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Emerging Markets Queries in Finance and Business

The new economy-asking for new education approaches. Evidence for Romania and other post-communist European countries

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Abstract

This paper aims to highlight the implications of the new economy in the process of educating the population so it properly responds to the labor market's needs that are continuously growing and diversifying and here we particularly refer to former communist countries and namely Romania. The paper reflects the evolution of the educational system in Romania compared to other former communist countries, regarding the education funding, participation of the population in education or degree of assimilation the foreign languages, desiderate concerning the new economy that at present only a small part of the labor market adapts to.

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1. Introduction

The „new economy" so called "post-modern", "post-industrial", "capitalist", "post-traditional" reflects the current transition from industrial society to a new company "information "or" knowledge " that is marked by complex and profound changes in all areas of activity, with major implications in the economic process.

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Peter Drucker, 1999 appreciates that: „We can be sure that the world will result from this rearrangement of values, beliefs, economic and social structures, political systems and concepts, in other words the conception of the world will be different from what anyone could imagine today. In some areas - especially in those regarding the company and its structure - the basic transformations have already taken place. The fact that the new company will be a non-socialist and a post-capitalist one is practically a certainty. And it is also certain that her primary resource will be knowledge ". The term New Economy is used and understood by most people as being equivalent to an economy based on the Internet ("Internet economy" or "Digital Economy "). The rapidity with which the informational society turns into a society of information and knowledge leads to a perspective on the "new economy" that takes into account the internet market and the effect of the internet information and on all the economic agents, the effect of knowledge as an economic factor, which requires recognition of intangible assets, in creating economic value in general Radu, 2004.

For some analysts, "new age" (golden age, as illustrated by the American model) is characterized by a strong and lasting growth as a result of the benefits brought by new technologies and by market economy. In the 90s an idea on a new type of capitalist economy (New American economy) was imposed after the release of excessive government regulations, reduction and restructuring of U.S. corporations and the rapid technological progress Gilpin, 2004. Usually, the term "new economy" is used to describe the economic changes that occurred in the late 90s as a result of new technologies and considerable finances expansion Bucur, 2006. Human society has changed and is increasingly changing. Human society has gradually shifted emphasis from manufacturing to the automatic production, from individual knowledge to the group knowledge, thus emphasizing the importance of communication. According to the new economy, it is aimed to optimally exploit the potential of the products and of the services based on information. The main consequence is that the principles that govern the information world (world of the intangible goods and services) will soon dominate the hard drive world (the world of reality, atoms, objects, steel, oil and hard work), the result being the creation of new business categories and the transformation of the existing ones. For the organization plan, the new informational economy represents organizational paradigm shifts that occur at different levels of activity:

a) Changing the paradigms of organizational processes through the emergence and development of multinational and transnational companies as well as shifting from "mass production (large series)" to "diverse and flexible production" (depending on individual customer requirements). A more radical approach of this perspective is that that in the new economy, all companies will be Internet companies, or they will not exist at all; much of the old economy ("industrial dinosaurs") represents "cannon fodder" along with their managerial, hierarchical structures and attitudes history Isan, 2002.

b) Changing market paradigms

The evolution of information technologies as well as the opportunity to exchange information in real time at low cost, allowed an increased number of people to access information and ask for more transparency regarding the companies' behavior. This has helped to change the profile of potential consumers (Mironiuc, 2009). Also, a change in customers' attitudes towards products and services can be observed and that is increased demand for ICT products and services and decreased demand for products and services coming from the traditional industry. The rules have radically changed and the only comparative advantage is based on informational technology - Internet Isan, 2002. On the other hand, this approach based on the business diversity and its share in the economy has its opponents that consider that "the idea that the Internet is the only key to competitive advantage is simply nonsense" Turner, 2001.

c) Changing work paradigms

We are currently witnessing a change of the traditional work paradigm from: routine work to "work keeps changing"; fixed-term work program to "flexible working hours"; place of employment (career) to "careers portfolio " expressing activity diversity, professional and occupational mobility and flexibility ; " fixed " work place to " moving work place ".

