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## **Introduction to the Balance of Integration of Central and Eastern European Countries**

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### **Authors' contributions**

*This work was carried out in collaboration between all authors. Author PS wrote the part concerning Economic effects of the integration. Author EJ developed the issues related to Social effects of the integration. Author KK is the author of the section: The consequences of the integration for the cultural policies. Author BS conducted the analysis of the balance of the integration from the perspective of the e-society. All authors read and approved the final manuscript.*

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### **ABSTRACT**

The purpose of this study is to perform preliminary weighing of the consequences of integration of these Central-Eastern European countries which, during the years 2004 and 2007, became members of the European Union. The elements considered in the analysis included changes observable in four areas: social, economic, cultural and that of the information society. Specifically, the analysis covered selected measurable variables relating to the above-mentioned areas. In the case of the economic field, the authors took into account the changes in production output of the economy, in public debt level, and the inflow of EU funds to the new member states. The social area factor considered was the change to the value of human development index. In the part related to the culture, particular attention was paid to four aspects: language learning, cultural heritage, employment in the cultural sector and the project of European Capital of Culture. In the last

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part of the article, the issues related to e-society were presented (in particular: the percentage of people regularly using the Internet, the indicator of software piracy and the index of networked readiness).

*Keywords: Balance of integration; integration; East-Central Europe; e-society; information society; EU enlargement; EU new member states.*

## **1. INTRODUCTION**

Accession of Poland and the group of nine countries from Central and Eastern Europe into the European Union during the years 2004 and 2007 was associated with a lot of expectations for the improvement of their socio-economic situation and quality of life. The analysis presented in this paper is an introduction to the attempt of evaluating the effects of EU membership. Estimation of the so-called EU effect and precise determination of the scale of the impact of membership on particular segments of economic, social and cultural life of the country is not always possible in all respects. Therefore the presented, preliminary and vestigial by nature, assessment is focused on the "measurable" effects of this process. Therefore, this paper contains the evaluation of the impact of membership on the selected indicators of economic, social, cultural and related to the so-called information society in the new EU member states. In the part related to the economic consequences of integration, the authors took into account the issues related to the increase of the production in the economy, the public debt, and the inflow of EU funds to the new member states. In the social field, the changes of the value of human development index were analyzed. In the part related to culture, particular attention was paid to four aspects: language learning, cultural heritage, employment in the cultural sector and the project of European Capital of Culture. The last part of the article presents the issues related to e-society, in particular: the percentage of people regularly using the Internet, the indicator of software piracy and the index of networked readiness.

The purpose of this article is to provide directions for the interdisciplinary analysis of the selected changes that have occurred in Eastern European countries after their admission to the European Union. This paper is not intended to be a complete balance of the integration, but only an introduction to the further expanded research. Its purpose is to identify potential directions for future scientific research. An undoubted advantage of this study is an interdisciplinary approach to the subject. The authors, representing various scientific disciplines, indicated in their opinion the most important effects of the integration in the following research areas: economics, social sciences, cultural studies and education in the information society. In the future there will be an endeavour to try to integrate research in selected areas and to create a model showing the interactions between them.

## **2. MATERIALS AND METHODS**

Due to the nature of the undertaken subject, the research methods applied in this study originate from the social science area. They are characteristic for the scientific disciplines represented by the authors. Development of the selected issues required the use of the quantitative and qualitative analysis. In the analysis a wide range of variables contained within the documents of the European Union and the United Nations was used, which allowed the authors to identify and recognize the characteristics of the studied phenomena.

In order to recognize and understand -discussed in this study- the social changes that have taken place in some countries after their accession to the European Union, the authors used the system analysis and the analysis of the institutional and legal. These methods are useful for the study of political phenomena that are present in today's rapidly changing environment.

The main research method used in this study was, however, statistical inference. The authors based their study mainly on the analysis of available statistical data concerning the discussed social phenomena. Data were obtained mainly from Eurostat databases. In order to assess the impact of integration, the analysis of the Human Development Reports was conducted. The analysis of the literature was indispensable. On this basis, the effects of the integration of the countries that have acceded to the European Union were evaluated. In the study, the publications concerning the balance of five years of the membership in EU of surveyed countries were used. The authors analyzed the selected macroeconomic variables, mostly in relative terms. We also analyzed the dynamics of the changes of some variables year to year. In order to assess the level of social and economic development of the countries surveyed, the values of Human Development Index during the years 2004-2012 were compared.

The analysis also concerned the information society. Most of the countries acceding to the European Union in 2004 began the construction of the information society with several years of delay. These countries for many years did not have access to modern technology for political reasons. The collapse of the Eastern Bloc opened new possibilities to them in this field. Unfortunately, in many cases, the new difficulties appeared, for example the financial constraints.

