Opening Pandora's box – Is there any hope to take a turn to the better employment situation the Visegrád Four countries?

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Abstract: My paper presents the employment situation by the Visegrad Four (V4) countries (Poland, Czech Republic, Slovakia and Hungary) in the recent years. The extensive economic literature deals with the role of the state it plays in the area of employment and revitalising demand in order to treat economic crisis; it also includes the probable benefits and drawbacks of the measures. The regional economic literature (Rechnitzer 2004, Lengyel 2000) writes more and more on regional disparities and regional discrepancies at economic-social level. Can this phenomenon be observed within a region of among regions at sub-regions, and if so, to what extent is this problem exaggerated? This question emerged in me when I studied the V4 labour market situation.
My hypothesis states that the employment position of the Visegrad Four is different in the European Union relation, and in the V4 relations, its human resource position is weak, the level of employment is low, which is influenced by several factors and the four countries have different employment trends. The methodology of the paper is the analysis of available statistical data with discriminant analysis method.

Key words: employment situation, regional disparities, Visegrád Four, discriminant analysis method

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1. Introduction

In this study I analyse the situation of a peculiar group within the European Union, the Visegrád Four, with special regard to its employment and labour market trends. The nomination of the historically rooted Group is currently used in professional jargon. I wish to find answer to the question whether there are peculiarities in the area of employment in the case the V4 countries. Are V4 countries moving on similar or different paths or they are rather undergoing the same extent of development?

2. History of the Visegrád Four

In 1335, Visegrad Castle, royal seat of the Hungarian kings, was the site of the Polish, Czech and Hungarian kings' summit. They agreed to close cooperation in the area of politics and commerce. This inspired their late descendants to a successful Central European initiative.

„Visegrád 4" is the unofficial name of the four central European post-communist countries, Czech Republic, Hungary, Poland and Slovakia. The Group was originally called the Visegrád three, but after the split of Czechoslovakian Republic in 1993 we talk of Visegrád four. The name of the Group was chosen at a meeting held in Visegrád, on 15 February 1991, participated by Czech President Václav Havel, Hungarian Prime Minister József Antal and Polish President Lech Walesa. The politicians undersigned a declaration that the three (now four) countries will closely cooperate on the way towards the European integration. After the collapse of the communist system, their cooperation facilitated the transition from the totalitarian regime to a free, pluralistic and democratic society.

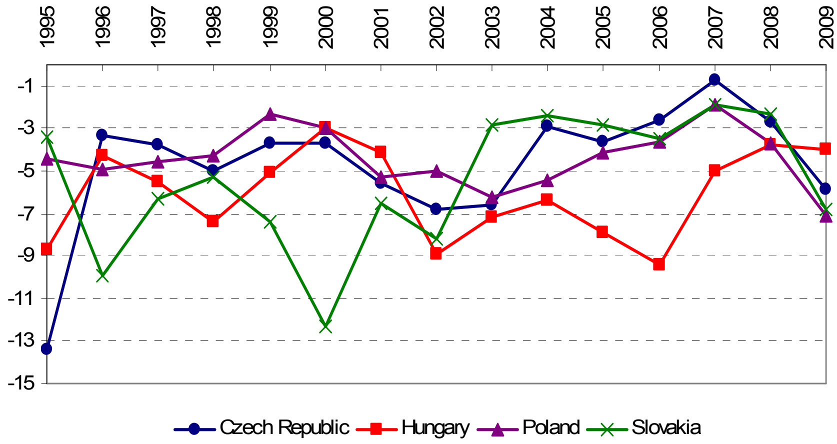
„The Visegrad Four (V4) countries (Czech Republic, Hungary, Poland and Slovakia) form a unique cluster of the European Union, which show many similarities from political, economic and social respects. The countries could converge to the EU average measured at national level in the past years and do not show significant differences; at regional level however significant polarization could be observed." (Nagy-Kuttor, 2008)

3. Economic and labour market situation of the Visegrád Four in the light of the recent years

The change of regime was a crucial event in the case of the Visegrád Four; my starting point is the thesis of the double transition. The thesis of double transition says more than the shocking fact that the economic and social change of regime had to take place at the same time in the ex-socialist bloc. The theory of double transition suggests that post-communist transition took place at the same time that these countries, as part of a larger process, also faced a post-industrial challenge. This challenge had a globalisation-cultural and technological nature in particular. It is not to state that the post-communist countries, including Hungary, gave optimum answers to these – moreover, the differences maintaining backwardness mainly reproduced in these dimensions. None of the post-communist countries can avoid these challenges because of their paradigmatic nature. In other words: the post-communist countries could not follow the classical welfare models of the 70-es because the models themselves had gone through essential transformation (Stratégiai Audit, 2007)