In the context of new economy, companies are looking for flexible working forms , a greater variety of styles

even if they are experimental , the ability to achieve several types of works , a better orientation towards the customer and the use of new information and communication technologies . The qualifications that matter are only in ICT Isan, 2002. It is more and more spoken about the disappearance of activity and occupations in the industry area given that employment has steadily declined in all regions of the world, at a time when industrial production has increased. The work fulfilled by the people is systematically replaced in more and more processes and economic sectors. ICT is the primary factor responsible for the disappearance of some jobs Toia, 2011. “The disappearance of work” as a major factor in the production process, was however announced several years ago by Alvin Toffler, John Naspitt or Peter Drucker . Other authors (Jeremy Rifkin) have even spoke about “the end” of work performed by people if ICT is introduced and Arthur C. Clarke has stated that this will happen in 2040 Toia, 2011. Information is the key point of the “new economy” and develops new features of the economy: its acknowledgement and then, its development through innovation.

2. From the new information-based economy to a new knowledge-based economy. The role of education in the acknowledgement process

The information itself is irrelevant if it is not assimilated by the population through education and knowledge. Winston Churchill remarked in a speech at Harvard University in 1943, that “the empires of the future will be empires of the mind” in *The Economist*, 2006. “New economy” or the economy based on knowledge reflects that economy that exceeds the development threshold beyond which knowledge is the key resource. What makes this knowledge to become such an important resource? There are many factors that influence this issue, the most important being : progress in ICT levels, fast development of new technologies, global competition, liberalization of markets, the continuous change in demands determined by the increased ratio of persons with medium and high income (that develops a sophisticated demand of good-quality products), raising the quality of life. The dictum: TIME IS MONEY (characteristic of capitalist society) has been replaced by: KNOWLEDGE IS POWER (characteristic of informational society, knowledge society). Power is now owned by 'knowledge' and the battles become from tangible battles (the battles of the peoples for natural resources), intangible (the battle for exploiting "the power of the brain"), the latter may be crucial for the inclination of the "balance of the power " Suci, 2008. At the organizational level, we can observe and analyze the tenacious battle that leads entrepreneurs to draw on their own team personal with a high level of skill and education that can meet future requirements and demands of the economy and society. The world is dominated by the power of the mind and brain. Areas such as microelectronics, biotechnology, no longer dependent on a specific geographic location of the resources, they can be located anywhere intelligence can be captured and the great power of the mind can be empowered Krugman, 1994, p 24. This explains why many international organizations put first the people and their skills. An important role in knowledge is education and the continuous learning, the speed of the technological innovation and the competitiveness require continuous updating of knowledge and revolutionizes the education and training system, requiring the introduction of the concept of “continuous education” (life-long learning).

The summit from Barcelona in 2002 set common objectives for education and training in Europe. In May 2003, the European Council agreed on five targets regarding education that must be achieved until 2010, under the "Education and Training 2010" ET, 2010 program, as follows:

- The percentage of early school leavers, at European level, must be on average a percentage of maximum 10%.
- At least 85% of young people in the European Union under the age of 22 will have to be completed the upper secondary school or higher education studies.
- The percentage of semi-illiterates in the European Union who have reached the age of 15 will have to fall with at least 20% compared to 2000.
- EU average level of participation in education conducted over the entire life will be at least 12.5% of the adult population aged 25-64 years.

- The total number of graduates in the European Union with training in mathematics, science and technology will have to increase by at least 15% being at the same time assured a reduction of discrepancies and gaps between the sexes.

