) (AVA 2) Debrecen, 2005. April 7-8. (CD melléklet pp. 13) 0.05

10. Mártha B. (2006): Demographic and employment relationships of Szabolcs-Szatmár-Bereg County, compared to national data. (Szabolcs-Szatmár-Bereg megye népesedési és foglalkoztatási viszonyai az országos adatok tükrében.) X. Nemzetközi Agrárökonómiai Tudományos Napok, Gyöngyös, 2006. Marc 30-31. (CD melléklet pp. 8) 0.05

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Total credit points: 1.5

"Everyone has the right to work,
to free choice of employment,
to just and favorable conditions of work
and to protection against unemployment"
Universal Declaration of Human Rights.

1. OBJECTIVES OF THE RESEARCH

The topic of the dissertation is employment policy and rural development, which is a highly complex system of relationships. The frames of the PhD dissertation provide only limited space to reveal the cause-effect relationships of the system and to satisfy the expectations of the many related sciences.

In my dissertation, I introduce the theories, Community and national documents dealing with employment policy and relate them to the domain of rural development. In my investigations, I focus on the factors influencing the demographic characteristics, the economic activity and qualification of labor power – education, research and development, innovation –, and on a multiple aspect analysis of work efficiency and unemployment indicators[1].

The objectives which are included in **the first chapter** of the dissertation are as follows:

1. A theoretical, employment-based comparative analysis of the major trends of economics science from the 19th century to-date, and the introduction of the effects of globalization on the employment issues of our days.
2. The comparison of certain employment indicators used in the European Union with the measurements applied by the developed economies of the world – USA, Japan –, and the deduction of conclusions. At Community level, I discuss the challenges of employment in the rural regions of the Union.
3. At the national level and in the Northern Great Plain Region, I point out those factors that influence human resources utilization and which are related to the problems of employment in our days.
4. The analysis of the factors influencing the population supporting capacity of small farms and making relevant recommendations (Basis: Farm Structure Survey, 2007).

[1] The impacts of recent global and financial crisis are not investigated.

5. The evaluation of terminated SAPARD Program and other in-progress rural development programs (AVOP, ÚMVP) in terms of their impact on national and regional (Northern Great Plain Region) employment, drawing conclusions and making recommendations.

My primary assumption is that the problems of rural employment reach beyond the realm of agriculture: Community and national resources available for agricultural and rural developmental purposes alone are not enough to treat them.

I formulate two sub-hypotheses linked to the objectives and to the main hypothesis:

– H1: Hungary will not be able to comply with the introduction of the employment indicator by 2010, as it was projected by the National Employment Action Plan in 2004.

– H2: Neither did SAPARD nor will AVOP national rural development programs ensure the expected results in employment.

6. PUBLICATIONS IN THE TOPIC

	Credit points
Foreign language scientific journals:	
1. **Béresné Mártha B. –** Kerekes G. (2009): Relationships between alternative unemployment indicators and agriculture in the Northern Great Plain. (Alternatív munkanélküliségi mutatók és a mezőgazdaság kapcsolata az Észak-Alföldön.) In: Studies in Agricultural Economics AKI, Budapest No: 109. pp. 73-84	0.3
Hungarian language scientific journals with foreign language abstracts:	
2. Béresné Mártha B. (2008): Theoretical schools on employment and workforce. (Elméleti iskolák a foglalkoztatásról és a munkaerőről.) In: Debreceni Agrártudományi Közlemények (megjelenés alatt)	0.2
3. Béresné Mártha B. (2009): Relationship of employment policy to rural development in the European Union. (A foglalkoztatáspolitika és a vidékfejlesztés kapcsolata az Európai Unióban.) In: Debreceni Agrártudományi Közlemények (megjelenés alatt)	0.2
Hungarian language scientific journals without foreign language abstracts:	
4. Béresné Mártha B. (2009): The status of the Northern Great Plain Region as reflected in national data. (Az Észak-Alföldi régió helyzete az országos adatok tükrében.) In: Gazdálkodás, 53. évf., 1. No. pp. 16-26.	0.1
Reviewed conference papers in Hungarian language:	
5. Szabó G. – **Mártha B**. (2004): Agricultural policy – Rural development – Environment protection. (Agrárpolitika – Vidékfejlesztés – Környezetvédelem.) In: Innováció, a tudomány és a gyakorlat egysége az ezredforduló agráriumában – Agrárgazdasági modellek a 21. század mezőgazdaságában konferencia, (Szerk.: Jávor A.) SZIE MKK-DE MTK, Debrecen, 2004. (konferencia kiadvány pp. 154-155)	0.025
6. Szabó G. – **Mártha B**. (2004): Rural development priorities in the AVOP. (A vidékfejlesztési prioritások az AVOP tükrében.) In: „Az Európai Unióban" nemzetközi konferencia. NyME MÉK, Mosonmagyaróvár, 2004. (CD melléklet pp. 8)	0.025
7. Szabó G. – **Mártha B**. (2004): Results of the SAPARD Plain in the Northern Great Plain Region. (A SAPARD Terv eredményei az Észak-alföldi régióban.) In: VI. Nemzetközi Élelmiszertudományi Konferencia. SZÉF, Szeged, 2004. (CD melléklet pp. 6)	0.025
8. Katonáné Kovács J. – **Mártha B.** (2005): LEADER type opportunities for rural development support and obstacles to them in Hungary. (A LEADER típusú vidékfejlesztési támogatások lehetőségei és akadályai Magyarországon.) In: Környezetvédelem, regionális versenyképesség, fenntartható fejlődés (Szerk.: Buday-Sántha A. – Erdősi F. – Horváth Gy.) Évkönyv 2004-2005, Pécsi Tudományegyetem Közgazdaság-tudományi Kara, Regionális Politika és Gazdaságtan Doktori Iskola, I. kötet: pp. 219-228	0.025

5. PRACTICAL IMPACTS OF THE RESEARCH RESULTS

Three such areas can be identified:

First, the results of the dissertation can be incorporated in the teaching materials of macro-economics, agricultural economics, agricultural policy, rural development and EU-studies in higher education. Studies related to unemployment indicators could be a useful part of the PhD curriculum.

