Romania in the European Union
The Quality of Integration
Structural and Regional Disparities
Works represents the results of research projects obtained through competition

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This work was supported by budget of Research Center for Analysis and Economic Policies and by CNCSIS-UEFISCSU, project number PNII-RU code PD 281/2010 (number 77/2010) - Impact study of discrimination on the labor market on economic and social cohesion in Romania, under the knowledge based economy.
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**Abstract.** The problem of insertion/reinsertion of young people on the labour market is very important in the current economic situation, that faces increases in unemployment both in general and among young people. On this economic background efforts to seek solutions worldwide are intensifying, it emerges a consensus of the economically advanced countries, in the sense that exiting from the crisis and the having again a healthy economic growth can be achieved by stimulating both the investments in infrastructure, but especially by developing the human capital through education, research, innovation.

This paper examines the insertion process of higher education graduates on the labour market in Romania based on a national survey conducted on a sample of the promotions in 2003, 2005 and 2007 in order to identify solutions to improve the insertion of young people on the labour market.

**Keywords:** labour market insertion of young people; education; economic education.

**REL Codes:** 4D, 12E, 12G.

**JEL Codes:** E24, J21, I23.
1. Introduction (specialized literature study)

In everyday language, “transition” means transformation or transition from one state to another, from one situation to another, and “the transition from school to work” refers to the period between graduation and employment in a stable and full time job (OECD, 1996). Therefore, the transition from school to work means the insertion/integration of graduates, respectively of the young people who have left the education system and are on the labour market.

Specialists believe that young people transition from school to work has become longer and more difficult now than it was several decades ago (OECD, 1996, 1998). Today, few young people leaving the education system manage to integrate on the labour market quickly and to “secure” their freshly earned position. The high rates of youth unemployment and underemployment significant incidence among them reveal important difficulties that young people experience in their transition from school to work. This phenomenon occurs not only in developing countries but also in the developed economies.

The extension of transition time from school to work is explained by several factors, most important of which being restructurings and economic developments, the proliferation of new forms from employment, rising of unemployment among young people, changes in the social protection systems, extending the period of education, etc. It is widely accepted the idea that the integration of young people on the labour market plays a decisive role in determining their economic and social welfare and their further development.

The transition from school to work was a major research topic in the past decade (Hannan, Werquin, 2001, Ryan, 2001). The main reason is related to the fact that young people, after graduation, find a job with difficulty, and often occupy vulnerable positions at the beginning.

The perception of the European Union on unemployment among young people has changed together with the launch and re-launch of the Lisbon Strategy and Bologna Process (Pastore, 2007). A dramatic change occurred in the 1990s, when the emphasis was on labour flexibility as the main instrument for reducing youth unemployment, as well as on measures to improve the human capital through education reform and professional training. Recent studies have shown that labour flexibility can increase employment chances when the level of human capital among young people is quite high. To reduce the difference in “experience” between young people and adults, the education system should aim to reduce school dropout, increase young people's flexibility and facilitate the transition from school to work.

Young people’s transition to work has become complex, fragmented, elongated, with a strong individualist feeling, increasingly depending on individual qualities and skills (Cartmel et al., 2002). It is known that young people represent an exceptional resource for the development of society, but this potential cannot be exploited if the labour market is inefficient. Thus, young people’s insertion on the labour market is influenced by several factors, such as restructurings and economic developments, the proliferation of new employment forms, rising of unemployment among young people, extending the period education, migration and increase geographical mobility.

At EU level, knowing the entry process for young graduates in the labour market and the characteristics of this process has become a priority both in formulating employment policies, as well as the educational ones. By evaluating the employability of young graduates we get, on the one hand, a picture of young people's transition from school to work, of the degree of consistency between existing supply and demand at a certain time in the labour market and, on the other hand, essential information on the effectiveness of the educational act.

The challenges aiming at the labour market in Romania are related to achieving the employment targets set in the Lisbon European Council, to implementing an employment structure based on increasing the productivity, reducing youth unemployment and adopting an economic growth model based on employed people's growth.
In Romania, as in most EU countries, youth unemployment remains a social issue with important implications for the whole society, thus facilitating the transition from school to work must become a national priority.

Analyzing the determinants of the young people insertion on the labour market in Romania, we consider that they are related to preparing the young people, to their socio-economic status, to technological change within firms, to current financial and economic crisis, which requires a continuing need to adapt quickly to the changes of the economic environment, to an increasingly competitive environment.

According to some INCSMPS studies (2008), the young people in Romania consider school as a success factor, but consider that formal education does not provide the information necessary to access the labour market. On the other hand, the labour market experience before graduation has an important role, allowing an easier insertion on the labour market. It is noticed the tendency to increase the number of students who are hired before graduation, which enhances their insertion.

2. The analysis of the young economists insertion on the labour market in Romania

To know better the situation of young people's insertion (15-34 years) on the labour market in Romania we will analyze the specific indicators based on the analysis of the statistical data provided by the National Research Institute for Labour and Social Security (INCSMPS). The methodology used for data collection consisted of a survey at a national level, in the second half of 2009, when there were surveyed 2100 young people who graduated in 2003, 2005 and 2007. It was also used the data from the AMIGO investigation, which shows us that the number of young people aged 15-34 years in 2009 was 6,513,000 persons, representing 30.3% in the total country population.

2.1. General features of economic education graduates

According to the analysis, the level of education of the father/head of the origin family is predominant high school (about 31%), followed by vocational and apprentice schools (22%), and on the third place is the long-term higher education (19%) (Figure 1).

![Figure 1. The structure of economic education graduates by level of education of the father/head of the origin family (%)](image)

So we can say that the education level of the parents greatly influences the education level of young people. Thus, from the correlation of parental level of education with the one of the young people it could be seen that:
87.4% of young people coming from families with higher education, left school after graduating from an educational institution at the same level; 
67.7% of the young people whose parents have an average educational level did not graduated from college and they limited themselves to the same training level; 
in the case of young people from families with low education, 52.5% left education after finishing not more than a secondary school, while 47.4% exceeded the education level of their parents leaving education after graduating from an average (44.9%) or even higher education (2.5%).

According to the birth place the majority of respondents come from urban areas (77%), this also applies for economic graduates (Figure 2).

![Figure 2. Graduates structure depending on the area of residence (%)](image)

Analysing the ethnicity of graduates we have seen that most graduates are Romanian and in the case of economic education graduates it is noted that 95% of the respondents are Romanian, 4.8% are Hungarian and 0.2% are Rrom or other ethnicity (Table 1).

<table>
<thead>
<tr>
<th>Graduate profile</th>
<th>Respondent Ethnicity</th>
<th>number of graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Romanian</td>
<td>Gypsy</td>
</tr>
<tr>
<td>technical</td>
<td>362</td>
<td>0</td>
</tr>
<tr>
<td>agriculture</td>
<td>69</td>
<td>1</td>
</tr>
<tr>
<td>economics</td>
<td>568</td>
<td>1</td>
</tr>
<tr>
<td>medicine</td>
<td>193</td>
<td>0</td>
</tr>
<tr>
<td>university</td>
<td>644</td>
<td>4</td>
</tr>
<tr>
<td>law</td>
<td>191</td>
<td>0</td>
</tr>
<tr>
<td>artistic</td>
<td>60</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2087</td>
<td>6</td>
</tr>
</tbody>
</table>

As regards the marital status of the economic education graduates we see that 53% are unmarried, 42% are married, 3% live in a consensual union, 1.5% are divorced and the rest are in a different situation (Figure 3).
Figure 3. The structure of the economic education graduates based on marital status

Depending on the gender of the respondent, it can be seen in the figure below that men specific areas are technical and agriculture. Graduates in economics are largely female - 65% (Figure 4).

Figure 4. Respondent gender depending on the graduated profile

Although the employment of students is usually a manner of accommodation with the labour market, the increasing number of the those who have experience at a single workplace (from 53% in total for the class of 2003 to 63% for the promotion in 2005) indicates that the investigated graduates looked for a stable job on the labour market (Figure 5).

Figure 5. Distribution of graduates by the number of jobs held until graduation
2.2. The presence of young people in the labour market

The importance given by the employers to the professional experience of the applicants for jobs, the difficult economic circumstances, the high costs of professional training determine many students to work before graduation. Thus, from all the investigated graduates, almost half (52%) worked before graduation. For graduates in the economic field 55% had a job while still a student. Areas where young people worked before graduating coincide to a large extent with the completed university, which creates favorable conditions for their better insertion in the labour market.

Given that more than half of young people interviewed worked before graduation their integration on the labour market seems to be pretty easy. According to the results of the National Institute of Statistics investigation published in December 2009 – “The access of young people on the labour market”, 33.6% of graduates had a job one year after graduation.

The insertion rate of higher education graduates was 60.9%, while the share of those with secondary education was 35% and 14.6% for those with low education level. These results are also confirmed by our study showing that 11.9% of respondents had a job when they finished their studies, 43.8% were able to occupy a significant job in the first three months of graduation, and 9.4% have found employment between three and six months after graduation.

Depending on the graduated profile shown in the chart below, we see that the technical graduates integrate faster on the labour market (the average time passed from graduation to the first job was of four months); on the opposite side there are legal science graduates who need an average of 6.3 months to find a job. The average time for graduates in the economic field was 4.9 months, thus being placed in the general mean (Figure 6).

![Figure 6. The average duration since graduation to first "significant" job, on promotions and educational profiles (months)](image)

According to “The access of young people on the labour market” (2009) investigation conducted by the National Institute of Statistics in economics 28.43% of graduates found the first significant job within three months after graduation, and 43.38% of them over a period of over one year.

Among the young graduates in the economic field, the largest share (95.71%) had the employee status, within first significant job and only 2.05% were self-employed which shows a low entrepreneurial activity among young people (Figure 7).
At the statement "To get a better job I would be willing to change my occupation", 53% of respondents answered positively. In the chart below we see that all graduates except those in the medical field would change their job for a better one. This suggests us that young people show a higher level of occupational mobility (Figure 8).

Most graduates have found employment through acquaintance and then from the press ads. Economics graduates have used the same opportunities to find a job, which shows us that the labour market in Romania still has many shortcomings such as the lack of transparency (Figure 9).
Based on the investigation conducted we could draw some conclusions about the labour market insertion of young people in Romania:

- there is a relatively good insertion (60.9% after one year from graduation) of higher education graduates in the labour market in Romania. However, if we consider that nearly 12.5% of them already had a job after graduation and almost half of them already worked before that moment, the employability of young people is quite difficult in our country. The graduates from technical education integrate the fastest on the labour market and the most difficult the ones from law field. The economic education graduates are on average regarding the time period to find a job.

- 52% of respondents worked before graduation. Most young people had one job and worked as an employee for a period of 1-2 years before graduation. Very few were self-employed, which shows us that youth entrepreneurship is underdeveloped.

- one year after graduation, 60.9% of university graduates had a job, and among people with low education level only 14.6%

- 48% of respondents would leave the country for a better job.

- most graduates (44.2%) found a job through friends, relatives or acquaintances, which reveals the difficulty of labour market insertion of young people. This might also suggest the existence of certain labour market functional rigidities in Romania. These rigidities are also outlined by large disparities between residential environments in respect to the origin of higher education graduates, i.e. the location of jobs, which signals a potential underdevelopment of the rural environment.

- more than half of respondents would change their occupation for a better job.

In terms of the economic graduates we can say that:

- from the young people registered in higher education a large part have opted for economics (32.4%), considering that they can focus and redirect more easily professionally;

- 55% from the economic education graduates worked before graduation;

- areas where the economic education graduates worked before graduation large coincide to a extent with the completed university, for example in trade (22%) and public administration (13%);

- in terms of external mobility, graduates in economics, law and university, their vast majority would not want to go to another country;

- in terms of the way to search for a job, most economy graduates turned to acquaintances and friends;

- in the economic field 28.43% of graduates found their first significant job within three months after graduation, and 43.38% of them over a period of one year. The lowest percentage of graduates in the economic field who found the first significant job in the first year after graduation corresponds to the period of 6-11 months and it is 12.6%;

- among the economics young graduates, most of them (95.71%) had employee status, in the first significant job, and only 2.05% were self-employed, which shows low entrepreneurial activity among young people;

- the average time passed from graduation to the first “significant” job in the economic field is 4.9 months;

- among the economic education graduates, 60% had one job and 22% two jobs. This suggests us that in general young people have little mobility, seek a stable job and face professional adjustment problems.
3. Solutions to improve the insertion of young people on the labour market in Romania

Based on this analysis, our study has some solutions to improve the labour market insertion of young people. These concern, on the one hand, improving the professional training, and, on the other hand, improving the labour market flexibility.

- **The instructive and educational training**

  Improving the professional training is primarily related to investment in education, which leads to the development of creativity, skills, performance, competition and greater labour market stability.

  Today, the economic analysis of education is increasingly highlighting the link between the investments in educational human capital and in economic growth. “The human capital is the value of the potential that people hold in order to bring income. It includes native capabilities and talent, as well as education and acquired skills. *The education is the slowest, but strongest growth factor*” (Dornbusch, Fischer, 1978).

  The analysis of demand and supply of academic education in Romania highlights both achievements, but also some distortions that occur mainly at the level of correlation between the supply and demand of education, which makes it difficult the labour market insertion of young graduates. On the other hand, the education offer must take into account the rapid changes that cause each sector to need constant updating of qualification, in addition to gaining knowledge and skills.

  An important role in adjusting the labour market demands has the improvement of the quality and affordability of initial training services. These are addressed both to the vocational education institutions and to the beneficiaries of courses by combining funded training courses (instruction), training schemes for the trainers and investments to improve the existing facilities. This type of intervention is expected to lead to the reduction of the number of unemployed persons who are high school graduates or with professional qualification.

  Better training and adjustment of graduates before and after completing the studies to the changes that occur on the labour market are required by the increased international competition. The current economy needs highly trained workforce in the context of globalization and technological revolutions, which requires skills development, creativity, strong knowledge and a greater responsibility. In a world subjected to some constant change, to stagnate in terms of preparation is a dangerous behavior for the contemporary man and society.

  In the European strategy for employment, the European Commission and Member States pay particular attention to youth, especially to their professional training, especially under the conditions of the new economy. Both the Lisbon strategy, as well as the Europe 2020 program included in their direct lines components of lifetime education and training. There are detailed references on the need to “equip young people with basic skills relevant to the labour market”, to “reduce illiteracy among young people” to “reduce substantially the number of early school leavers”.

- **The flexibility of labour market – a way to improve youth labour market insertion**

  The increasing adaptability of workers and enterprises to current conditions is a necessity, given the process of structural change in the labour market in Romania. By providing an increased adaptability of the labour market it will increase the capacity to anticipate and absorb the economic and social changes. The goal of developing a modern and flexible labour market is in line with EU priority to improve the quality and productivity, by developing and upgrading the skills according to the modern technologies and to the value added sectors. The workforce and businesses will have to adapt to the new technologies, being in the necessary position for a permanent new approach.
Flexibility is the socio-economic and demographic process that means improving the economic, educational and demographic conditions in terms of reducing the stiffness of labour supply and demand. This concept describes, on the one hand, the changes carried out in the nature of the work, targeting diverse forms of employment, and on the other hand, the changes made in the technology used. It should be considered the difference between the concept of “flexibilization” and flexibility, the latter accounting for the process and product “flexibilization”. This refers to acquiring and growing the capacity of labour market to adapt to the conjuncture and to the national and international environment, for a better functioning.

The “flexibilization” of the labour market imposed itself to the general concern, in all countries and key institutions of the labour market, employers, unions, governments. It can be seen as “the capacity to adapt to change, without prejudicing the financial or human resources means”. It is considered that the flexibility is essential in the current period, because it gives the labour market the ability to adapt to the conjuncture and to the national and international environment, and ability to contribute decisively to the conciliation of the economic efficiency with the social equity, the profitability with the social protection, a better functioning of labour market with a better combat on unemployment and social insecurity, preventing the negative effects of technological change.

One of the problems that Romania has is the low labour market flexibility. The main reasons are the reduced flexibility of the educational system, the high level of its contributions, the wage rigidities of the Labour Code, the lack of effectiveness and diversity of services regarding the quality of employment. All these influence the integration of young people in the labour market, which can be improved by: qualification programs and retraining of unemployed people, information and counseling to individuals seeking employment, labour mediation through active involvement of the ANOFM concerning the placement of labour, improving the labour code.

In other countries with a more flexible labour market, the students must not decide on their future profession at the age of 18 years, but at 20-21 years. Furthermore, the students should not decide on a profession without knowing anything about it, but after participating in several courses in this area. This is because the universities are organized differently: students participate in the first two years at basic courses and courses in the areas selected by them. Only then do they elect an area which they would like to study more. If the choice turns out to be wrong, they can change it quite easily because they already have the base courses. In general, in order to change their field of activity it is necessary another year of study, but they can participate to it even after many years after they graduated.

The years preceding the economic crisis are characterized by economic growth, but not by the ability of the economy to generate jobs adequate for the higher and higher employment levels of training. It is noted that the educational system does not keep pace with the development in the labour market, but it offers generations of increasingly large university graduates.

The occupational mobility decreases with age, however, maintaining high levels. The INCSMPS studies show a higher propensity of young people to occupational and territorial mobility than to the external mobility. On the other hand, surprisingly, graduates rather prefer a job’s security and a lower pay than an unsafe workplace and a higher salary. On educational profile, the lowest occupational mobility is in medical graduates and the highest one in the arts and agriculture graduates.

The main reasons for changing the profession obtained by the initial training by age group is as follows: young people aged 15-34 years have changed profession because they have not found a job in the initial training and those aged over 35 years and have changed the workplace for other better workplaces.

The Labour Code contains provisions that have induced certain rigidity in labour market performance, mainly by:

- the disproportionate regulation of the employment obligations of the parties;
introducing restrictive bureaucratic redundancy procedures and restrictive conditions for the conclusion of employment contracts for a fixed period.

Therefore, in 2006, the provisions the Labour Code were completed (OUG no. 55/2006 published in OM no. 788/18.06.2006) about the flexibility procedures for collective redundancies, the development of outplacement services, the administrative simplification, the support of managerial training and qualifications.

The flexibility of the collective dismissal procedures make the companies to be able to resize their activity according to need, ensuring the protection of the workers who are to be fired.

In the regional agencies for employment (AJOFM) there will be developed pre-dismissal services, for those who will be dismissed following the restructuring operations carried out by employers. These services consist of information, recruitment and retraining.

Regarding the labour direction to the conducting independent economic activities, as individuals (self-employed persons) or as family associations, there were initiated a series of measures for the administrative simplification and to cover the effective operationalization of the company, which consist of advice on the idea of business including the pre-establishment stage of the company.

Another component of the labour market flexibilization refers to supporting the training and obtaining the management support that can make from the entrepreneurship a career option, this action having allocations in the European Social Funds in 2007-2013. It aims to encourage the corporate responsibility by providing incentives for the employees, to develop companies and careers, but also for the awareness of employers and employees on the need for continuous training.

From this point of view, the Public Employment Service (SPO) will provide grants of financial benefits for the employers to organize training programs for employees.