The European Council that met in Barcelona in 2002 has set a goal for the education and training systems of the EU that must have become a global model of quality until 2010 and called for actions that should improve the mastery of basic skills, in particular by teaching at least two foreign languages from an early age. In May 2009, the European Council created a new strategic framework for European cooperation in education and training covering the period 2010-2020, entitled "Education and Training 2020", frame that continues its predecessor's work, the "Education and Training 2010" (ET 2010) program. This framework sets out four strategic objectives for the Member States, including a set of principles that should help in achieve these objectives. The strategic objectives of the new framework are:

- The implementation of lifelong learning and mobility requires progress on lifelong learning strategies and requires also mobility extension.
- Improving the quality and efficiency of education and training - all citizens should be able to acquire key skills and all levels of education and training must become more attractive and effective. The strategic framework sets out the development of eight key competences : communication in the mother tongue , communication in foreign languages , mathematical competence and basic competences in science and technology , digital competence , ability to learn learning, social and civic skills, sense of initiative and entrepreneurship , cultural awareness and expression.
- Promoting equity, social cohesion and active citizenship - education and training should enable all citizens to acquire and develop the skills and competences necessary to obtain a job and to learn further, to practice active citizenship and intercultural dialogue.
- Enhancing creativity and innovation, including entrepreneurship, at all levels of education and training - promoting the acquisition by all citizens of transversal skills and ensuring the proper function of the knowledge triangle (education -research- innovation).

European Organization for Economic Cooperation and Development (OECD) always showed an interest to increase the level of economic and financial education of the citizens. Thus, in 2002, the OECD initiated an extensive project to ensure financial education for citizens, among developing countries, highlighting the potential consequences of a low level of financial education for citizens. This project has been served by two major OECD committees: The committee specializing in financial markets (Committee on Financial Market-CMF) and the specialized committee in insurance and private pension (Insurance and Private Pensions Committee - IPPC).

The cornerstone of financial education was the adoption by the OECD in 2005 of the Recommendations and Principles of best practices in financial education OECD, 2005. Recognizing the increased need for financial education among citizens, OECD created in 2008 the International Network on Financial Education Body (INFE) in order to develop and convey best practices in finance. Today, (according to PISA 2012) over 200 public authorities from over 90 countries joined the INFE network. "New economy" in all its manifestations, changes the requirements for many occupations and for basic training in various jobs, such as Toia, 2011:

- 80% of existing technology will be replaced in the next decade;
- Average life skills of a worker (employee) is 3-5 years.

In terms of technological progress, we "outdate" every 5 years and we need retraining. Therefore, the learning process in the "new economy" which is a cumulative process and continuous in time has a critical importance. New information and communication technologies offer new forms of education and training: distance learning,

virtual university, computer training etc. The learning process needs and can take place anytime and anywhere. In the "new economy" continuous learning and initiative are vital and determine the effectiveness of any activity.

3. Methodology and research. Evidences for education, in number, in the new economy for Romania and other post-communist countries

Romania is part of the European countries of the former communist bloc, along with Poland, the Czech Republic, Slovakia, Croatia, Bulgaria, Hungary and Germany. The year 1989 marked the changes in Eastern Europe and their exit from communism. The moment marked the recovery of the countries' major handicap compared to other democratic countries in Europe. In 1989 Romania had an increased level of political centralization, in a fully nationalized economy characterized by chronic structural delays.

Since 1990, Romania has faced the complex process of internal transformation in order to achieve a well-functioning market economy, a process which was doubled and determined by the preparation of joining the European Union. A key factor in the country's economic recovery has been the EU's decision in 1999 to accept Romania's accession negotiations. In what the labor market is concerned, although before 1989 it absorbed all graduates of the professional system, high school and university graduates, after 1989, Romania was confronted with a massive disturbance of the labor market. Moreover, the "new economy" which debuted in 2000 with the informational era- the Internet era has further shaken the labor market in Romania, which wasn't too good prepared for the needs of too much knowledge requested. To this, since January 2007 the fierce competition for accessing to the European Union is added. In line with the desiderata required by the community acquis, with multiple programs implemented by the EU for the development of education, post-communist Romania has made great progress in education. In the diagrams below there are some representative indicators for characterizing the evolution of the educational system in Romania, in the new economy (Public spending on education as% of GDP, in total and separately for primary, secondary and tertiary level, Participation rates in education, Number of foreign languages known) compared to other post-communist East Europe countries such as Bulgaria, Czech Republic, Hungary and Poland.