Second, it is recommended that by using available databases, alternative unemployment indicators should be regularly calculated by the Hungarian Central Statistical Office and be made available to the public.

Third, Chapters 3-5 provide useful information for governmental organs, local governments and lobby groups in support of their decision making in labor market policy and in employment issues.

2. RESEARCH METHODS, THE DATABASES AND THE STRUCTURE OF THE DISSERTATION

In the dissertation **the methods of multidisciplinary** (economic, legal, demographic) **and comparative analysis are applied.**

The research relies on a **wide range of national (AKI, KSH) and international (EUROSTAT, IMF, OECD) statistical databases.**

Since the focus area is very complex, instead of being organized in an independent chapter, the secondary research of the national and international **literature** is attached to the related individual chapters.

As the dissertation evolves, **the scopes of the consecutive chapters narrow. The second chapter** basically provides a compendium type procession of the literature. It introduces and compares the views of the major economic schools on the labor market from the 19th century to our time, and reviews the effects of globalization on the employment issues of the 21st century.

The **third chapter** examines the European Union. *The first part* in a chronological order describes the growing importance of the employment issue in the Community documents.
Of the examined documents, the Lisbon Strategy of 2000 is of special importance, since it not only describes the factors influencing employment, but also delineates concrete indicators for year 2010. *The next part* provides a general description of employment in the Community, using, among others, the indicators of the Lisbon Strategy and the databases of OECD, EUROSTAT and IMF. In *the third part*, figures (own development) demonstrate the common linkages of the structural, cohesion and rural developmental policies with the employment policy. It also reviews the objectives of the employment policies and the resources allocated to them from 2000 to 2013. Finally, the characteristics of the labor markets in the European Union are summarized.

The first part of **Chapter four** reviews those Hungarian documents that are dealing with the reform objectives of employment and the labor market and with the tasks related to their implementation. *The second part* analyses the implementation of the objectives and the feasibility of the objectives set for year 2010. The chapter provides an overview of employment in Hungary, where the Northern Great Plain Region is identified as the most disadvantaged region in this respect.

The author relies on the database of the KSH (Hungarian Central Statistical Office) and EUROSTAT and on demographic characteristics to analyze the indicators of employment. She does pioneering work on the elaboration and analysis of the set of alternative unemployment indicators for Hungary. Furthermore, she defines the role of the components of the knowledge triangle and calculates the indicators used to analyze work productivity. Data demonstrated in this chapter were processed by Microsoft Excel 2007 and by STATA 10 database software of which the filtering and auto filtering commands were primarily used. *In the third part* introduces the quantitative and qualitative composition of the agricultural workers at national and regional levels, with a special focus on sole farmers whose roles are analyzed on the basis of the Farm Structure Survey 2007. *The fourth part* evaluates the terminated SAPARD Program and ongoing AVOP rural development programs (ÚMVP) in terms of their impact on employment in the rural regions, and estimates the feasibility of the objectives of the New Hungary Rural Development Program 2007-2013.

In the fifth chapter summarizes the research results.

4. RESEARCH RESULTS

1. **The analysis of some socio-economic factors influencing the issues of employment in the European Union in years** 1997-2007, **with a special emphasis on the employment problems of the rural regions.**

2. **The elaboration and detailed analysis of the unemployment indicators** (U1-U6) **in national and regional (Northern Great Plain Region, West Transdanubia) terms** for the period 1994-2005; the elaboration of arguments in support of their nationwide introduction and use.

3. **A national and regional level evaluation of the impacts of the SAPARD and AVOP Programs on new job creation and job preservation.**

4. **Proving the assumption that, in addition to its economic importance, agriculture has gained a growing importance in social security.** This assumption is supported by the increased proportion of the people among the unemployed population who want their livelihood in agricultural activity both nationally and regionally.

5. **An overall analysis of general and agricultural employment in the Northern Great Plain Region as compared to the national status.**

The achievements of the **Agricultural and Rural Developmental Operative Program** (AVOP), unfortunately, **have not met the expectations. In this context, my second sub-hypothesis has been proven:** at the base of reference of 31st December, 2006, **the expectations and the achievements of the employment objectives of the program did not comply.** Less than half of the planned new and preserved jobs were realized (conditioning that 1 job equals 1 AWU unit). Employment rates in the rural regions decreased by 25% compared to baseline year 2001, the outflow of labor force did not get controlled; it did not stop or reduce (Table 6.).

Resources available for packages *"Rural Life Quality and the Diversification of Rural Economy"* (as Pillar III) and "*LEADER Program"* (as Pillar IV) – they both being parts of the measures of the New Hungary Rural Development Program 2007-2013 – do not reach 1/5 (18.7%) of the total budget available. This is unfortunate, because unlike the rest of the pillars, employment indicators in these pillars have partly been defined, and, evidently, expected and achieved program goals of employment can only be compared on the basis of these indicators.

Having introduced and analyzed employment in Hungary and in the Northern Great Plain Region in general, and agricultural employment in particular, and having demonstrated the achievements and potential future impacts of Community supported rural development programs, the author concludes that **available Community and national resources alone are insufficient to solve the employment problems of multifunctional agriculture.** It has also become clear that the re-employment of redundant agricultural labor force in other sectors of the national economy – especially in regions with a strong agricultural profile – has not yet satisfactorily been solved. The question remains the same: to what extent can these resources remedy the problems and **what other measures need to be taken?** Keeping this in mind, Community and national resources to be available in the forthcoming years of the financial period 2007-2013 must be allocated rationally so they ensure efficient returns, especially in the agricultural regions.

