dr Anna Rytko

SGGW w Warszawie
Katedra Polityki Europejskiej, Finansów Publicznych i Marketingu

European Integration and its Influence on Regional Development and Competitiveness of Poland

INTRODUCTION

Recently much attention has been paid to the theories of endogenous growth, according to which development of a region depends on its internal conditions. The genesis of research dates back to the 60s of the twentieth century, when there were published works of N. Kaldor [1961, pp. 77–222] or K.J. Arrow [1962, pp. 155–173]. Their intensive growth took place in the 80s and 90s of the twentieth century, with – among others – models of growth of P. Romer [1986, pp. 1002–1037] and R.E. Lucas [1988, pp. 3–42]. These theories are based on the assumption that a volume of production is a function of capital and a technological level.

Nowadays, on the basis of the endogenous theory, it is extremely important to examine possibility of the state influence on the economic growth process. The key event of the last decade of the twentieth century in Poland was the membership in the European Union. This process significantly changed many internal conditions as well as expanded production capacity due to better access to the vast and rich European market. It contributed to the economic and political stability, resulting in large inflows of foreign investments as well as new organizational, production and technological solutions. All these factors resulted in the economic growth in the countries of East and Central Europe. Poland, as well as other "new" countries, became a member of the group which plays highly important economic role. The European integration process eliminated or weakened economic barriers between the countries, and contributed to the free movement of persons, goods or capital. Conditions for the full liberalization of international movements caused transformation of the nature of these flows. Actually, they take the character of regional flows, within the integration group, where the single European market operates. The integration process caused not only strengthening the role of endogenous factors, but also exogenous ones, which also give the opportunity to develop a region as well as shape its internal conditions.

The economic integration process significantly changed rules of international trade or production in some sectors by activating a number of common policies. In this context, the following question arises: what was the main factor of the economic growth and what mechanisms cause the economic growth of a region? It is especially important for countries of the Soviet bloc, which have remained on much lower level of the economic development in comparison to the West European countries.

Economic diversification is a fundamental problem of modern economy and a prerequisite to search for ways that lead to the economic growth and, consequently, to regional development[1] and growth of welfare. As a result, in the early 90s, on the base of the neoclassical model, several studies were conducted on regional income convergence in Europe [eg. Barro, Sala-i-Martin, 1991, pp. 107–182; Magrini, 1999, pp. 257–281]. There are several views that income convergence at the regional level is not a universal phenomenon, as exemplified by still large differences in the level of economic development among the EU Member States. The explanation of these processes was supported by two new theoretical concepts: a new theory of growth and new economic geography. On the basis of a broad discussion, there arises a question: whether there is observed a process of economic development with a tendency of convergence or polarization – divergence of regional income in Europe and worldwide.

METHODOLOGY OF RESEARCH PROCESS

The aim of this article is to show the impact of the integration process on improvement of competitiveness of Poland. The competitive position was assessed by changes in the economic growth of the region in relation to other EU Member States. Using the achievements of the endogenous growth theory, the author decided to examine changes in the level of economic growth in Poland and in other "new" Member States.

In particular, the Visegrad Group countries were included, which have run the closest cooperation with Poland. It was assumed that the member countries were a research subject, treated as large regions of the single European market. This was due to availability of the statistical data and uniform conditions of production and distribution in different countries[2], conditioning competitiveness of the region. It was hypothesized that:

1. The process of economic convergence of "new" Member States with the EU-15[3] is observed in Europe. European integration has contributed to improvement of the economic situation in these countries.

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[1] Development is a broader concept than economic growth. It concerns quantitative and qualitative changes as well as various aspects of human life, often immeasurable. According to J. Misala economic development it is economic growth (understood as a country's national income growth), including the various qualitative implications, which include for example changes in quality of the offered products, changes in the education and social preferences.

[2] Despite the single European market, there are still differences in the conditions of a production process.

[3] „Old" Member States – before 2004. The concept of „new" Member States refers to the countries that joined the EU in 2004 and later.

