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REGIONAL PROGRESS OF THE LISBON STRATEGY OBJECTIVES IN THE EUROPEAN REGION

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Key words: Lisbon strategy, mobility factor, education-employment factor, human resources.

CONCLUSIONS

As it is clear from the foregoing, the countries/country groups analyzed by education, R&D and labor market characteristics show a rather mixed picture. There is a lot more work to do at community, regional and national levels. This is true not only for the member states but also for the candidate countries. Cluster 1 and Cluster 2 proceed well on the road towards achieving the objectives of more and better jobs, full employment and social cohesion. These are open countries and most of them do not hinder the free flow of persons regarding the citizens of the new member states. As to competitiveness, these countries are among the best not only in Europe but also in the world. The best example for using synergies is the Scandinavian cooperation in the form of the Nordic Council (Cluster 1). Within this regional partnership arrangement (which even has its own parliament and budget) the member states cooperate in more than 25 topics, covering also the employment-education fields. The difference from the average is not so great in the case of education financing but it is rather substantial in R&D support. The new member states, the cohesion countries and the candidate countries must significantly increase the current level and encourage the business sector through enterprise-friendly policies in order for the support from the business sector to reach the desired 2/3 level. The resulting impacts will be visible also in the correlation between employment, unemployment, economic activity and long-term unemployment. It is a particularly important issue in Poland, Malta, Italy, Hungary and Greece. It should be acknowledged that the progress is rather difficult with regard to community-level arrangements. It is enough to mention the progress of the strategy during the first five years, or the fact that the European Commission to give new dynamics to it in 2005. The process is progressing well at the level of resolutions. Although the member states have prepared their national programs, they contain rather heterogeneous issues and targets. Considering only the R&D expenditures and the relevant target deadlines, the various countries wish to reach the following rates by 2010: Malta 0.75%, Cyprus 1.0%, Greece 1.5%, Poland 1.65%, Slovakia and Hungary 1.8%. Ireland and the United Kingdom set 2013-2014 as a deadline for reaching the desired rates. As a next step, the European Commission will urge the prime ministers and heads of state to make the necessary commitments within the framework of the European Council and will provide support for each member state. What is more, the Commission would use the Cohesion Fund, together with other EU tools, to finance the objectives of growth and

employment. However, the support of the European Council and Parliament will also be required for the achievement of all these targets. Naturally, there are many other aspects of the Lisbon strategy apart from the human one. Still, the human aspect forms the basis given that it is man who creates things. The economic and environmental pillars of the strategy are designed in such a manner that the common development efforts based on synergies will be indispensable not only within each pillar but also among the various pillars. After all, 2010 is not that far from today.

INTRODUCTION

In March 2000 in Lisbon the EU set the strategic goal of becoming by the end of this decade „the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion”. This is called the Lisbon strategy. The objectives of the strategy included, among others, an increase in employment rates, a raise in R&D expenditure and an increase in the number of people with secondary education and those involved in lifelong learning. The goal should be achieved by 2010. Back in 2003 the Employment Task Force (set up by the European Council and authorized to make concrete recommendations for the member states), led by *Wim Kok*, recognized *the current risks endangering the European Union's rather ambitious goal set in Lisbon*. In recognition of the insufficient speed, the multitude of tasks, the lack of coordination and the conflict of priorities, the European Commission, which was reestablished in 2004, decided to give renewed dynamics to the process. As of 2 February 2005, the European Commission proposed a new start for the Lisbon strategy specifying, in particular, two main tasks for the European Union: realizing a stronger and more permanent growth and creating more and better jobs. „Time to move up a gear”, said Commission President *Barroso* at the time of presenting the Annual Progress Report on Growth and Jobs for 2006. The implementation of the Lisbon strategy has

been strongly criticized. Theoretical plans, indexes and other abstract terms still dominate the debates, while in many areas there is barely any political will for a straightforward achievement of the specific objectives through taking the necessary actions, developing clear-cut objectives and setting verifiable deadlines. It is particularly important to have in place the exact procedures for follow-up and assessment. In order to facilitate the realization of the above quote, the *Wim Kok* report specified four requirements