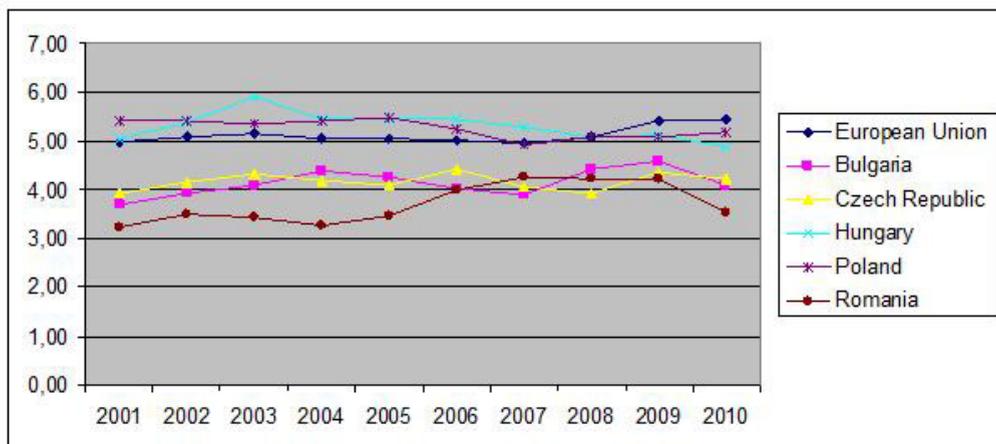


Fig. 1. Public spending on education, total (% of GDP)

Source: own processing based on data provided by the European Commission, through Eurostat

The new economy demands increased funds for education in the European Union countries, this being reflected in the average increase of the funding for the EU countries, from 5 % to 5.4 % in GDP.

Romania's accession to the European Union in 2007 has determined an increase in the share of public expenditure budgeted from GDP for education, especially in the pre-accession period, the percentage increased from 3.5 % in 2005 to 4.3% in 2007. In the 2001-2007 periods the values were slightly over 5% but even though they were rising, they still remained below the EU average. The years 2009 and 2010 brought to Romania the lowest level of education funding from the post-communist countries, namely 4.2% in 2009 and 3.5 % in 2010, well below the EU average which in 2010 reached 5.4% from GDP.

Large concerns on education funding were registered in Poland, the values being even above the EU average in 2005-2007 and even though later they have slightly fallen below the EU average, in terms of education funding Poland were ranked in the forefront among the post-communist countries.

Among the former communist bloc countries, Hungary also registered a good evolution in what education financing is concerned until 2008, an evolution higher than the EU average, after which the level of education funding of GDP decreased below the EU average but still remained higher than in countries as Czech Republic, Romania and Bulgaria.