When preparing this development, the authors analyzed the literature on the subject concerning the balance of European integration. The literature can be divided into three groups. The first group includes the pre-accession publications that have focused mainly on the forecasts of the alleged effects of the integration [1]. The second group includes studies published on the anniversaries of membership of Poland and other countries in the region in the EU that attempt to take stock of benefits and costs of the integration [2]. In the third group there are several relatively new publications in which authors try to summarize the decade of the presence of Poland and other countries in the European Union or the current state of development of the Community [3]

### **3. ECONOMIC EFFECTS OF THE INTEGRATION**

One of the key determinants of economic development is the increase of the value of production in the economy. The volume of the production determines the size of many other important economic parameters. The basic measure used in this regard is the gross domestic product (GDP). In order to properly present the changes of GDP in the period before and after accession to the European Union, this ratio is below presented as a percentage of the average gross domestic product for the whole Union.

The data in Table 1 show that all of the listed countries are characterized by a lower gross domestic product per capita than the average for the EU [4]. However, each of these countries reduced, to a greater or lesser extent, the gap to the EU average. In the best situation was Lithuania, which during the years 2001 and 2012 improved its score by as much as 28 percentage points. Significant reduction of disparities was also recorded in the case of Latvia, Estonia, Slovakia and Romania (by more than 20 percentage points). The

weakest results in this range were achieved by Slovenia and the Czech Republic. It should be noted, however, that these countries at the beginning of the period considered were characterized by a high share of GDP per capita in the EU average (respectively 80 and 73%).

Quick equalization of developmental delays relative to Western countries was the result of a dynamic annual GDP growth in the surveyed countries [5]. The rate of growth was not evenly in the analyzed period (See: Table. 2). Highest average annual growth rate, during the period considered, was characterized the economy of Lithuania-4.7%. The high growth rate was also observed in the case of Slovakia, Estonia and Latvia-over 4%. Hungary was characterized by the lowest average growth rate during the years 2001-2012-1.7%. Poland was the only country in which the typical recession did not occur.

Most of the surveyed countries has not avoided the recession periods. The longest and the most serious harassed Latvia. In the years 2008-2010 GDP decreased there by almost 22%. Quite serious declines were also observed in Estonia-18.3%.

The main research task is the attempt to assess the impact of European integration on the rate of equalization of delays in development between the new and old EU countries. This mainly applies to the gross domestic product. So far, only evaluative studies of the impact of the integration on the growth rate of GDP were conducted. The challenge is therefore to specify the research in this area

One of the most significant and adverse changes in the analyzed economies during the years 2001-2012 was a significant increase in public debt (in relation to gross domestic product) [6]. The only country which has managed to reduce the public debt to GDP ratio was Bulgaria (down from 66% in 2001 to 18.5% in 2012) (See: Table 3).

For other countries, there was a significant increase of the public debt to GDP (in relative terms). The largest increase was recorded for: Slovenia-by almost 28 percentage points and Hungary-27 percentage points. The increases above 20% were also observed in Latvia and the Czech Republic. The smallest increases in public debt, in the examined period, were in Slovakia-3.5 percentage points and Estonia-5 percentage points. It should be noted, however, that in the case of the latter country, the debt to GDP ratio has more than doubled.

The causes of the growth of the debt are not identified yet. One cause could be the need for participation in investment supported by EU funds. This issue, however, requires further questions.

Net sum of EU funds in the case of all surveyed countries was positive [7]. Undoubtedly, this had a huge impact on the development of these economies (first of all agriculture). This also contributed to the rapid development of infrastructure. Nominally, the most of the net EU funds flowed to Poland. During the years 2007-2012 it was more than 47 billion [see. Fig.1]. Other countries received nominally significantly less funds. However, comparing them with sizes of GDP, they are equally significant as in Poland. The largest net beneficiaries of EU funds besides Poland were Hungary (almost EUR 16 billion in 2007-2012) and the Czech Republic (over EUR 10 billion in the same period).

**Table 1. GDP per capita in purchasing power parity as a% of average EU GDP in the years 2001-2012**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2012-2001
Bulgaria	30	32	34	35	37	38	40	44	44	44	46	47	17
Czech Republic	73	74	77	78	79	80	83	81	83	80	80	79	6
Estonia	47	50	55	58	62	66	70	69	63	63	67	69	22
Latvia	39	41	44	47	50	53	58	59	54	54	59	62	23
Lithuania	42	45	50	52	55	58	62	65	58	61	66	70	28
Hungary	58	61	63	63	63	63	62	64	65	65	66	66	8
Poland	48	48	49	51	51	52	55	57	61	63	65	66	18
Romania	28	30	31	34	35	38	42	47	47	47	47	49	21
Slovenia	80	83	84	87	88	88	89	91	87	84	84	82	2
Slovakia	53	54	56	57	60	63	68	73	73	73	73	75	22