- increasing the adaptability of workers and enterprises;
- attracting more people to the labor market;
- investing more and more effectively in human capital;
- ensuring effective implementation of reforms through better governance.²

This paper studies the first three requirements of the *Wim Kok* report, that is the human resource characteristics. Despite the ongoing discussion about indexes, we have chosen eight variables for study. These are as follows: employment rate of the 25-64 age group (target: 2010 – 70%), lifelong learning rate (target: 2010 – 12.5%), unemployment rates, economic activity rate, ratio of education expenditure to GDP, ratio of R&D expenditure to GDP (target: 2010 – 3%, two-thirds of which are financed by business organizations) and student mobility (share of students learning in other EEA member states). The purpose is to examine the relationship between the characteristics of education

and labor market and to see, based on such relationship, the situation of each unit and the European Union. The analysis contains not only the EU member states but also the candidate countries, the EEA member states, the EU15 and the EU25 as a single entity. The performance data of the various countries and entities for 2002, 2003 and 2004 were taken from the Eurostat web portal (<http://epp.eurostat.cec.eu.int/>).

METHOD

The analysis was performed with the SPSS 13.0 for Windows statistical software, from which the main component (factor) and the hierarchical cluster analyses were used. The statistical software is ideal for highlighting certain relations that would otherwise remain hidden. The various matrixes are helpful in the identification of relations and interrelations, whereby the common main component (factor) variables and the background variables also become available. In turn, the factors are used to describe and group each country and unit, which is followed by reading and drawing the conclusions.

RESULTS AND DISCUSSION

It is clear from the descriptive statistics that there are many different kinds of relations between the characteristics and that it may be possible to identify such background variables that are closely correlated with a group of the original characteristics, which means that there is also a strong correlation between the original characteristics. The number of indexes was decreased through factor analysis i.e. through data reduction. Those factors can be considered significant that have an *eigenvalue above the mean value* i.e. above one. In this case the first two main components are proved to be significant. Accordingly,

the first and the second account for 51.27% and 24.92% of the variance of the observation variables, respectively. The first two main component variables account for 76.19% of the total variance, which is considered acceptable.

It is clear from the analysis that the first main component shows significant correlation with such variables as *lifelong learning rate, economic activity rate, employment rate, ratio of education expenditure to GDP and ratio of R&D expenditure to GDP* (in this order). There is a positive correlation between these characteristics. In other words, if the lifelong learning rate is high then the economic activity rate, the employment rate, the ratio of education expenditure to GDP and the ratio of R&D expenditure to GDP will also be high. This factor was named as *education-employment factor*. The value of the second main component is determined substantially by such variables as *unemployment rate, long-term unemployment rate and student mobility*, the former ones having a bigger weight. Here the sign of the first two variables is different from that of the third one. It means that if the unemployment rates rise then student mobility will be low at the various education institutions in the EU, candidate countries and EEA member states. This correlation is true also for the opposite case. (Although, in reality, there is no direct connection between the two variables.) This is the *mobility factor*, representing both sectoral and geographical mobility.

The x-axis of the coordinate system represents the factor with the highest explanatory percentage. Accordingly, just like in the case of each factor in the analysis, the sign is very important here. The positive region of the axis is for those countries where lifelong learning rate, economic activity rate, employment rate, ratio of education expenditure to GDP and