3. MAJOR RESULTS AND CONCLUSIONS

The results and conclusions are demonstrated in the order of chapters.

3.1. Employment as represented by schools of economics and in our globalized world

To understand the origin of the employment problems seen in the social-economic environment of the 21st century and to tackle them, it is useful to study the major approaches and theories of labor markets and unemployment. In my view, of these schools, it is the **New-Keynesian school** that supplies the most solid ground for understanding the theoretical background of the existing anomalies of the labor market. Typically, this school recognizes full or nearly full employment to be a rare and temporary condition, unlike unemployment, which is inevitable and originates from systemic causes and which, they claim, can not only be reduced but can also be eliminated by governmental intervention. Moreover, the advocates of the school name globalization and technical advancement as the causes of the tightening of the labor markets.

While multinational companies, on the one hand, are recently deforming the market conditions that are believed to be ideal, governments, on the other hand, are supposed to be responsible for the provision of qualified and healthy work power for the development of the infrastructure, for technical/technological competitiveness. Yet, **technical advancement drives labor** – especially skilled labor – **out of the production**. **So, for all what job creating programs promise, job possibilities** in the production branches and, partly, in services **are rapidly shrinking**, and flexible and part time schedules – that partly hide the reduction of the work time base – are gaining dominance over full time employment.

3.2. The history and the development of the Employment Strategy of the European Union

From the beginning to the 1990s, the issues of employment in the member states were handled clearly at national levels. **In 1994, the first employment strategy of the Community** was declared in Essen. This program was a significant step forward, indicating that member states were aware of the challenges they were supposed to face, the harmonization of the Community objectives and national responsibilities, however, was not achieved. **The issue of employment was incorporated in the Amsterdam Treaty of 1997, in a chapter** (under VI/A), though, handled **separate from other sociopolitical issues**. In the same year, **the first Community level Employment Summit was held in Luxembourg,** where it was decided that the Union would have more say in national employment issues than it did previously. Furthermore, four pillar Guidelines, applying to all the member states, were worked out, which served later as the basis of the European Employment Strategy.

In Lisbon, in March 2000, **a strategy for ten years was signed** in which several reforms were delineated and concrete employment objectives and indicators were stipulated. This strategy was modified in 2001 in Goteborg, when the concept of sustainable development was included. In the course of the half-period review in 2005, it was recognized, that with all the evident achievements toward the objectives, there were negligence and delay in many respects. To tackle this problem, the European Committee elaborated a simplified and **integrated Package of Guidelines[2] for the period of 2005-2008**, under which the member states developed their own national reform programs, and which, in turn, served as the basis for the "*Community Lisbon Program"*. In Hampton Court **in 2006, the Heads of the States and Heads of the Governments** of the Community **agreed that the two main driving forces of the structural reforms for the future period should be preparation for coping with the problems caused by the aging of the population and the utilization of the advantages offered by globalization. The Council of Europe** in 2007 **also emphasized** that the fair operation of the knowledge triangle (education – research – innovation) is the precondition of education and training modernization, which, in turn, is **of key importance in promoting growth and employment.**

[2] The Integrated Package of Guidelines contained general ecopolitcal guidelines as recommended by the Committee, and employment guidelines as decided by the Council. Its aim is to set a clear strategic policy for the Union and the member states in the areas of macro-, and micro-economy and in employment. The Integrated Guidelines serve as a solid and coherent frame for the implementation of the Council of Europe priorities at national leveles, and provide for the conversion of the Lisbon Strategy into concrete steps.

far as SAPARD program is concerned – **has only partly been proven.** The reason for this is that the apparent biases in the available data and the non-fulfillment of the employment objectives cannot be firmly concluded. If the data cited above are correct, or at least their magnitude is right, and if the number of new and preserved jobs is proportional with the allocation of support funds among the regions, we can say that **under the SAPARD Program in the Northern Great Plain Region 2 464 new jobs were created and 13 846 jobs were preserved.**

Table 6. The impacts of rural development programs on employment

Item	Expected impact	Achieved
SAPARD Program 2000-2004 (2006)		
Number of new/preserved jobs	16 500 pc	12 969/72 873 pc
Agricultural and Rural Developmental Operative Program 2004-2006 (2008!)		
Number of new/preserved jobs	3 500 pc	1657.492 AWU
Improvement of employment rates in rural regions, % (year 2001= 100%)	1	-25%
Decrease of out-flow from rural regions, % (2002-2003 years average = 100%)	2	-1%
New Hungary Rural Development Program 2007-2013		
Number of rural jobs to be created	14 064	-

Source: VÁTI TII, 2007; FVM, 2007a; FVM, 2007b

In conclusion, although the primary objective of the Program was the improvement of competitiveness, which should not automatically entail job creation, it had positive effects on employment in the Northern Plain Region on the whole. It affected the major rural problems – aging and the outflow of youth – only minimally, mainly because the sources were insufficient, the types of activity supported did not always apply and the allocation of resources was disproportional.

It is not commonly known that 44% of the gross national agricultural output and 59% of the gross national added value in 2005 was provided by household farms (sole producers and families), and not by enterprises (companies, cooperatives). Of the population supporting capacity of agriculture, it is worth noting that 80% of the man-hour input measured in AWU is realized by household farms.