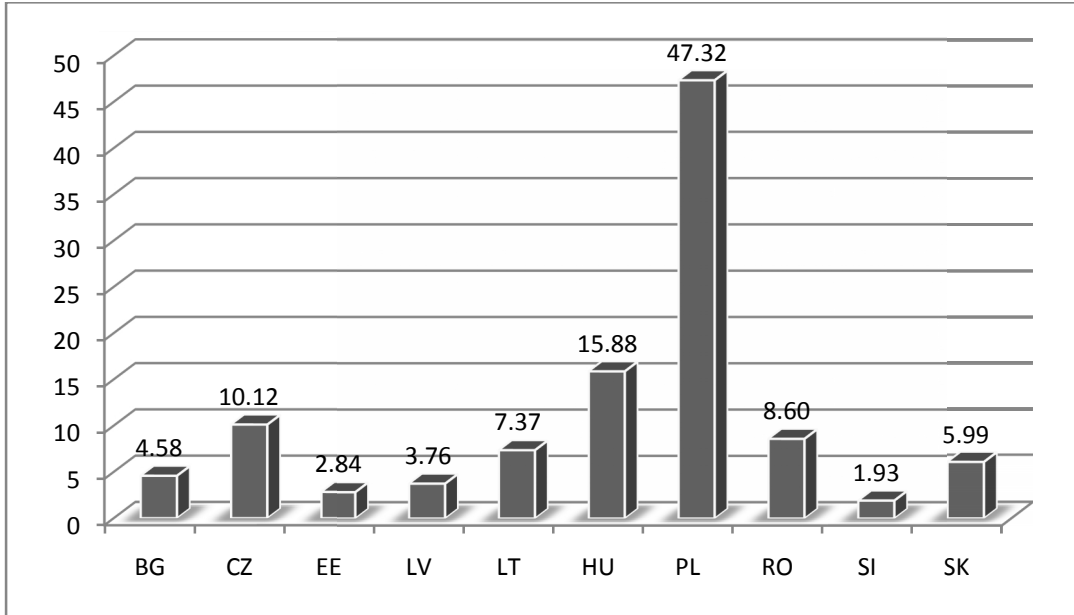
**Table 2. GDP growth compared to the previous year (in %)**

Geo/time	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
European Union (28 countries)	2,0	1,3	1,5	2,6	2,2	3,4	3,2	0,4	-4,5	2,0	1,7	-0,4
Bulgaria	4,2	4,7	5,5	6,7	6,4	6,5	6,4	6,2	-5,5	0,4	1,8	0,8
Czech Republic	3,1	2,1	3,8	4,7	6,8	7,0	5,7	3,1	-4,5	2,5	1,8	-1,0
Estonia	6,3	6,6	7,8	6,3	8,9	10,1	7,5	-4,2	-14,1	2,6	9,6	3,9
Latvia	7,3	7,1	7,7	8,8	10,1	11,0	10,0	-2,8	-17,7	-1,3	5,3	5,0
Lithuania	6,7	6,8	10,3	7,4	7,8	7,8	9,8	2,9	-14,8	1,6	6,0	3,7
Hungary	3,7	4,5	3,9	4,8	4,0	3,9	0,1	0,9	-6,8	1,1	1,6	-1,7
Poland	1,2	1,4	3,9	5,3	3,6	6,2	6,8	5,1	1,6	3,9	4,5	1,9
Romania	5,7	5,1	5,2	8,5	4,2	7,9	6,3	7,3	-6,6	-1,1	2,2	0,7
Slovenia	2,9	3,8	2,9	4,4	4,0	5,8	7,0	3,4	-7,9	1,3	0,7	-2,5
Slovakia	3,5	4,6	4,8	5,1	6,7	8,3	10,5	5,8	-4,9	4,4	3,0	1,8

**Table. 3. Public debt as % of GDP**

<b>GEO/TIME</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
European Union (27 countries)	60,9	60,3	61,9	62,2	62,7	61,5	58,9	62,2	74,5	80,0	82,4	85,2
Bulgaria	66,0	52,4	44,4	37,0	27,5	21,6	17,2	13,7	14,6	16,2	16,3	18,5
Czech Republic	23,9	27,1	28,6	28,9	28,4	28,3	27,9	28,7	34,6	38,4	41,4	46,2
Estonia	4,8	5,7	5,6	5,0	4,6	4,4	3,7	4,5	7,1	6,7	6,1	9,8
Latvia	14,1	13,6	14,7	15,0	12,5	10,7	9,0	19,8	36,9	44,4	41,9	40,6
Lithuania	23,0	22,2	21,0	19,3	18,3	17,9	16,8	15,5	29,3	37,8	38,3	40,5
Hungary	52,7	55,9	58,6	59,5	61,7	65,9	67,0	73,0	79,8	82,2	82,1	79,8
Poland	37,6	42,2	47,1	45,7	47,1	47,7	45,0	47,1	50,9	54,9	56,2	55,6
Romania	25,7	24,9	21,5	18,7	15,8	12,4	12,8	13,4	23,6	30,5	34,7	37,9
Slovenia	26,5	27,8	27,2	27,3	26,7	26,4	23,1	22,0	35,2	38,7	47,1	54,4
Slovakia	48,9	43,4	42,4	41,5	34,2	30,5	29,6	27,9	35,6	41,0	43,4	52,4

These amounts are so significant that it is impossible to dismiss them as irrelevant. It is therefore necessary to carry out broadened research on the impact of EU funds on the development of the economies of the newly admitted countries. The results of these studies will be an important element of the balance of integration.



**Fig. 1. The balance of the inflow of EU funds in the period 2007-2012 (in EUR BILLION)**

### **3. SOCIAL EFFECTS OF THE INTEGRATION**

For a dozen years, one of the agencies of the United Nations: United Nations Development Program-UNDP has been conducting comparative studies of social progress in the world based on data obtained from almost all countries of the world. Evaluation of social and economic progress is made on the basis of the Human Development Index HDI.