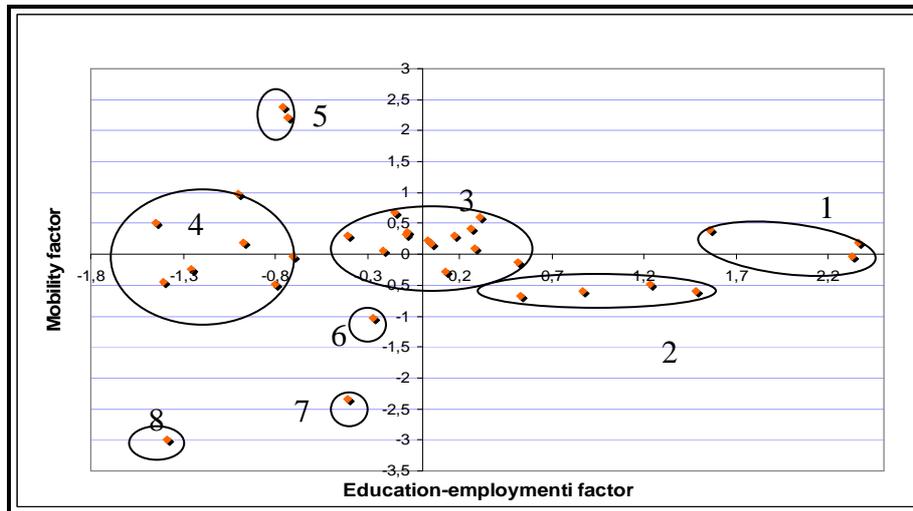
ratio of R&D expenditure to GDP have a great importance. The opposite (negative) region of the axis represents such human resource structures where the importance of the above variables is lower.

The y-axis of the coordinate system is used for the countries determined by the

mobility (second) factor. The positive region of the axis indicates a high unemployment rate, while the negative region represents a component of negative sign within the factor, which means the overweight of student mobility in this case.

Figure 1

Human resource characteristics in the European area



Source: SPSS, own editing

Through cluster analysis (using the hierarchical and centroid methods), it is possible to separate eight distinct groups in the coordinate system

1. the Scandinavian group on the right-hand side (the entire Nordic Council except for Iceland and Norway): Sweden, Denmark and Finland;

2. an entity made up by the United Kingdom, the Netherlands, Austria and Norway;

3. central countries and country groups: Portugal, Spain, France, Germany, EU15, EURO12, EU25, Belgium, Czech Republic, Slovenia, Estonia, Latvia and Lithuania;

4. a group made up by Italy, Hungary, Croatia, Romania, Bulgaria, Greece and Malta;

5. Poland and Slovakia;

6. Ireland;

7. Cyprus; and

8. Luxembourg.

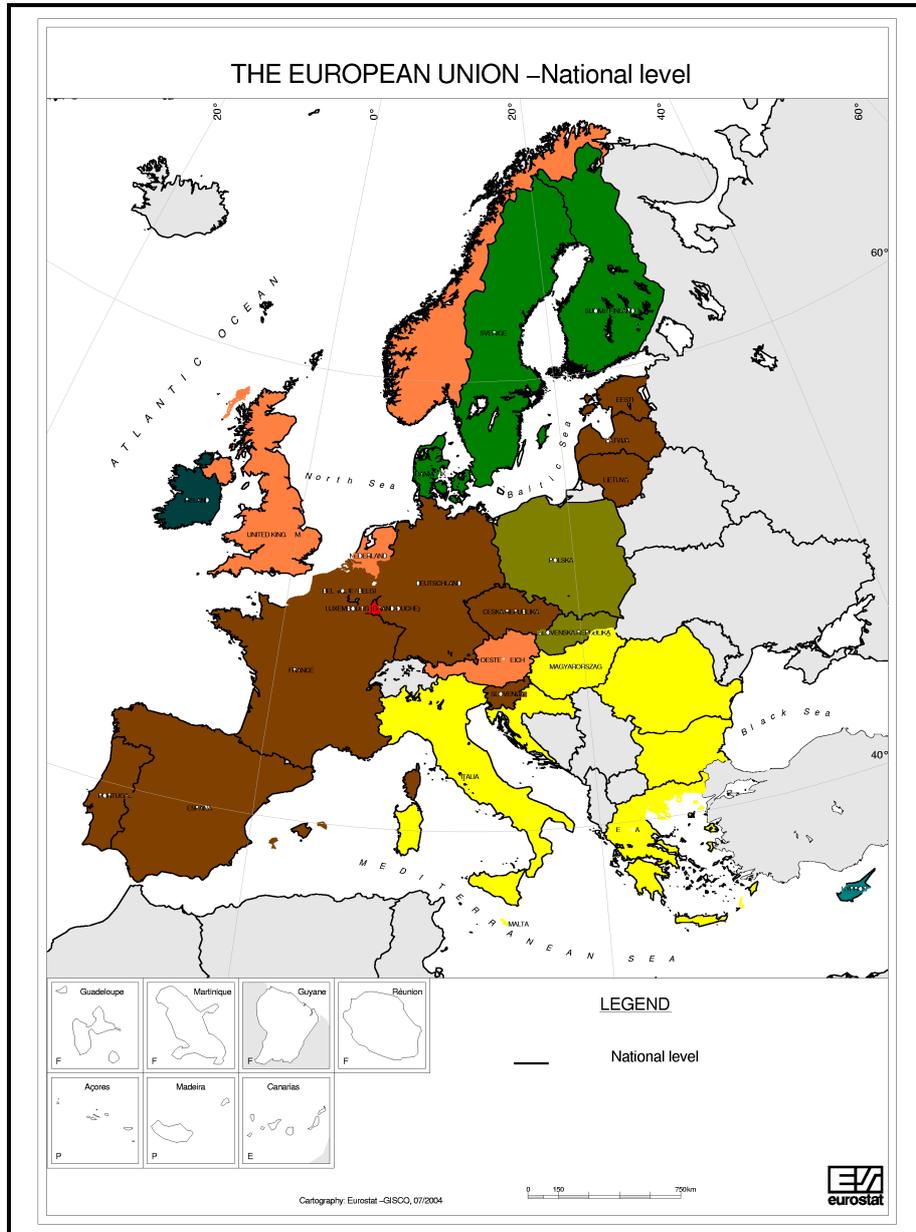
In the best performing first group (orange area in Figure 2) Sweden has the best (analyzed) human resource characteristics, including an outstandingly high employment rate (72.1%) and lifelong learning rate (over 37%, which makes it first among the analyzed countries). In addition, it is a leader regarding almost all positive indexes. Sweden has the lowest long-term unemployment rate, although the unemployment rate is not the best (but it is still well below the EU average). Denmark has similar characteristics: the ratio of education expenditure to GDP and the economic activity rate are the highest