2. The competitive position of Poland improved in the period 2000–2010.

The article is comprised of two research stages. First of all, an analysis of the economic growth in the EU Member States was conducted. A difference of growth between countries was tested and changes in a level of convergence were assessed. Verification of the first hypothesis was based on a comparison of the development level of individual countries to the average growth in the European Union. The second research stage was to test the second hypothesis, not only by changes in the economic growth, but also on the basis of other macroeconomic indicators. The study used a method of the macroeconomic stabilization pentagon[4], which is based on an analysis of the following quantities: the pace of GDP growth, which is a synthetic measure of the level of economic development[5], the registered unemployment rate, the inflation rate as a measure of internal balance, the debt ratio measured as the ratio of the public sector budget balance to GDP as well as the foreign debt ratio of the measured current account balance. Placing five vertices of the pentagon and appropriate scaling allows calculating the area of triangles and evaluating the process of economic stabilization or destabilization compared to the optimal solution when the field of the pentagon is equal to 1 [see: Misala, 2011, pp. 138–141].

In the article (because of the volume requirements), it was decided to analyze changes in each of the indicators. The area of triangles was not calculated. There was only pointed the role of internal factors, represented by economic growth, unemployment, inflation or public sector debt as well as the role of external factors represented by foreign debt and economic growth. In the research there was used the European Union statistical database and the analysis was made for the years 2000–2010.

ECONOMIC GROWTH OF THE "NEW" MEMBER STATES OF THE EUROPEAN UNION

In the period 2000–2010, Lithuania, Estonia and Slovakia were the fastest growing new EU countries. The average growth rate for these countries ranged between 4.5% and 5.3% (table 1). In assessment of the impact of the European integration, the economic growth in the new EU Member States was divided into two time periods: the pre-accession period to 2003 and post-accession pe-

[4] The method developed by the Foreign Trade Research Institute in 1990, based on the magical quadrilateral.

[5] To the essential values of GDP as a synthetic measure includes inter alia: representativeness in terms of expressing the state of economic development by bringing the results of the actions of growth factors, characterizing the standard of living, whether the expression level o social performance.

riod since 2004. However, in many cases, conclusions were deformed by the global crisis, which can be seen in data of 2009 and 2010. According to that, in aim to show the effect of integration, the averages of the years 2004–2008 were compared. Actually, faster growth in the post-accession period than in the pre-accession period was recorded in majority of countries. Exceptions were countries that grew rapidly in the early studied period: Estonia and Lithuania, as well as Hungary, which since 2007 ceased to develop intensively. The highest rate of economic growth in the pre-accession period was recorded in the cases of Lithuania, Estonia, and Latvia. The average growth rate in 2000–2003 amounted respectively to 9%, 8.7%, and 7.1%. However, in the years of 2004–2008 rapid growth was maintained by Latvia and Lithuania, and Slovakia which joined this group of countries.

The global crisis changed all indicators of the economic growth. All countries, except of Poland, recorded decrease in the Gross Domestic Product. Therefore, when the evaluation took years of 2004–2010, the largest average increase occurred in Slovakia (5.1%), Poland (4.6%), and Bulgaria (3.9%). The EU-15 countries were characterised by significantly lower pace of the economic growth[6]. In the studied period, it amounted average to 1.5%. In the years 2000–2003 and 2004–2008, the growth rate did not change and there was an average increase of 2.1 percentage points. Germany, the largest Poland trade partner and the strong European economy, in the analyzed period was growing in the slowest pace. The rate was even lower than the average of the old EU-15.

Table 1. Average changes of Gross Domestic Product for the "new" EU Member States and Germany in 2000–2010 [in %]

Member States	2000–2003	2004–2008	2004–2010	2000–2010
EU-27	2.2	2.3	1.3	1.6
EU-15	2.1	2.1	1.1	1.5
Bulgaria	5.0	6.4	3.9	4.3
Czech Republic	3.3	5.5	3.6	3.5
Estonia	8.7	5.8	2.4	4.7
Cyprus	3.3	4.2	2.9	3.0
Latvia	7.1	7.3	2.6	4.2
Lithuania	9.0	7.1	3.2	5.3
Hungary	4.1	2.7	1.2	2.2
Malta	0.4	2.9	2.0	1.4
Poland	2.7	5.4	4.6	3.9
Romania	4.6	6.8	3.7	4.0
Slovenia	3.5	4.9	2.6	2.9
Slovakia	3.6	7.3	5.1	4.5
Germany	1.1	2.0	1.2	1.2

Source: Author's calculation based on the Eurostat data.