Simultaneously with the increase of labour market flexibility, it is necessary to improve the level of protection of employees, including by individual responsibility regarding their efforts to find a job. From this perspective an important role has the Public Employment Service (SPO) who will refocus their active measures on groups of unemployed people who are reluctant in engaging in programs of activation or who go through difficulties in finding a job by:

- increase the attractiveness of jobs;
- the development of customized support services for the unemployed persons, especially for the long-term unemployed persons, youth and vulnerable groups;
- improvement of training services for older workers seeking employment;
- increase the quality of services provided by the Public Employment Service.

Regarding the social security, by modifying the law on unemployment insurance system, the calculation of unemployment benefits was changed, so that the allowance has currently a higher degree of replacement of lost wages for workers. Thus, taking into account the number of years and the contribution to the unemployment insurance system it is expected for this calculation method to bring in the future a closer evaluation of the relationship between the cost and benefit of a job search and a high presence on the labour market.

It will also be encouraged the improvement of the system of wage negotiation in the collective and individual employment contracts so that to reflect the training and work experience of the employee. The requirement to include in the collective agreements the clauses on training, and compensation in case of dissolution of the individual employment contract, are measures that ensure a certain level of employee safety, but at the same time and a better opportunity to reintegrate on the labour market.

Based on the above analysis we can say that:

- Experts consider that the young people transition from school to work has become longer and more difficult now than in the past few decades (OECD). Today few of the young people leaving the education system manage to integrate quickly into the labour market and to secure the newly gained position. The high rates of youth unemployment and the significant
incidence of underemployment among them indicates important difficulties which young people experience in the transition from school to work. This phenomenon occurs not only in the developing countries but also in the advanced economies, where the active measures and support programs are well developed. The prolongation of the transition period from school to work is explained by several factors, most important of which being the restructuring and economic developments, the proliferation of new forms of employment, unemployment among youth, changes in social protection systems, the extension of the educational period.

- The systems of education and training are challenged to generate new skills to meet the demands of new jobs that will be created in the new economy and to improve the labour market insertion of young people and ability to adapt and professionally integrate of adults who are already active.

- The national labour market problems in Romania are generally caused by a reciprocal relationship with economic growth level – the new jobs created are insufficient, the adaptability and mobility of the workforce are maintained at low levels, which require strategic approaches to reduce the discrepancies between supply and demand for professional qualifications of the labour market.

- The labour productivity growth is one of the most important solutions in developing a healthy economy; it depends very much on the quality of labour. Therefore, the employment policies and strategies should follow the increase of investment in human resources, investment in training of young/adult at the company level, providing the access to all the relevant information on education and training opportunities.

- It is necessary the correlation, through various methods of structures and content of education and labour training, with the current and future economic needs; the increase of the level of education and access to education for gaining greater stability in the labour market, which implicitly reduces the risk of unemployment and allows a “soft” insertion on the labour market; the participation in continuing professional training, increased labour mobility, which can improve the economic position of young people; labour market flexibility, which plays an important role in absorbing the newcomers. This shows the market capacity to respond to changes occurring in the economic and social environment. It should be noted that in recent years flexibility has been placed in spotlight in terms of specific labour market policies. Thus, through flexibility there is a greater adaptation to new things, to change.

- This involves, among other things, a certain structure of the educational system, a structure of training systems at the workplace, a strong legislation, a labour market flexibility and mobility.

- In the current economic crisis, exacerbated by the organizational failure and coordination of macroeconomic policies, Romania must pursue the modernization of labour market infrastructure, adapt the educational system to the market requirements to revive the scientific research and innovation, with emphasis on the relevance of economic practice, to pursue a more flexible labour market and assure the necessary conditions for the development of a competitive environment.

Conclusions

We can say that the economic education, as the entire education is emerging as a system of activities through which people learn to learn and also learn to operate with the knowledge that they get, consolidating and developing them.

The way the Romanian economy works, and evolves it is necessary the presence of certain economists specialized in solving fundamental economic problems, able to rationally understand, anticipate and predict the economic trends in crisis situations and identify solutions to overcome difficulties that arise.

The modern economist must be open-minded, flexible, dynamic and creative, willing to work with specialists from other areas and to act in accordance with the principles adopted in the Tokyo Declaration (1987), aimed at the economic growth compatibility with the
environmental protection. Thus, the young economist must not only be prepared in the economic field, but in an integrating vision with technical-economic and ecological aspect.

To improve the quality of the economic education and the faster integration on the labour market, we can consider the following priority training areas in the economic field:

- achieving the economic education from the earliest years of school, to form the basic capabilities and economic skills;
- the integration in the educational curricula for any domain of some basic elements for economic education;
- the harmonization of formal economic education programs with the informal ones;
- the development of some economic education programs for adults;
- the permanent adaptation of educational programs to changes occured in the national and international area;
- the development of certain research centers at universities;
- the involvement of the private sector in academic activities through internships, scholarships;
- strengthening the university autonomy;
- the development of new skills.

Projecting the Romanian higher education in a given time horizon involves a certain risk due to the forms that it takes, the existing distortions, the ability to keep up with the dynamics of the economic life. Therefore, the increase of employment adaptability on the long-term to the market demand must be achieved primarily through investment in human resources development on a lifelong learning strategy, as well as a more flexible labour market.

Acknowledgements

Research contract no. 91-020/2007 PN-II; period 2007-2010; Partnerships in priority areas, Determinants of labour market insertion of higher education graduates, coordinated by the National Scientific Research Institute for Labour and Social Protection (NSRILSP).

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LABOR MARKET DEFICITS IN ROMANIA.  
A REGIONAL APPROACH

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Abstract. The labor market is strongly segmented, being normally characterized by the coexistence of two forms of deficits: the labor demand deficit (i.e. unemployment) and the labor offer deficit (i.e. vacancy jobs). As these deficits are obvious in the case of some different occupations or of some different regions, then they will have a weak compensation. During 2005-2008 these deficits are increasing at Romanian regions level. The most important of them are in public administration and education. On regions the most important deficits are in Bucharest-Ilfov (the richest) and North-East (the poorest). On occupation group the biggest deficits is for specialists with intellectual and scientific occupations. There is also a trend of increasing for labor market deficits on regional level. The most important regional deficits are in: North-East, West and Bucharest-Ilfov. On regions the most important deficits are for farmers and skilled workers in agriculture, forestry and fishery in Bucharest-Ilfov (gravitational effect) and South-West: specialists with intellectual and scientific occupations: West, and Bucharest-Ilfov; workers for maintenance and adjustment: North-East. There is a negative relation between the two deficits, so that the rate of unemployment tends to get decreased below the level of the natural unemployment and the rate of the vacancy will get increased during the periods when a strong economic growth is recorded; the inverse relation has been represented within the “Beveridge curve”. The aim of this study is to confirm the validity of the Beveridge curve for Romania during the period between January 2004 and June 2009, using the monthly data. The estimated model has been a VAR type one, in which the two variables have been represented as first differences with three time lags.

Keywords: labour deficits; vacancies; regional disparities; Beveridge curve.

JEL Codes: R11, J21.
REL Codes: 12B, 12I.

1. Uncorrelated structure of labour supply and demand

Despite the fact that modern economies are often characterized by an excess of labor supply over demand (unemployment), structural mismatch of supply and demand for labor is quite common, causing an overdraft of the needed working force. In such cases vacancies occur even if there is unemployment.

According to the Romanian National Institute of Statistics methodology the average annual vacancy is calculated as:
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RJV_a = \frac{\text{job_vacancies}}{(\text{job_helds} + \text{job_vacancies})} \times 100 = \frac{JV_a}{JH_a + JV_a} \times 100

where:
RJV_a = \text{average annual rate of job vacancies};
JV_a = \text{average annual number of vacancies};
JH_a = \text{average annual number of jobs held}.

The analysis below is structured as follows:
a) the analysis of the average rate of vacancies by economic activity in 2005-2008;
b) the analysis of the average rate of vacancies by occupation from 2005-2008;
c) regional profile of vacancies on industries and occupations;
d) the Beveridge curve for Romania during 2005-2009.

a) The analysis of the average rate of vacancies by economic activity in 2005-2008

To name the activities (according to CAEN code) we used the same symbols as the National Institute of Statistics:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Activity (industry)</th>
<th>Symbol</th>
<th>Activity (industry)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>Average level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Agriculture</td>
<td>I</td>
<td>Transports and communications</td>
</tr>
<tr>
<td>B</td>
<td>Forestry &amp; Fishing</td>
<td>J</td>
<td>Financial transactions</td>
</tr>
<tr>
<td>C</td>
<td>Mining</td>
<td>K</td>
<td>Real estate transactions</td>
</tr>
<tr>
<td>D</td>
<td>Manufacturing</td>
<td>L</td>
<td>Public Administration</td>
</tr>
<tr>
<td>E</td>
<td>Energy</td>
<td>M</td>
<td>Education</td>
</tr>
<tr>
<td>F</td>
<td>Constructions</td>
<td>N</td>
<td>Health &amp; social security</td>
</tr>
<tr>
<td>G</td>
<td>Trade</td>
<td>O</td>
<td>Others</td>
</tr>
<tr>
<td>H</td>
<td>Hotels &amp; restaurants</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Figure 1. The average vacancy in 2005-2006, by economic activity
Analyzing the figure above we see that, compared with 2005, annual average rates of vacancies in 2006 had higher values in public administration, health and social assistance, financial intermediation, hotels and restaurants, transport, storage and communications. All other activities had lower values.

As in the previous years, in 2007 most vacancies were recorded in public administration and health and social security. Compared with 2006, the annual average rates of employment have higher values, except real estate transactions, trade and transport.

**Figure 2. The average vacancy in 2006-2007, by economic activity**

From the above figure we see that average rates of vacancy in 2008 compared to 2007 showed lower values, except for activities in education, health and transport.

**b) The analysis of the average rate of vacancies by occupation from 2005-2008**

To investigate the rate of job vacancies we grouped occupations according to the Standard Occupational Classification (SOC) System as follows:

- MG 1 – managers and government officials from administration and social-economic units;
- MG 2 – specialists with intellectual and scientific occupations;
- MG 3 – technicians, foremen and assimilated;
- MG 4 – administrative officials;
- MG 5 – operative workers in services, trade and assimilated;
- MG 6 – farmers and skilled workers in agriculture, forestry and fishing;
MG 7 – artisans and craft workers;
MG 8 – plant and machine operators and assemblers of machinery, equipment and other products;
MG 9 – unskilled workers.

Like in 2005, most jobs concern specialists with intellectual occupations (MG2). Compared with 2005 annual average rates of job vacancies increased for specialist with intellectual occupations (MG2), technicians, foremen and assimilated (MG3), administrative officials (MG4) and decreased for all other occupations except operative workers in services, trade (MG5) where the percentage remained the same.


Figure 4. The average vacancy in 2005-2006, by occupation

In 2007, employers had the highest job offer for specialists with intellectual occupations (MG2) and for technicians, foremen and assimilated (MG3). At the opposite pole we find, as in 2005, the occupations of legislators (MG1) which is an area controlled by the state. Compared with 2006, in 2007, the annual average rates of job vacancies were higher for all occupations. The biggest increase was recorded for technicians, foremen and assimilated (MG3) and plant and machine operators (MG8).


Figure 5. The average vacancy in 2006-2007, by occupation
From the figure below we see that in 2008 the annual average rates of job vacancies fell except for technicians, foremen and assimilated (MG3) which had a small increase. For specialists with intellectual occupations (MG2) the percentage remained the same.

![Figure 6. The average vacancy in 2007-2008, by occupation](chart)

**Source:** National Institute of Statistics, Regional Statistics 2007.

**c) Regional profile of vacancies on industries and occupations**

From the regional perspective it is noted that if in 2005 the Bucharest-Ilfov region recorded the most vacancies, in 2006 it is joined by the North East region with the same percentage 2.04% (a decline for Bucharest-Ilfov, but an increase for North-East). In North-East region most jobs were offered in the financial intermediation activities (3.19%).

![Figure 7. Regional profile of vacancies in 2005-2008](chart)

**Source:** National Institute of Statistics, Regional Statistics 2007.

The Bucharest-Ilfov region recorded the highest annual average rate of vacancies (2.47%), followed by North-East (2.33%), while the other regions recorded a decrease compared with 2007. According to data provided by the National Institute of Statistics in the first quarter of 2009, the vacancy rate was 1.27%, decreasing by 0.87 percentage points over the same quarter of 2008. The highest labor demand was recorded for health activities (4.74%) and for the public administration (4.03%).

A more detailed analysis on regional activities shows that most vacancies were recorded: in public administration in Bucharest-Ilfov (9.62%), in agriculture in the Central region (4.91%), and in health and social assistance in the South-Muntenia region (4.44%). This can be easily explained because most jobs in public administration are in Bucharest, while the Centre region is a region in which agricultural activities dominate. Health and social...
activities generally provide many jobs because most of the medicine, pharmacy and social work graduates are turning to other activities after graduating.

**Figure 8. Regional profile of vacancies in 2005**

Regionally, most available jobs were found in Bucharest-Ilfov region and South-West Oltenia for farmers (MG6) and in Western Region for specialist with intellectual occupations (MG2).

**Figure 9. Regional profile of vacancies in 2005, by occupations**


Labor market failures may lead to the simultaneous occurrence of labor surpluses and vacancies. The causes of these abnormalities are related to structural and territorial rigidities. Consequently, the analysis of the relationship between unemployment and vacancies can provide some information about the degree of labor market flexibility and regional disparities.
The correlation between vacancy rate and the unemployment rate is shown by the Beveridge curve.

Beveridge curve representation for Romania emphasizes the decreasing degree of compatibility between vacancies and the unemployed, all because the economy has made little progress in the process of macrostabilization. Figure 10 illustrate the Beveridge curve during 1991-2004, which shows a random evolution of the correlation between vacancies and unemployment. Thus, it is noted that during 1994-1997 been an improvement in the compatibility between unemployment and job vacancies, followed by deterioration in the 1997-2000 period and then again by an improvement in 2000-2003. Since 2003, the curve is moving up, which indicates an imbalance, because job vacancies grow while there was no reduction in unemployment. The position of 2004 is only an estimate because we used only data of vacancies and the unemployed from January, February and March. This curve was plotted to illustrate both the process of harmonizing the vacancies with the unemployment in our country and the importance of using this tool to analyze the performance of labor market institutions.

\[ \text{Since 2004 the Beveridge curve shifts to the left, this process being accelerated from 2007 due to overheating and labor migration. The unemployment reduction to a minimum of 3.7\% and the increasing vacancies have come up until October 2008 after which the vacancy rate dropped to a level of 0.2\%; the Beveridge curve shift to the lower right shows the installation of the recession in the Romanian economy (Figure 11).} \]

\[ \begin{align*}
\text{To highlight the stability and intensity of the link between the vacancy rate and the unemployment rate in Romania, we estimated the Beveridge curve during the 2004-2009:6 period using monthly data series provided by the National Institute of Statistics. In order to deduct the econometric model of the Beveridge curve we used the labor demand function constructed in relation to the number of unemployed (U) and vacancies (V):} \\
\text{C_L = f(U; V), } \frac{dC_L}{dU} > 0; \frac{dC_L}{dV} > 0; \\
\text{where C_L is the employment number.} \\
\text{This function highlights the degree of consistency between the unemployed and employers seeking workers for certain industries. This function can be written as a Cobb-Douglass function, where the A parameter express the degree of consistency, described above:} \\
C_L = A \times (U)^a \times (V)^{1-a} \quad (2) \\
\text{We divide equation (2) to the labor force (L):} 
\end{align*} \]
Equation (3) can be written as:
\[ \log(c_L) = a + \alpha \times \log(u) + (1-\alpha)\log(v). \]  

If we assume a constant ratio between the number of employment and labor supply, then an inverse relationship between unemployment rate \( u \) and vacancy rate \( v \) can be obtained:
\[ \log(u) = \alpha_0 + \alpha_1 \times \log(v) + \varepsilon. \]  

Since the data used are monthly series we removed seasonal factors using Census X12 procedure (Figure 12). During 2004:1 - 2009:6, the unemployment rate registered an average of 5.27%, a maximum of 7.34% in March 2004 and a minimum of 3.84% in April of 2008. The average of the 66 observations of vacancy rate was 0.41%, the maximum being 0.59% in January 2007, while the minimum was of 0.21% in December 2008.

Graphical analysis of the two time series shows evidence of a specific trend, indicating the possible absence of the stationary phenomenon. Stationary tests were relevant for all variables used in the model. We have built a VAR in which the number of lags was selected using selection tests: Akaike, Schwarz and Hannan-Quinn. According to the latest two tests, the minimum values correspond to a single lag VAR, while the minimum value of Akaike test is recorded for the third lag of the VAR model. To choose the optimal lag we used the lag exclusion test.

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**Figure 11. Beveridge curve for Romania (2004 – 2009:6)**

**Figure 12. Seasonally adjusted rates of unemployment and the number of vacancies**
In these conditions, we chose the three lags VAR model of the variables included, which has the following form:

\[
d\log(u) = 0.49d\log(u-1) + 0.34d\log(u-2) - 0.005d\log(u-3) - 0.05d\log(v-1) - 0.05d\log(v-2) - 0.06d\log(v-3)
\]

\[
[3.93967] \quad [2.54150] \quad [-0.03803] \quad [-2.91712] \quad [-2.35447] \quad [-3.17394]
\]

The three lags VAR model has a single insignificant coefficient different from zero, as shown in the t statistic analysis included in brackets, suggesting a good representation of the relationship between unemployment and vacancy rates. According to the VAR model, an increase of 1 percentage point in the unemployment change in the earlier period will reflect in an increase by 0.49 percentage points to the current change in unemployment, which is evidence of persistence of this variable. Impact on current change in the unemployment rate decreases with time, and if change is delayed by three months the influence is statistically insignificant. The relationship between the first difference of unemployment rate \(u\) and the differences delayed by one, two or three months of vacancy rate \(v\) is negative and statistically significant, which confirms the inverse relationship between the two variables. Thus, an increase of \(v\) variation delayed by one lag with 1 p.p. is reflected in a reduction of 0.05 percentage points change in the unemployment rate. VAR model interpretations remain valid if the assumptions of stability and stationarity hypotheses are accepted. On this basis the impulse-response functions and the decomposition of the variation of the dependent variable can be constructed.

The VAR model is considered to be stable if all roots, in absolute value, are lower than one. Figure 13 shows that all the polynomial roots are inside the circle of radius 1, which validates the model stability.

![Inverse Roots of AR Characteristic Polynomial](image)

**Figure 13. VAR stability tests**

To highlight the presence/absence of the error autocorrelation we used the Portmanteau Tests for Autocorrelations and Residual Serial Correlation LM Tests. Applying this test for lags greater than the VAR lag confirms the absence of error autocorrelation, the probability associated with each lag is higher than the 5% critical value.

**Conclusions**

- There are important deficits on the Romanian labor market. During 2005-2008 these deficits increased. The most important of them are in public administration, and education.
- On regions, the most important deficits are in Bucharest-Ilfov (the richest) and North-East (the poorest).
- On occupation groups, the biggest deficit is for specialists with intellectual and scientific occupations.
• There is also an increasing trend for labor market deficits on regional level. The most important regional deficits are in: North-East, West and Bucharest-Ilfov.
• On regions the most important deficits are for farmers and skilled workers in agriculture, forestry and fishery in Bucharest-Ilfov (gravitational effect) and South-West: specialists with intellectual and scientific occupations: West, and Bucharest-Ilfov; workers for maintenance and adjustment: North-East.
• Beveridge curve construction for Romania indicate some functional abnormalities of the labor market, which manifests on different time intervals 1991-2004, 2004-2009 respectively.
• If the date series on vacancies rate and unemployment rate are seasonally adjusted, a consistent VAR econometric model can be build to estimate the Beveridge curve for Romania.