The general government deficit is an indicator well expressing the economic trends (Figure 1). I plotted the data series between 1995 and 2009; the curves show a very hectic picture. At the initial time the highest government deficit was in the Czech Republic (-13%) that improved by 10% percentage point by the following year. The curve illustrating the Slovakian data series shows large peaks and lows between 1995 and 2003. Afterwards, the deficit became stable till 2008 when the economic world crisis made the countries' economies worse. Hungary's government deficit also showed an adverse trend with the highest values in the years of the elections, 2002 and 2006 (-9%). Last year it showed a deficit of 4.5% compared to the GDP. The government deficit was relatively favourable Poland's case compared to the rest of the V4. We cannot say that the V4 countries have been in a similar economic situation in the past and are in the present.

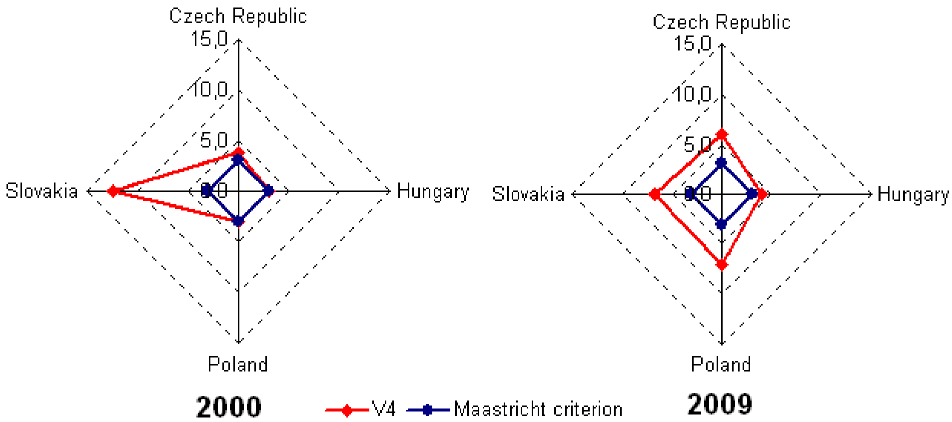
Figure 1 Budget balance in percentage of GDP



Source: Own compilation on the basis of Eurostat data

Figure 2 illustrates the government deficit compared to the Maastricht criterion in years 2000 and 2009. Slovakia's value of 12.3% dropped to 6.8% by 2009; however the favourable values got worse in the case of the other countries. Hungary's deficit was 4% in 2009 which was the most favourable among the V4.

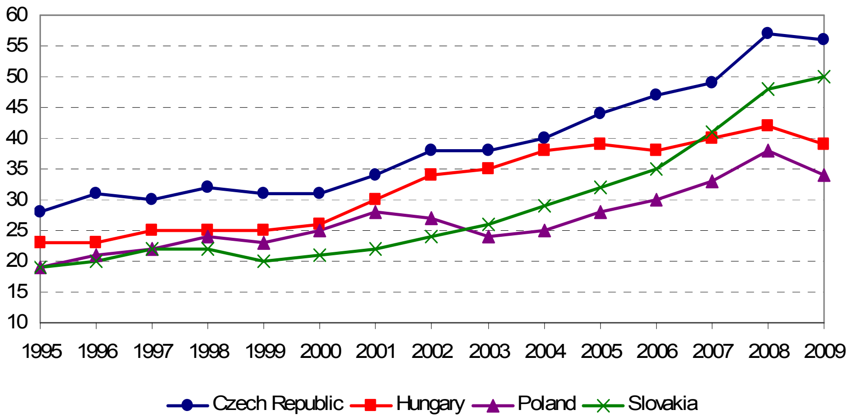
Figure 2 Government deficit as a percentage of GDP in 2000 and 2009



Source: Own compilation on the basis of Eurostat data

The economic situation of the V4 has improved slowly and in different extent since 1995. The GDP per capita in the percentage of the EU 27 shows (Figure 3) that the Czech Republic developed the more dynamically, which was followed by Slovakia, Hungary and finally Poland. The GDP per capita of Poland, similarly to that of Hungary, grew unevenly. The development was not as dynamic as in the case of the other two countries. At the same time, the V4 significantly lagged behind the EU 27 average.