here. Finland's shift is the result of its unemployment rate equaling with that of the EU25 average. The extremely high R&D expenditures bring Finland to second place in Europe. As to R&D expenditures financed by business organizations, only Denmark falls (slightly) behind the required 2/3 level. *In the second group* (dark green area) the employment rate varies between 67.8% and 75.1%. As to the lifelong learning rate, the United Kingdom is the best with over 33% and Austria is the worst with 12.5%. The long-term unemployment rate is very low and the economic activity rate is still above 70%. As to R&D expenditures, Norway has the lowest rate, followed by the Netherlands, the United Kingdom and Austria. In the Netherlands more than half of the R&D expenditures is financed by the business sector, while the three other countries are below that level. The unemployment rate is below 5% in the entire group. As to student mobility, Austria and Norway are the leaders in this group. The lowest rate (0.6%) belongs to the United Kingdom. *The next group* (brown area) is made up by units having around the average values. There are several entities here that represent the average: EU25, EU15, EURO12. There is not much difference as to their location. However, there still must be some kind of difference, given that the new (2004) entrants deteriorate almost all indexes in comparison with the EU15 average. There is no difference between the two averages as to education expenditures and student mobility. It is interesting to see that, from among the new entrants, not only Slovenia and the Czech Republic but also the three Baltic states i.e. Estonia, Latvia and Lithuania are also here (in close proximity). The countries shifting towards positive direction from the education-employment factor include the old member states and, as a surprise, Slovenia.

The negative field includes not only the new entrants but also Spain. The positive trend is mostly due to the high lifelong learning rates (Slovenia has almost the double of the EU rate) and to the higher employment rates, while the negative trend is caused by the low level of the same variables. The unemployment rate is highest in Spain and the long-term unemployment rate is highest in Lithuania. The student mobility varies around the mean value. As to R&D expenditures, only Germany approaches the desired level of 3%. *The fourth group* (yellow area) consists of Italy, Hungary, Croatia, Romania, Bulgaria, Greece and Malta. These countries also approach the average. As to lifelong learning, the rates vary between 1.4% (Bulgaria) and 7.2% (Italy). The general problem in the group is the very low employment rate (no country in the group reaches 60%) and the relatively low economic activity rate. As to R&D expenditures, only two countries exceed 1% (Italy and Croatia)! Malta has the lowest rate (0.28%). It should be noted that the so-called black economy has a great importance in Greece, Hungary and Italy, accounting for an amount equaling some 16-20% of the Gross Domestic Product. *The fifth distinct group* includes two Visegrád countries: Poland and Slovakia. Actually, these two countries would belong to the fourth group if the unemployment rates did not exceed (over 18%) the double of the EU25 average. Poland has the lowest employment rate (only slightly more than half of the economically active population is employed) but the long-term unemployment rate is highest in Slovakia. Black employment is significant here, too, accounting for an amount equaling some 13-15% of the GDP. The R&D expenditures barely exceed 0.5% of the GDP. This group is shown in khaki color.