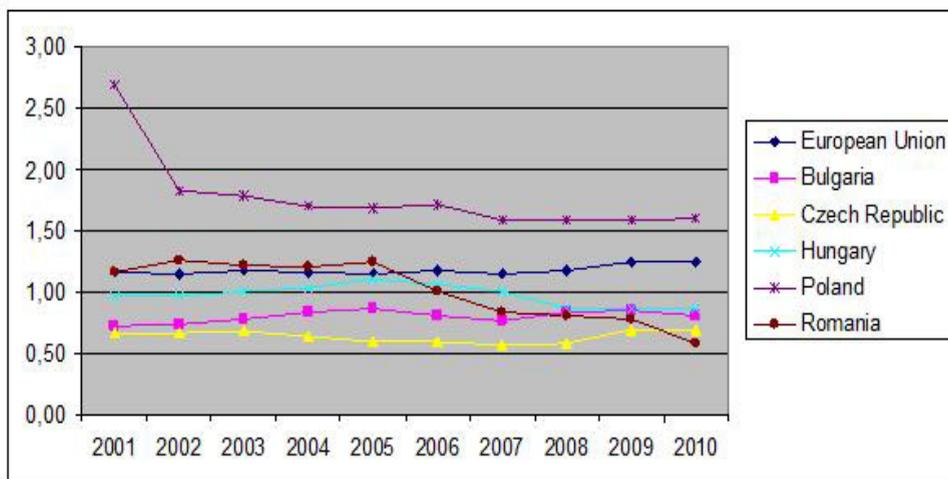


Fig. 2: Public spending on education, total (% of GDP), at primary level of education (ISCED 1)

Source: own processing based on data provided by the European Commission, through Eurostat

In terms of public spending on education, in total (% of GDP), at a primary level of education, the EU average registered a systematic increase from 1.16 % in 2001 to 1.24% in 2010. This reflects the fact that the new economy brings to the EU countries an increased concern for the education of the population at a primary level and it manifests by increasing funding of GDP for this segment of the population. Romania recorded levels above the EU average until 2005 and then systematically recorded a declining value below the EU average and even below the average of many post-communist countries such as Poland, Hungary and Czech Republic. In the year 2010 it is registered a record decline in financing the primary education, reaching 0.58 % of GDP, a figure which ranked Romania the last among the other ex-communist countries, even below the funding level in Bulgaria.

Among the post-communist countries, Poland, although it registered a decrease in the percentage of funding the primary education from 2.7 % in 2001 to 1.5% in 2010, it occupied a leading position throughout the period, recording values even higher than the EU average.

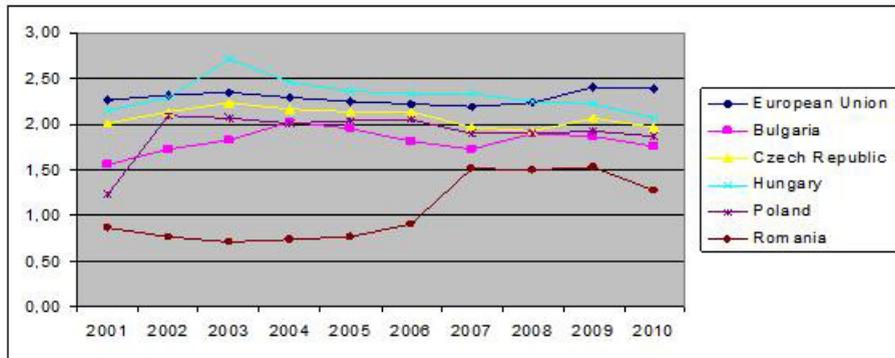


Fig. 3. Public spending on education, total (% of GDP), at secondary level of education (ISCED 2-4)

Source: own processing based on data provided by the European Commission, through Eurostat

The new economy brought an average increase in the secondary education funding in EU countries, the percentage of funding of GDP increased from 2.27% in 2001 to 2.39% in 2010. This evolution reflects but a fluctuating trend in the EU average because in 2007 the lowest level of funding, 2.22%, was registered.

Among the countries of the former communist bloc, Romania is by far the last one in terms of financing the secondary education funding; the percentage of GDP is between 0, 7% and 1.5%. The accession to the EU in 2007, brought a higher level of funding, but the secondary education level even after 2007 remained well below the EU average and well below the average of all the countries of the former communist bloc.

At the opposite pole, with the highest percentage of financing the secondary education is situated Hungary with funding percentages of GDP ranging between 2% and 2.7%, values that in 2003-2008 placed it even over than the EU average.