Figure 3 GDP per capita in the percentage of the EU 25



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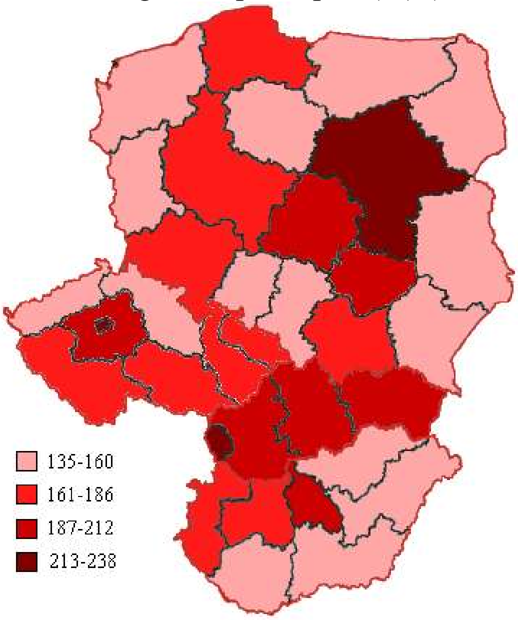
Analysing further the economic situation I demonstrated the growth of GDP in 2007 relative to 1995, in percentages (Figure 4). The differences are explicit enough in the case of the NUTS2 regions. The regions belonging to the capital show considerable growth compared to the value of 1995, they almost grew to double, while the peripheral regions hardly reached the 150% of the value of 1995. The economic growth could mainly be experienced in the regions belonging to the capital and large cities.

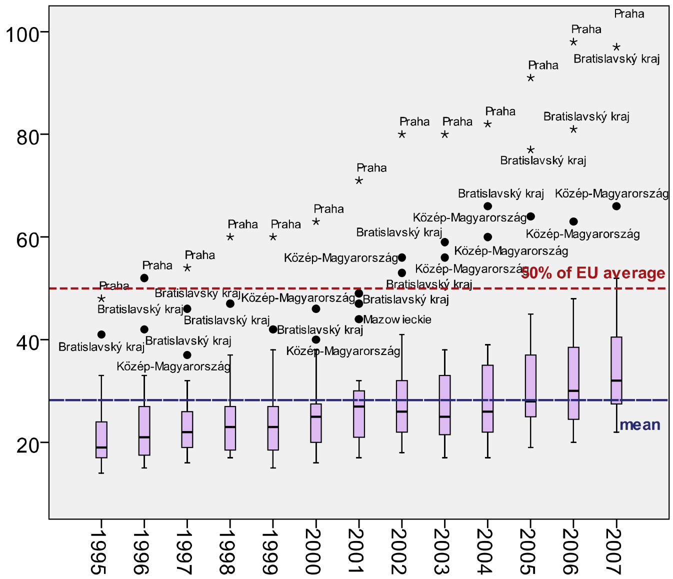
Figure 4 GDP growth per capita (%) (2007/1995)



Source: Own compilation on the basis of Eurostat data

Slovakia is in the best position among the countries, it has a strengthening economy. The picture is rather differentiated in the case of Hungary and Poland. The relatively stronger position of the Transdanubian region is clear in Hungary; the same can be said about the Czech regions as well.

Figure 5 Regional GDP per capita in the percentage of the EU 27.

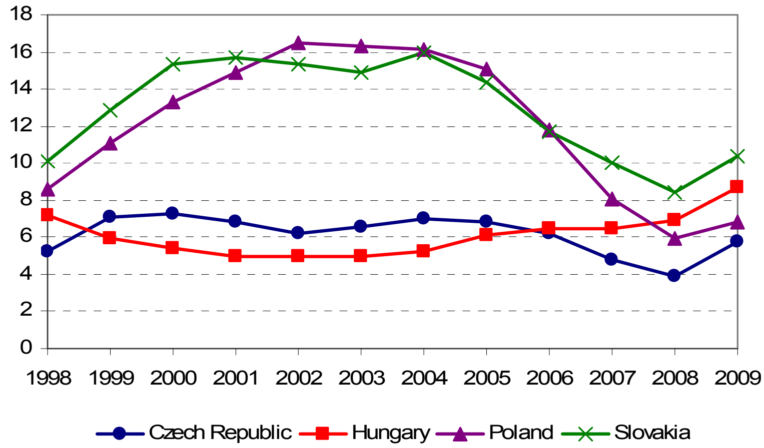


Source: Own compilation on the basis of Eurostat data

Significant discrepancies can be observed also among the countries' NUTS2 regions in terms of the GDP per capita as a percentage of the EU 27 (Figure 5). The values of the regions belonging to the capital are outstanding. However, there is an obvious development as more and more regions can be found above the average value since 2003.

