Шимчак А., Гаврицка М. Оцінка ефективності функціонування економічних систем у європейських країнах

УДК 657

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EVALUATION OF ECONOMIES FUNCTIONING EFFECTIVENESS IN EUROPEAN COUNTRIES

The main purpose of this article is to present selected measurements in order to make comparative analysis, that would be needed to assess disproportion, convergence and divergence of development levels in chosen economies.

1. Introduction

On 1st of May in 2004, Poland has become a member of European Union. That fact can be considered as a great success of Poland, but also of all other candidate countries. Access to EU structures required a lot of adjustments on different fields, including areas where common policies are implemented. EU enlargement is a great challenge to cohesion and social policies realized in all state members. One of the aspect of policies realized in members countries is reduction of great disproportion in development levels among countries, but also among different regions. One of the goals of different actions that have been undertaken is to make these economies more competitive on the global market, but also enable socio - economic changes and sustainable development.

In economic theory there is a concept of real convergence, which means that integrating countries begin to represent the same level of investment risk, similar institutional and legal conditions, similar conditions for running a business and competing on the market, what in effect can cause equation of development levels and GDP value. Convergence model is the one that describes perfectly the very meaning of integration process within EU [3, 6]. But economic growth and higher effectiveness of economies is not the only purpose. It must be stressed that achieving higher level of well-being is also a very important goal. That is the way that economic integration, thanks to enlargement of labor, capital and product markets should bring benefits to all its participants.

Process of European integration makes it possible to evaluate permanently effectiveness of a given economy and comparing it to the effectiveness of the rest of European countries. In pre-accession period, as right after our accession to EU

structures, there have been done a lot to increase level of competitiveness of our economy, to modernize structure of our economy, and to lower unemployment rate. The given goals have been defined in The Luxembourg Process and Lisbon Strategy, which also shows a great necessity of further economic and social development.

According to the given items, the following article shows some selected measures that make possible to evaluate observed changes in the economies of European state members, and also make possible to evaluate level of disproportion, divergence or convergence in their development.

2. Measures of development level in European countries

One of the indices used to evaluate economy effectiveness is Gross Domestic Product (GDP). It shows an aggregate value of production, and aggregate income achieved in a given economy. So it can be treated as a synthetic measure that shows national potential and its position on global market.

To make international comparisons, in the given measure we must include value of human resources in a given economy. Thanks to that we can verify the evaluation of economy's effectiveness, but also examine standard of living and happiness achieved by an average person. In order to do that we can use GDP per capita measure. GDP per capita growth proclaims effectiveness growth of the whole economy, but also improvement of living standards. That can only happen when aggregate production grows faster than population.

It is worth looking at general trends in GDP value in Poland and comparing them to the other European countries. In the Box 1 we present real GDP in years 1995 - 2004.

Country	1996	1997	1998	1999	2000	2001	2002	2003	2004
1	2	3	4	5	6	7	8	9	10
EU –25*	1,7	2,6	2,9	2,9	3,6	1,7	1,1	0,9	2,3
EU -15	1,6	2,5	2,9	2,9	3,6	1,7	1,0	0,8	2,2
Poland	6,0	6,8	4,8	4,1	4,0	1,0	1,4	3,8	5,3
Germany	0,8	1,4	2,0	2,0	2,9	0,8	0,1	-0,1	1,6
France	1,1	1,9	3,4	3,2	3,8	2,1	1,2	0,5	3,4
Ireland	8,1	10,8	8,9	11,1	9,9	6,0	6,1	3,7	5,2
Spain	2,4	4,0	4,3	4,2	4,4	2,8	2,2	2,5	2,6
Greece	2,4	3,6	3,4	3,4	4,5	4,3	3,8	4,7	4,2
Hungary	1.3	4.6	4.9	4.2	5.2	3.8	3.5	3.0	4.0

Table 1. Real GDP in constant prices (1995) w Poland and different European countries in years 1995 – 2004

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1	2	3	4	5	6	7	8	9	10
Czech Republic	4,2	-0,7	-1,1	1,2	3,9	2,6	1,5	3,7	4,0
Latvia	4,7	7,0	7,3	-1,7	3,9	6,4	6,8	9,7	6,7

*in years 1995 -2000 to make comparative analysis all countries that accesses UE in 2000 are classified as EU -25 group.

Source: <u>http://europa.eu.int/comm/eurostat</u>

According to the data presented in table 1, we can see that in years 1996 - 2000Poland was one of the most dynamic developing countries. Only about Ireland and Hungary we could say the same thing. In Ireland economic growth was about 8% per year in the given period, with the highest value of real growth rate of 11,1% in 1999. In Hungary the economic growth rate was at almost the same value as in Poland.

In the given period in Poland economic growth rate was higher at about 2,44% than average growth rate in all EU countries. What is worth to notice is that the difference between growth rate in Ireland and growth rate in all EU countries was about 5%, and 1,67% according to Hungary.