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Rothman, Ph., „Further evidence on the asymmetric behaviour of unemployment rates over the business cycle”, Journal of Macroeconomics, 13:2, 1991
Abstract. A well functioning labour market is a catalytic tool for economic and social cohesion because it links different good markets and generate the necessary incomes to sustain peoples for participating to goods markets. Furthermore labour market put people together for working and for cooperation. In this regard labour market has a huge potential for people inclusion in social and economic groups. There are no doubts that a large rate of unemployment often generate many exclusion phenomena. Starting with this kind of reasons the authors tried to identify an important characteristic of functioning state for Romanian labour market and to correlate this state with the degree of economic and social cohesion. To identify the behavioural structure of Romanian population we designed a national survey. Once identified this structure we can determine the contribution of behavioural types regards labour market to Romanian the economic and social cohesion state.

Keywords: behavioural structure; regional profile of economic and social cohesion.

JEL Codes: J10, J17.
REL Codes: 12B, 12I.

1. The theoretical framework of defining types of behaviour

Recently, the interest in the study of human values shared by different social groups and individuals has increased enormously both in Europe and worldwide; there are many surveys that address values issues and the way they structure behaviors: World/European Values Survey – WVS/EVS, European Social Survey – ESS, International Social Survey Program – ISSP, European Quality of Life Survey – EQLS New Democracy Barometer – NDB, International Comparative Political Parties Project, Euro barometer, Programme for International Student Assessment – PISA.

Literature presents the axiological system as the basis of the attitudinal behavior. Parsons (1937) defined values as the ultimate drive of the actions taken by individuals and collectivities, as defining elements for social life. Kluckhohn (1951) emphasized the values’ power of influence on the ways of selection of the action means and goals available. The attitudes refer rather to specific objects and situations, while the values represent guidelines associated to some more general classes of objects and situations (Hofstede, 1980, Schwartz 1999, Ester and others, 2006). Beyond the diversity of opinions on the role the values have in defining the types of behavior, there can be revealed four major models that represent the basis of underlaying the quantitative methodology of our study:
The theory of the basic human values

The crucial aspect that makes a distinction between different types of values is the motivational typology of the goals that people have during their lifetime. Shalom H. Schwartz extracted a set of ten basic motivational values, yet comprehensive, derived from three universal requirements of the human condition:

- the needs of the individuals as biological organisms;
- the need to coordinate the social interaction;
- the need of the groups to survive and live on welfare.

When choosing these ten basic values there were taken into account the essential values recognized by the worldwide existing cultures. Each of these basic values can be characterized by describing its central motivational goal (Table 1).

<table>
<thead>
<tr>
<th>Behavior values and ITS specific items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
</tr>
<tr>
<td>Social status and prestige, control or dominance over people and resources (social power, authority, wealth, preserving one’s own public image)</td>
</tr>
<tr>
<td>Achievement</td>
</tr>
<tr>
<td>Personal success achieved by proving one’s competence in line with the social standards (successful man, capable, ambitious, influential)</td>
</tr>
<tr>
<td>Hedonism</td>
</tr>
<tr>
<td>Search and gratification for one’s own pleasure (pleasure, enjoyment of life, self-indulgence)</td>
</tr>
<tr>
<td>Stimulation</td>
</tr>
<tr>
<td>Emotion, novelty, life challenge (dare, diversified and exciting life)</td>
</tr>
<tr>
<td>Self-direction</td>
</tr>
<tr>
<td>Independent thought and action, creation, exploration (creativity, freedom, independent, curious, choosing one’s own goals)</td>
</tr>
<tr>
<td>Universalism</td>
</tr>
<tr>
<td>Understanding, appreciation, tolerance and protection of nature and the welfare of all people (liberality, wisdom, social justice, equality, world peace, a beautiful world, unity with nature, protecting the environment)</td>
</tr>
<tr>
<td>Benevolence</td>
</tr>
<tr>
<td>Preserving and enhancing the welfare of the people the person is in frequent personal contact with (helpful, honest, forgiving, loyal, responsible)</td>
</tr>
<tr>
<td>Tradition</td>
</tr>
<tr>
<td>Respect, commitment and acceptance of the customs and ideas of the traditional culture or religious ideas (humble, accepts his/her share of life, devout, respect for tradition, moderate)</td>
</tr>
<tr>
<td>Conformity</td>
</tr>
<tr>
<td>Restraint from actions, dispositions or impulses that might offend or hurt others or might violate the social rules or expectations (polite, obedient, self-discipline, respect for parents and elders)</td>
</tr>
<tr>
<td>Security</td>
</tr>
<tr>
<td>Safety, harmony and stability of the society, of the relationships and the self (family security, national security, social order, cleanliness, favours reciprocity)</td>
</tr>
</tbody>
</table>

Schwartz defines the ten values as universal and exhaustive. Then, he notes that they are grouped by two polar axes, and have something that the Israeli psychosociologist calls “high nature value orientations” at their two extremes. The first axis opposes openness to change (explaining the self-direction, the stimulation and a part of the hedonism) and conservation (which groups the traditionalism, the security and the conformity). The second axis contrasts self-enhancement (the power, the achievement and a part of the hedonism) with self-transcendence (the universalism and the benevolence). The author also explains the dynamics of the relationship between the ten variables. For example, the actions determined by the basic values have psychological, practical and social consequences and they may come to loggerheads or be congruent with the actions that are expressed by other values of the ten
given. However, the attempt to express the achievement values can be compatible, for example, with the attempt to express the power values.

**The marginal theory of time distribution**

In the approach proposed by Weber, the worker’s decision to increase – more or less – his effort in order to further increase his/her revenue is modeled by the action of an attitudinal complex whose ethical-religious original determination underlay’s the crystallization of a “modern” or a “traditionalist” behavioral profile. The traditionalist economic behavior, which prefers less work rather than a perquisite, is a brake on the labor productivity growth. A more pragmatic approach to such an economic behavior is the “cost – benefit” analysis, made from a marginal perspective. Thus, if we consider cost as the working time spent by the employee, it will correspond with a benefit represented by the salary obtained during this time. On the other hand, the employee’s leisure time can be considered a benefit whose cost is the salary that could have been obtained by using this spare time as working time. The two terms of the relation are under the influence of some factors acting in opposite directions. These factors produce the substitution effect and the income effect – as they are called by the marginal theory of the trader’s time distribution.

Wage growth increases the cost of leisure time, thereby leading the individual – by the effect of substitution – to work more and make use of less leisure. The income effect works in reverse as opposed to the substitution effect, which greatly simplified by an explanatory scheme would translate as: wage growth brings the individual more wealth, the new statute making him request more leisure time, which is considered a superior good and the consumption of which becomes necessary when – according to the Maslow’s pyramid model of needs – the consumption of the other inferior goods was satisfied by the level of wealth attained. If the substitution effect is dominant, the wage growth leads to an increased labor supply. If, however, the income effect is dominant, the employment rate will be an inverse ratio to the wage level.

**Geert Hofstede’s theory and the cultural dimensions**

Hofstede is interested in the comparative study of cultures in the centre of which he places values. His early studies were focused on the values of the IBM employees. Hofstede noted that, regardless the characteristics of the individuals he examined, some value patterns tend to reproduce themselves in a similar way according to the nationality. Hence the idea of comparative studying cultures rather than individuals. He identifies five universal value orientations, which can be studied in any society; he also aims at globally characterizing each country depending on its position in the five dimensions identified. Initially, the factorial analysis of the resulting indices allowed Hofstede to identify four value dimensions and then (in 2001) a fifth one, around which the Dutch researcher develops his theory of values.

The first value dimension Power Distance 12, is a measure of the inequality representations in the originating society of the respondents. We are talking about a polar dimension, whose lower extreme value orientation goes towards equality and its upper extreme is inequality-oriented. Those cultures with a short “distance to power” are characterized by the need to continuously legitimate power. There has to be a permanent relation between the moral and/or legal bases of the power actions. In such societies, parents tend to treat their children as being equal; the elderly are not a priori considered superior to younger people; education focuses on the student and not the teacher, organizations are developed horizontally rather than hierarchically; governance is done democratically, not autocratically; the income inequality is rather low; corruption is a rare phenomenon; etc.

The second dimension, identified by Hofstede, Uncertainty avoidance, involves the individuals’ target to take on and accept the risks or avoid them. However, there is taken into consideration primarily the extent to which uncertainty is a source of pressure on the daily life. The societies that chalk up high scores on this dimension have a low tolerance to
uncertainty, respond more emotionally, and are normative. On the other hand, in the societies where uncertainty is accepted as part of the everyday life, individuals are more tolerant, more open to different points of view, they develop less formal rules and more flexible ones.

The third dimension, *Individualism vs. Collectivism*, contrasts the individual-centered orientation with the collectivity-centered one. In the individualistic societies, each person is responsible for his/her own welfare. In the collectivist societies, the emphasis is laid on group integration, on defining and treating individuals according to their group membership and not their own individuality, education means learning how to do things (on the other hand, in the individualistic societies, the purpose of education is to learn how to learn by developing the ability to adapt to a wider variety of contingencies).

The fourth dimension, *Masculinity versus Feminity*, involves the value orientation towards equality and, respectively, gender inequality. In the "masculine" societies, men and women fulfill different roles: the presence on the labor market (men have dominant roles, the cultural model requiring them to work, while women can build a career, but their social recognition does not depend on it), in politics, in children’s education (fathers are in charge of facts and mothers are in charge of feelings and emotions).

The last value dimension, the fifth one, *Long Term vs. Short Term Orientation*, focuses on the distinction between expecting gratifications and making long-term action plans, respectively short-term ones. Short-term-oriented societies are focused on tolerance and respect, share values and attitudes indicating a clear, normative line between good and evil; traditions are sacred; actions are initiated without following a plan. By contrast, in long-term-oriented societies, children must learn the spirit of economy, good and evil are defined according to circumstances and traditions are also adaptable.

**The Ronald Inglehart theory regarding the change of value systems**

Ronald Inglehart is the one that proposed the most influential theory of value changes, theory aimed at explaining the proliferation of value orientations towards post-materialism – seen as the central value of postmodernism. The two major assumptions on which Inglehart bases his explanation, assumptions that are directly linked to Maslow's pyramid of needs, are the following:

The rarity hypothesis, hypothesis stating that individuals' preferences reflect the socio-economic environment in which they live. Those who live in rich societies will be less concerned with satisfying their lower level of needs and rather focused on self-enhancement and self-expression. Therefore, their value orientations will be post-materialistic.

The socialization hypothesis assumes that the value orientations will strongly depend on the living conditions that the individuals have during childhood and adolescence. This way, the inter-generational differences, caused by the wealth experienced in pre-adulthood, can be explained. Inglehart (1971) was to predict a „silent revolution” of changing value orientations from materialism to post-materialism. He was mostly concerned with the political implications of the value changes. The reduced orientation to post-materialist values instead of materialistic ones was to be reflected in a greater support for leftist ideas, a poorer political participation, a greater interest in civic participation, environmental concerns etc.

2. Empirical analysis

The aim of the research

The aim of this questionnaire-based survey is to identify the structure of the behavioral types for the Romanian population. The survey will be nationally representative for the 18-year-old population and above.
The method used

In order to collect information there will be used a standardized questionnaire. Face to face interviews will be conducted at the household level. The main dimensions labour market section of our investigation is summarised in the table below:

Table 2
Labour market items and socio-demographic variables of our investigations

<table>
<thead>
<tr>
<th>Participation on the labor market</th>
<th>Identifying the respondent's occupational status.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The typology of the respondent’s job position.</td>
</tr>
<tr>
<td></td>
<td>The level of education needed for that position.</td>
</tr>
<tr>
<td></td>
<td>The main branch of activity of the institution the respondent works for.</td>
</tr>
<tr>
<td></td>
<td>Expressing the extent to which a series of statements about the workplace suit or not to the respondents.</td>
</tr>
<tr>
<td></td>
<td>Identifying the main reason why the respondents have a job at the time of the investigation.</td>
</tr>
<tr>
<td></td>
<td>Identifying the main reason why the respondents do not have a job at the time of the investigation.</td>
</tr>
<tr>
<td></td>
<td>Willingness to have a job or not.</td>
</tr>
<tr>
<td></td>
<td>Motivating this desire.</td>
</tr>
<tr>
<td></td>
<td>Nominating some aspects that the respondents without a current job consider to be important at the workplace.</td>
</tr>
<tr>
<td></td>
<td>The net salary that the respondents think they deserve considering their professional training.</td>
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<tr>
<td></td>
<td>The net salary that the respondents think they deserve irrespective of their professional training.</td>
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<tr>
<td></td>
<td>The role of education in influencing a person's life.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Socio-demographic variables</th>
<th>Sex.</th>
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<tbody>
<tr>
<td></td>
<td>The age of the respondent.</td>
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<td></td>
<td>Marital status.</td>
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<tr>
<td></td>
<td>Ethnicity.</td>
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<td></td>
<td>Residence (urban/rural).</td>
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<tr>
<td></td>
<td>County.</td>
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<td></td>
<td>The last school the respondent graduated from.</td>
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<tr>
<td></td>
<td>The last school the respondent’s spouse/partner graduated from.</td>
</tr>
<tr>
<td></td>
<td>The respondent’s employment status.</td>
</tr>
<tr>
<td></td>
<td>The respondent’s spouse/partner employment status.</td>
</tr>
<tr>
<td></td>
<td>The main income provider of the family.</td>
</tr>
<tr>
<td></td>
<td>The family's net income in the previous month.</td>
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</table>

In order to conduct the survey, there has been selected a national sample of 1,073 people from all developing regions of Romania. The investigation is ongoing and the preliminary processing of the information collected so far seems to confirm the relevance of the studying methodology.

For this paper we selected the questions with direct relevance for labour market impact on the economic and social cohesion.

1. How important are for your life:
   a) family; b) jobs; c) relations with the friends; d) social and cultural life; e) religious life of your community; f) political life of your community.
We find that for Romanian people jobs is the second very important thing of their life after family (62% for alternative very important, comparative to 94% in the case of family option). But is very interesting to remark that together the alternative very important and important enough mark a better score for job than for family. That means very well attitude for labour and a possible an important support of labour market for economic and social cohesion.

An important question for our research purpose is about the role of women and men in the family. Answers to this question could indicate possible gender discrepancies in attitudes toward work.

2. Indicate the extent to which you agree or disagree with some statements about men and women and their role within the family:

a) a woman should be prepared to give up work to care for family; b) men should share housework with women; c) when there is a shortage of jobs in the labor market, men should be given priority in filling a job; d) the husband should be the principal bearer of the family income; e) women should have a job only until the birth of first child; f) a woman who stays home and cares for her family is as fulfilled as one who has a job; g) a woman having a job has adverse effects on growth and education of children; h) in a family, the mother is the main person responsible for the growth and care of child.

Figure 1. The answers distributions for question 1
We find a gender difference in the participation to labour market favourable to men (53% for cumulative of total agreement and some agreement for alternative d): the husband should be the principal bearer of the family income. Furthermore Romanian people do not consider that the role of women in the family is for household works, especially for children care (only 40% for cumulative of total agreement and some agreement). We may also say that this distribution of responses is conducive to modern attitudes towards the labour market.

A very interesting part of our questionnaire is about people attitudes in that concerning their jobs. We introduce a great question structured in four parts for processing.

3. Below you find a few statements about what people think about work. You agree or not?

1. a) the current job is most important thing in my life; b) I work, but I don not sacrifice my spare time to fulfill my work responsibility; my current work is just a place where I come, I do my job and from where I go home; d) for me it is very important to go after a day’s work with the consciousness of a job well done.

In the first part of the question processing we find (Figure 3) a positive attitude about current job (62% cumulative of very much and largely). It seems a good correlation with question 1. But we think that there is an overestimation for the score (83% cumulative of very much and largely) of alternative d) for me it is very important to go after a day’s work with the consciousness of a job well done.
In the second part of this question we tested the attitudes about job team and the colleagues.

II. a) my success at work is also due to my working colleagues; b) if a colleague is wronged I intervene to assist; c) I think it is better to respect the hierarchy at work; d) when I am given a task I respect it regardless of whether or not I agree with it.

Romanian people seem to be in excellent relationships with their colleagues (over 68% cumulative of very much and largely for alternatives a) and b)). On the other hand Romanian people think it is better to respect the hierarchy at work (82% cumulative of very much and largely) and respect the job task regardless of whether or not they agree with them (79% cumulative of very much and largely). We think there is an over evaluation of themselves to display a positive image for agents survey.

In the third part of this question the respondents tell about their behaviour on the current jobs.

III. a) I work well whether or not I am hierarchically controlled by my boss; b) when I do not get any task, I’m busy with activities related to my personal interests; c) sometimes I postpone the task fulfilment from job in order to deal with some personal interests; d) my colleagues and superiors appreciate me because I do good job at work.
Romania in the European Union. The Quality of integration. Structural and Regional Disparities

Figure 5. Answers distribution for question 3.III

Also, on this occasion respondents assessed over own image (84% cumulative of very much and largely for alternative a): I work well whether or not I am hierarchically controlled by my boss). Of course the respondents do not be busy with activities related to their personal interests (59% cumulative of small extent and very little/not at all) and do not postpone the task fulfilment from job in order to deal with some personal interests (78% cumulative of small extent and very little/not at all). In this circumstances it is normal that the respondents to be appreciated by colleagues and superiors (84% cumulative of very much and largely). Simply, we think that respondents exaggerate with their very well answers.

In the last part of question 3 we test the attitude of respondents about job position and behaviour.

IV. a) I like to strive for the best to the best performance in fulfilling responsibilities, even if it affect my spare time; b) colleagues and superiors ask me for advice when encountering difficulties at work; c) I am concerned more about my personal success that the success of whole team I belong at work; d) I offer to help my colleagues when I see they need help.

Figure 6. Answers distribution for question 3.IV

This time the idyllic image of himself becomes hyperbolic: over 79% of respondents like to strive for the best to the best performance in fulfilling responsibilities, even if it affect their spare time; for about 70% colleagues and superiors ask them for advice when encountering difficulties at work; and 85% of them are ready to offer to help their colleagues when they see they need help. We think that Romanians overestimate themselves. They have a very good perception about their role from to the jobs. But really the job environment is not quite well that it appear.
Considering the good image they have of themselves at work is natural that Romanians aspirations to be for high salary, take into account whether (Figure 7) or not (Figure 8) by professional training level.

4. What is the net wage (in hand) you think you deserve considering your professional training, whether or not you have a job now and whether or not you want a job?

The majority of respondents (44.3%) wants a salary over the average level, but a comparative shere (43.9%) seems to be content with a salary between minimum and average level.

![Figure 7. Answers distribution for question 4](image)

But we find a different structure of answers when people do not take into account their professional training level.

5. What is the net wage (in hand) that you wish, not taking into account your professional training, whether or not you have a job now and whether or not you want a job?