The disparities associated with the population supporting capacity of agriculture are expressed by the following data: in 2007, private farms with agricultural land (91.5%) used 3.6 hectares on the average, ¾ of that used less than 1 hectare. Furthermore, the registered **economic output of ¾ of the private farms** is below 0.5 EUME (HUF 150 thousand of SFH value, ca. HUF 400 thousand of gross production value), which **is hardly above self subsistence level**. Seeing this, some tried to diversify, but in vain: the proportion of diversified farms has reduced compared to year 2005, both on the regional and national levels.

In the Northern Great Plain Region, horticulture and plantation farming proved to be the most manpower intensive enterprises – taking annual work input unit per 100 ha agricultural land or annual work input unit per farm.

In my view, agriculture is not the only means of population support and population binding, but without agriculture none would work. I consider it of extraordinary importance to make people in the country - farming people, especially - aware that they will only be able to compete with the large multinational companies **if they process and market the largest possible proportion of their own produce locally.**

3.11. The analysis of employment supporting rural development programs

As for now, **SAPARD** is the only fully completed Community program designated for Hungary, whose achievements and impacts on employment are available for analysis. **The developments under the program resulted 12 969 new jobs** (4,141 of those are part time jobs) **and the preservation of 72 873 existing jobs**[3] (Table 6.). This means that my **second sub-hypothesis** – as

[3] Since the method of the definition of the employment indicator in the monitoring database has not yet been clarified, many of the farmers and businesses provided data on their employment enlargement *en gross* and not on those created under the program - only 770 of the ca. 13,000 new jobs were actually created under the developments -, which makes the reliability of the data questionable.

In order to support the Union in foreseeing and efficiently handling challenges in the long run (years 2020-2030), the Council of Europe set up an independent debate group to identify those key issues and processes that the Community is likely to encounter in the future, and to analyze means of confronting them.

3.3. The general state of employment in the Community

Listed below are three groups of (economic type) challenges for employment that in my view will require solutions in the next few decades:

A. The decrease of population and demographic time-bomb (aging) that will affect both unemployment and employment rates.
B. The deficiency of work productivity in stimulating economic growth.
C. The issues of globalization and innovation.

A. **Population decrease and aging are issues seen in many countries** of the Union. Estimation by EUROSTAT forecasts a possible **10 million decrease in the population of the EU-25 in years 2005-2050**, and an **increase of the old-age dependency ratio** from 23% measured in year 2000 to **39%.** These processes may affect the ratio of employment and unemployment.

In addition to analyzing standard unemployment indicator, it is also advisable to examine young age and long duration unemployment. It makes a difference for an aging continent what proportion of its active-age population – with a special emphasis on the ambitious young with up-to-date knowledge and skills – are active workers and who are left without jobs. The duration of unemployment is another important aspect, since long duration unemployment may have an implication to problems in structural adaptation. The unemployment indicators all clearly demonstrate the positive effects of the changes that took place in the Community over the past ten years – i.e. the indicator rates are lower than they were in year 1997 –, at the same time, though, they also reveal the deficiencies of the Union when compared to the developed economies of the USA and Japan (Table 1.).

Table 1. Unemployment indicators in years 1997-2007 in the EU-27, the USA and Japan (%)

Year	EU-27	USA	Japan
Standard unemployment rate[4] *(%)*			
1997	7,4[5]	5,0	3,5
2007	**6,1**	4,7	**4,1**
Young age unemployment rate[6] *(%)*			
1997	17,4[7]	11,3	6,6
2007	**15,3**	10,5	**7,7**
Long duration unemployment rate[8] *(%)*			
1997	46,1[9]	8,7	21,8
2007	**42,7**	**10,0**	32,0

Source: OECD, 1999; OECD, 2008; EUROSTAT, 2008a; EC, 2007

The **employment rates** of the Community **have been moderately but steadily improving in the recent past** (Table 2.). In the USA and Japan, for the same period, a slight decrease and a modest improvement, respectively, were seen. The Union's aspiration is to make the job markets flexible, which, in turn, leads to the growth of part-time employment. The competitors, on the other hand, tend to improve old age employment, since this population in their countries is significantly larger than it is in the Community. It is evident that old age employment has been improved in the Union too (in 2007 it was 44.7%), taking the forecasts on the EU population structure and the old-age employment rates of the competitors, however, it should be made clear that keeping this population in jobs requires much more attention.

[4] Unemployment rates of the EU-27 refer to the proportion of the 25-74 age cycles among total work power. For the USA and Japan the age cycle of 15-64 is considered.
[5] The rate refers to year 2000.
[6] The rate in Japan and the USA refers to the proportion of the 15-24 age cycles among total work power. In the EU-27 the same rate of the unemployed under 25 is shown.
[7] The rate refers to year 2000.
[8] The rate shows the proportion of those out of jobs for 12 months or longer among the total population of the unemployed. In the USA this proportion is compared to the population of the unemployed over the age of 16. In the Union and Japan the age limit is 15 years.
[9] The rate refers to year 2000.

Table 5. The role of agriculture in employment in the Northern Great Plain Region and in Hungary

Years	**Northern** Great **Plain**	**Hungary**
Employment rate *(%)*		
1992.	16.0	11.4
2007.	7.4	4.7
Rate of population in agricultural production *(%)*		
1991.	47.1	32.8
2005.	28.5	20.1
Annual Work Unit *(AWU)*		
1998.	156 171	744 516
2007.	104 502[10]	459 291

Source: own calculation based on KSH, 2006a; stADAT tables. 2008d; data provided by KSH, Division of Agricultural and Environmental Statistics (Regional data are estimations)

The social role of agriculture, I assume, means its population supporting capacity in the first place, one indicator of which is the gross and net average income of the employees and their relation to the national average. For all the growing amounts of allowances, the net average income of agricultural employees (86.540 HUF) in January, 2008 in Hungary is by 30.8% behind the national average (125.122 HUF).