HDI is the synthetic measure based on the average of indicators covering three main areas of the life:

#### **3.1 Area of Health**

It is assessed by the indicator of the average life expectancy.

#### **3.2 Area of education**

It is assessed on the basis of educational attainment index, which is measured using two educational indicators appointed for the adult population, i.e. literacy (percentage of persons who are able to read and write with understanding) and enrollment (average time education understood as the average number of years of schooling).

### 3.3 Area of income

Is assessed on the basis of GDP (U.S. \$) per capita, calculated according to purchasing power parity (PPP).

The construction of the HDI defines extreme, target values of each of the mentioned areas. Information contained in the index of social development includes only a small part of the elements included in the concept of the human development. This is due to the fact that not all the qualitative characteristics of the development can be measured. In case of many of them which yield themselves to evaluation, there is the lack of data.

The inclusion to the HDI three partial indicators that concern not only the economic development, but also social and demographic, allows for a more complete assessment of the level of development than the measures which take into account only the economic dimension<sup>1</sup>.

HDI allows for conducting international comparisons in the range of social and economic development. It is a measure used as a criterion to rank countries according to their general development at a particular time. Countries are classified according to the HDI, to four groups of social development:

- low human development countries, when  $HDI < 0,535$ ,
- medium human development countries, when  $0,535 \leq HDI \leq 0,710$ ,
- high human development countries, when  $0,710 < HDI < 0,800$ ,
- very high human development countries, when  $0,800 \leq HDI \leq 1$ .

The data contained in Table 4 and Table 5 was developed on the basis of the Human Development Reports (see: References [8]–[15]).

**Table 4. The value of the Human Development Index in the period 2004-2012**

	2004	2005	2006	2007	2009	2010	2011	2012
Bulgaria	0,796	0,808	0,816	0,824	0,84	0,743	0,771	0,782
Czech Republic	0,868	0,874	0,885	0,891	0,903	0,841	0,865	0,873
Estonia	0,853	0,853	0,858	0,86	0,883	0,812	0,835	0,846
Hungary	0,848	0,862	0,869	0,874	0,879	0,806	0,816	0,831
Latvia	0,823	0,836	0,845	0,855	0,866	0,769	0,805	0,814
Lithuania	0,842	0,852	0,857	0,862	0,87	0,783	0,813	0,818
Poland	0,85	0,858	0,862	0,87	0,88	0,795	0,81	0,821
Romania	0,778	0,792	0,805	0,813	0,837	0,767	0,781	0,786
Slovakia	0,842	0,849	0,856	0,863	0,88	0,818	0,834	0,84
Slovenia	0,895	0,904	0,91	0,917	0,929	0,828	0,884	0,892

During the years 2004-2012, for all the countries under the present scrutiny the value of HDI increased<sup>2</sup>. This means that for the entire group of countries, a systematic development occurred both in the economic and social domain. It should also be emphasized that, apart from Romania and Bulgaria, all other countries are among the most developed economies in

<sup>1</sup> E.g. GDP per capita.

<sup>2</sup> In 2010, there has been a change in the methodology of calculating the HDI. Hence, the lower value of this ratio compared to the previous year.



the world. In the case of those two countries which are in the group of developed countries, it was also followed by a rapid increase in the value of the HDI. Looking at the pace of this growth, it can be assumed that in the near future they will join the countries with a very high level of development.

Human Development Index HDI is the measure used as a criterion to rank countries according to their overall level of the social and economic development at a particular time. By comparing the values of this ratio between different countries, one can determine the gap that separates the poorest countries of the richest (or otherwise - the developing countries from developed countries) in terms of the level of civilization development.

**Table 5. Ranking according to the HDI in 2004-2010**

	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Bulgaria	56	55	54	53	61	58	55	57
Czech Republic	32	31	30	32	36	28	27	23
Estonia	36	38	40	44	40	34	34	33
Hungary	38	35	35	36	43	36	38	37
Latvia	50	48	45	45	48	48	43	44
Lithuania	41	39	41	43	46	44	40	41
Poland	37	36	37	37	41	41	39	39
Romania	69	64	60	60	63	50	50	56
Slovakia	42	42	42	42	42	31	35	35
Slovenia	27	26	27	27	29	29	21	21

Considering the place occupied by the countries under the present scrutiny ranked by the value of the HDI, it should be noted that Romania was the one which improved its position most (from 69 items in 2004 to 56 in 2012), Slovakia (from 42 to 35) and Czech Republic (from 32 to 23). Practically there are no changes in case of the places occupied by Hungary and Lithuania. Only country that fell in this ranking despite the systematic growth of the value of the HDI is Poland (down from 37 to 39 place). This may mean that other countries which are not subject to analysis have developed faster in this period. Consistently throughout the period 2004–2012 Slovenia occupied the highest position in the very rating. Slovenia was consistently throughout the period 2004-2012 on the highest position among the 'new' Member States. If Slovenia maintain its current pace of development, it is not impossible that in the coming year it will be among top twenty most developed countries of the world according to the HDI.