Since 2001 because of the general slow down of all economies it is possible to notice that the same has been happening in Poland, but also in the whole EU. According to the given data the greatest slow down could be noticed in Germany, France and Poland. But was should be stressed is these negative tendencies did not touch such economies as Ireland, Latvia, Greece and Hungary.

The most common measure to evaluate standard of living in different countries is GDP per capita. Table 2 shows PPP GDP per capita expressed as a share in GDP in comparition to 25 state members of EU.

Country	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
EU –25	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
EU -15	110,7	110,4	110,1	110	109,9	109,8	109,6	109,4	109,2	108,8
Poland	40,8	42,5	44,3	45,1	45,7	45,9	45,9	45,6	46,0	47,6
Germany	119,5	118,4	116,0	114,6	113,6	112,3	110,1	108,7	108,1	107,6
France	115,3	114,3	114,8	114,8	114,5	114,3	114,8	112,9	111,0	110,9
Ireland	99,3	103,3	112,7	117,3	122,4	126,9	129,5	132,6	132,5	134,2
Spain	87,6	87,9	88,0	89,3	92,0	91,9	92,3	94,6	97,8	97,6
Greece	72,2	71,6	72,3	71,9	71,9	72,7	73,8	77,7	80,9	82,0
Hungary	49,6	49,5	50,6	51,8	52,6	53,6	56,4	58,6	60,5	61,7
Czech	70,1	72,0	69,8	67,2	65,8	65,0	66,1	67,6	68,8	69,8
Republic										
Latvia	34,2	35,4	37,3	39,2	37,8	38,6	40,8	42,4	45,8	48,0

Table 2. PPP GDP per capita in given EU countries, 1995 – 2004 UE w years 1995 – 2004

Source: <u>http://europa.eu.int/comm/eurostat</u>

In order to make specific analysis, we can divide these countries into 3 groups. Group 1 is the one where GDP per capita is higher than the average in EU - 15, Group 2 – countries where GDP per capita is higher than 50% of average in UE -25, Group 3 – countries where GDP per capita is lower than 50% of averaged in UE – 25. T

Years	Group 1	Group 2	Group 3
1995-1996	Germany	Ireland	Poland
	France	Spain	Hungary
		Greece	Latria
		Czech Republic	
1997-2001	Germany	Spain	Poland
	France	Greece	Latvia
	Ireland	Czech Republic	
		Hungary	
2002-2004	France	Germany	Poland
	Ireland	Spain	Latvia
		Greece	
		Czech Republic	
		Hungary	

`able 3. Countries`	classification	according to	GDP per	capita.
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Source: Own research

According to the given classification, it is clear that Ireland thanks to the high growth rate could pass to the groups of countries with highest growth rate. Since that happened Ireland became a leader in EU, what is confirmed by the highest value of the given measure -134,2 of average in EU -25, in 2004. At the same time it means that comparing it to the EU -15, the measure was at 25,4% higher, and comparing it to Poland it was three times higher.

Germany that had quite low economic growth in the given period, since 2002 had GDP per capita lower than the average in EU - 15. So according the given criteria of classification Germany passed to the "lower" group.

Level of economic growth in Hungary caused that the country could pass to the Group 3 what can be considered as success of Hungarian economy.

The very interesting thing happened in Czech Republic. Since 1996 GDP per capita was falling and that tendency was noticeable until 2000. But despite the unfavorable situation Czech Republic did not cause that the country pass the group of countries with the lowest GDP. Since 2001, the tendency was just reverse and GDP per capita in Czech Republic was at about 70% of average in EU-25, and at the same time about 20% higher than in Poland.

Chart 1 shows the given tendencies.

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Chart1. GDP per capita in Poland and in other EU countries, 1995 - 2004

Source : Own calculations based on data from table 2.

In Poland despite the systematic Economic growth per capita, the given measure is still 2-3 times lower than in EU. It only shows the magnitude of the distance in economic growth between Poland and other EU countries. Probably one of the causes of that unfavorable situation is that in Poland full potential of human resources in not used. The high unemployment rate also would confirm that statement. That is why it is so interesting to know level of labor productivity. It is clear that Economic development and social welfare are closely related to labor productivity growth. It means that labor productivity growth stimulates economies to grow and develop what can diminish the distance between different economies. The table below explains the information.

country	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
EU –25	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
EU -15	110,2	109,9	109,9	109,6	109,0	108,4	108,2	107,9	106,8	106,4
Poland	44,1	45,2	46,2	46,7	49,1	51,0	50,3	51,1	58,2	60,4
Germany	107,7	107,7	106,6	105,7	104,5	102,8	101,7	101,4	100,9	100,2
France	124,6	123,8	125,2	125,6	124,5	123,0	123,6	121,7	118,7	119,1
Ireland	114,8	116,5	122,4	120,7	121,2	123,0	125,3	129,1	127,2	128,0
Spain	104,4	103,9	102,0	101,4	102,4	100,7	100,9	102,7	103,9	102,4
Grece	85,2	85,7	89,7	84,7	85,8	87,7	90,6	95,7	97,9	97,8
Hangary	58,3	58,6	60,2	61,2	60,7	61,7	65,0	67,3	67,7	68,6
Czech	57,7	59,6	58,0	58,0	59,7	59,8	61,1	61,5	62,0	63,5
Republic										
Latvia	31,1	31,8	33,3	35,5	34,5	36,8	40,7	45,6	47,5	49,1

Table 4. Labor productivity per capita in Poland and in EU countries.