3.10. The role of private farms in employment

The Farm Structure Survey of 2007 (GSZO 2007) registered *7405 agricultural businesses and 619 thousand private farms.* Between 2000 and 2007, both the number of agricultural businesses and the number of private farms changed: the former grew by 6.5%, the latter decreased by 35.5% on the national scale. The change was smaller in the Northern Great Plain Region with a growth of 3.3% (1329 by the number in year 2007) and with a decrease of 32.4% (148.938 by the number in year 2007), respectively. This means that in year 2007 the Region supplied ¼ (24.1%) of the total number of private farms in the country.

[10] Refers to year 2006

years countrywide. Investment propensity in the Region is low as for now, and taking recent financial and economic crises, improvement is not very likely to come about.

3.9. Agricultural employment in the Northern Great Plain Region

The changes in the number and ratio of the population engaged in and employed by agriculture – both in the Northern Great Plain Region and countrywide – indicate that, on the one hand, the economic and employment significance of the sector has decreased. On the other hand, though, it also highlights those areas where, for all the fall back, the population supporting capacity of agriculture is still not immaterial. Thus, **agriculture in the Northern Great Plain Region is still playing a much more significant role in providing subsistence for people** than the domestic average (Table 5.).

Taking all the regions of the country, a relation can be established between the volume of the unemployment indicator and the ratio of population in agricultural production, namely: **the higher is the volume of the unemployment indicator in a region, the higher the proportion of those who do agricultural work in relation to the total number of unemployed.** Data on man-hour input calculated on the basis of labor input/annual work unit, and **data calculated by the number of workers, clearly show that the population supporting capacity of agriculture is decreasing.** These facts, I assume, are indications that the weight of agriculture as full time employment in the national economy is losing. **This function of agriculture** in the Northern Great Plain Region and also countrywide, however, **has been completed by a novel function, by that of social protection.** Namely, on the national average, 20% of the unemployed population above the age of 15 (Micro-census, 2005), and 29% in the Northern Great Plain Region were doing agricultural work.

Table 2. Employment indicators in years 1997-2007
in the EU-27, the USA and Japan (%)

Year	EU-27	USA	Japan
Employment rate[11] *(%)*			
1997	60,7	73,5	70,0
2007	**65,4**	**71,8**	70,7
Part-time employment[12] **rate***(%)*			
1997	16,7	13,6	23,2
2007	18,2	12,6	18,9
Old age employment rate[13] *(%)*			
1997	36,4	57,2	64,2
2007	**44,7**	61,8	**66,1**

Source: OECD, 1999; OEC, 2008; EUROSTAT, 2008a; EC, 2007

B. **It is not a simple task for an economy to link productivity growth with employment growth.** This is demonstrated in Table 3. It can be seen that work productivity indicators in the Community are approaching those in the USA only very slowly, moreover, instead of reducing, the backlog of GDP per employee and GDP per working hour continued growing.

If **the cause of low productivity in the Union were to be named, it certainly would not be the low standards of qualification.** Namely, a higher proportion of the active age population in the Community hold secondary or higher level qualifications than their counterparts in the USA or Japan. **The cause much rather may lie in unemployment**, since with no respect to qualification levels, unemployment rates in the Union are obviously higher than in the competitor countries.

[11] It shows the ratio between the 15-64 year old unemployed population and the total population of the same age cycle.
[12] It shows the proportion of part-time employment among the total of employment Part-time employment means an average of less than 30 working hours/week, except for Japan where it is less than 35 hours/week.
[13] It shows the ratio between the 55-64 year old unemployed population and the total population of the same age cycle.

Table 3. Work productivity indicators in the EU-27 and the USA

Year	EU-27	USA	USA=100%
GDP/employee[14]			
1997	40 434	53 737	75.2
2007	57 320	78 528	72.9
GDP/capita[15]			
1997	16 200	26 800	60.4
2007	24 900	33 400	74.6
GDP/ actual man-hour[16]			
1995	23.8[17]	26.5	89.8
2005	34.3	40.9	84.1

Source: own calculations based on EUROSTAT, 2008b

C. If the European Union endeavors to reduce its distance from the economies of the competitors, it has to enhance investments in **the driving force of growth,** i.e. in **technical developments** (information and communication technology) and in **human resources.** The knowledge-based European society of today – with respect to globalization – shows the following traits:

- Backwardness of research and development (R+D): while R+D costs in the EU made up 1.8% of the GDP in 2006, the same ratio in the United States in 1999 was 2.6% (the EU objective for 2010 is 3.0%).
- Expenditure on information technology (IT) development is also relatively lower: IT in the EU-27 in 2006 received 2.7% of the GDP, whereas the same figure in the USA was 3.3%.
- Inputs in education and training in the Community are also insufficient. Should this trend continue, Europe will suffer from serious lacks of highly qualified researchers.
- There were encouraging improvements in the EU-27 countries in years 2000-2006. The employment rate of those with secondary level qualification grew by 1%, the employment of highly qualified persons grew by 0.9%, while the employment rate of workers with primary level education fell by 1%.

[14] The numerator at current price and at purchasing power parity, the denominator refers to age 15-74.
[15] Value at current price and at purchasing power parity in euro/capita.
[16] It expresses GDP per actual working hours by employee at current price, at purchasing power parity.
[17] The rate refers to the EU-15.

The values of the regional GDP and productivity indicators published in the surveys of the recent past rank the Northern Great Plain Region last or last but one on the list of the seven Regions of Hungary. Data from 2005 are an example: the GDP per capita and per employee in the Region was 37% and 28% lower than the country average (Table 4).