[6] It should be noticed, that in the case of developed countries, sometimes the smaller percentage gain in real GDP over the year, may be greater value in absolute terms, than in countries with low GDP and greater rate of growth of GDP.

Apart from an average rate of growth, in aim to evaluate convergence in economic development there were assessed differences between the average GDP per capita calculated in purchasing power parity (PPP) in the EU and individual Member States.

Taking the GDP in the EU as 100%, differences in economic growth in the two analyzed periods were examined. In this case, the second period is 2004–2010, because despite the crisis, these differences diminished. The growth rate of the Member States was expressed as a percentage of average EU development. On this basis the deviation of the mean and changes in the deviation were calculated. The detailed data were presented in Table 2. Although the old member countries generated a surplus, it should be noted that it declined steadily and was lower in the years 2004–2010 by 4 percentage points. All countries, which accessed after 2003, had a loss to the EU average. In 2000, Romania was the least-developed country – GDP was 26% of the average GDP in the EU, and in 2010 Bulgaria with only 44% proportion. In the first period (pre-accession), the smallest gap in the economic development were observed in Cyprus (-12 p.p.), Slovenia (-19 p.p.), and Malta (-19 p.p.), while in the accession period - in Cyprus (-6 p.p.), Slovenia (-12 p.p.), and Czech Republic (-20 p.p.). The greatest convergence process, however, was observed in the cases of Estonia, Slovakia, and Romania.

The reduction of differences in the level of economic development was caused by the fast pace of development of “new” Member States and the weak pace of development of the fifteen “old” EU countries. For example, Germany, which in 2000 had about 18% of GDP higher than the average for the EU, experienced the same situation in 2010. The not increasing difference of Germany and fall in the other fifteen countries made easier and faster catching up with them by the countries of the Central and Eastern Europe, and thus there was observed the process of convergence.

Table 2. Differences among GDP per capita in EU-27 (average for the EU=100%) and in “new” Member States (GDP as percentage of growth in the EU) in 2000–2010 [in percentage points]

Member States	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2000–2003 average	2004–2010 average
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*
EU-15	15	15	14	14	13	13	12	11	11	10	10	15	11
Bulgaria	-72	-70	-68	-66	-65	-63	-62	-60	-56	-56	-56	-69	-60
Czech Republic	-29	-27	-27	-23	-22	-21	-20	-17	-19	-18	-20	-27	-20
Estonia	-55	-54	-50	-45	-43	-38	-34	-30	-31	-36	-36	-51	-35
Cyprus	-12	-10	-12	-12	-11	-9	-9	-8	-1	0	-1	-12	-6
Latvia	-64	-62	-59	-57	-54	-52	-49	-44	-44	-49	-49	-61	-49
Lithuania	-60	-58	-56	-51	-49	-47	-44	-41	-39	-45	-43	-56	-44

1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*
Hungary	-46	-42	-39	-37	-37	-37	-37	-38	-36	-35	-35	-41	-36
Malta	-15	-21	-19	-20	-22	-22	-24	-24	-21	-18	-17	-19	-21
Poland	-52	-53	-52	-51	-49	-49	-48	-46	-44	-39	-37	-52	-45
Romania	-74	-72	-71	-69	-66	-65	-62	-58	-53	-53	-54	-72	-59
Slovenia	-20	-20	-18	-16	-13	-13	-12	-12	-9	-13	-15	-19	-12
Slovakia	-50	-48	-46	-45	-43	-40	-37	-32	-27	-27	-26	-47	-33
Germany	18	16	14	16	15	16	15	16	16	16	18	16	16

Source: Author's calculation based on the Eurostat data.