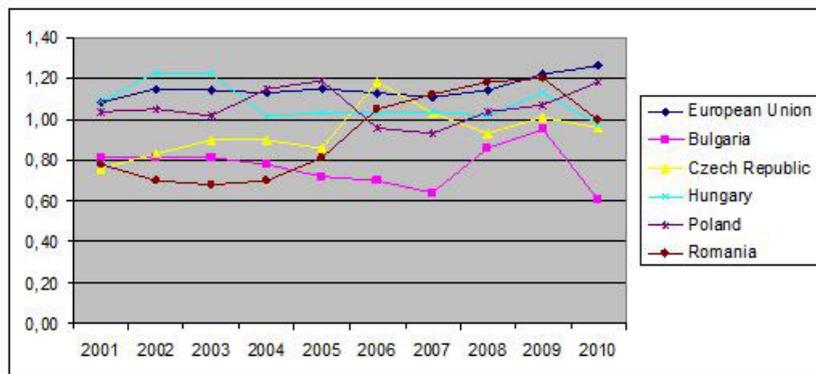


Fig 4: Public spending on education, total (% of GDP), at tertiary level of education (ISCED 5-6)

Source: own processing based on data provided by the European Commission, through Eurostat

The new economy manifests an increased concern for higher education in the EU, the percentage of education funding at this level registered a systematic increase in the EU average of 1.08% of GDP in 2001 to 1.26% of GDP in 2010.

Over the 2001-2010 periods Romania made major efforts to increase the level of funding the university studies, and managed during 2007-2008 to position itself on top among the former communist countries,

registering values that even exceeded the EU average during that period. During 2006-2009 as percentage of GDP regarding financing the higher education, Romania was situated above Hungary, Poland or Bulgaria. In 2010 a setback for most former communist countries, respectively Romania, Hungary, Czech Republic and Bulgaria is registered, exception made here Poland which registered a notable progress compared to the previous year.

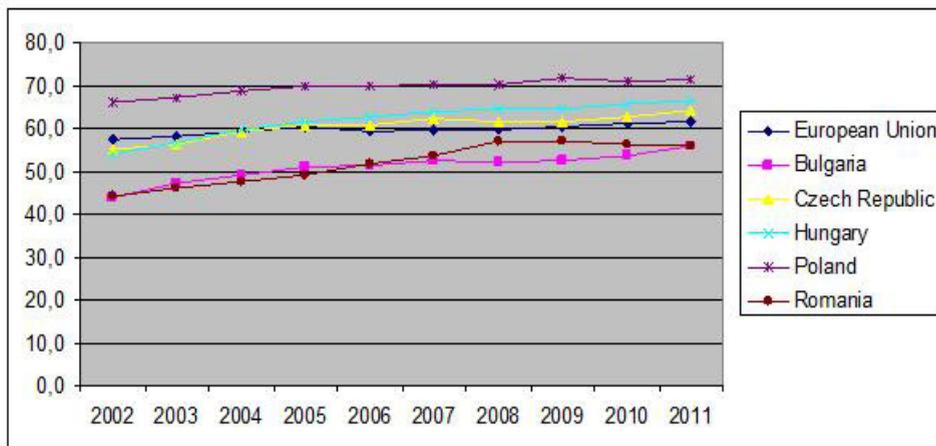


Fig. 5. Participation rates in education

Source: own processing based on data provided by European Commission, through Eurostat

The participation rate of the population to education (as % of corresponding to population’s age) registered an increase in the EU average, from 57.5% in 2002 to 61.5% in 2011. Thus, over the ten analyzed years, an additional 4% of the population made further primary, secondary or tertiary studies. The new economy implements to the EU countries a 4% higher concern of the population for education. New economy brought to Romania an increase in the percentage of participation of the population to education, from 44.3% in 2002 to 55.8% in 2011. However, Romania was still below the EU average and below Poland, Czech Republic and Hungary. During the entire period of analysis the rate of Romania's participation in education is comparable to that of Bulgaria.