![Figure 8. Answers distribution for question 5](image)
This time 56.2% of respondents want a salary over average level and only 32.9% of them are content with a salary between minimum and average level.

Conclusions
Romanian people seem to have a positive attitude about work, but there is a gender difference favourable to men in the attitudes about participation to labour market;
The respondents have too very good perception about their role from to the jobs;
We think that these very positive image of themselves are not in concordance with the reality of labour market environment and even so with the quality of Romanian made goods;
In general, Romanians wage claims are exaggerated considering the level of training, whether or not;
In these circumstances, Romanian labour market fails to adequately support for an appropriate economic and social cohesion.

Acknowledgements
Our paper is a part of an a great study research „Economic and social disparities diminishing – an essential condition for economic and social cohesion in Romania. The quality of EU integration.”

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1 An research contract 91-050/2007, PN II, Partnerships in complex fields.
Abstract. The rural areas in Romania are in a process of transformation due to post-accession programs, but also as a result of changes in the behavior of the rural population in the process of European integration. The requirements of the rural development refer to the reduction of the economic and social development disparities between Romania and the other Member States of the European Union. The absorption of funds for rural development is a viable solution for the achievement of these objectives. However, in the period 2007-2010 the rate of absorption of these funds was lagging behind the other EU countries. The paper focuses on the analysis of economic, social and educational factors that influence the capacity of the rural population to absorb the EU funds. The main findings rely on the estimation of the correlation between the distribution of applied/financed projects in the period 2007-2009 and the characteristics of the rural area, by development regions in Romania. The distribution of selected applications at regional NUTS3 level reveals that poorer regions with high employment in agriculture have no advantage in the access to development funds. The most important determinant of the absorption capacity is the size of the agricultural area, while the employment in agriculture has rather a negative influence. Under these terms, the improvement of the absorption degree, especially on a short term, can be made particularly based on the increase in efficiency of the institutions involved in implementing the development programs.

Keywords: rural development; regional development; financial support; absorption capacity.

JEL Codes: R12, R58, O13.
REL Codes: 16F, 16H, 15B.
1. Introduction

The process of Romania’s accession to the European Union determined major transformations of the economy and society by accelerating the transition to a functional market economy, by opening to the international markets through gradual liberalization of the movement of goods, persons, capital and services, by business development within a legal and institutional framework closer to the European model. An important contribution to these changes had the pre-accession and post-accession programs supported by European funds and national public sources.

The European Union established unitary strategic guidelines for all Member States, taking in consideration the structural and economic gaps between the old Member States (UE-15) and the new ones (UE-10 plus Romania and Bulgaria), which go through a transition period toward the complete integration in the Community structures.

Romania has benefited from a large amount of money for investment in agriculture and rural areas, provided by the Community by means of financial instruments which allowed non-refundable budgetary allocations. The Special Pre-accession Program for Agriculture and Rural Development (SAPARD) provided non-refundable financial contributions for Romania reaching the amount of 1,146.7 million euro for the period 2000-2006, while additional funds were allocated from the national budget and the private contribution of the beneficiaries.

After Romania’s accession to the EU, the mechanisms of the Common Agricultural Policy (CAP) started to function in a combination with other policies necessary for the structural adjustment to the Community requirements, while considering the national characteristics. But the Romanian agriculture is still lagging behind the EU objectives regarding the cost competitiveness, the chain functionality and the development of services in rural areas (Zahiu, 2006, pp.186-198).

The Common Agricultural Policy relies on two pillars: pillar 1, which refers to the market support aiming at the food security and food safety for the population, regulation of demand-supply mechanisms, increase and stability of the agricultural income; pillar 2, which includes measures regarding the restructuring and modernization of agriculture and agri-food sector related to the economic development of the rural areas, sustainable use of natural resources, economic and social cohesion and wellbeing of the rural inhabitants.

The new CAP reform to be applied after 2013 will change the present mechanisms by the shift of budget expenditures toward rural development, with the purpose to increase investments in alternative economic activities. The projects will have objectives regarding complex economic interests of the rural communities, while aiming at the creation of processing capacities and association forms for the common commercialization of agri-food products. If the Community funds shifts from the first to the second pillar, the financial allocations for the Romanian agriculture should increase up to the level already reached by other EU Member States (Zahiu, 2010, pp.15-18).

The implementation of the CAP requirements in Romania is done by the Ministry of Agriculture and Rural Development, together with its territorial structures, and the management of funds for agriculture is accomplished by the Paying and Intervention Agency for Agriculture (PIAA) and the Paying Agency for Rural Development and Fishery (PARDF). The financial support from the European Agricultural Fund for Rural Development (EAFRD) focuses on both rural development and measures for the protection of environment.

2. Post-accession measures to support the development of rural areas

The development of the rural areas is the general objective of the National Program for Rural Development (NRDP, 2009), but it is also an explicit aim of the market policy measures in agriculture and of other measures provided in post-accession operational programs launched in the period 2007-2013. The rural areas are in a process of transformation not only
due to post-accession programs, but also as a result of changes in the behavior of the rural population in the new context. The gradual assimilation of the urban consumption model (Toma, 2009, pp. 83-95), the higher aspiration level of the rural population, the international migration of labor force etc. are factors with effects on the rural milieu beside the impact of programmatic measures.

The economic crisis had strong negative effects in Romania in 2009 and 2010 and is a factor that reduces the capacity of co-financing European programs from national public and private sources, in accordance with the decreasing income of the state budget and of the potential beneficiary economic agents. Also there is reduction of the economic agents’ absorption capacity of the financial allocation for market oriented activities, because of the decrease of the internal and external demand for goods. The crisis induces distortions to the absorption capacity and also to expected results of financial support due to its deep impact and high uncertainty about the recovery process.

Until 2010 the programs supported by European funds have done important steps in the institutional building, the launching of measures for the potential beneficiaries, the selection of applications, the conclusion of contracts and also the corresponding payments. However there are significant delays in the absorption of the Community funds for agriculture and the rural areas.

The first NRDP measure launched in 2007 was 211 – Support for the less favored mountain areas, followed by other measures in March 2008. At the end of 2009, in the overwhelming majority of cases only the selection of applications and partly allocation of resources has been achieved. The behavior of potential beneficiaries is however revealed by the distribution of applications by measures and the proportion of those eligible. A high number of beneficiaries mean a high degree of involvement of the rural population in these programs and their availability to absorb the allocated funds.

In the period 2008-2009, the highest attractiveness had the measure 322 – Village renewal and development. The exceptionally high number of applications indicates the acute need for the modernization of villages, but also the characteristics of the applicants represented by the local administrations, which are better informed, have higher motivation, initiative and also a better capacity to understand the requirements of the financing procedures compared to other physical or legal economic agents. The other NPRD measures, which require entrepreneurial skills, initiative in non-agricultural activities, co-operation capacity within professional and local groups, are less accessed, while the value of the contracts concluded until October 2009 was under 10% from the total amount allocated for the period 2007-2013.

Within the NRDP, Axis 1 „Improving the competitiveness of the agricultural and forestry sector” benefits from the most important support from the European Union. From the 7.5 billion euro allocated by the European Union until 2013 for rural development, 45% (3.25 billion euro) are provided for the financing of the competitiveness of the agricultural and forestry sector. The EAFRD non-refundable support for this axis is 80% of the public support and refers to the measures (launched until October 2009): 112 – Setting up of young farmers; 121 – Modernization of agricultural holdings; 123 – Adding value to agricultural and forestry products; 141 – Supporting semi-subsistence agricultural holdings; 142 – Setting up of producer groups; 143 – Providing farm advisory and extension services.

The measures within the Axis 2 financed through PIAA, which support the unfavored areas and do the agro-environment payments reveal a much higher accession rate compared to the measures mentioned above. In the period 2007-2009, within the Axis 2 financial resources were allocated for the sustainable use of agricultural land. The financial sources are EAFRD and the national budget.

The NRDP measures of Axis 3 aim at involving the available natural resources in order to develop enterprises in the rural area, but there are also measures to encourage initiatives regarding the environment, as well as to provide alternative opportunities for the
employment in the rural area. This NRDP axis has been developed mainly for the following purposes: to reduce the poverty of people employed in agriculture; to consolidate the organization of the economic activity based on the principles of a modern (market) economy; to pass over the inherent inefficiency of the subsistence agricultural system specific to the traditional economy; to develop entrepreneurial initiatives and increase the economic competitiveness in the rural area; to develop the infrastructure in the rural area by building all types of networks, not only those absolutely necessary in agricultural processes (such as roads or irrigation systems), in order to allow a better connection with the whole economic system.

The LEADER program (Axis 4) represents a special component of the NRDP, since it aims at creating and executing the strategies and projects of the sustainable rural development. Romania is implementing the LEADER program in the period 2007-2013. For the preparation of the LEADER implementation have been pre-selected 120 sub-regions from 37 counties. Their representatives were trained for the establishment of partnerships, the diagnosis, the strategy of local development, the territorial action plan etc.

For the estimation of structural changes in the Romanian economy, we have to wait until the projects reach a critical mass and have results after implementation. But for the moment, the number of selected projects, which have already proved to be eligible and feasible, is a suitable indicator of the progress in the direction of the improvement of life quality in the rural area. The evolution of the absorption degree is also an excellent indicator for the estimation of the development potential of rural communities, by development regions. Our further analysis will be carried on in this direction.

3. Main factors of the capacity to absorb funds for the development in rural areas

The requirements of the rural development refer to the reduction as soon as possible of the economic and social development disparities between Romania and the other Member States of the European Union. The absorption of funds for rural development is a viable solution for the achievement of these objectives. The absorption capacity depends mainly on the endowment with natural and human resources, the present level of development, the capacity and availability of the population to be involved in market oriented activities and also the capacity of the state institutions to support actively this process.

Since in Romania the available data regarding the allocation of funds for development include in fact only three years (2008-2010), we do not have time series to see the specific importance of the influence factors of absorption capacity. Therefore we considered that the regional analysis of these factors is relevant, since they are unequally distributed in the territory. The most recent available data at the time of the analysis were for the year 2007. These data are relevant because they show the situation in Romania in the year of its accession to the EU and explain to a great extent the implementation rate of the development programs until present.

3.1. The human resources

Employment and unemployment

The dimension, structure and quality of the human resources in Romania, as well as those specific in the rural area, must become compatible with the terms of the Europe 2020 strategy. The strategic objectives refer to employment and education as essential elements of the transformations in accordance with the sustainable development. When we estimate the absorption capacity for the European funds induced by the human resources, we need to take into account the following reference objectives: 74% of the population of 20-64 years should have a work place; the school abandon should be under 10% and at least 40% of the young generation should have higher education.
In the Romanian economy, after the quantitative and structural breakdown of the agricultural and industrial sector in the '90s, the decreasing capacity for technological competitiveness became a specific problem. The absorption of the European funds, alongside of the national effort, should lead to the improvement of this deficit and to a higher capacity of people to compete on the labor market and the market for goods and services. The allocation of the financial support is the first strategic step. For the increase of the capacity of human resources to contribute to the amplification of the functional character of the market by means of post-accession measures in the period 2007-2013, two funds have been established: the European Fund for Regional Development (EFRD) and the European Social Fund (ESF) with a total value of 310 billion euro (30% of the EU budget).

The dimension and quality of human resources in the rural area are the interest area for the NRDP 2007-2013 and of the Sectoral Operational Program – Development of Human Resources (SOP DHR) 2007-2013. The complementarity between NRDP and SOP DHR includes activities related to the development of human resources. There is also complementarity with the Sectoral Operational Program for Environment, which comprises within its Axis 1 „Education and professional training for economic growth and development of knowledge society” the program about education for the environment.

Romania’s population is decreasing continuously, like in the majority of the EU Member States. Starting with 1990, the share of the age group up to 14 years has decreased, while the age group over 65% had an increasing share. The ageing population exerts a negative influence on the whole economy, because the increasing number of inactive population is worsening the imbalance of the social security system.

After 2007, there is also a negative net migration flow towards the developed economies, especially the economies of the EU Member States. The accession year 2007 was the only one in the period of analysis when a positive net migration flow was registered. This can be explained by the higher attractiveness of a new EU Member State.

The statistical values about migration (registration of residence changes only) are considered irrelevant, because they do not match with the official declaration of the government which evaluates the labor force abroad to 2.4-3.7 million persons. Why do we discuss this aspect? If these persons return home, they can substantially increase the absorption capacity for European funds, including the funds for agriculture. We could assist at authentic engineering and consulting processes with zero costs for Romania. The functional compatibility with impact on development and improvement of the competitiveness happened in the same way in Greece and Spain in the period 1950-1970.

The specific objectives for 2007-2013 focus on the creation and preservation of the work places in the rural area, creation of services for the rural population, which will allow a better allocation of time for education, increase of competitiveness and adaptability to new activities in agriculture. Last but not least, such changes in the rural space will be accompanied by higher household income and a better life quality.

The number of employed persons in the rural area decreased significantly in the period 2004-2008 compared to 2002-2004, mainly due to the reduction of employment in agriculture. This process has two basic causes: increase of rural-urban migration of the active population and the international emigration of the labor force.

The number of employed persons decreased more in rural than in urban areas. A non-typical phenomenon was in 2008, when the number of employed persons at country level and in the urban area increased (+16 thou persons, respectively +29 thou persons), while in the rural areas it decreased (-13 thou persons), which demonstrates the unsustainable character of the economic development in the rural area. Agriculture has gradually lost in 2000-2008 the label of employment buffer that it had before (in the period 1990-2000 this activity absorbed the surplus of labor force resulting from the restructuring of other activities of the national economy). However in the context of the crisis that became visible in Romania in 2009, the trend of diminishing employment in agriculture was interrupted. According to the data from
the National Institute for Statistics, in 2010 the employment rate had a slight increase especially in three development regions (South-West Oltenia, South Muntenia and North-East), where the size of the agricultural sector is large, as well as in Bucharest, where the service sector is absorbing the labor force.

The activity and employment rates were higher in the rural area compared to the urban area in the period 2004-2009 (Table 1). The employment rates increased in the period 2005-2008 during the sustained economic growth that reached yearly 6.5% in average.

<table>
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<tr>
<th>Years</th>
<th>National average</th>
<th>Urban</th>
<th>Rural</th>
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<tbody>
<tr>
<td>2004</td>
<td>57.9</td>
<td>55.9</td>
<td>60.6</td>
</tr>
<tr>
<td>2005</td>
<td>57.7</td>
<td>55.0</td>
<td>61.6</td>
</tr>
<tr>
<td>2006</td>
<td>58.8</td>
<td>57.2</td>
<td>61.1</td>
</tr>
<tr>
<td>2007</td>
<td>58.8</td>
<td>56.8</td>
<td>61.5</td>
</tr>
<tr>
<td>2008</td>
<td>59.0</td>
<td>57.5</td>
<td>61.2</td>
</tr>
<tr>
<td>2009</td>
<td>58.6</td>
<td>57.1</td>
<td>60.7</td>
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The evolution of the ILO unemployment rate shows the reduction of unemployment until 2008, both at the national economy level and in the rural area (Table 2). This evolution can be explained by the strong external migration, but also by the economic growth. The negative impact of the economic crisis has caused the increase of unemployment. The most vulnerable are the young people (Table 3).

<table>
<thead>
<tr>
<th>Years</th>
<th>National average</th>
<th>Urban</th>
<th>Rural</th>
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<tbody>
<tr>
<td>2004</td>
<td>8.0</td>
<td>9.5</td>
<td>6.2</td>
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<tr>
<td>2005</td>
<td>7.2</td>
<td>8.8</td>
<td>5.2</td>
</tr>
<tr>
<td>2006</td>
<td>7.3</td>
<td>8.6</td>
<td>5.6</td>
</tr>
<tr>
<td>2007</td>
<td>6.4</td>
<td>7.7</td>
<td>4.9</td>
</tr>
<tr>
<td>2008</td>
<td>5.8</td>
<td>6.8</td>
<td>4.6</td>
</tr>
<tr>
<td>2009</td>
<td>6.9</td>
<td>8.1</td>
<td>5.4</td>
</tr>
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</table>


Employed and unemployed persons in total population, by age groups, in 2008

<table>
<thead>
<tr>
<th>Age group</th>
<th>Employed</th>
<th>ILO unemployed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban</td>
<td>Rural</td>
</tr>
<tr>
<td>15-24</td>
<td>19.1</td>
<td>32.0</td>
</tr>
<tr>
<td>25-34</td>
<td>76.3</td>
<td>68.5</td>
</tr>
<tr>
<td>35-44</td>
<td>80.5</td>
<td>77.0</td>
</tr>
<tr>
<td>45-54</td>
<td>69.3</td>
<td>73.4</td>
</tr>
<tr>
<td>55-64</td>
<td>31.8</td>
<td>57.4</td>
</tr>
<tr>
<td>over 65</td>
<td>1.8</td>
<td>25.7</td>
</tr>
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</table>

The general objective of the SOPDHR program refers also to the human resources in the rural area, respectively to “the development of the human capital and increase of competitiveness, by means of lifetime learning and correlation with the labor market and the ensurence of better opportunities for participating in a modern, flexible and inclusive market”.

For the achievement of this objective the following are necessary: promotion of the quality of the education system and of the entrepreneurial culture, as well as the insertion of inactive persons in the labor market and the facilitation of the access to education.

The analysis of the labor force and its educational level reveals the persistence of the low rates of participation in education and professional formation for all age groups, especially in the rural area. In addition are the inability of the educational and employment structures to adapt rapidly to the changing needs of the labor market and the inadequate infrastructure for education and initial professional formation, especially in the rural area. The culture that influences a young person that will continue the activity in the same milieu, most of the times in a subsistence farm, is also a strong factor.

The participation to permanent formation is a possible index of the increasing capacity for the absorption of structural funds. Romania has a low rate of participation in the age group 25-64 year, about 1-2%.

Although the population in the rural area has a lower education level, there are two aspects which lead to similarities with the urban area: the descending demographic trend and the increasing capacity in the professional and technical teaching system in the rural area. The estimated decrease of the enrollment in the period 2005-2013 is about 20%. The only process that could balance the negative effects is the ascending trend of the participation to all levels of education.

The social capital

The social dimension of the sustainable development refers to the society’s capacity to preserve the necessary means for the creation and reproduction of wealth. This capacity depends also on a high level of social integration and cohesion and the peoples’ attitude plays a decisive role for their capacity to participate in a common action.

The concept of social capital reveals that the society is more than a sum of individuals (Westlund, 2006). It has a certain degree of identification with forms of government, cultural expression and social behavior, which are indispensable for the existence of a social and economic order. If the social capital is at low level, there is a failure which makes impossible the economic growth, the environment protection and the population’s wellbeing.

In recent times the active participation in community groups has decreased, while those who participate do not take part in organizations which play a role in the creation and preservation of the social capital. Factors that contributed to this situation are the television, the changed role of women in society, the mobility of persons, but also new values and behavior related to the civic commitment (Putnam, 2000).

The characteristics of the social capital in Romania can be revealed by means of studies/surveys containing questions/indicators relevant for the social capital. These informations allow the identification of certain aspects of social behavior in 2007. These characteristics have strong cultural roots and change substantially only in the longer run, thus we consider them still valid.