Table 4. Productivity indicators in the Northern Great Plain and in Hungary 1997-2007

Region	1997	2005	2007
GDP/capita[18]			
Northern Great Plain	2 783	5 606	:
Hungary	3 900	8 800	10 100
GDP/employee[19]			
Northern Great Plain	19 998	27 295	:
Hungary	24 563	37 428	40 622
GDP/actual man-hour[20]			
Northern Great Plain	:	:	:
Hungary	11.9	18.8	20.4

: not available
Source: own calculations based on EUROSTAT, 2008a; EUROSTAT 2008b; stADAT tables, 2008d

I posit that the economic development of any country or region depends on extra investments, on extra employment and on a substantial rate of extra productivity. Since the 2000s, the rate of investments in Hungary, unfortunately, has been lagging behind the investment activity of not just the Visegrád countries, but has also been behind in its own activity seen during the late 1990s. There has been no expansion in employment since 2001; rather, the growth rate of productivity has steadily been decreasing.

The situation is even worse in the Northern Great Plain Region, which produced the worst decrease in the volume of employment and the highest growth in the volume of unemployment over the past

[18] Value at current price and at purchasing power parity in euro/capita.
[19] The numerator at current price and at purchasing power parity, the denominator refers to age 15-64.
[20] It expresses GDP per actual working hours by employee at current price, at purchasing power parity.

35% in 2005; over the same period, the proportion of those above the age of 25 with higher level degrees grew from 8% to 11%. On the national level, the proportion of university or college degree holders in years 1990-2007 has been growing at a higher rate than in the Region, which is not true for those having secondary level degrees. **As a result, almost every fifth employee in 2007 had one or another type of degree. The adverse effect of the low proportion of unschooled population on employment will not be eliminated in the short run by the high percentage of secondary level schooling and the shrinking of active age uneducated population segment.** Namely, the change of the schooling structure is a very slow process, so much so that research data show that about one fifth of the young age people are still leaving school with primary education only. It follows that **of our 10% shortfall in comparison to the EU employment average, we will not be able to make up for more than 1.5 percent point over a period of ten years.**

B. Research and development: While in the developed countries about 2-3% of the annual GDP is spent on research and development (R+D), **this ratio in Hungary in 2006 was as low as 1%,** more than 50% of which was financed by the government. The ranking of per capita research expenditures in the regions is different from the ranking of development levels. The relatively high rank order (second of the regions) of one of the most underdeveloped regions – the Northern Great Plain – in the country is primarily due to its high coverage by higher educational institutions and to the educational profiles they provide, and, secondarily to the structure of the regional economy. One may ask: when will the effects of this traditionally favorable position be seen in the Region's socio-economic development indicators?

C. Innovation: **The expenditures of Hungarian businesses allocated for innovation are low, and demand for innovation is also low. The growing share of high-tech companies employing qualified workers** may help keep up or even improve somewhat the relatively high employment rates of workers with medium and high level qualifications, but it **can only indirectly** – through the speeding up of economic growth – **help with the survival** of that *low-tech sector* which is the primary user of untrained work in many OECD countries similar to Hungary. **Technical improvement, the growth of information technology specifically, may reduce the demand not only for physical, but also for medium qualification intellectual work, in the long run.**

3.4. The relationship between rural development and employment

The priorities of the Community employment policy appear not only in the national policies of the member states, but they are also demonstrated in other polices of the Community, e.g. structural, in cohesion and rural development policies (Figure 1.). As shown in the graph, each of the policies is directly or indirectly linked to the concept of employment. Consequently, when examining the goals and objectives of the individual policies, one should keep their impacts on employment in mind.

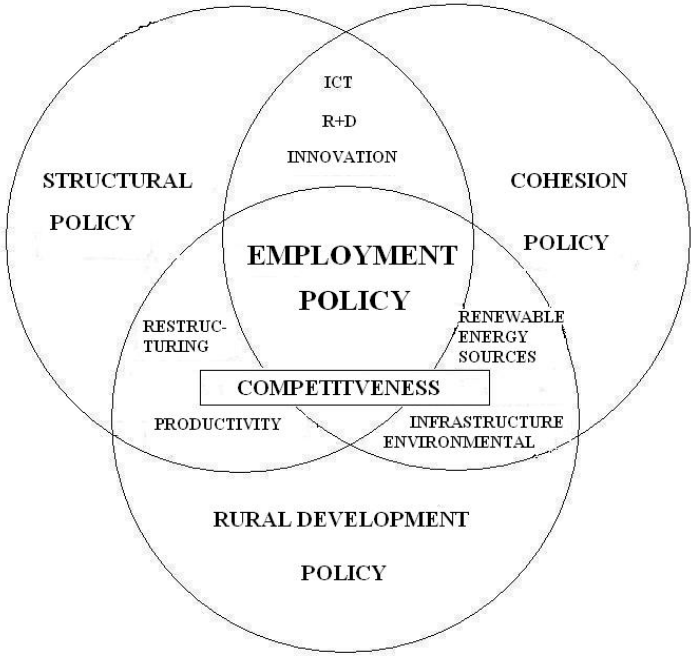

Figure 1. The relational model of employment policy
Source: own development

These policies are organized along such priorities that produce significant added value and multiplicator effects, and are aimed at objectives that harmonize with the guidelines and recommendations of the European Employment Strategy. In this context, the member states are obliged to ensure complementarities and coherence among the measures of the European Agricultural Fund for Regional Development, the European Regional Development Fund, the

European Social Fund, the Cohesion Fund and the European Fishery Fund in a given area and in a given action field. The borderlines between the measures of the Funds and the major guidelines of the coordination mechanisms have to be set by the frames of reference of the national strategies and by the national strategic plans.