I begin the analysis of the labour market with the unemployment and employment rates because these two indicators express the countries' situation. The unemployment rate (Figure 6) has shown different picture country by country since 1998. Poland and Slovakia possessed the highest values till 2005; the unemployment has improved since then. The countries follow appropriate employment policies as a result of which the situation has improved in the labour market. The Czech Republic and Hungary had an evenly low unemployment; it has shown a modest increase in both countries.

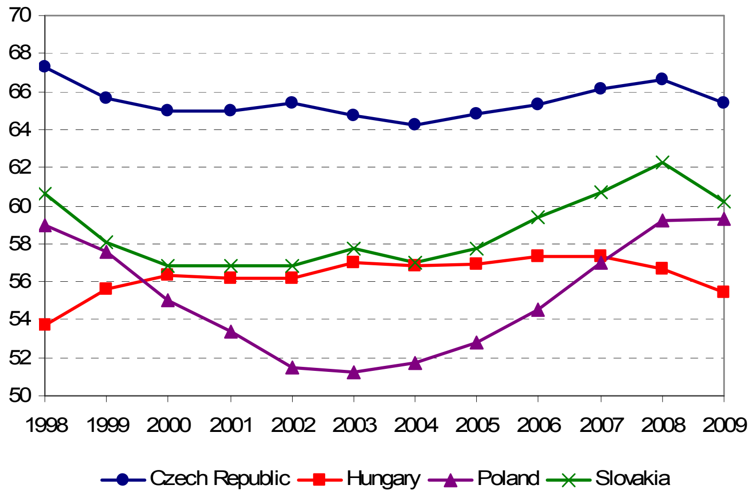
Figure 6 Unemployment rate (%) between 1998 and 2009



Source: Own compilation on the basis of Eurostat data

Employment rate (Figure 7) is the main indicator describing the labour market, it shows the complementary of the employment in the case of Poland and Hungary. Employment improved parallel with unemployment in Poland. The level of the employment rate was even in Hungary between 2000 and 2007; afterwards it decreased by 3%. The employment rate was the most favourable in the Czech Republic; it was above 64% in each period. However the employment rate dropped even in this country because of the economic crisis. The employment rate significantly improved in Slovakia after 2005, the growth of which was broken by the economic crisis.

Figure 7 Employment rate (%) between 1998 and 2009



Source: Own compilation on the basis of Eurostat data

4. Methodology of discriminant analysis (DA)

Discriminant analysis was introduced by Fisher and Mahalanobis. The basis of the method is that every unit of observation is classified into a group according to a pre-set criterion, that is, discriminant analysis is one method of classifying our observations. Its application requires having a discrete (so called „classification") variable and one or more quantitative variables. The objective is to decide to what extent we get back the original classes if we try to classify our observations on the basis of given quantitative variables. That is, to what extent the quantitative variable discriminate the specific classes.

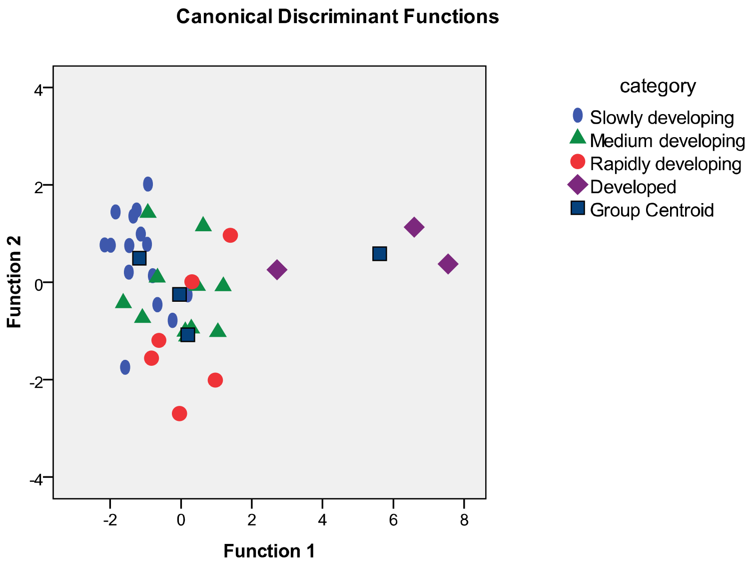
Several conditions have to be realized for the application of the DA method: the covariance matrices of the groups should not differ significantly, and the variable should be of normal distribution.