Source: <u>http://europa.eu.int/comm/eurostat</u>

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From what we see in the Table 4, labor productivity in Poland is still very low, comparing it to the labor productivity in other European economies. Only in Latvia we could notice lower labor productivity than the one in Poland. But despite these unfavorable data, it is noticeable that in the given period (1995 – 2004), labor productivity in Poland was growing systematically, and in 2004 it reached the level of 60% of the given data in EU – 25. Thanks to that the distance between Poland and EU – 25, was only about 16,3% of the average level of labor productivity in EU – 25. In the same period in Czech Republic labor productivity grew only at about 5,8%, in Hungary – 10,3%. But also the very important fact is than in the period of research the labor productivity in EU – 25 fell about 3,8%. The main reason of what happened was the fact that in Germany productivity fell at about 7,5% in 2004, comparing it to the level in 1995. The very similar tendency was noticed in France, was that decrease in productivity was not so grave, it fell only at about 5,5%. The discussed event is presented in chart 2.



Chart 2. Labor productivity per capita in Poland and in EU countries in 1995 – 2004

Source: Own research based on data from Table 4.

According to the given analysis one question comes along: why - in Poland - despite such a great progress in labor productivity, the standard of living measured as GDP per capita was not so satisfactory. To answer the given question we have to follow some chosen macroeconomic measures, which are presented in the table below.

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Years	0661	1661	1992	1993	1994	1995	1996	1997	1998	6661	2000	2001	2002	2003	2004
GDP growth rate	-8,2	4,4	5,2	4,2	7,7	7,8	6,0	6,8	4,8	4,1	4,0	1,0	1,4	3,8	5,3
Employment growth rate	-	-4,4	-2,8	-1,7	1,1	1,3	2,3	2,9	-0,2	-1,6	-3,3	-3,2	-0,5	-1,3	0,76
Unemployme nt rate	6,1	11,4	13,6	16,4	16,0	14,9	13,2	10,5	10,4	15,3	16,0	18,5	19,7	20,0	19,1

Table 5. Annual GDP growth rate, employment growth rate, unemployment rate in Poland in 1990 – 2004

Source: Own calculations based on data from Statistical Yearbooks 1991 – 2004, www.stat.gov.pl

In years 1991 - 1993 economic growth rate was growing. Despite that in the period of research we noticed just reverse tendency in the labor market, what means that despite economic growth, the unemployment rate was also growing. One of the reason why it happened was restructuring and privatization of polish economy, and at the same time some trials to eliminate the so called *hidden unemployment*. In the next period, in 1994 – 1997, quiet high economic growth rate does not imply growth of employment. In years 1993 – 1994 the unemployment rate was at the level of 16%. In 1998 – 2000, again despite noticed economic growth, the rate of unemployment grew. It confirms that in Poland economic growth is not followed by reduction of unemployment, what could mean at the same time that the labor productivity is still growing. From year 2001 we could see a kind of recession that persisted until end of 2002. that only worsened the situation at labor market, where unemployment rate grew dramatically till 20% in 2003. it means that the unemployment rate was two time higher than in 1999, and three times higher than at the beginning of transformation process.

In 2003 economic grow was again at about 4%, but despite that we could still see growth of unemployment rate. In 2004 high rate of economic growth (5,3%) cased the turn back of the unfavorable processes that polish economy was going through, because in the given year we could notice a slight fall of unemployment rate. Chart 3 present what is being discussed.

Chart 3. Dynamic of changes in annual GDP growth rate, employment growth rate and unemployment rate in Poland in 1990 – 2003



Source: Own research based on data from Table 5.

3. Summary

From the research given above it is good to state, that it is quite impossible to assess the real impact of integration on the condition of a given economy. What is important – the changing of global economy requires constant changes and adjustments in each of national economies. A country which does not so is lagging behind. Implementing of wrong development strategy causes that a given country falls in international rankings of competitiveness.

Access to EU will not help Poland to solve its problems with low labor productivity and high unemployment rate. The country must cope with them by itself. One of the reasons why it is so, there are problems that arise from cultural and lingual differences, and what comes next that labor force can be employed only in some specific geographic area. But it also a consequence of high cost of changing place of living. Concerning what has been discussed it seems wise to consider all that problems and limitations while planning some macroeconomic strategies for Poland. Poland is a country which in the coming years will have to catch up with the rest of the European countries, in order not to be left far behind and not to be one of the poorest countries of the region.

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