In the "old" EU countries, only three countries have improved their place: the Netherlands (from 5 to 4), Germany (from 19 to 5) and Ireland (from 10 to 7). Other countries in the entire period from 2004 to 2012 systematically shifted to lower and lower positions in this ranking.

#### **4. THE CONSEQUENCES OF THE INTEGRATION FOR THE CULTURAL POLICIES**

Culture was one of the most important factors uniting European countries after World War II. Unfortunately, with the need to focus on economic and financial issues plaguing the reconstructing continent, the culture did not become part of the cooperation within the framework of the European Communities [16]. For the first time, the issues related to culture emerged in the EC in the context of enhancing trade freedom between the members of the

EC, specifically in cases which necessitated the need to limit the freedom of movement of works of art of particular historical significance for individual nations [17]. It was not until the Maastricht Treaty enabled the Member States, due to the nature of the institutions focused on trade and the economy, to undertake activities related to culture on the formalized institutional plane [18]. De facto, the particular development of European cooperation in the field of culture began with the moment of the EU enlargement and accession of new members in 2004 and 2007. At the time, two strategic documents related to culture, issued at the Community level, took into effect. The first of them was the Commission's Communication on a European agenda for culture [19]. It identified the most important aspects of cooperation in this field. The second document was a Resolution of the EU Council outlining the plan of cultural activities at the European level [20]. Currently, the foundations of cultural policy of the European Union are set out in the Treaty on the Functioning of the European Union. This Treaty highlights the role of the EU in the development of individual countries-also on a cultural level-and its contribution to the protection of national heritage: "The Union shall contribute to the flowering of the cultures of the Member States, while respecting their national and regional diversity and at the same time bringing the common cultural heritage to the fore" [21].

In accordance with the assumption that the richness of the European culture lies in its diversity-visible consequently also in the measures adopted for its protection and development-European Union does not aim to harmonize and standardize the individual policies of the Member States in the field of culture. While respecting national sovereignty in this area, the main purpose of EU is to support the cultural policies of the states. The authors of the Treaty on the Functioning of the European Union drew attention to the four main planes of this support: "improvement of the knowledge and dissemination of the culture and history of the European peoples; conservation and safeguarding of cultural heritage of European significance; non-commercial cultural exchanges; artistic and literary creation, including in the audiovisual sector" [22].

In the context of achieving the objectives of the cultural policies for ten surveyed countries, the following research questions seem to be of interest: how the process of integration with the European Union contributed to the development of culture; whether culture plays an important role in the context of the occurring transformational processes in the countries covered by the study; how large is the scale of support (especially financial) offered for the protection of cultural heritage by the EU. Due to the very broad research plane, we will focus only on the four main planes best showing the EU level activities of selected Member States in the field of culture. The first area, which implements one of the key EU objectives: advancing and disseminating knowledge about culture and history of European nations, is the study of foreign languages. Knowledge of other languages allows both for the direct contact and familiarization with other cultures and nations. Among the new Member States, no exceptional involvement of high schools in language teaching can be noticed, however. Only Estonia stands out among all the countries surveyed, with the average of two foreign languages per pupil. Comparing the statistics before and after accession to the EU, it can be concluded that the integration process did not directly contribute to the strengthening of desire to learn more foreign languages among pupils. It is worth emphasizing that the statistics for the new EU member states do not differ significantly from the average for all EU members, which in 2004 was at the level of 1.3, in 2007-1.4 and in 2011-1.5 (See: Table. 6) [23]. In this context, it is interesting however to analyze other language learning opportunities offered by the integration, for example due to opening of the borders, easier access to education in other EU countries, etc.

Opportunities and benefits resulting from support offered for cultural activities are recognized by increasingly numerous groups of decision-makers at national, European and global levels. UNESCO—the United Nations Educational, Scientific and Cultural Organization (founded in 1945) is the largest and most well-known institution which engages in the issues of culture and supports its initiatives. Currently UNESCO brings together one hundred ninety four countries. It is within the framework of this organization that the definitions of cultural heritage, interpreted as tangible and intangible, were created—the very ones remaining in force also nowadays. The European Union, without infringing on the competences of UNESCO, supports the activities of individual countries in the field of protection of cultural heritage. Despite the extremely complicated procedures and rules, the EU Member States willingly use the possibility to place their sites on the UNESCO World Heritage List. In 2013, Poland and the Czech Republic had the highest number of monuments/sites on the list among the ten countries surveyed (respectively, 14 and 12). It is difficult to link the accession of these countries to the EU structures with the intensification of the process of entering new sites on the UNESCO list. Significant growth is visible only in case of Poland (4) and Slovakia (3) (See: Tables. 7 and 8) [24]. An interesting research challenge would be to check whether—and if so, how—the presence of a country's monuments/sites on the list of UNESCO brings tangible benefits, such as increased interest of tourists, expansion of tourist accommodation, etc.