- Participation and social commitment

In Romania is a low degree of active social involvement. About 90-95% of the persons are not members in an association\(^{(1)}\). The most frequent implications occur in the case of members in residents’ association, trade unions, religious, sport, artistic and ecological organizations. The main motives of non-implications are: lack of time, no interest for the
problem, were not asked, the activity brings no profit etc. The participation rate depends on the age, the highest rate is for the age group 15-24 years\textsuperscript{(2)}.

The civic implication is low. Romanians have quite few information regarding the activities of the public administration. The local institutions are the most known and in the respondents’ opinion they represent their interests in the best way from all institutions\textsuperscript{(1)}. Although there is great interest (41\% of the respondents) for the projects of the local administration, the effective implication of the citizens is low. Also the relations with other organizations were reduced. About 4-8\% of the respondents had contacts with politicians, political parties, NGOs etc.\textsuperscript{(1)}.

In the rural area only 18\% of the respondents\textsuperscript{(3)} have worked together with other village people in order to do something in the benefit of the community, willingly or compulsory (cleaning of the drains, pavement, reparations etc.). The proportion of participation in groups or associations is low, similar to the national average. A higher share (10-15\%) has the participation in agricultural associations, parent’s committee in school, parish committee, sport and artistic associations.\textsuperscript{(3)}.

In 2007, about 87.6\% of the respondents (Rural barometer 2007) had no intention to develop an agricultural holding or to start own business in the next two years. In addition, about 78\% of the respondents were not interested in the accession of European funds.

The crisis has affected apparently more than half of the population (57\%), according to the respondents at the end of 2009\textsuperscript{(4)}. But this problem could be interpreted the other way: 43\% of the population was not affected by the crisis after one year, which means that the proportion of persons not involved in market oriented activities is significant.

- **Social responsibility**

  The perception of the population is that the state has the responsibility for the main economic and social problems of individuals: 89.2\% have the opinion that the state must provide work places, 56.6\% consider that the state should establish state enterprises; 29.6\% consider that the state should provide support for the private sector; 90.7\% consider that an institution dealing with the construction and distribution of houses for young people would be useful. At the same time, most respondents (82\%) believe that the family is responsible for the education of children\textsuperscript{(4)}.

  People are pleased or very pleased with themselves most of the time (about 75\% of the respondents), but generally only about 40\% have the life they dream of.

  The characteristics of the social capital in the rural area in Romania, as they result from the data from above, indicate great expectations of the population regarding the state actions, as well as relative low capacity to co-operate with other persons and relative reduced intentions to develop market oriented activities. These attitudes are not in favor of the modernization process in the rural space.

### 3.2. Natural, economic and human resources – a regional distribution

According to the data from the Farm Structure Survey in Romania, in 2007 were 3.9 million holdings, of which 89.6\% with an average size under 5 ha/holding and only 0.34\% of the total number of holdings had over 50 ha/holdings. But over 45\% of the agricultural utilized area is used by large and very large holdings, which indicates the dual character of the holding structure.

In 2009, the total agricultural area in Romania was 14.7 million ha, of which 9.8 million ha were eligible for the CAP support. Potential beneficiaries of the CAP measures are about 12,000 farms with intensive commercial activity, which use 5.1 million ha and 1 million subsistence farms doing extensive agriculture on 3 million ha. In 2009 the set-aside area was about 2 million ha (Cioloș, 2009).
The distribution of natural resources for agriculture, as well as the labor force in agricultural holdings are unequally distributed in the territory, situation which is a source of unequal economic development. The differences in development level between regions (NUTS2) and counties (NUTS3) are reflected in the GDP/county (Table 4). It is obvious that the GDP level is lower in the counties with high share of rural population, of which the majority is employed in agriculture. In all regions the value added of the primary sector (agriculture, forestry and fishery) is inferior to the value added in the secondary sector (industry, constructions).

The low gross value added in the primary sector is due to the low labor productivity in connection to the present technical endowment and the excessive division of agricultural land. There is an unequal distribution of the agricultural area by counties (Table 4), depending on the geographical characteristics. In addition, the large number of subsistence and semi-subsistence holdings (farms) have a low average size per holding, with differences at county level. The GDP/county is also under the influence of a high sensitivity of the agricultural production to the yearly variation of climate conditions. A low level of the GDP/county indicates in fact a low income level and investment, as well as a low capacity of co-financing the development projects supported from public funds.

**Table 4**

<table>
<thead>
<tr>
<th>Code of regions</th>
<th>County</th>
<th>GDP/County</th>
<th>Agricultural production</th>
<th>Agricultural area</th>
<th>Average size per holding</th>
<th>Employment in agriculture</th>
<th>Share of rural population</th>
<th>Gross enrolment rate</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td>-Mill. lei-</td>
<td>-Thou. lei -</td>
<td>- Ha -</td>
<td>- Ha -</td>
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<td>%</td>
<td>%</td>
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</tr>
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</table>
4. Absorption rate for rural development funds

The European funds destined to rural development in Romania for the period 2007-2013 are significant while the total amount is comparable with that in Italy, Germany or Spain. Only Poland is the beneficiary of a higher amount than Romania.

The rate of absorption of these funds during the period 2007-2008 was in Romania only 1% from the total 2007-2013 available amount, compared to 12% the EU average. Poland reached an absorption rate of 8%. Romania has actually managed to do only direct payments until the end of 2008, while Poland made also payments for setting up of young farmers (measure 122), early retirement (measure 113), subsistence farms (measure 141), farms in specific areas, other than in mountain areas (measure 212), first afforestation (measure 221), agri-environment (measure 214). This unfavorable situation in Romania could be explained by the difficulties and low tempo of institutional building and by an insufficient training of the potential beneficiaries for the accession of funds.

Starting with 2009 the absorption tempo for development funds has improved in Romania. The absorption rate calculated as a ratio between payments in 2007-2009 and the financial plan for the period 2007-2013 was 8.9%, excluding the payments for technical assistance (calculations based on data from the Progress Report, PARDAF, 2009). Most payments have been made by the Paying and Intervention Agency in Agriculture (PIAA) for the implementations of measures 211, 212 and 214 from Axis 4 and the measure 611 - Complementary payments.

In 2009 and 2010 started the selection of projects for new NRDP measures. Even if some of them are still in the selection phase and no payments were operated yet, the large number of already signed contracts indicates an increasing interest of the potential beneficiaries and the improvement of their capacity to access the funds.

Figure 1 shows the high number of contracts for the measure 141 - Supporting semi-subsistence agricultural holdings, but the average value per projects is relatively low. Therefore the public value of these projects did not exceed 2.4% of the total contracted value.

<table>
<thead>
<tr>
<th>Code of regions</th>
<th>County</th>
<th>GDP/County(1) 2007 -Mill. lei-</th>
<th>Agricultural production(2) 2007 -Thou. lei-</th>
<th>Agricultur al area(2) 2007 - Ha -</th>
<th>Average size per holding(2) 2007 - Ha -</th>
<th>Employment in agriculture(2) - Thou persons-</th>
<th>Share of rural population(2) 2007 %</th>
<th>Gross enrolment rate(4) 2005/2006 %</th>
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<td>52.3</td>
<td>59.1</td>
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<td>1.50</td>
<td>34.2</td>
<td>57.8</td>
<td>51.3</td>
</tr>
</tbody>
</table>

112 – Setting up of young farmers; 121 – Modernization of agricultural holdings; 123 – Adding value to agricultural and forestry products; 141 – Supporting semi-subsistence agricultural holdings; 142 – Setting up of producer groups; 312 – Support for micro-enterprises creation and development; 313 – Encouragement of tourism activities; 322 – Village renewal and development, improving basic services for the rural economy and population and upgrading of rural heritage; 431.1 – Public-private partnership building.

**Source:** Romanian Ministry for Agriculture and Rural Development, DG for Rural Development.

**Figure 1.** Number of applications and contracts, by NRDP measures until 23.04.2010

5. Estimation of the correlation between the distribution of applied/financed projects in the period 2007-2009 and the characteristics of the rural area, by development regions in Romania

The highest share of the total contracted public value for the NRDP measures is for 322 – Village renewal and development, improving basic services for the rural economy (41%), 121 – Modernization of agricultural holdings (2.3%) and 123 – Adding value to agricultural and forestry products (18.4%). Together these projects could absorb (if payments will be done) about 86.7% of the public funds that have been accessed until April 2010. This was the argument to select them in our attempt to identify the main factors that determine the absorption capacity. The data sources were the selection reports for these measures during the period 2008-2009 published by the Paying Agency for Rural Development and Fishery (PARDF).

**Methodology for the estimation of the absorption of Community funds**

Considering the differences regarding the allocation of funds and the selected applications at the county level and development regions, we aimed at identifying the factors that influence the absorption of funds from the European Fund for Agriculture and Rural Development. Since the economic data about individual applicants are not available, we tried to put together the regional profile of the conditions which favor the process of starting and implementing projects for rural development. For this purpose we analyzed the number of selected projects and the corresponding financial support (in euro) for the three NRDP measures with the highest accession rate (322, 121 and 123).

The factors which could influence the accession and implementation of these measures are represented by the following indicators at the county level (NUTS3):
Table 5

Selection of influence factors/indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Argument</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>Reveals the capacity to produce gross value added and implicitly the economic potential of each county (general economic conditions)</td>
</tr>
<tr>
<td>Agricultural area</td>
<td>Indicates the agricultural potential of each county</td>
</tr>
<tr>
<td>Average size of the holding</td>
<td>Indicates the concentration degree of the agricultural activity in each county</td>
</tr>
<tr>
<td>Employment in agriculture</td>
<td>Reflects the amount of human resources for the agricultural activity</td>
</tr>
<tr>
<td>Agricultural production</td>
<td>Indicates the size of the agricultural activity</td>
</tr>
<tr>
<td>Share of the rural population</td>
<td>Is a feature of the rural space in each county</td>
</tr>
<tr>
<td>Gross enrolment rate</td>
<td>Indicates a feature of the potential education level of the labor force in each county. It could be a variable representing the quality of the labor force in the rural area, since more exact data are missing.</td>
</tr>
</tbody>
</table>

In accordance with the available data, we considered that a variety of possible combinations of these indicators could explain the capacity to absorb the funds allocated to support the rural development by means of the NRDP measures mentioned above.

By doing the econometric tests of the correlations between the influence factors and the implementation level of the specified measures, we considered the necessity to avoid the direct interactions which could have generated methodological inconsistencies, such as multicollinearity and autocorrelation of errors.

In our study we started from the following hypothesis: the variation in performance level at the county level (NUTS3) regarding the implementation of these NRDP measures should be correlated with the variation of the indicators which describe the influence factors in Table 5. If we transpose the main hypothesis of this study in econometric terms, it has the following meaning: there should be significant covariations between indicators which describe influence factors and the indicators which describe the performance level of the implementation of NRDP measures. In other words, if the indicators of influence factors act in the same way as the indicators of performance level, there must be a causal relationship which explains the different performance in accessing funds for projects for rural development in the counties of Romania.

The procedure used was the comparison of the number of projects and total eligible values of the projects with the absorption capacity given by the determinant factors in each county of every region. Finally we tested the correlations between allocated funs and specified indicators. For that we calculated the deviations from the average level of each indicator for every county:

\[
\text{Dif}(x_i) = \frac{x_i - \bar{x}}{\bar{x}} \times 100
\]

Where:

- \text{Dif}(x_i) – deviation from average level of x;
- \(x_i\) – value of x variable for each NUTS 3 level;
- \(\bar{x}\) – average level of x.

Since most part of the financial allocation for the already mentioned development measures took place during the year 2009 (2008 was the period for applications at the specific authority), we considered the total number of selected projects and the total financial
allocation from public sources for the whole period 2007-2009. There were important discrepancies between counties – NUTS3 level (Dachin, 2010).

Regarding the regional indicators on influence factors, we used the most recent available data – year 2007, which is also the year of Romania’s accession to the European Union. These indicators reflect very well the regional characteristics of that moment.

Firstly we tested the separate influence of each potential indicator for the absorption capacity on the result indicators (number of selected projects and the allocated funds). According to the results of the econometric tests regarding the intensity of the individual correlations, we checked different combinations of influence factors which could describe the absorption capacity at county level. The econometric tests of the possible correlations for each NRDP implementation measure mentioned above revealed the following:

- **Measure 121 – Modernization of agricultural holdings**

The most important factors for both number of selected applications and the amount of the financial support at county level (NUTS3) are: agricultural area, gross enrolment rate, average size per holding and employment in agriculture. However, in combinations of influence factors, the best results of the econometric tests are in the case of the agricultural area and the employment in agriculture as independent variables. The equations of regression which use in addition other factors are not significant from the econometric point of view. According to these conditions, we used the following equations of regression:

\[
DF_i = a \times DS\_AGR_i + b \times DPoc\_AGR_i + \varepsilon_i
\]

\[
DP = c \times DS\_AGR_i + d \times DPoc\_AGR_i + \varepsilon_i
\]

\[
i = 1, 2, ..., 42 \text{ NUTS 3}
\]

where:

- \( DF_i \) – deviation from average of funds;
- \( DP \) – deviation from average of applications;
- \( DS\_AGR_i \) – deviation from average of agricultural area;
- \( DPoc\_AGR_i \) - deviation from average of employment in agriculture;
- \( \varepsilon_i \) - estimation error.

The comparative results for the two variables are in Table 6.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Funds</th>
<th>Number of selected projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS_AGR_i</td>
<td>1.668837</td>
<td>1.720024</td>
</tr>
<tr>
<td>[t-stat]</td>
<td>6.263487</td>
<td>5.871887</td>
</tr>
<tr>
<td>DPoc_AGR_i</td>
<td>-0.445832</td>
<td>-0.522539</td>
</tr>
<tr>
<td>[t-stat]</td>
<td>-1.894956</td>
<td>-2.020167</td>
</tr>
<tr>
<td>C</td>
<td>4.37E-15</td>
<td>7.20E-15</td>
</tr>
<tr>
<td>[t-stat]</td>
<td>6.06E-16</td>
<td>9.08E-16</td>
</tr>
<tr>
<td>R squared</td>
<td>0.518237</td>
<td>0.481821</td>
</tr>
</tbody>
</table>

The results show that the agricultural area has the highest influence on both number of selected projects and the allocated funds (with a slight difference in favor of the influence on selected projects – coefficient 1.72, compared to the allocated funds – coefficient 1.66). The findings of the procedure are normal because the efficient agricultural holdings need larger agricultural area in order to reach the economies of scale.
However the correlation between the performance indicators for the implementation of the measure 121 and the average area per holding are modest (the best results are registered in connection with the employment in agriculture and show a low intensity of the correlation: \( R^2 = 0.163348 \) in the case of selected projects and \( R^2 = 0.228723 \) for approved financial support), while the tests of significance are irrelevant for certain parameters.

It is interesting that the employment in agriculture has a negative influence on the correlation to the allocated funds and the number of selected project. Even if the value of the coefficients of correlation is low and at the limit of econometric significance, the results are normal if we consider the surplus of employment in agriculture. Regarding the influence of the education level, we admit that the insignificant results of the econometric tests could be explained by the propensity of the higher qualified labor to avoid the agricultural activity. However, since the share of graduates with medium or high education level originating from the rural area is rather low, it is likely that the low correlation intensity between the gross enrolment rate and the performance indicators is due to the negative net migration flows of the qualified labor force.

- **Measure 123 – Adding value to agricultural and forestry products**
  
The best results regarding the individual influences of factors were reached with reference to: agricultural area for each county, average size of the holding and the GDP for each county. However, the results of the econometric tests for the combinations of factors reveal a low intensity of the correlation. The best results were obtained for the combination \textit{agricultural area} – \textit{GDP}.

  According to these conditions, we used the following equations of regression:

\[
\begin{align*}
DF_i &= a \times DS_{AGR_i} + b \times DPI_{Bi} + \varepsilon_i \\
DP &= c \times DS_{AGR_i} + d \times DPI_{Bi} + \varepsilon_i
\end{align*}
\]

where:

- \( DF_i \) – deviation from average of funds;
- \( DP \) – deviation from average of applications;
- \( DS_{AGR_i} \) – deviation from average of agricultural area;
- \( DPI_{Bi} \) – deviation from the average of GDP at county level;
- \( \varepsilon_i \) – estimation error.

The comparative results for the two variables are in Table 7:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Funds</th>
<th>Number of selected projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS_{AGR}</td>
<td>0.996243</td>
<td>0.884905</td>
</tr>
<tr>
<td>[t-stat]</td>
<td>1.859442</td>
<td>3.029477</td>
</tr>
<tr>
<td>DPI_{Bi}</td>
<td>0.141446</td>
<td>0.127258</td>
</tr>
<tr>
<td>[t-stat]</td>
<td>1.551695</td>
<td>0.738644</td>
</tr>
<tr>
<td>C</td>
<td>-3.04E-15</td>
<td>-1.626016</td>
</tr>
<tr>
<td>[t-stat]</td>
<td>-6.17E-16</td>
<td>-0.193153</td>
</tr>
<tr>
<td>R squared</td>
<td>0.145909</td>
<td>0.232132</td>
</tr>
</tbody>
</table>

We consider that the modest results of the econometric tests are firstly because of the much lower number of selected projects (363 compared to 1560 for the measure 121), even if the amount of the total public allocation of funds is comparable (713,893,602 euro compared
to 975,005,600 euro for the measure 121). In addition, the beneficiaries of the funds have a more clear profile, they are producers specialized in the primary processing of agricultural and forestry products. It is normal that the individual characteristics (with no econometric relevance in the absence of a survey based on a questionnaire) prevail on the general economic conditions at the county level.

- 322 – Village renewal and development, improving basic services for the rural economy and population and upgrading of rural heritage

This measure records the lowest number of applications (291) and in some counties (Brăila, Călărași and Covasna) there is no selected project. Under these circumstances, the quality of the econometric tests regarding the correlation between influence factors and performance level is very low. However we distinguish the individual influence of two factors: employment in agriculture and average size of the holding. The situation is normal, since the development potential of the rural localities depend a lot on the population employed in specific activities of the area and on the economic strength of the agricultural holdings (with a possible higher involvement in the local development process). In combination, the influence power of these factors is also low. The econometric tests have rather no significance.

According to these conditions, we used the following equations of regression:

\[ DF_i = a \times DPoc_{AGR_i} + b \times DSupexpl_i + \epsilon_i \]
\[ DP = c \times DPoc_{AGR_i} + d \times DSupexpl_i + \epsilon_i \]
\[ i = 1, 2, ..., 42 \text{ NUTS 3} \]

where:
- \( DF_i \) – deviation from average of funds;
- \( DP \) – deviation from average of applications;
- \( DPoc_{AGR_i} \) – deviation from average of employment in agriculture;
- \( DSupexpl_i \) – deviation from average size of the holdings;
- \( \epsilon_i \) – estimation error.