In the Financial Plan of the EU-27 for the years **2007-2013, € 88.3 billion are allocated for rural development funds.** As stipulated by decree 2006/144/EK, these sources have to be used alongside four axes (competitiveness, environment and land use, diversification and quality of life, LEADER). From the viewpoint of employment, a **one should particularly examine the measures of Axis III** (diversification and quality of life), **since among the four Axes, it ensures the best conditions** for the development of infrastructure and human resources in the rural regions, and **for the improvement of the conditions of** growth and **job creation** in all sectors. In their national strategies, the member states have to ensure that highest level synergy is established between and within the axes, and that inconsistencies are avoided.

3.5. Challenges in the rural regions of the Union

The economic profiles of the rural areas are diverse and so are their actual states. Those areas that highly depend on agriculture are likely to face special challenges concerning growth, employment and sustainability in the near future. These challenges are as follows:

A. **The specific state of the rural areas and the importance of the primary sector:** Rural areas supply **45% of the gross added value** and provide **53% of employment.** The per capita incomes in the predominantly urban areas[21] of the enlarged Union are nearly twice as high as in the predominantly rural areas. The low levels of income hinder the attraction and keeping of trained workforce.

B. **Demographic issues:** Compared to the total population number of the Community, the proportion of the rural population has been relatively stable over the past decades, which is due to the leveling off of the urbanization and counter-urbanization movements. The distribution of the age

[21] A definition by the OECD (i.e. less than 150 inhabitants per Square kilometers), to express the proportion of the rural inhabitants in a given NUTS III region. Predominantly urban is an area where <15% of the population lives in rural areas; an area is intermediate region if 15-49%, and predominantly rural if >50% of the population live in rural areas.

evident: worth than the national average health status and subsequent shorter life expectancy. The rate of the marginally attached workers (U5) in the Northern Great Plain Region is also twice as high. This means that **the estimated number of potential job takers from the total number of the active age population in the region is some 25-29 thousand.** We think that a significant proportion of this group should be reintegrated into the labor market through providing different types of attractive training or retraining programs for them. There were recurrent overlaps over the past ten years between indicators incorporating persons employed part time (U6) and indicator U5 in the Northern Great Plain Region. The presumption is that due to scarcity of work and high unemployment in the region people do not typically consider part time jobs a real alternative. This, of course, is not true of those who do farming as an additional activity to make extra income or of those whose aim is to provide self-sufficiency. This category incorporates *"primary producers"* and that part of sole farmers who have full time jobs too.

It is evident that **the cluster of alternative unemployment indicators is substantially more informative** than the standard unemployment indicator alone. Since the analysts of the Hungarian Central Statistical Office (KSH) also have access to all the relevant data needed to calculate the indicators (U1-U6) when they are preparing their quarterly unemployment surveys, we recommend that **alternative unemployment indicators are regularly calculated and published. This would provide a support base for decision making in employment issues.**

3.8. The role of the components of the knowledge triangle and of job productivity in employment

In every society, education and training are the preconditions of a well operating knowledge triangle (education-research-innovation) which, in turn, has a key role in promoting economic growth and employment. Below, I examine the role of these three components from the viewpoint of employment.

A. Education: The schooling structure of the Hungarian population over the age of 14 was significantly changed between 1990-2005. The proportion of those with higher and secondary education levels grew by 4.2% and 13.2%, respectively, while the ratio of primary qualification fell by 17%. The improvement of the Region is well reflected by the following data: the proportion of individuals aged 18 or above with at least secondary level degrees (GCE) grew from 24% in 1990 to

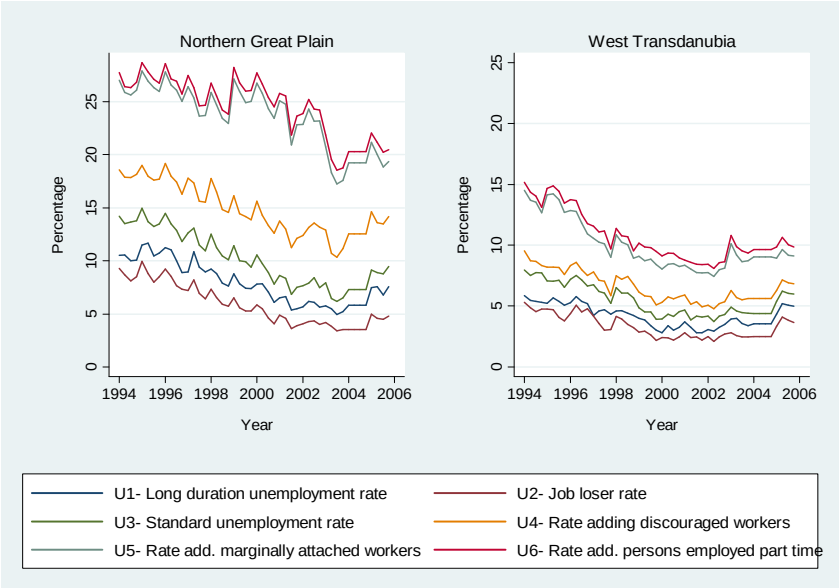

Figure 3. Alternative unemployment indicators in the Northern Great Plain Region and in West Transdanubia in years 1994-2005

Source: Own development on the basis of KSH, 2008[22]

The graph shows that following the national tendency, **90-95% of the standard unemployed** (U3) in both regions **are long duration unemployed** (U1), whereas **60-65% come from job losers** (U2). **The rates adding discouraged workers** (U4) **in the Northern Great Plain Region** is nearly twice as high – approximately **25-28 thousand persons –,** which produces several undesirable effects. These people suffer not only mental or emotional damage, but their physical conditions are also badly affected, which will leave them with health problems, depression and poverty. These problems exacerbate each other, and problems that were *"simple"* employment issues at the beginning will add up to form problems that cry for social and health care intervention. The documented consequences of high rate unemployment in the Northern Great Plain Region are

[22] I am grateful to Kerekes Géza for his help in designing the indicators and doing the calculations.

levels shows that **demographic aging is the highest in the rural regions of the Southern member states, but the aging of the age structure of the agricultural sector is a general tendency all over the Community.**

C. **Low employment and high unemployment rates (primarily for women and youth):** Employment rates in the EU-27 urban regions in 2004 were nearly 5% higher (64.7%) than in the predominantly rural regions (60.1%), with unemployment rates generally also higher than in the urban areas (2004: rural 9.9%; urban 7.8%). An analysis prepared by the Union in 2006 forecasts **a loss of further 4-5 million workers in the agriculture in years 2000-2014,** which makes up **28-35% of the full-time employees. This figure does not contain the estimated 5 million of latent unemployed** (underemployed agricultural producers and workers included).