In the context of the economic development of the countries surveyed, an important task is also to determine how many workers are employed in the cultural sector in each country. Unfortunately, the statistics that are available on this subject are not comparable. They concern only the years 2007 and 2009. According to the EU assumptions, the cultural sector encompasses the following activities:

- “NACE 58—Publishing activities;
- NACE 59—Motion picture, video and television program production, sound recording and music publishing activities;
- NACE 60—Programming and broadcasting activities;
- NACE 90—Creative arts and entertainment activities;
- NACE 91—Libraries, archives, museums and other cultural activities” [25].

Considering the typology mentioned above, in 2009 3.6million people were employed in the cultural sector throughout the entire EU. Among the ten countries studied, the largest employment levels in the sector can be observed in Latvia (2.3%), the lowest—in Romania (0.8%). For comparison, at the same time, in Iceland, where employment in this sector is the largest in the EU, it was 3.2% (See: Table. 9). Statistics indicate that the so-called new member states are rather focused on development of other areas of state activity, and the cultural sphere provides jobs only to a small extent. Compared with the rest of the EU, this approach is not an exceptional phenomenon, and even a “boom” in culture will not significantly impact the labor market development in the sector.

**Table 6. The average number of foreign languages learned per pupil at ISCED level 3<sup>3</sup>**

	Bulgaria	Czech Republic	Estonia	Latvia	Lithuania	Hungary	Poland	Romania	Slovenia	Slovakia
2004	1,4	1,4	2,2	-	1,4	1,2	1,6	1,4	1,6	1,5
2007	1,5	1,4	2,2	1,2	1,4	1,2	1,7	1,7	1,6	1,5
2011	1,6	1,5	-	1,7	1,2	1,2	1,6	1,9	1,0	1,7

**Table 7. Number of monuments inscribed on the UNESCO World Heritage List (December 2013)**

Bulgaria	Czech Republic	Estonia	Latvia	Lithuania	Hungary	Poland	Romania	Slovenia	Slovakia
9	12	2	2	4	7	14	7	3	8

**Table 8. Number of monuments inscribed on the UNESCO World Heritage List after the accession to the EU**

Bulgaria	Czech Republic	Estonia	Latvia	Lithuania	Hungary	Poland	Romania	Slovenia	Slovakia
1	0	1	1	2	0	4	0	2	3

**Table 9. Employment in cultural sectors as a share of total employment in 2009 (%)**

Bulgaria	Czech Republic	Estonia	Latvia	Lithuania	Hungary	Poland	Romania	Slovenia	Slovakia
1,5	1,7	1,8	2,3	2,0	1,8	1,4	0,8	2,0	1,1

<sup>3</sup>According to the International Standard Classification of Education developed by UNESCO in the early seventies of the twentieth century, level 3 means broad education at the secondary level.

One of the major initiatives that support cultural activities of the Member States is the project of the European Capitals of Culture. One selected city has, for a year, a chance to present its achievements and historical heritage. For this purpose, the European Union allocates funds which allow the given urban centre not only to organize cultural events, but primarily contribute to renovation of selected monuments and improvement of infrastructure. Since 2005, appropriate EU bodies indicate two countries eligible in a given year, from which the willing cities submit their candidacy to be named the European Capital of Culture. The unwritten tradition is that, among the indicated countries, one is from so-called "old EU" and one—from among the new member states (See: Table. 10). Without a doubt, the presented initiative has a positive impact on the development of cities, especially taking into account the cultural capitals located in the countries that are new members of the EU [26]. The main research task here is to determine whether obtaining the title of the European Capital of Culture has brought the expected benefits, such as increased tourism, growth in the number of restored monuments and larger number of cyclically organized cultural events.

Since 2004, the perception of culture in the EU has changed significantly. This development was connected to the inclusion, following a proposal by the President of the European Commission, José Manuel Barroso, of cultural activities on the list of the most important EU policies. The aim of this initiative was not only to deaden for a moment the discourse on purely economic issues in the integration process, but also to showcase the importance of culture in the process of democratization of Member States, struggling sometimes with the effects of political transformation. Comparison of the progress of implementation of the EU cultural policies in the new Member States, linking it to the integration process, and analysis and presentation of all EU funds allocated to culture is a research task still waiting to be undertaken.

**Table 10. European capitals of culture in 2004–2016**

	<b>The old member states</b>	<b>The new member states</b>	<b>Candidate countries</b>
2004	Genoa (Italy) Lille (France)		
2005	Cork (Ireland)		
2006	Patras (Greece)		
2007	Luxembourg (Luxembourg)	Sibiu (Romania)	
2008	Liverpool (United Kingdom) Stavanger (Norway)		
2009	Linz (Austria)	Vilnius (Lithuania)	
2010	Essen (Germany)	Pécs (Hungary)	Istanbul (Turkey)
2011	Turku (Finland)	Tallinn (Estonia)	
2012	Guimarães (Portugal)	Maribor (Slovenia)	
2013	Marseille (France)	Kosice (Slovakia)	
2014	Umeå (Sweden)	Rīga (Latvia)	
2015	Mons (Belgium)	Plzeň (Czech Republic)	
2016	San Sebastián (Spain)	Wrocław (Poland)	