The comparative results for the two variables are in Table 8:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Funds</th>
<th>Number of selected projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pop_{ocup}_i [t-stat]</td>
<td>0.601905</td>
<td>0.721694</td>
</tr>
<tr>
<td></td>
<td>1.740793</td>
<td>2.116777</td>
</tr>
<tr>
<td>Supexpl_i [t-stat]</td>
<td>-0.388207</td>
<td>-0.377724</td>
</tr>
<tr>
<td></td>
<td>-1.333170</td>
<td>-1.312354</td>
</tr>
<tr>
<td>C [t-stat]</td>
<td>-1.45E-14</td>
<td>1.393728</td>
</tr>
<tr>
<td></td>
<td>-1.28E-15</td>
<td>0.124238</td>
</tr>
<tr>
<td>R squared</td>
<td>0.161035</td>
<td>0.195093</td>
</tr>
</tbody>
</table>

An improvement of the data base while the NRDP measure will be implemented could improve the quality of the econometric tests and implicitly could point out in a better way the factors which define the regional profile of the capacity for the absorption of funds from the European Fund for Agriculture and Rural Development. In addition, a statistical inquiry about the initiators of the selected projects could emphasize the individual characteristics which contribute to the success of the implementation of rural development programs in Romania.
6. Scenarios regarding the funds for rural development for the period 2011-2013

The estimates for the evolution regarding the absorption of the funds calculated for the rural development for the next years can only be made by using a high degree of approximation, under the terms in which the last period of actual development of the process (2008-2009) is shorter than that of the forecast (2010-2013).

As the results of the analysis made in section 5 shows, the main factor of influence (among the considered economic and social factors) upon the absorption capacity is the agricultural area. Under these terms, the improvement of the absorption degree, especially on a short term, can be made particularly based on the increase in efficiency of the institutions involved in implementing the development programs. The highest restrictions for the possible beneficiaries will continue to be the decrease of the capacity to co-finance the projects from private sources, caused by the crisis, the breakage of the lands into subsistence farms and the weak involvement of the young generations into rural development projects.

Hereinafter, let us consider a basic scenario, with a pessimistic view, and also an alternate scenario.

- **Basic scenario**
  *The main assumption of the pessimistic scenario is that Romania will keep the same procedures which currently exist.* Thus, the following evolutions are predictable:
  - Project blocking. On the date of April 23rd 2010, 12,777 projects have been selected and 9,604 only have been contracted out of 22,479 projects submitted within the Rural Development Program (42.72% success rate).
  - The rhythm of the contracts and of the payments will continue to be much more delayed if compared to the rhythm in which projects are submitted.
  - Great delays in the evaluation process, which have generated an entire chain of subsequent delays.
  - Delays in signing the contracts.
  - Delays in starting the projects, in submitting the applications for costs offsets and for payments.
  - Low capacity in assessing and selecting projects.
  - Over protective administration.

Under the terms in which the currently identified problems will be preserved, our estimates are that the absorption degree obtained by Romania for the EAFRD funds for rural development will get increased by 8% per year. This percentage corresponds to 2009, which is considered a year with good results in implementing the NRDP. Thus, an approximate 16% absorption degree can be reached at the end of 2010 and 56% at the end of 2015, the maximum period during which the money calculate for 2012-2013 may be spent, according to rule n, n+3.

- **Alternate scenario**
  *The main assumption of the alternate scenario consists in adopting structural measures which could facilitate the high absorption of the EAFRD funds for rural development.*

This scenario’s strong points start from the great number of submitted projects. For example, if we estimate a 30% success rate, which is an optimistic but reasonable percentage (until now, it has been approximately 26%), we may draw the conclusion that most of the European funds available for Romania can be eventually attracted by means of projects.

We recommend a package of measures which should include the following:
  - Publishing the schedule of bid launches, with actual terms which should be observed by the Management Authorities.
• Giving up the changes in the Solicitor’s Guide (Corrigenda), which should be applied for performing sessions, namely changes required for the already submitted projects.
• Contracting several external assessors, consulting/audit companies, or elaborating a database with independent experts.
• Identifying a system to guarantee the co-financing for the private companies, even though it is necessary to elaborate a social security diagram.
• Improving communication – this issue has several aspects which have already been emphasized by solicitors and mass-media.
• Organizing meetings with the beneficiaries and with the possible beneficiaries in order to explain some actual aspects related to the projects development.
• Eliminating the useless bureaucratic elements, namely the unimportant requirements such as the position of the stamp, the color of the pen and others, and also the additional conditions required by law (for example the procurement procedures).
• Creating public-private partnerships in order to increase the absorption of the European funds.
• Using the expertise of the commercial banks in order to access to the European funds.
• VAT reimbursing for the projects financed from European funds after each reimbursement request and not at the end of the project.
• Introducing a special counter-guarantee line for the investment projects aiming to access to European funds, in order to lower the entrepreneurs’ degree of risk.
• Introducing possibilities to guarantee with the procured goods, in order to facilitate the bank co-financing of the projects financed through structural funds.

Under the terms of taking the required reform measures, we may estimate that the absorption degree obtained by Romania for the EAFRD funds for rural development will get increased by 12%, respectively at the level of the EU average for the period 2007-2008. Under the terms in which the year 2007 was a year of initiation in the absorption of the development funds for the new EU member countries, in 2008 some of these countries an absorption degree which is close to or above the EU-27 average: Slovenia (16%), Slovakia (11%), the Czech Republic (11%). Under these terms, Romania could reach a 20% absorption degree at the end of 2010 and 60% at the half of 2015, the maximum period during which the money calculate for 2012-2013 may be spent, according to rule n, n+3.

Table 9

<table>
<thead>
<tr>
<th>Common impact indicators</th>
<th>Impact estimates according to NRDP</th>
<th>Basic scenario (56% absorption rate)</th>
<th>Alternate scenario (80% absorption rate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic growth</td>
<td>Net added value increase by EUR 3 billions for the beneficiaries from the primary, secondary, tertiary sectors</td>
<td>Net added value increase by EUR 1.7 billions for the beneficiaries from the primary, secondary, tertiary sectors</td>
<td>Net added value increase by EUR 2.4 billions for the beneficiaries from the primary, secondary, tertiary sectors</td>
</tr>
<tr>
<td>Creating jobs</td>
<td>Creating 70,000 full-time jobs for the beneficiaries from the non-agricultural sector</td>
<td>Creating 39,200 full-time jobs for the beneficiaries from the non-agricultural sector</td>
<td>Creating 56,000 full-time jobs for the beneficiaries from the non-agricultural sector</td>
</tr>
<tr>
<td>Labor productivity</td>
<td>Labor productivity annual increase by 8% for the direct beneficiaries from the primary sector and the food industry</td>
<td>Labor productivity annual increase by 4.5% for the direct beneficiaries from the primary sector and the food industry</td>
<td>Labor productivity annual increase by 6.5% for the direct beneficiaries from the primary sector and the food industry</td>
</tr>
</tbody>
</table>
7. Conclusions

- The self-sufficiency stage which is specific to the subsistence producers and waiting for the unconditional support from the state constitutes an unfavorable condition for the economic growth.
- The unequal distribution of agricultural resources, of the employed population, of the schooling rate and of the GDP in the territory should have been a decisive element in the success rate distribution of the projects selected through NRDP. Yet, if there is not an obvious correlation with these key factors, the success rate for the NRDP implementing could be determined to a greater extent by local factors, by the initiative of some persons who become examples to be followed for others.
- Regarding the absorption degree, the lowest results obtained until now have been those obtained in the case of the measures requiring a high cooperation and social involvement degree of the community, as well as taking the risk in doing business.
- The most accessed NRDP measure was 322 Village Renewal, but only 9.5% of the total submitted projects have been contracted, representing approximately 64% of the amount granted for 2007-2013. Several projects of higher value have been selected for the regions North-East, South-West Oltenia and North-West, under the terms in which most of the counties in this region (except VS, DJ, BH, SM, SJ) had an application rate below the national average for the measures 121 – Modernization of agricultural holdings and 123 – Adding value to agricultural and forestry products. The explanations for these numerous applications are the precarious state of infrastructure, and also the fact that the financed works are necessarily of public interest and they do not require co-financing.
- Among all the rural development measures, the highest effective absorption rate until now has been based on the payments made by PIAA. But they are payments made under the form of subsidies, which encourage the preservation of the environmental conditions and the biodiversity. However, they do not have a stimulating role in achieving investments and in increasing competitiveness, as the application procedure is simple if the conditions are met and it does not suppose involvement in market focused activities.
- We consider that the most important factors for accelerating the absorption rate are as it follows:
  - increasing the population’s informing degree, including by means of the local institutions in which the populations is more confident;
  - increasing the interaction between the possible beneficiaries and the state’s institutions on real partnership positions; the effort of the state’s representatives in meeting the possible beneficiaries’ needs is worthy, as the results of the development funds absorption also depends on the future evolution of the employees’ incomes within the public system;
  - identifying new support methods for co-financing from private funds;
  - encouraging the young people to get involved in this process, knowing that they get insufficiently involved in activities related to agriculture due to the low incomes from agriculture. Moreover, many of the young people from the rural environment are waiting for a temporary emigration opportunity, and this does not allow them to consolidate their economic and social status in their country;
- The absorption of the financial resources for the rural development takes place under the terms of a crisis which was not predicted at the moment when the development programs have been launched. However, under the same macroeconomic terms, some countries absorbed over 20% of the funds granted for 2007-2013 (Ireland 31%, Austria and France 25%, Finland and Sweden 22% etc.) during the first two years (2007-2008). These countries have a high institutional organizing level and also the population’s involvement in market oriented activities.
The proposed scenarios are based on theoretical assumptions, however resulted from a comparative analysis. The recalculation of the common impact indicators proposed by NRDP as an effect of a lower absorption rate (in two variants) has the role to draw attention on the dimension of the possible losses. Under these terms, the institutional, financial and human effort made until now for activating the funds absorption system will be insufficiently capitalized.

Acknowledgements

This paper has been supported by the following research project: Study of the impact of the accession to EU on producers and consumers, 2006-2010, with partners: Research Institute for Agricultural Economics and Rural Development, Institute of Agricultural Economics, Bucharest Academy of Economic Studies, University for Agricultural Sciences and Veterinary Medicine Bucharest, S.C. Agroserve Ltd., research program nr. 366/08.12.2006 financed by the Romanian Ministry of Agriculture and Rural Development.

Notes

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THEORIES OF DISCRIMINATION

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Abstract. Discrimination represents a general feature of the social life, based on the existence of certain prejudices. The phenomenon called prejudice involves the rejection of the other, regarded as a member of a group against which there are manifested negative feelings. In the economic sense, discrimination usually refers to differences that arise between workers who have the same productivity, unable to enter the labor market or to hold a job, simply because of certain characteristics that are not related to the preparation of the individual (such as gender or race). In this article we analyzed the main theories of discrimination and its effects on the labor market.

Keywords: discrimination; wage; labor market; economics of gender; imperfection of information.

JEL Codes: J71, J31, J01, J16, D82.
REL Codes: 12D, 12F, 7J.

Generally, discrimination occurs when certain individuals who have a particular feature (for example, belong to a particular religion, race, gender etc.) are disadvantaged regardless of their labor productivity. Discrimination also occurs if two individuals who have the same “economic” characteristics receive different salaries. These differences are related to non-economic characteristics (e.g. age, gender, nationality etc.), and thus can speak of discrimination on the labor market.

By discrimination we understand any distinction, exclusion, restriction, preference or different treatment that disadvantages a person or group, as compared with others in similar situations. The reasons underlying the discrimination may be diverse, such as: race, nationality, ethnicity, religion, sex, sexual orientation, language, age, disability, etc., and in this case we speak of multiple discriminations (The ethnographic research on the multiple discriminations, ANES, 2007).

Discrimination on the labor market can also occur “before entering on the labor market” in which case we may speak of pre-discrimination. This means that the chances of an individual’s personal development do not depend on his skills. Therefore, we may speak of inequality of opportunity, which it is due to the social environment which each individual comes from.

Discrimination against a particular group of workers can always be explained by attaching a cost to certain characteristics of the group which are not directly related to the employment skills. Group discrimination is different from the individual discrimination, which is independent of the group members. Racial discrimination is itself a consequence of the group discrimination; on the other hand, the discrimination between the individuals of a group does not implicitly assume group or racial discrimination. Group discrimination in the labor markets is evident when the average wage of the group is not proportional to the average productivity.
The discrimination models can be divided into two categories: preference for the discrimination (or taste for the discrimination) of the employers, of the colleagues and of the consumers in the conditions of perfect information (Becker, 1957) and Phelps’ models (1972), Arrow (1971) which are based on the imperfect information.

1. Becker's discrimination model

In Becker's view there are two types of discrimination: discrimination by "taste" (determined by the employers and employees) and discrimination by interest. Discrimination can be determined by the people's attitudes towards their co-workers, towards those whom they supervise and towards those who they buy goods from and demand compensation in exchange for working with the discriminated group members.

Becker (1957) assumed that utility companies will have a negative utility if they employ women and they examined this type of discrimination on the basis of two groups of employees: one group composed of male workers and the second group of female employees. The two groups are perfectly substitutable in production, even if for the company, hiring an employee from group 2 brings psychological costs that it would not have had if it had hired a worker from the first group. Any non-pecuniary cost paid by the employer will lead to increased wage costs. For example if the cost of salary to the workers from the group one is equal to \( w \), for the workers from the group two it will be \( (1 + d_i) w \). The value of \( d_i \) (is called Becker's discrimination coefficient) measures the "preference" of an employer for a particular employee. The coefficient \( d_i \) is very difficult to measure because it is different from one employer to another and may depend on the nature of job.

If the two groups of employees (group 1 and group 2) are complementary or imperfectly substitutable, establishing a balance will lead to an increase in wages in group 1 and to a reduction in group 2. We exemplify the case of two groups of workers: the group 1 is composed of more skilled workers, while group 2 consists of less skilled employees, and the individuals in the first group have a hostile attitude toward their less prepared colleagues. If the firm hires workers from both groups, to keep those who are part of the group 1, it will have to offer them a higher wage to motivate them. This "bonus" is financed by reducing the wages of the less skilled workers. Arrow pointed to a particular case, similar to the previous one, which can occur when a department within a company is run by a female person and the workers in that relevant department have formed a particular aversion towards her. In this case it will be very expensive for the company to compensate for the attitude of the employees by a wage increase and the solution in this case would be that the female person not to have the leadership position. In a competitive market, however, such attitudes are sanctioned and attempts are made to achieve equal opportunities for all workers and to remove any type of discrimination.

2. Statistical discrimination

Statistical discrimination\(^{(1)} \) is based on the imperfection of information and in the specialized literature there are two trends. The first was initiated by Arrow (1973), who analyzes how the estimates (based or not) on the productivity of different groups can influence hiring decisions and wage level, and the second trend is represented by: Phelps (1972), Aigner and Cain (1977). For both theories the asymmetric information leads to uncertainty in the labor market.

The statistical discrimination can be explained in terms of the modern economy, where information, beliefs and expectations influence the economic behavior. Beliefs should be based on some evidence, and if they are contradicted by experience, they can’t survive.
2.1. Arrow's model of discrimination

Arrow (1971) considers that income differences between men and women, whites and blacks, skilled or not, depend on both labor productivity and other characteristics considered valuable on the market. In his view, on the market there are considered valuable also other features which have no connection with the productivity at work: race, gender, and ethnicity. In his study, Arrow focuses on the first feature and defines discrimination on the basis of two groups of people (blacks and whites). Discrimination occurs when an economic agent (employer, purchaser) is willing to pay more to work only with the white employees or acquire an asset from a white seller.

Arrow believes that discrimination has always existed in a perfectly clear form and the American people knew that the black workers have no access to the best jobs. There is, however, a spatial and occupational segregation. This means that the black workers had access only in certain residential areas and only in certain professions (jobs).

In his analysis, Arrow uses two approaches, the rational and economic choice. The latter approach has, however, a narrower coverage than the rational choice, because markets are the main institution in which individuals act. In the rational theory, the economic agents operate effectively towards the constraints of preferences, technology, beliefs etc.

Arrow considers that discrimination starts from the employer, from the discriminating "tastes" of other employees (who have leadership positions) and this is why we can speak of an industrial separation, and in this case it can’t be discussed the wage discrimination. However, if a black worker is sometimes needed to work with a white one in the same industry, a discriminatory wage difference will be made between them. In Arrow’s view, the discrimination model based on the employee's tastes may explain the separation between industries but not that between occupations.

In his analysis Arrow considers that the differences in productivity between whites and blacks can be explained by the quality of education, by the cultural differences, but the cause itself is not observable. The employers' experience will make them use the noticeable feature, race, as a surrogate for the unobservable characteristics that are actually due to differences in productivity.

In the model proposed by Arrow (1998, pp. 91-100) the employers' discriminatory preferences are replaced by their perceptions „of reality” and are based on two assumptions:

- the employer has no a priori perfect information on the workers' productivity;
- the employer faces two types of workers: some of them have a higher skill level, while others do not have the same qualifications.

In its analysis Arrow starts from the following assumption: on the labor market there are only two production factors which are substitutable: skilled work (Q) and unskilled work (NQ). Each individual in the society can provide unskilled work, but the reciprocal is not valid. The investment made by the employer does not take the form of professional training courses, but takes the form of a test which the company pays a fixed amount for equal to C for each worker depending on whether the worker is qualified or not.

The workers in these conditions can be separated into two distinct groups because of the observable indicators (race, gender, etc). For simplicity, we assume that we have two groups: group 1 (majority) and group 2 (minority). Because the employer can’t know a priori which are the skilled workers, Arrow introduces the concept of subjective belief on the probability that a worker in the group P1 (q) or in the group P2 (q) is qualified.

The equilibrium condition for the employment of the skilled workers is:

\[ C = P_i(q)[P_{mg_i} - w_i], \quad I = 1,2, \]

where: \( w_i \) is the wage; \( P_{mg_i} = \) marginal productivity of labor; \( P_i(q) = \) the probability that a worker is qualified; \( C = \) the company's earnings. The equation suggested by Arrow
corresponds to the perfect situation and the test can determine the exact level of productivity for the employees (Table 1).

In the above table 1 means the consistency between the test pass and the level of qualification, while 0 – means the opposite situation. For those who pass the test, \( P_i (q^\wedge) = P_i (q) \), which means that the anticipated value will be equal to the real one, and the equation suggested by Arrow becomes equal to:

\[ C = P_i(q^\wedge)[E(Pmg_i/q^\wedge-w_i], \ i = 1,2, \]  

\[ (2) \]

### Table 1

<table>
<thead>
<tr>
<th>Status: qualified or unqualified</th>
<th>Q(^\wedge)</th>
<th>NQ(^\wedge)</th>
<th>Sum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>NQ</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

**Source:** Plassard (1987), Discrimination sur le marché du travail et information imparfaite, p. 119.

Failing the test determines the person's non-hiring, and the likelihood to pass the test must be equal to the probability of being qualified. Under these conditions the company's earning is equal to the difference between the marginal productivity of skilled labor and the wage level, and this difference is weighted with the probability of being qualified.