Figure 1 presents the situation in the Visegrad countries, addressing the changes to the EU-15. Fifteen old Member States reduced the difference in the level of economic development. Initially, in 2000, they exceeded the average level of GDP for the EU by 15 percentage points, while in 2010 only about 10 percentage points. Reduction of disparities in the level of economic development in the all new Member States can be clearly seen. However, Slovakia was the most successful, as in 2000–2010 it decreased differences very fast (by 24 percentage points). It is worth noting that the rapid pace of growth to 2008 expired in 2009–2010 – since the accession of Slovakia to the Eurozone. Poland was the second, as it improved the situation, reducing the gap to the EU average by 15 points. Next, there were Hungary with 11 points and the Czech Republic with 9 percentage points.

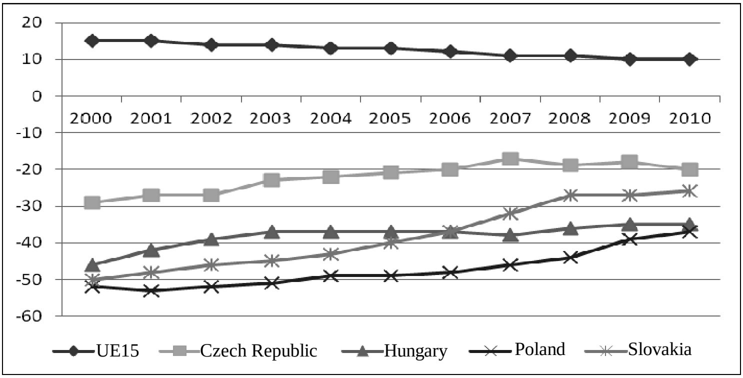


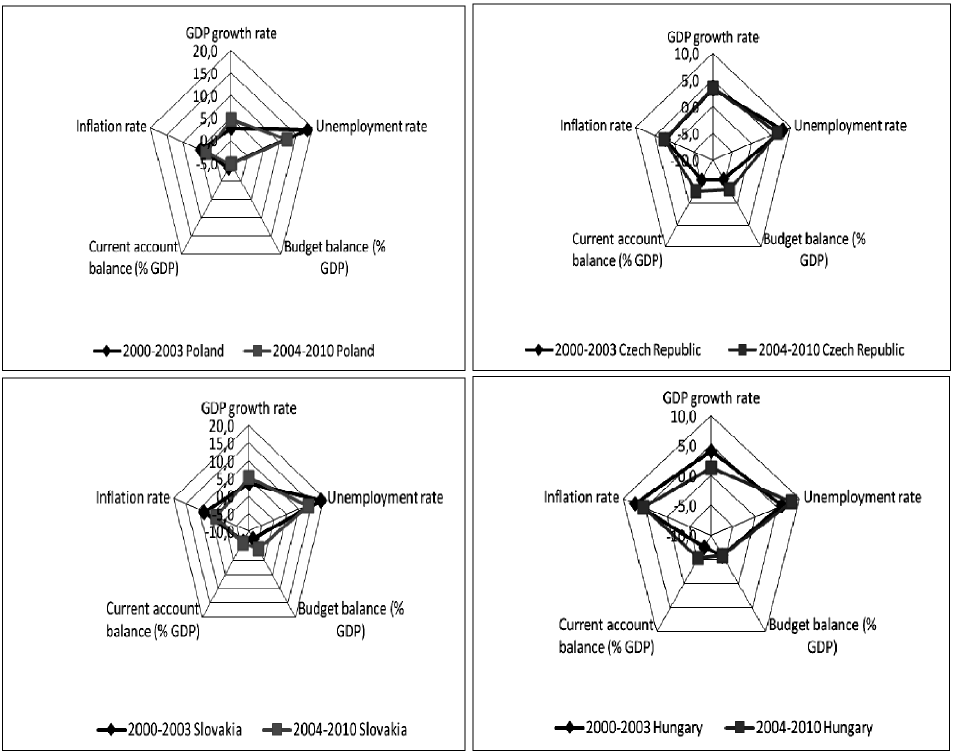
Figure 1. Changes in GDP of the Visegrad countries and the EU-15 in relation to average GDP in the EU-27 in 2000–2010 [percentage points]

Source: Author's calculation based on the Eurostat data.