I collected the following indicators about the 35 NUTS 2 regions for 2008 on the basis of Eurostat data:

- employment rate (%),
- unemployment rate (%),
- activity rate (%),
- fertility rate (%),
- pupils and students in all levels of education (ISCED 0-6) - as % of total population at regional level.

I ran the discriminant analysis after the general one. Before this I had performed a partial correlation by pairs for each indicator so that I make sure about their independence – I have made so. The original classification was based on the GDP growth per capita 2007/1995. I have used this classification and I had called the four groups. I tried to find the answer that grouping according to the GDP growth per capita is valid on the labor market indicators. The discriminant analysis got me to the chart below. We can see the spread of the specific sub-regions according to the original group classification, taking the labour-market indicators into account. The „developed" regions have spread considerably, that is, not every sub-region fall into this group if we take only the labour-market indicators. The „rapidly developing" regions fall into one group they do not display significant difference. The most „medium developing" regions spread considerably around the group centroid. The „slowly developing" regions also display considerably large spread.

Figure 8 Canonical discriminant functions



Source: own construction

I looked at the final table of the discriminant analysis that showed numerically the extent to which the groups received as a result of the analysis of the labour-market indicators, in accordance with the original classification, match or mismatch the original classification.

Table 1 Classification results of discriminant analysis

Classification Results [a,b]

		category	Predicted Group Membership: Slowly developing	Medium developing	Rapidly developing	Developed	Total
Original	Count	Slowly developing	11	3	1	0	15
		Medium developing	3	6	2	0	11
		Rapidly developing	0	3	3	0	6
		Developed	0	1	0	2	3
	%	Slowly developing	73,3	20,0	6,7	,0	100,0
		Medium developing	27,3	54,5	18,2	,0	100,0
		Rapidly developing	,0	50,0	50,0	,0	100,0
		Developed	,0	33,3	,0	66,7	100,0

a. 62,9% of original grouped cases correctly classified.

b. 51,4% of cross-validated grouped cases correctly classified.

According to the table only 11 out of 15 regions are in a really good position and they are need of support either from the labour market or from the legal classification point of view. 3 out of the remaining 4 regions would go into the medium developing category, while 1 goes in the rapidly developing classes, in the light of the unemployment indicators. 6 out of the 11 medium developing regions are in a good place, while 5 should in the rest of the tow groups. 3 out of the 6 rapidly regions are in the appropriate group; 2 out of the 3 developed regions are again in the appropriate group, while 1 fall into the rapidly developing category according to the labour-market indicators.

In conclusion, the Visegrád Four NUTS 2 regions established on the basis of the GDP growth per capita classification does not match with the groups formed according to the labour market indicators. Regional disparity can be experienced in the labour market among the regions as well, however, the discriminant analysis did not give information about its extent, it needs further calculations. At the same time, I regard my hypothesis as true because the difference between the extreme values is more significant in the case of the NUTS 2 regions than the countries level. There is an enormous gap between the most underdeveloped and most developed regions from a labour market point of view.

5. Conclusion

„Recent decades of V4 countries have been famous for its exponential growth of globalization. Every state, every community and every person got hit by a jet speed of spreading the influence and interdependency of worldwide build trade networks. State boundaries are no more applicable. Kofi Annan said: „It has been said that arguing against globalization is like arguing against the laws of gravity". Countries, historically brought to a consensus, enter new trade unions and become every day stronger economic players." (Oslanec, 2009)

In conclusion we can establish that the four countries, in the light of the recent years, move on four different paths of development. Their economic and labour market situation is totally different. The historical ties and the even currently well working relationships do not result in common development. I think that, although their employment situation could improve via more efficient cooperation or even common employment principles, the countries try to fight the unfavourable employment situation alone. It is expectable they could achieve more if they pooled their forces together.

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