If the skilled workers in the two groups are perfectly substitutable in production, this means that: \( Pmg_1=Pmg_2 \). Regarding the difference between the wages, we can write:

\[ C=P_i(q)[Pmg_i-w_1] \rightarrow w_1 = \frac{P_i(q)\times Pmg_i-C}{P_i(q)}; \]  

\[ (3) \]

\[ C=P_2(q)[Pmg_2-w_2] \rightarrow w_2 = \frac{P_2(q)\times Pmg_2-C}{P_2(q)}; \]  

\[ (4) \]

\[ w_1-w_2= \frac{P_i(q)\times Pmg_i-C}{P_i(q)} - \frac{P_2(q)\times Pmg_2-C}{P_2(q)} = \frac{C[P_i(q)-P_2(q)]}{P_i(q)\cdot P_2(q)} \]  

\[ (5) \]

When \( P_1(q)>P_2(q) \) there is a difference between the wages of workers with the same level of productivity and are fully interchangeable. We may speak in this case about the existence of discrimination, because of granting a higher pay for the workers who are part of the group 1. If the proportion of skilled workers is higher in the majority group than in the minority group, assuming a correct assessment by the employer of the characteristics of the two groups, the group 1 workers will receive a higher salary than the workers (who have the same level of training) in group 2. Due to the existence of an uncertainty regarding the evolution of productivity of workers, plus the impossibility of its determination, it makes the workers from the minority group “pay” for the less skilled workers in the group which they are part of.

Arrow in its model starts from the existence of some subjective probabilities, in fact the entire analysis lies in a “pure” competitive environment in which the market discrimination, skills, qualifications are assumed identical in both groups. The statistical discrimination in this example is determined by the existence of some misconceptions of employers, and this type of discrimination is more difficult to analyze than the theory based on “tastes”.
Arrow's analysis is based on the cognitive dissociation theory "beliefs and actions are in a certain equilibrium if individuals act in a certain way (in a discriminatory manner), they tend to develop beliefs to justify such conduct" (Aigner, Cain, 1977, pp. 175-187).

2.2. The discrimination model proposed by Phelps

The discrimination model proposed by Phelps (1972, pp. 659-661) is based on the assumption that employers' decisions in the hiring process are based on an ability indicator, y, (similar to a test to measures the level of skills) which indicates the level of qualification q. In practice, y involves a larger number of measurements, but for the simplicity it is assumed that y measures only one test score. The measurement equation shows the relationship between y and q which can be written as follows:

\[ y = q + u, \] (6)

where: \( u \) is a q-independent random error, with mean 0 and constant variation (q has a normal distribution).

Employers can see the test score, y, but they are interested in it only insofar as it provides information about the inconspicuous variable, q. Thus the employer's interest is determined by the anticipated or expected value of q, which we note with \( q^\wedge \).

The expected value can be expressed as a weighted average of two effects - a group effect \(((1-\gamma) \alpha)\) and - an individual effect \((\gamma \times y)\):

\[ q^\wedge = E(q|y) = (1-\gamma) \times \alpha + \gamma \times y + u', \] (7)

where: \( u' \) - is the error that behaves normally, \( \gamma \) is a measure of the reliability of the test result \( y \), \((0<\gamma<1)\), and \( \alpha \) is the average of the group.

and:

\[ \gamma = \frac{\text{var}(q)}{\text{var}(q) + \text{var}(u)} = \frac{\text{var}(q)}{\text{var}(y)} = \frac{\text{cov}(q \times y)}{\text{var}(y)} = \frac{\text{cov}(q \times y)}{\text{cov}(q \times y)} = \frac{\text{cov}^2}{\text{var}(q) \text{var}(y)} = r^2, \] (8)

where: \( r^2 \) is the coefficient of correlation between \( q \) and \( y \).

Phelps considers that the employer expects better results from the black workers, and in Aigner and Cain's opinion\(^{(2)}\) low test results, it is expected that the white worker will be better than the black color one. We can thus say that whites with low scores are better paid than blacks with the same scores this compensates for the fact that whites with higher scores are paid less than the blacks with high scores (Figure 1).

In the chart above we see that black people get better results in the testing process at a higher level of labor productivity. Phelps considers that there are "different payments for the same result of y" (of the test). But, because y refers to the expected productivity and not to the real one, discrimination could be considered as being economically relevant only if it is referring to q and not to y\(^{(3)}\). Therefore, even a legal enforcement of equal pay from the equal results of \( y \) would not contribute with anything to raise the general status of the black people.

A model that reflects these records takes into account that the testing process is less reliable for the blacks than for the whites, this being seen from the graphic representation belonging by Aigner and Cain (Figure 1).
As in the previous case each worker is paid according to his productivity. The only difference which can be seen in the Figure 2 is that whites with above-average results have higher incomes than the blacks, and the reverse is true for below-average results.


*Figure 2. Forecast of productivity (q) by race and test result (y), in the possibility of a deeper slope for the white people*
Aigner and Cain (1977, pp: 175-187) define discrimination as a situation in which "the average wages are not proportionate to the average productivity" or "the groups with the same average productivity do not receive the same average compensation".

Dickinson and Oaxaca (2006) believe that employers discriminate employees in the hope of reducing the risk rate. Most often, the statistical discrimination in the labor market is because of the lack of information that exists at employer level regarding the employee and his individual productivity.

After the study and experiment made which consisted of the analysis of two markets (employers-employees), Dickson and Oxaca concluded that women are risk and negotiation adversaries. Thus a woman employer tends to offer a contract of higher pay for the workers since the beginning.

3. The effects of discrimination

Discrimination can be negative and positive, the latter seeks the access to the disadvantaged groups, to a job, to a shop entrance, when you open a bank account or obtain a loan, to the contact with the staff of educational institutions, to the contact with health facilities staff and to looking for a house or renting or buying etc. These measures can have negative effects for the majority group because they will feel their position and prospects affected. However the positive discrimination is needed to integrate the disadvantaged groups in society.

The negative discrimination has many negative effects: the rise of labor market uncertainty, increased cost and duration of job search for the discriminated group, the opportunity cost is lower for the minority group, than for the majority group because their potential earnings are smaller, the appearance of unemployment and discouraged workers (who appears as a result of increased costs for searching for a job). This form of discrimination can be considered a market failure because it generates average costs of bigger investment, only for equal attitudes.

Acknowledgements

This work was supported by CNCSIS-UEFISCSU, project number PNII-RU code PD 281/2010 (number 77/2010).

Notes

(1) At the basis of statistical discrimination; there are found Arrow-Debreu’s general equilibrium theories and Akerlof's model, which is based on the idea that information is neither perfect nor free.


(3) Aigner and Cain (1977) remind here that the definition of the economic discrimination as income difference regarding workers with the same productivity implies an omnipresent discrimination within the group, taking into account the conditioned variance q.

References

http://www2.econ.iastate.edu/classes/econ321/rosburg/Arrow%20The%20Theory%20of%20Discrimination.pdf


ESTIMATING THE IMPACT OF THE PUBLIC PENSIONS REFORMS TO FINANCE SUSTAINABILITY IN EUROPEAN UNION.
THE ROMANIAN CASE

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Abstract. Our paper includes the analysis made for the impact of the population’s ageing process and of the change in the population structure on age groups upon the sustainability of the European social model. In order to reduce the impact of the demographical changes, it is necessary to reform the pension systems, especially the public one. We consider that the main reforming directions within EU should refer to the increase of the legal pensioning age and to its progressive equalizing between men and women, to the increase in the duration of the contribution to the public pension system, to reducing the access to early pensioning, to stimulating the extension of the active life, to modifying the rule referring to changing the pensions and introduce the privat pensions pillar.

Keywords: public pensions system; finance sustainability; reforms; ageing problem.

JEL Codes: E24, J11.
REL Codes: 3D, 8K, 20B.

1. Introduction

The modernized social model is sustainable as long as there is a virtuous correlation between the objectives settled in the Lisbon Strategy: productivity – employment – social cohesion. This correlation gets efficiency in line with social equity, stimulating the economic growth process under the terms of public finances’ stability. Any internal or external factor which generates the break of the previous relations is able to result either in the slowing down of the economic growth rate (or even recession), or in a decrease of the employed population, an emphasis of the social inequities or all, on the most unfavourable conditions, even in all the three effects together. As a consequence, the public debt of the EU member states would get increased, thus decreasing the possibility to provide cohesion through budget transfers.

One of the factors which could represent a threat for the model is constituted by the ageing of the population. This process itself is not an unfavourable aspect, as its effect is the economic development, materialized in the increase of life expectancy. Instead, the incapacity of the current policies promoted on the labour market, in education and in the social field for
adjusting to the demographic changes represents the source of this problem. As a consequence, the basic difficulties induced by the ageing process are generated by the low capacity of the member states to increase the population’s participation to the labour market, without affecting the citizens’ life quality. Introducing this objective within the reforms for welfare state is an opportunity in order to decrease the impact of increasing the percentage of aged persons within EU.

This paper makes a presentation of the main European demographic evolutions, and, according to them, we have analyzed the solutions for decreasing the stress upon the aged population. The objective is to identify a few good practices in the fields of public and private pensions, in the functioning of the labour market and in the coordination between professional life and family life.

2. Materials and methods

Reforms for the EU pension systems

The demographic tendencies will generate the increase of the public expenses with pensions as a percentage of the GDP in most of the EU member countries (22 out of 27), but the reforms for the pension systems can generate a decrease of the stress set upon the national budgets. The main solutions identified in the member states consist of the coordination between the pensioning age and the increase of life expectancy, of limiting the access to the early pensioning schemes and of establishing of incentives for staying on the labour market. These measures should result in the increase in the participation rate of the aged labourers and also in the decrease of the economic dependency rate of the employed persons.

The modification of the budget expenses for pensions is mainly the result of the increase in percentage of the aged persons (also outlined by the increase of their dependency rate), which also generates an increase in number of the pensioners. In order to compensate this effect, the pensioners’ percentage should increase for the persons who are 65 years old (65+), it should increase the employment rate and review the pension’s value, taking into account the life expectancy. In order to record the influence of the factors which act upon the expenses for pensions, expressed as a percentage of the GDP, we have used the following decomposition, proposed by the European Commission:

\[
\frac{\text{Expenses for pensions}}{\text{GDP}} = \frac{\text{Population } .65 +}{\text{Population } .15 - 64} \times \frac{\text{No. of pensioners}}{\text{Population } .15 - 64} \times \frac{\text{Population } .65 +}{\text{Empoyed population}} \times \frac{\text{Average pension}}{\text{GDP}} \times \frac{\text{Employed population}}{\text{Working hours}}
\]

The variation of the ratio between the transfer for pensions and the GDP represents the sum of five factors’ variations, identified according to the ratios from the right side included in the above equation:

- the effect of the dependency rate of the aged population, which outlines the impact of population’s ageing upon the increase in expenses for pensions, as the increase in number of aged persons is accompanied by the increase in number of pensioners;

- the effect of the percentage of pensioners out of the population which is over 65 years old, this indicator is influenced by the decision to increase the participation rate of the aged persons, and also by the evolution of the percentage of the persons who are over 65 years old. If this ratio becomes higher, then the expenses for pensions will also increase;

- the effect of employment, calculated as the ratio between the population which is able to work and the employed population, namely the reverse of the employment rate; an increase in the percentage of the employed persons will generate an increase of the GDP and an increase in the number of pensioners, and this will result in the decrease of the pensions’ percentage of the GDP;
- the effect of the earning from pensions, calculated as a ratio between the average pension and the average wage (assumed to be equal to the macro-economical productivity in working hours); if the quantum of the pension increases, in relation to the national average wage, then the percentage of the expenses for pensions out of the GDP will increase;
- the effect of the average working hours obtained by dividing the number of employed persons to the national total number of working hours, namely the reverse of the average working hours performed by an employed person.

Among the five factors which influence the expenses for pensions, the first one has the highest impact, being the expression of the population’s ageing tendency, which could be very difficult to decrease (probably by increasing the birth rate and the number of immigrants who are able to work, only). If we only took into account the population’s dependency rate, then EU-27 would record a much higher increase in the expenses for pensions, namely 8.7 percents, compared to 2.4 percents, this level being estimated for 2060. Moreover, this factor contributes to the increase in the transfers granted for pensioners in all economies, with values between 4.2 percents in Great Britain and 13.7 percents in Romania. The effect of increasing the dependency of the persons who are over 65 years old is more significant until 2040, after which the predictions show the decrease in importance of this factor; thus, the impact upon the budget for pensions will be twice higher during the period 2020-2040, compared to the period 2040-2060\(^1\).

Under these terms, the margins of maneuver of the member states refer to the change of the four factors so that the ratio between pensions and GDP decreases. In the absence of the reforms which could generate the increase of the total employment rate, the decrease in the percentage of the pensioners out of the persons who are over 65 years old and the decrease of pension’s quantum related to the average wage, the expenses for pensions will increase on average by 6.3 percents compared to the forecast level. As it can be noticed in Table 1, in most of the member countries, the dependency rate constitutes the only factor which increases the stress upon the budget for pensions, while the other four countries act oppositely, without compensating but partially the effect induced by the population’s ageing. The result is that the increase of the aged persons’ dependency does not constitute a fatality for the redistribution system as long as the right measures are implemented.

**Table 1**

<table>
<thead>
<tr>
<th>Decomposition of the expenses for pensions (% of the GDP)</th>
<th>Variation (2007-2060)</th>
<th>Effect of ageing</th>
<th>Effect of pensioners’ percentage</th>
<th>Effect of employment</th>
<th>Effect of earnings from pensions</th>
<th>Effect of working hours</th>
<th>Estimated level for 2060</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU-27</td>
<td>2.4 8.7 -2.6 -0.7 -2.5 -0.6 12.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>0.9 9.9 -2.6 -1 -5 -1 13.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belgium</td>
<td>4.8 7.4 -0.9 -0.5 -1 -0.3 14.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bulgaria</td>
<td>3.3 9.1 -3 -0.5 -1.8 -0.8 11.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Czech Republic</td>
<td>3.3 9.5 -3.5 -0.5 -1.2 -1.1 11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cyprus</td>
<td>11.4 10.8 1.6 -0.5 -0.3 -0.2 17.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Denmark</td>
<td>0.1 6.5 -4.9 -0.1 -0.5 -0.7 9.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estonia</td>
<td>0.7 4.6 -1.6 -0.2 -3.1 -0.4 4.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finland</td>
<td>3.3 8.7 -3.1 -0.4 -0.9 -0.7 13.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>1 8.4 -2.2 -0.5 -4 -0.7 14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>2.3 7.9 -1.9 -0.8 -2.2 -0.8 12.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greece</td>
<td>12.4 12.7 -0.4 -0.6 0.8 -0.1 24.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ireland</td>
<td>6.1 5.9 -1.5 -0.2 0.7 -0.3 8.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Italy</td>
<td>-0.4 10.4 -3.2 -1.1 -5.5 -1 13.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latvia</td>
<td>-0.4 5.7 -1.6 -0.2 -3.9 -0.4 5.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Among the factors which reduce the influence of the dependency rate, the most important refer to the variations in the pensioners’ percentage of the population which is over 65 years old and of the relative benefit generated by pensions. Their decrease also suggests the future effects of the reforms implemented until this moment. Thus, the member countries which have already implemented measures for discouraging the early pensioning and for increasing the pensioning age will record a decrease in the number of pensioners to 100 aged persons, and this will result in the decrease of the transfers’ stress upon the budget. The same consequence also occurs in the case of the economies which gave up relating pensions to the average wage, by implementing their indexation according to the inflation rate.

The ratio between the number of the pensioners (included in the public granting scheme) and the total number of the persons who are over 65 years old will decrease in EU-27 from 138% in 2010 to 110% in 2060. The result is that nowadays the average pensioning age is lower than 65 years old, and some of the aged persons retire early. However, as a result of the reforms implemented at present, the number of those who will retire before 65 years old will decrease by 30 percents (related to the number of those who are over 65 years old). Among the member countries, Luxembourg, Poland, Lithuania, the Czech Republic, Slovakia, Romania, Portugal and Austria will record a number of pensioners which will be over 70% higher than that of the persons who are over 65 years old in 2010, as a proof of the existence of a low real age for pensioning on the labour market. Most of the member states which up to this moment have reformed the public pension system decided to progressively increase the pensioning age until 2020; that is the reason why the highest decrease of the gap between pensioners and persons who are over 65 years old will occur between 2010 and 2020, the average decrease being of 12 percents within EU-27.

During the period 2010-2060, the estimates have shown that the ratio between pensioners and aged persons will get decreased the most in the new member countries, which are the most affected by the population’s ageing, as it can be noticed in Table 1. Thus, in Poland, Hungary, Slovakia, Romania and the Czech Republic it will be at least 69%, and this will generate a number of pensioners which is maximum 17% higher than of those who are over 65 years old. In most of the member countries, the ratio will remain improper in 2060, the only exceptions being Denmark and Malta, the first of them having established the increase of the pensioning age to 72 years old. The situations existing in Malta and Spain differ, as the women’s rights are included in the pensions earned by their husbands. The only countries in which the variation in the number of pensioners to 100 persons who are over 65 years old will generate the increase of the expenses with the pensions out of the GDP are

<table>
<thead>
<tr>
<th>Decomposition of the expenses for pensions (% of the GDP)</th>
<th>Variation (2007-2060)</th>
<th>Effect of ageing</th>
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<th>Effect of employment</th>
<th>Effect of earnings from pensions</th>
<th>Effect of working hours</th>
<th>Estimated level for 2060</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithuania</td>
<td>0.6</td>
<td>9.6</td>
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<td>0</td>
<td>-1.8</td>
<td>-0.8</td>
<td>11.4</td>
</tr>
<tr>
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<td>1.2</td>
<td>0.3</td>
<td>23.9</td>
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<td>-0.2</td>
<td>-0.5</td>
<td>-0.8</td>
<td>13.4</td>
</tr>
<tr>
<td>Great Britain</td>
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<td>4.2</td>
<td>-1.4</td>
<td>0.3</td>
<td>0.5</td>
<td>-0.3</td>
<td>9.3</td>
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<td>The Netherlands</td>
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<td>-0.5</td>
<td>-0.6</td>
<td>-0.4</td>
<td>10.5</td>
</tr>
<tr>
<td>Poland</td>
<td>-2.8</td>
<td>13.4</td>
<td>-6.3</td>
<td>-0.6</td>
<td>-7.1</td>
<td>-1.8</td>
<td>8.8</td>
</tr>
<tr>
<td>Portugal</td>
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<td>9.8</td>
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<td>-4.5</td>
<td>-0.9</td>
<td>13.4</td>
</tr>
<tr>
<td>Romania</td>
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<td>-0.1</td>
<td>1.7</td>
<td>-1.5</td>
<td>15.8</td>
</tr>
<tr>
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<td>11.7</td>
<td>-2.9</td>
<td>-0.6</td>
<td>-2.4</td>
<td>-1.4</td>
<td>10.2</td>
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<tr>
<td>Slovenia</td>
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<td>13.7</td>
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<td>-0.6</td>
<td>-0.7</td>
<td>-0.7</td>
<td>18.6</td>
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<tr>
<td>Spain</td>
<td>6.7</td>
<td>10.7</td>
<td>-0.9</td>
<td>-0.9</td>
<td>-1.7</td>
<td>-0.5</td>
<td>15.1</td>
</tr>
<tr>
<td>Sweden</td>
<td>-0.1</td>
<td>5.6</td>
<td>-0.4</td>
<td>-0.3</td>
<td>-4.3</td>
<td>-0.6</td>
<td>9.4</td>
</tr>
<tr>
<td>Hungary</td>
<td>3</td>
<td>11.3</td>
<td>-5.4</td>
<td>-0.7</td>
<td>-1.1</td>
<td>-1</td>
<td>13.8</td>
</tr>
</tbody>
</table>

Luxembourg and Cyprus. In the first country, the number of the pensioners will be 3.2 times higher for the persons who are over 65 years old, compared to 2.2 at present; this evolution represents the effect of also granting pensions to the labourers coming from foreign countries, but who performed activities in that economy.