## **5. BALANCE OF THE INTEGRATION FROM THE PERSPECTIVE OF E-SOCIETY**

In 2014 falls not only the tenth anniversary of the accession of the large part of countries from Central and Eastern Europe into the European Union, but it has also been the twenty

years since the publication of the Report of Bangemann<sup>4</sup>. This document became a milestone in the creation of the information society in Europe. To a large extent it contributed to the popularization of the concept of the information society, which found a permanent place in the documents produced by the EU and governments. The document also outlines the challenges facing Europe on the turn of the century; in particular, it presents the concept of the development of the Community in the area of a new type of society. The postulates contained in the report relate to, among others the following areas: distance education, ICT services to small and medium-sized businesses, telework, the development of telecommunications infrastructure [27]. At the end of 1999, it was published a document "e-Europe An Information Society for All", which confirmed the main directions of development of information society in the countries of the then European Union. In 2001, the applicant countries to the European Union signed the document "e-Europe +", in which they confirmed that their national strategies for the construction and development of the information society will be in line with the EU document "eEurope An Information Society for All".

The inclusion to the balance of integration of the considerations relating to the information society are important for several reasons. Firstly, the development of information society is one of the priorities of EU. Secondly, it transforms the labor market. Thirdly, the EU funds have become, for the countries acceding to the EU in 2004 and 2007, significant developmental factor in the process of building the information society. The arguments quoted above could be multiplied. There are many indices of information society development. These range from simple indicators (such as the number of Internet users, the number of cell phone subscribers, and the number of graduates in information technology) and complex indicators (e.g. digital access index, index of competitiveness of economies Internet or networked readiness index). Due to the limitations of the article three indicators have been selected: the percentage of people regularly using the Internet, the rate of software piracy and networked readiness index.

**Table 11. Percentage of people aged 16-74 using the internet regularly**

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Bulgaria	13	-	22	28	33	40	42	46	50	51
Czech Republic	25	26	36	42	51	54	58	63	66	70
Estonia	45	54	56	59	62	67	71	73	75	77
Hungary	21	34	42	49	56	57	61	66	69	71
Latvia	27	36	46	52	57	61	62	66	70	71
Lithuania	26	30	38	45	50	55	58	60	64	65
Poland	22	29	34	39	44	52	55	58	59	60
Romania	10	-	18	22	22	31	34	37	43	45
Slovakia	40	43	43	51	51	66	73	72	74	74
Slovenia	33	40	47	49	49	58	65	64	65	69
Average for EU	38	43	47	51	56	61	65	68	70	72

Data from Table 11 indicate that most of the countries joining the EU in 2004 and 2007 were characterized by a lower value of the indicator as far as regular use of the Internet is concerned [29]. This situation took place, although the average value of this ratio has been reduced as a result of taking account of the data of the above mentioned countries. Over the years, this situation underwent a gradual improvement. But still the data from two countries:

<sup>4</sup> The report of Bangemann is the document entitled *Europe and the Global Information Society Recommendations to the European Council*, which was developed under the leadership of Martin Bangemann.

Bulgaria and Romania differ significantly from the average. It should be noted that in 2013 the analyzed group of countries of Central and Eastern Europe is still varied in statistically significant way ( $V \approx 15\%$ ). The increase in the percentage of people regularly using the network is caused by, inter alia, better accessibility to the Internet and the improvement of infrastructure (part of telecommunications investment was co-financed by EU funds). Many trainings in the field of ICT were also organized as part of the growth of human capital. However, you need to be aware that this change is not only caused by the presence in the EU structures, but also by expanding the range of services available on the network and the overall technical progress.

**Table 12. Indicator of software piracy**

	2001	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2012-2004 (2007)
Bulgaria	75	71	71	71	69	68	68	67	65	64	64	4
Czech Republic	43	40	41	40	39	39	38	37	36	35	35	6
Estonia	53	54	55	54	52	51	50	50	50	48	48	7
Hungary	48	42	44	42	42	42	42	41	41	41	41	3
Latvia	59	57	58	57	56	56	56	56	56	54	54	4
Lithuania	56	58	58	57	57	56	54	54	54	54	54	4
Poland	53	58	59	58	57	57	56	54	54	53	53	6
Romania	75	73	74	72	69	68	66	65	64	63	63	5
Slovakia	46	50	48	47	45	45	43	43	42	40	40	8
Slovenia	60	52	51	50	48	48	47	46	47	46	43	8
Average for EU	-	37	35	36	36	35	35	35	35	33	33	-

Accession to the EU has also been associated with the amendment to legislation. One of them was related to the issue of the use of illegal software [30]. In the mid-nineties, the situation in terms of the use of illegal software in the countries of Central and Eastern Europe virtually got out of control, e.g. indicator of software piracy for Bulgaria was on the level 98% and the average for countries in the region was 80%. As a comparison, at this time the value of this indicator for Western Europe was 43%. The difference was huge. This state of things was manifested as worse access to modern applications, the non-existence of national versions of the software, the lack of professional help from producers of software, etc. A significant part of the IT sector companies were not interested in the activities in the markets of Eastern Europe. The situation in relation to the mid-90 has improved. However, when we look at the data in a matter of years 2004 (2007)-2012 (the latest report) this change is not satisfactory. For all countries under the present scrutiny the value of the indicator of software piracy is higher than the EU average. The best situation is in the Czech Republic, the worst - in Bulgaria and Romania. For details are shown in Table 12. It seems that the integration with the European Union does not significantly contribute to the improvement of the situation. The change varies from 3 to 8 percentage points in minus. Unfortunately, still in those countries of Europe, there is social recognition of the use of illegal software. This situation translates into the development of the ICT sector, because companies suffer losses as a result of the use of the illegal software.