Figure 2

Human resources clusters in Europe



Source: base map: Eurostat-GISCO, own editing

Table 1

Other important data about the countries under the analyze (2005)

	GDP per capita (PPP) 100 = EU25	Real GDP growth rate (5 year average)	Total invest- ment/GDP	Population (million)
Cluster 1				
se	115	2.2	17.0	9.0
dk	124	1.4	20.7	5.4
fi	113	2.5	18.8	5.2
Cluster 2				
no	165	2.1	18.7	4.6
nl	123	0.9	19.5	16.3
at	123	1.4	20.5	8.2
uk	117	2.5	16.8	60.0
Cluster 3				
pt	71	0.7	21.6	10.5
es	99	3.1	29.4	43.0
fr	109	1.5	19.7	62.4
eu25	100	1.7	19.9	461.3
eu15	108	1.6	19.8	387.2
be	118	1.4	19.9	104.4
cz	73	3.6	26.4	10.2
de	110	0.7	17.1	82.5
si	80	3.4	24.8	2.0
ee	57	7.6	9.1	1.3
lv	47	8.1	29.9	2.3
lt	52	7.6	22.3	3.4
Cluster 4				
it	103	0.6	20.6	58.5
hu	61	4.2	23.2	10.1
bg	32	4.9	23.8	7.8
hr	49	4.7	29.3	4.4
ro	35	5.7	23.1	21.7
gr	82	4.4	23.7	1.0
mt	69	-0.6	20.7	0.4
Cluster 5				
pl	50	3.0	18.1	38.2
sk	55	4.6	26.0	5.4
Cluster 6				
ie	137	5.2	27.0	4.1
Cluster 7				
cy	83	3.2	19.2	0.7
Cluster 8				
lu	247	3.3	20.3	0.5

There is only one country in each of the next two clusters: Ireland (bluish grey) and Cyprus (turquoise). Both would belong to the central cluster but in Ireland the student mobility causes the separation. The same is true for Cyprus, where the share of students learning in other EEA countries exceed 50%. The cause may be found, in part, in the divided nature of the island. The economic activity rate in Cyprus (72.6%) exceeds the EU15 figure (70.6%). Cyprus has the second lowest R&D expenditures after Malta. The last cluster includes Luxembourg (red area). The Grand Duchy would belong to the fourth cluster if its student mobility were not so high (66.7%). A part of the students learn in Belgium, which is the country's economic union partner. The long-term unemployment rate is extremely low (1.1%). In fact, it is the second lowest value among the analyzed countries.

As the production and creation activities of societies i.e. human resources never cease to stop, let us examine some dimensions of the economy and produc-

tion. As it is clear from Table 1 above, the countries with high economic performance are not necessarily the same as the countries with high human resources. The first two clusters that are best in human competitiveness are also best in their economic performance. The analysis of cluster 3, accounting for almost 70% of the EU, shows a differentiated picture: the GDP per capita varies between 47 and 118% of the EU average. Actually, the lower the GDP, the higher the growth potential and investment rate. The same pattern is valid for the Visegrád countries. According to currently available data, Ireland has both high GDP and high growth potential, a sign for economic competitiveness. Apart from having a high GDP, Luxembourg also has a satisfactory growth rate in comparison with the other old member states. Although the above indicators represent only a slice of the economic characteristics, yet these are the main indicators of competitiveness. Though they relate to this study, but basically they serve only as supplementary information.

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