Hungary and the Czech Republic quickly reduced the gap in the pre-accession period, by respectively 9 and 6 percentage points. In the post-accession period, reduction of development disparities was much slower, in both countries by 2 percentage points. To the contrary, in 2000–2003 Poland and Slovakia got closer to the level of the EU development by 1 and 5 percentage points, and in the years 2004–2010, by 12 and 17 percentage points.

Status and changes in basic macroeconomic data of the Visegrad countries was shown in Figure 2. In the last eleven years, dynamics of the economic growth in Poland, the Czech Republic, Slovakia, and Hungary, fluctuated from 2.2% to 4.5%. Stronger economic growth in post-accession period was recorded in Poland, Slovakia, and the Czech Republic. Hungary recorded medium decrease of GDP growth in the years 2004–2010 in comparison to 2000–2003.

In Poland, comparing the two periods, there was a difference of 1.9 percentage points in favour of the second period. At the same time, these changes reflected good internal situation. There was decrease in the average unemployment rate from 18.5% to 12.5% and decrease in the rate of pace of inflation from 4.5% to 2.9%. On the other hand, the budget deficit increased, which in the first period amounted on average to 3.6% of GDP, while in the second period 4.7% of GDP. Relations with foreign countries hardly changed. The current account deficit in 2000–2003 amounted on average to 4.9% of GDP, while in the years 2004–2010 4.8% of GDP.



Note: GDP growth rate, unemployment rate and inflation rate are presented in %, whereas budget balance and current account balance are presented as a relationship to GDP.

Figure 2. Economic situation in Poland, Slovakia, Czech Republic, and Hungary in the system of the Magic Pentagon

Source: Author's calculation based on the Eurostat data.

Similar tendencies can be observed in Slovakia, which increased its GDP growth rate by 1.5 percentage points. The average growth rate was on the level of 3.6% in the first period and 5.1% in the second one. However, Slovakia improved the rest of measures in the stabilization pentagon. Comparisons of average values of two analyzed periods look as the unemployment rate decreased from 18.6% to 13.6%, the inflation rate from 7.8% to 3.1%, the debt ratio from 7.5% to 4.0%, and the foreign debt ratio from 6.4% to 6%.

The economic situation in the Czech Republic is the most stable one although the GDP growth rate was not significant (the difference by 0.3 percentage points compared to the period 2000–2003). The economic growth was on average on the level of 3.5% in the analysed period and was similar in the periods 2000–2003 and 2004–2010. The average unemployment rate was lower in the post-accession period; it decreased from 8.0% to 6.5%; similar changes were noticed in the budget balance and current account. Decrease of the average budget debt from 5.6% in the period 200–2003 to 3.1% in the period 2004–2010 and the foreign debt ratio from 5.3% to 2.8% was accompanied by slight increase in the inflation rate – respectively from 2.4% to 2.5%. Summing up, the quite high unemployment rate, which was the highest one comparing to the unemployment rate in other countries of the Visegrad Group, can be a problem of the Czech Republic.

The worst situation took place in Hungary. Decrease in the GDP growth rate was accompanied by increase in the unemployment rate from on average 6% in the period 2000–2003 to 8.2% in the period 2004–2010. At the same time, there was observed decline of inflation rate – it decreased from 7.3% in the period 2000–2003 to 5.3% in the period 2004–2010. However, the budget situation remained the same – the debt was at the level of 5.9% of GDP in both the first and the second analysed period and was the highest one in the researched group of countries. There was improvement of the current account comparing these two periods. The average foreign debt ration decreased from 7.5% in the period 2000–2003 to 2.5% in the period 2004–2010. It can be also concluded that there was observed the lack of internal balance and improvement of external situation in the analyzed period.