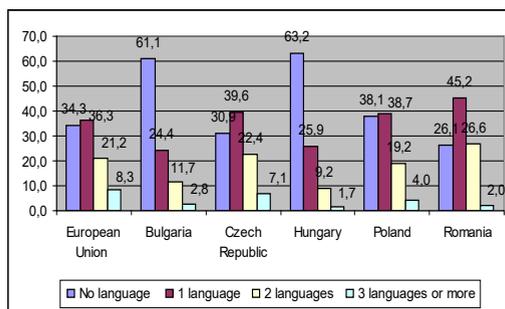


Fig. 6. Number of foreign languages known, in 2011

Source: own processing based on data provided by the European Commission, through Eurostat

Access to knowledge in the new economy is facilitated by the knowledge of as many languages as possible; this fact became one of the strategic objectives set by the European Commission in the field of education.

At EU level, the average percentage of the population who did not know any foreign language in 2007 was 39.3%, decreasing in 2011 to 34.3%, reflecting an average 5% increase in the number of those who learned at least one foreign language in the period 2007-2011. The percentage of EU citizens who only knew a foreign language in 2007 decreased in 2011, from 37.2% to 36.3%, in favor of increased percentage of citizens who knew two or three languages. Among the EU population, it is clear that the new economy adds education among citizens by knowing as many foreign languages as a means of knowledge.

With the accession to the EU in January 2007, Romania registered also a qualitative leap on the uptake of languages at citizens' level. Thus, in 2007, approximately 70% of the population did not know any foreign language while in this percentage is reduced to 26%, resulting in the fact that 44% of the population learned in the post-EU accession at least one foreign language. The percentage of the population who knew a foreign language in 2011 registered over twice the level registered in 2007, the percentage increasing significantly from 19.2% in 2007 to 45.2% in 2011. In terms of percentage of Romanians who knew a second language, in 2011 it is recorded a tripled value from that registered in 2007, the percentage increased from 9.9% in 2007 to 26.6% in 2011. So in 2011, over a quarter of Romania's population knew two foreign languages. Among the former communist bloc countries, Hungary registered a very pronounced progress in 2007-2011, in what the assimilation of foreign languages is concerned while the Czech Republic and Hungary registered progress at a pace somewhat slower during this period. Bulgaria seems to record a setback in this chapter, if in 2007 44.1% of Bulgarian citizens didn't know any foreign language and in 2011 the percentage increased to 61.1%, fact which reflects a decline in the Bulgarian educational system in what the concern for knowledge of foreign languages among the population is regarded.

4. Conclusion and discussion

The new economy also called informational economy or knowledge economy brings new demands on education among the population. Countries of the former communist block as Romania endeavor to recover the disability created by the communist regime and to ensure a level of education corresponding to the labor market's demands required by the new economy.

After 1989 post-communist Romania has oriented itself from a deeply marked by communist ideology, which in the early '90s was among the most centralized in the region towards reformation of the education and training system, towards an upgrade, according to the European principles. In the pre-adhere to the EU period (1999-2007), in the field of education, "the community acquis" has generated an abundant legislative activity aimed to adjust the national vocational training system according to the EU requirements. With the accession to the European Union on 1 January 2007, Romania has made visible progress in education, although in Romania the educational system is still weak. The major issues are targeting the low funding of education at all levels and low participation rate of the population to education. The only strengths are those in regard to foreign languages, the accession to the EU brought a visible progress in this area, so that in 2011 approximately three quarters of Romanians know at least one foreign language.

Among the post-communist countries, Poland registers the highest quality regarding the educational system reflected through the highest level of education funding and the participation rate of the population to education. Regarding Poland's educational preoccupations to assimilate foreign languages, it was in 2011 ranked below the average of EU countries, Czech Republic or Romania, which seem to be more concerned with this educational direction than Poland.

The strategic framework "Education and training 2020" drafted by the European Commission on increasing quality of education among Member States continues with the strategy to provide for the EU a job market as competent as possible in order to satisfy the increased demands of the new evolving and diversifying economy.

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