D. **Low levels of qualification:** 20% of the urban population has higher level qualifications; in the rural regions this ratio is as low as 15%.

E. **Slow development of services:** One reason for this can be the underdevelopment of private services, unlike urban areas.

3.6. Unemployment in Hungary and in the Northern Great Plain Region

After its accession in October 2004, Hungary submitted its **first National Employment Development Plan** to the Committee of EU. The document followed the guidelines of the European Employment Strategy, and named the national employment indicators (Figure 2.)

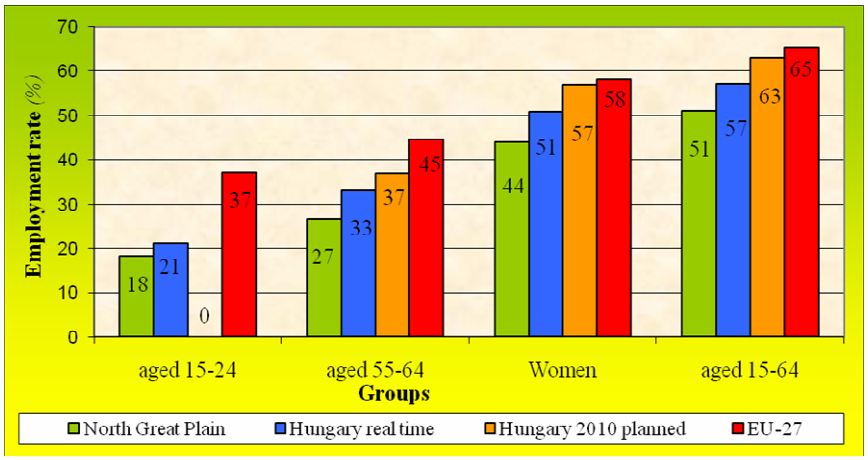

Figure 2. Indicators for Hungary real time (2007) and planned (2011)
Source: Ministry of Social Affairs and Labor, 2004; EUROSTAT, 2008a; EUROSTAT 2008d; stADAT tables, 2008d

These goals are based on the assumption that employment in Hungary will grow by an average of 0.8%, which, in turn, presupposes a respective rate of growth in the economy. Unfortunately, the growth rate of 4% that started in year 2001 was strongly set back in the third quarter of 2006, **and went down to an annual growth of 1.3% in 2007.** The decrease was accompanied by growing unemployment, and a minimal size improvement – in certain regions even reduction – of employment levels. All this **supports the adequacy of the author's first sub-hypothesis,** namely that by the date of 2010, Hungary will not be able to achieve the standards of the employment indicators. As an exception, the old-age indicator standard is somewhat likely to be achieved as the goal of 33% growth planned for year 2006 was met, but further improvement under present socio-economic conditions, however, is not very likely to happen.

Similarly to the European Union, the population of Hungary on the whole, and the Northern Great Plain Region specifically, is shrinking (by 3.0% in years 1990-2007 on the national level, and by 1.4% regionally). Nevertheless, this region is considered the have **the youngest age structure nationwide.** In my dissertation, I am concentrating on the Northern Great Plain Region, because this is the region of the country where positive changes were most rare in the past years and decades in those socio-economic processes that influence employment. The overwhelmingly high proportion

of unemployed and inactive individuals in the population, the unprecedented low level of employment, an unfavorable age composition, a qualification level below the national standards, the high number of agricultural workers (most often forced by necessity), the high proportion of Roma minorities[23], low willingness to make investments are some of the many causes that push this region further and further back on the national scale of socio-economic development.

One of the hardest problems in the Northern Great Plain Region and in Hungary in general, I assume, is the high proportion of inactive people and the low employment rate of certain, well-defined segments of the active-age population (Figure 2.). Namely, the employment rates of people aged 15-24, old-age people and women were strikingly low in the region in 2007. **While in 1990, 100 active workers supported 123 inactive individuals, the number of dependent people** grew as high as 148/100 by 2007. Even worse, their number **was 183 in the Northern Great Plain Region.** It needs also to be noted that **job mobility** in the Region **is low** as compared to international standards. **For this reason, I think that the propagation of telework as an alternative solution to employment problems could help to cope with unemployment not only regionally, but also countrywide.**

3.7. Alternative unemployment indicators

Like employment, unemployment also differs significantly from region to region countrywide. Figure 3. demonstrates the differences between the most underdeveloped Northern Great Plain Region and the well developed Western Transdanubia in terms of alternative indicators.

The first thing that strikes the eyes when examining the graphs is that each of the unemployment indicators in West Transdanubia represents significantly lower values than in the Northern Great Plain Region. **The differences are especially substantial between the respective rates of standard unemployment** (U3), of those **adding discouraged** (U4) and **marginally attached workers** (U5).

[23] In the census of 2001 the proportion of those declaring themselves Roma was 3.1% of the total population in the Region. Experts, however, estimate their actual rate mush higher, some 10-12%.