**Table. 13. Indicator of networked readiness in terms of position in the ranking**

	2002/03	2003/04	2006/07	2007/08	2008/09	2009/10	2010/11	2012	2013
Bulgaria	68	67	72	68	68	71	68	70	71
Czech Republic	28	33	34	36	32	36	40	42	42
Estonia	24	25	20	20	18	25	26	24	22
Hungary	30	36	33	37	41	46	49	43	44
Latvia	38	35	42	44	48	52	52	41	41
Lithuania	46	42	39	33	35	41	42	31	32
Poland	39	47	58	62	69	65	62	49	49
Romania	72	61	55	61	58	59	65	67	75
Slovakia	40	41	41	43	43	55	69	64	61
Slovenia	33	30	30	30	31	31	34	37	37

Places in this ranking were fixed on the basis of scoring [31]. Its analysis indicates that maintaining a constant level of points does not guarantee to maintain a constant position in the statement. Indicator of networked readiness is a composite index. It is the combination of 68 variables, from which 27 are so-called hard variables obtained from the organizations with their academic status recognized<sup>5</sup>. Other variables are soft and have been obtained on the basis of the expert studies. The data clearly indicate that Bulgaria and Romania unfavorably stand out from the remaining countries in the region. The leader for many years has been Estonia. Index of networked readiness shows the extent to which examined states are prepared to use new technologies not only in terms of infrastructure, but also the legal regulations. This indicator also includes the degree to which modern technology is used in public administration, enterprises and households. Data in Table 13 Confirm the diversification of the region in this respect. Some of the countries were not able to maintain position from 2002, which clearly confirms the fact that the stagnation in the development of the information society is actually regressing.

The integration undoubtedly has influenced the development of the information society. But in some countries a period of ten years perhaps has not been wasted, but certainly has not been fully exploited.

## 6. CONCLUSION

The initial and probably a cursory analysis of the situation in the countries of Central and Eastern Europe after ten years of accession shows that the balance of integration with the European Union is generally positive. Although there are areas in which changes were barely visible (in extreme cases even negative), the balance of the analyzed problems is definitely positive. The described economies have made in the past decade a certain civilization leap. The relatively good condition of the economies, the enhancing standard of living, the cultural development and increased use of modern technology, clearly demonstrate that the joining the EU structures was an advantageous step.

In all the surveyed economies, the share of the GDP in purchasing power throughout the European Union increased. All countries recorded a relatively high rate of the economic growth. It is estimated, for example, that accession of Poland to the Community caused an increase in annual GDP growth rate of about 1%. Throughout the period considered, all

<sup>5</sup> The group of these organizations includes: the International Telecommunication Union, the United Nations and the World Bank.



countries showed lower level of the public debt than the EU average. The inflow of EU funds has caused clearly visible changes in the infrastructure, especially in the road infrastructure. The development of the infrastructure is the core of the economic cycle and is likely to contribute to an increase in the rate of development in the long term.

Based on the analysis of values that during the years 2004-2012 Human Development Index obtained, one can conclude that the level of socio-economic development of the group of countries studied in the present paper has increased. Integration with the EU led to the acceleration of the civilization development of these countries. This is particularly evident in the rate of growth of HDI. In 2011 compared to 2010 greatest increase of the value of HDI occurred in Romania (6.8%), Latvia (4.7%), Lithuania and Bulgaria (about 3.8%). In the following year, this rate slightly decreased, but still remained at a high level. Therefore it can be assumed that the gap in social and economic development, occurring between the new EU Member States and the so-called the "old" EU will be overcome.

During last several years, the approach to the culture in the European Union has undergone major changes. The policy makers are beginning to recognize its importance, especially in terms of building socially competent citizens. The resources devoted for cultural initiatives slowly but steadily increase. This is due to the growing awareness of the persons exercising authority, that it is an investment which can bring benefits. Unfortunately, it is difficult to say how this approach changes the perception of the value of culture in the society. This issue requires an extended sociological research.

Attitude to the issues related to the information society has also changed. This is mainly related to the need to adapt to the directives of EU. One can, however, note that there are still three paces in the development of the information society in the European Union. The range of the disparities between the countries is changing rapidly. The rate of the development of the information society is affected by many factors, among others: management of EU funds, the priorities of governments, the general macroeconomic conditions.

It is obvious that the full balance of integration would require detailed, in-depth research, which in this type of description does not take place. However, the analysis conducted is sufficient for the preliminary assessment, whose basic conclusion indicates the significantly positive balance of integration of the countries of Central and Eastern Europe.

## **COMPETING INTERESTS**

Authors have declared that no competing interests exist.

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