Conclusions

The conducted analysis proved both hypotheses. The new European Union Member States decreased differences in the level of economic development. The economic integration played a significant role in this process. However, the countries were characterized by the stable economic growth since 90ties [see: Radło, 2010, p. 467; Weresa, 2010, p.127] and the integration process has contributed to these transformations. In majority of countries, there was observed the higher rate of economic development in the period 2004–2010. Three new

Member States out of all twelve were exceptions; they developed quickly at the beginning of the researched period: Estonia, Lithuania, and Hungary, and stopped so rapid development in 2007. The lowest differences in economic development in the post-accession period were noticed in Cyprus, Slovenia, and the Czech Republic. The most significant convergence processes were observed in the case of Estonia, Slovakia, and Romania. Decrease in differences in the level of economic development is caused by the quick development rate of "new" Member States and the weak development rate of 15 "old" Member States.

The second hypothesis about improvement of the Polish competitive position was also proved. This position significantly improved after 2004 not only in the case of Poland but also many other countries of the Central and East Europe. Slovakia achieved the greater success in the Visegrad Group – it was decreasing differences in the level of economic growth very fast in the period 2000–2010 comparing to the "old" Member States. The next places were occupied by Poland, the Czech Republic, and Hungary.

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Summary

The regional integration of the Central European and Eastern countries performed the large part in the formation of economic growth which actually began together with the transformation. However, the greater growth rate of economic can be observed within a period of membership, and

these countries significantly reduced their distance to partners from the Western Europe. The competitive position has significantly improved after the year 2004, not only in the case of Poland, but also other East and Central Europe countries.

Summing up, the conducted analysis allowed formulating the following conclusions:

- Poland and Slovakia quickly overcame differences in the level of development; however, they have still had the high unemployment rate. In Poland, an increasing deficit of the current account can be perceived as a large threat.
- The Czech Republic is the most stabilized economy with a low risk of economic activities. It results from the historic phenomena – the country had the relatively good start with the relatively high level of the development among socialist states and did not have to catch up so significantly as the three other countries of the Visegrad Group.
- Hungary, despite of indicators pointing the higher level of economic development than Poland and smaller imbalances of development among "old" Member States, is characterized by a lower rate of changes proving a lower competitive positions of this country. The negatively evaluated internal situation worsened conditions of Hungarian development and Hungary from the second position in 2000 were found on the last position in 2010.

Integracja europejska i jej wpływ na rozwój regionalny i konkurencyjność Polski

Streszczenie

Integracja regionalna krajów Europy Środkowej i Wschodniej odegrała dużą rolę w kształtowaniu wzrostu gospodarczego, który właściwie rozpoczął się wraz z transformacją. Jednakże większe tempo wzrostu gospodarczego obserwowane jest w okresie członkowskim, a kraje te znacząco zmniejszyły dystans do partnerów z Europy Zachodniej. Pozycja konkurencyjna uległa znacznej poprawie po 2004 roku, nie tylko w przypadku Polski, ale także innych krajów Europy Środkowej i Wschodniej.

Reasumując przeprowadzona analiza pozwala sformułować następujące prawidłowości:

- Polska i Słowacja to kraje, które szybko pokonywały różnice w poziomie rozwoju, jednakże nadal posiadają wysoką stopę bezrobocia. W Polsce dużym zagrożeniem może być powiększający się deficyt na rachunku obrotów bieżących.
- Czechy to najbardziej ustabilizowana gospodarka, gdzie występuje niskie ryzyko prowadzenia działalności gospodarczej. Wynika to z zaszłości historycznej, gdyż kraj ten miał stosunkowo dobry start, posiadał stosunkowo wysoki poziom rozwoju wśród państw socjalistycznych i nie musiał nadrabiać tak dużych zaległości, jakie posiadały trzy pozostałe kraje Grupy Wyszehradzkiej.
- Węgry natomiast, choć wskaźniki wskazują na wyższy poziom rozwoju gospodarczego niż Polska i mniejsze dysproporcje rozwoju pomiędzy „starymi" krajami członkowskimi, to tempo zmian utwierdza w przekonaniu o niższej konkurencyjności tego kraju. Negatywnie oceniana sytuacja wewnętrzna pogorszyła warunki rozwoju i Węgry z drugiej pozycji w 2000 roku znalazły się na ostatniej pozycji w 2010 roku.