The projected decrease in number of the pensioners who are paid from the public budget related to the aged population should not only be referred to the extension of participation on the labour market over 65 years old, but also to the extension of the private pension schemes or to the higher increase tendency of the population which is over 65 years old, compared to the persons who are between 55 and 64 years old (out of which other pensioners could derive from).

In Table 2 we have also included another indicator which is more exact in outlining the impact of the demographic evolutions upon the public budget, namely the dependency rate of the pension system, calculated as a ratio between the number of those who benefit from pensions and the number of the contributors. As the increase in the percentage of the population which is over 65 years old is made to the disadvantage of decreasing the population which is able to work, we can expect that the ratio will increase during the period 2010-2060, despite the possible increase of the percentage of employed persons, namely the possible contributors to the public pension budget. The estimates made in 2008 confirm this reality, so that all the EU countries (for which there are available data) will record an increase of stress upon the contributors between 3 percents (Denmark) and 61 percents (Lithuania). The higher the dependency rate, the lower the capacity of the public system to finance the public pensions.

Considering all these, the most vulnerable economies are Romania, Hungary and Bulgaria, under the terms in which the number of the pensioners will represent at least 76% of that of the contributors to the public system in 2010. Their situation of the pension systems will get worse until 2060, when, besides Greece, Luxembourg, Lithuania, Poland, Slovenia and Slovakia, they will have an improper dependency rate. In Romania, Bulgaria and Lithuania, the number of the pensioners will be 22% higher than that of the contributors, while in the Netherlands and Denmark will also have a ratio of at least two contributors to one pensioner in 2060. The efficiency of the two Northern countries is the result both of a quite low rate of dependency of the aged population, and also of a high percentage of the employed population.

The increase of the stress upon the contributors results in the increase of the public pension system’s budget deficit in most of the member countries for which there are available data, the results being included in the last two columns of Table 2.

### Table 2

<table>
<thead>
<tr>
<th>Country</th>
<th>2010 Number of pensioners/population 65+</th>
<th>2060 Number of pensioners/population 65+</th>
<th>2010 Number of contributors</th>
<th>2060 Number of contributors</th>
<th>2007 Contributions for pensions – expenses with pensions (% of the GDP)</th>
<th>2060 Contributions for pensions – expenses with pensions (% of the GDP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU-27</td>
<td>137.4</td>
<td>110</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
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<td>170.3</td>
<td>140.5</td>
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<td>-5.6</td>
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</tbody>
</table>

**Source:** European Commission, Economic Policy Committee (2009a).

If the predicted evolutions maintained at present, then Greece, Luxembourg, Cyprus and Slovenia would record a deficit of at least 10% of the public pension budget. Among the economies which have transferred a part of the contributions from the public systems towards mandatory financed systems, which are privately managed, only Estonia and Latvia would record budget surpluses in 2060. Romania would make the transition from a budget surplus of 0.1% of the GDP in 2007 to a deficit of 8.6% in 2060, if the budget payments for pensions increase much more than the collected resources. The different impact upon the balance of the pension public budget of the EU-27 countries represents the consequence both of the gaps between the demographic evolutions, and also of the diversity of the public pension systems and of the intensity of their reforms.

**Examples of reforms implemented in the EU member states**

The pension systems have a common element represented by the public pension pillar, while the importance of the occupational pension schemes and of the private pensions varies among the member countries. The core of the public system is constituted either by a single scheme for all the employees, or a differentiated scheme according to the different sectors of activity, also called occupational scheme. In most of the European Union’s states a minimum pension is granted for the persons who do not fulfill the eligibility criteria or for the persons whose previous wages were very low. In some of the countries, such as Denmark, the Netherlands, Ireland and Great Britain, the public pension system ensures the right to a unique pension in a first stage, which can be added by the contributions related to occupational pension schemes. In Spain, Cyprus and Ireland, the participation to them is voluntary for the employees from the private sector and in the public sector it is conditioned by the participation to the public pension system. Moreover, Sweden and most of the new member countries have directed a part of the contributions to the public system towards the private pension funds; their participation is conditioned by continuing the payments to the public...
pension systems, and for some of the categories, such as those who have just entered the labour market or the aged labourers, certain restrictions can exist with reference to the access to the private schemes. Besides these systems, in which the financing is made from the employees’ mandatory contributions, there are also the voluntary private pension schemes, which are present in all the economies, except Cyprus.

The divergences between the pension systems also result in the type of pension they offer. Thus, there are not only transfers for age limit, but also the right to early pension, for survivors and for suffering persons, the last of them can also be paid from the health insurance budget, as it is the case of France and Great Britain. The financing method for the pension budget is also different among the member countries, but most of them are insured by means of the pay-as-you-go (PAYG) system, in which the contributions which are collected at present are used to grant the current pensions. To complete this mechanism, the budget resources can derive from taxes, as it is the situation of the minimum social pension, and from the reserve’s government funds.

The pension systems suffered severe changes during the last years, along with the increase in the population’s ageing process, their reforming constituting an opportunity for decreasing the stress upon the population which is able to work, estimated to decrease during the following five decades. In order to identify Europe’s future configuration of the pension schemes, this section makes a synthesis of the main reform measures taken by the member states, these reforms making reference to the modification of the pensioning age, to the contributions and to the benefits.

a) Most of the member states increased the legal pensioning age and they established its progressive equalizing for men and women.

This reform is strictly correlated with the increase of life expectancy and it has been preferred to a reform in which the pension quantum would be decreased. This measure determines the increase of the budget returns and it allows the decrease of the population’s ageing impact upon the public pension budget. Thus, at the end of 2011, the legal pensioning age will be at least 62-63 years old in the new member states which are quite less economically developed and 65 years old in almost all EU-15 economies, and until 2020 it will reach 67-68 years old in some of the countries. Besides this measure, the decision was to increase the pensioning age for women and to progressively equalize it with the men’s pensioning age. The reforms implemented by the member countries have the same tendency, but the intensity in changing the pensioning age differs, as there are divergences between the current levels and the citizens’ average life expectancies, as it can be noticed in Table 3.

Table 3

<table>
<thead>
<tr>
<th></th>
<th>Legal pensioning age (years)</th>
<th>Average life expectancy (years)</th>
<th>Legal pensioning age (years)</th>
<th>Average life expectancy (years)</th>
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The differences between the EU-27 countries with reference to the men’s pensioning age are quite low (maximum five years), under the terms of a difference between the highest and the lowest life expectancy of approximately 13 years. In such a situation, a male pensioner from the Baltic States, who retires out of the labour market at the legal age, will benefit from pension maximum five years, while in the Northern and Southern countries the period for granting the transfers exceeds 11 years. The result is that any decision to increase the pensioning age which is not justified by the increase of life expectancy will generate a decrease of the aged persons’ welfare in most of the new member countries. The situation is quite more favourable for women, as there is a higher correlation between the pensioning age and the life expectancy, despite the decision to extend the working period, implemented during the last five years. Thus, the period for granting pension is of minimum 15 years in Latvia and maximum 24 years in France. The equalization of the pensioning age between men and women is already present in 11 of the member countries, and this tendency will also continue in other member countries, such as Austria (in 2033), Slovakia (in 2016), Estonia (in 2016) and the Czech Republic (in 2013, for the women without children).

According to the data included in Table 3, we can notice that the new EU member countries encounter the highest risk related to the population’s ageing, which affects both the pensioners’ welfare degree (especially for men), and also the sustainability of the public pension systems. If the tax basis is quite low within these economies (the employment rate is lower than the European average, and the percentage of the inactive population is high), any reform measure for the pension systems will certainly increase at least one of the two above mentioned risks.

b) Entirely granting of the pension was conditioned by the increase of the period when contributing to the public pension system.

In order to discourage the early pensioning, the member countries completed the measure of increasing the pensioning age with the increase in the minimum number of contributing years, also taking into consideration the persons’ average life expectancy. Thus, France established the increase in the number of contributing years for the next period, but only depending on the increase of life expectancy, under the terms of keeping a constant ratio of 1.79 (as the one recorded in 2003) between the period when the social insurance have been paid and the period when a person would benefit from pension. As for the pensioning age, if
the differences between the member states are quite low, they increase when establishing the mandatory contribution period:
- 47 years in Cyprus, starting from 2013, compared to 43 years at present (the private sector);
- 45 years in Belgium and Austria;
- 41 years in France, beginning with 2012, while at present it is 40 years;
- 40 years in Denmark, Ireland, Italy, Portugal, Hungary, Luxembourg, Slovenia (for men);
- 37 years in Greece, 35 years in Spain and 30 years in Lithuania.

The measure to extend the contribution period should be in line with the number of studying years and with family life; otherwise, the women and the persons who have superior qualifications would not benefit from their entire pension until reaching the legal pensioning age.

c) In order to increase the employment degree of the aged persons, the access to early pensioning decreased.

The employment rate of the persons who are between 55 and 64 years old will not reach the level of 50%, which was established in 2000 in the Lisbon Strategy, despite the approximately 10 percents increase occurred during the last ten years. Moreover, we can notice the tendency to decrease employment up to an old age. Thus, while 73% of the persons who are between 50 and 54 years old have a job, and this percentage decreases to 56% for the persons who are between 55 and 59 years old and only to 28% for the persons between 60 and 64 years old.

In most of the pension systems, there is a traditional option of early pensioning, in the past applied especially to the persons from the continental, the Southern and the EU new member. The economies which have not predicted such a pension are those which implemented the unique pension scheme; however, in their cases the early retiring out of the labour market is only possible depending on the contributions to the private pension system. During the last years, most of the member countries chose to make gradual restrictions for the access to the early pensioning, in order to increase the percentage of employment for the population between 55 and 64 years old, under the terms of the significant increasing potential for this rate. According to a study made in 2006 for the EU-15 countries, we can notice that 57% of the persons who belong to the above mentioned age category are inactive, and 26.4% of the total are retired out of the labour market. Their percentage is different in the member states, being only 6.5% in Sweden and 41.5% in Belgium, respectively 40.4% in Germany. Moreover, 12.6% of the women, namely 6.6% of the total of those who are between 55 and 64 years old explained inactivity by assuming family or personal responsibilities. The result is that 33% of the inactive population could be integrated on the labour market if early pensioning decreased and if certain social services were granted for taking care of children and of invalid persons.

The early retiring out of the labour market would only be accepted as a reward for the labourers who have a high number of working years. Thus, in France, the reform of the pension system implemented in 2003 provided the option of early pensioning before the age of 60 years old only for the persons who began their professional carrier at an age between 14 and 17 years old and who have the necessary number of the working years so that they could benefit from the entire pension. Moreover, the explanation for the early pensioning is related to the nature of the performed activity and to the labourers’ working conditions. At present, the member countries have introduced a conditional side of the early pensioning scheme or they have entirely given it up, as we can notice in the measures included in Table 4.
### Measures for limiting the early pensioning

<table>
<thead>
<tr>
<th>Conditions for early pensioning</th>
<th>Particularization of the conditions in the member states</th>
</tr>
</thead>
</table>
| Only for certain categories of labourers | - labourers over 65 years old (Denmark)  
- labourers who were born after 1/1/1949 (Poland)  
- labourers who have hard working conditions (Bulgaria, Estonia, Romania, Greece, Italy, Spain)  
- labourers from police, army (in most of the member states) |
| A very long period of contribution to the public budget | - 15 years (Estonia); - 480 months (Luxembourg); - 25 years (the Czech Republic);  
- 35 years (Belgium, Germany and Malta);  
- 37 years (Greece and Italy); 40 years (Slovenia) |
| Establishing a period for early pensioning before the legal age | - 2 years (Cyprus, Germany and Slovakia);  
- 3 years (the Czech Republic, Estonia and Finland);  
- 4 years (Lithuania and Malta);  
- 5 years (Belgium, Slovenia and France, the last of them only in case of a disease);  
- 10 years (Portugal) |
| Penalty for solicitors | - 0.9% for each 90 days (the Czech Republic);  
- 0.4% per month (Estonia and Lithuania);  
- 0.5 % per month (Portugal, Sweden and Slovakia);  
- 0.6% per month (Finland); 4.2 % per year (Austria);  
- 80% of the usual pension (Latvia) |
| Elimination | - gradual (Austria) and definitive (Latvia, starting from July 2008) |

**Source:** European Commission – Social Protection Committee (2008).

The decision to gradually give up the early pensioning system is not automatically generating the increase of employment rate of the aged persons. So that we could analyze this objective, we consider that the following conditions are cumulatively necessary:

- a favourable evolution of economy, which supposes the increase of labour force demand;
- granting taxation facilities both to the companies which hire persons over 55 years old, and also to those labourers;
- improvement of the working conditions and adjusting the working hours, especially in order to prevent certain problems related to age; in their absence, a higher risk of pensioning for medical reasons will occur;
- decreasing the advantages of the unemployed and aged persons, which determined them to make the direct transition towards pensioning and providing them access to permanent training programs (according to the flexicurity principles).

**d) Under the terms of increasing the life expectance, the extension of the active life is stimulated, and this also includes postponing of pensioning.**

The tendency to increase life expectance in all EU member countries will determine, in the absence of any reform, the increase in number of the years in which a person will benefit from pension, and this will constitute an additional stress upon the public insurance budget. Under these terms, most of the economies decided to encourage the postponing of pensioning by paying incentives to the labourers who exceeded the legal pensioning age. The applied solutions are not similar, as there are countries in which the extension of the working period is unlimited and other countries in which certain restrictions are established with reference to the age limit or to the number of years to postpone pensioning, as in Latvia, Greece and Cyprus. On the contrary, Sweden does not grant any additional benefit to those who are staying on the
labour market after 65 years old, while Ireland the citizens are not offered the possibility to retire after the legal age. Table 5 presents the main measures taken to stimulate the extension of the working period, as well as the possible conditions related to them:

Table 5

<table>
<thead>
<tr>
<th>Nature of incentives to postpone pensioning</th>
<th>Member countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Granting benefits according to the additionally working period (without providing a maximum period)</td>
<td>- 0.9% per month (Estonia); 0.6% per month (Finland); - 0.5 % per month (Germany, Slovakia, Hungary); - 1.5% for 90 days (the Czech Republic); - 3.6% per year (Romania); - between 7.5% and 10.4% per year (Great Britain); - 3% during the first year and 1.5% starting with the 5th year (Slovenia); - 0.75% per quarter for 60 years old and 40 years of activity; after 65 years old, 1% per quarter (France)</td>
</tr>
<tr>
<td>Limiting the incentives according to the age</td>
<td>- maximum 67 years old (Greece); maximum 68 years old (Cyprus); - maximum 75 years old (Denmark, for the additional pension); - maximum 5 years after the legal age (Latvia; 8%/year)</td>
</tr>
<tr>
<td>Establishing incentives according to other criteria</td>
<td>- 0.33% per month in case of a contribution during 15-24 years and 1% per year for a contribution during over 40 years (Portugal); - 4.2% per year up to maximum 12.6% of the pension (Austria)</td>
</tr>
</tbody>
</table>


One of the modalities which could render this measure functional consists of elaborating a system to facilitate the possibility for the labourer to choose between staying on the labour market and retiring. For this purpose, Sweden records a good practice, as it is the economy with the highest employment rate for the persons between 55 and 64 years old. The elaboration of the pension system in this country is based on the principle of life earnings, a person having the right to an annual pension based on the pensions capital divided to the anticipated life expectance. As a consequence, the aged persons who decide to postpone the pensioning moment will be granted a higher pension. Another possibility to increase the period spent on the labour market is to combine the wages with the pension, through a partial pensioning system. It is functional in seven member countries, but it only refers to 10% of the European pensioners who are of maximum 65 years old and to only 1% of those who are over this age.

e) In order to decrease the stress upon the public budget, the rule for establishing the pensions has been modified.

Under the terms of the predicted demographic evolutions, the increase of the pensioners’ number and the decrease of the employees’ number generate the increase of dependency on the public pension system. In order to reduce this effect, the member countries modified the calculation modality for the pension, according to three criteria:

1. The criterion of sustainability.

Some of the member countries (Germany, Slovenia, Finland, Italy, Portugal and Sweden) acted for correcting the increase of pension granted according to the life expectance and to the moment of pensioning, based on the sustainability factors and on the decreasing coefficients. Thus, in Germany, the pension’s level is settled according to the ratio between pensioners and contributors; the basic pension point is increased according to the modification of the gross wages, after which it is adjusted according to the sustainability coefficient.
2. The criterion of indexation.

With reference to the rule for pensions’ indexation, there are several models applied by the member countries, under the terms of references to inflation, to the nominal or real increase of wage and to the rate of economic growth:

- the Northern countries chose indexation according to the evolution of the national average nominal wage;
- Spain, France, Italy and Austria take into consideration the inflation rate;
- Belgium and most of the new member countries apply indexation to pensions according to a mix between wages and prices;
- Romania and Latvia take into consideration the real variation in wages;
- Portugal takes as reference the inflation rate, to which they add a part of the rate of economic growth.

Replacing the pensions’ indexation, made according to the wages, with their variation with the evolution of prices determines a slowing down in the increase of expenses for pensions as a percentage of the GDP, but it has negative effects upon the pensioners’ welfare. The pensioners’ earnings, related to the employees, will get decreased, as long as the rate of increasing the revenues of those who are retired out of the labour market (according to inflation) is lower than the percentage of increasing the wages.

3. The reference criterion for calculating the pensions.

When settling the value of the pensions, there should be taken into consideration the average wage earned by the labourer, either during his entire life, or during a fixed time interval. Traditionally, most of the member countries use to have as a reference the average revenues from the end of the carrier or from the years with the highest wage, but this fact can determine a much higher increase of the expenses for pensions, under the terms of the current demographic changes. That is the reason why the EU tendency is to extend the period taken as a reference in order to calculate the pensions. For example, Austria will replace the wage earned during the best 15 years with the labourer’s average revenues earned during his carrier, this last mentioned reference point being already characteristic for Hungary, Portugal, Latvia, Slovakia, Finland and Sweden.

All the three criteria applied for modifying the rule for calculating the pensions can improve the balance of the public pension budget, but they generate a relative decrease if the pensions, related either to the previous levels, or to the wages. A modality which can help in compensating this decrease is constituted by the parallel contribution to the private pension schemes.

f) in order to increase the pensioners’ future revenues, the mandatory pillar of the private pensions has been introduced.

Under the terms of the demographic changes, several EU-27 countries have encouraged the creation of private and occupational pension schemes, but the funds which administrate them have reached their maturity yet. The explanation is that the stress set upon them is still very low, only some of the countries being characterized by an increased number of persons who will retire and, thus, who will withdraw their contribution given to the fund. In most of the cases, the contributions are higher than the withdrawals, and this fact will not result in an additional stress upon the private funds, especially during the current economic recession period, when the value of the owned assets is getting decreased. The private pension schemes record an average covering level which exceeds 55% in countries such as Denmark and the Netherlands, this indicator outlining the percentage of the pensioners who contributed to the private funds out of the total persons who retired out of the labour market. Besides the private pension scheme with voluntary contribution, some of the member states implemented a private system, which was financed by a part of the amounts which were previously directed
towards the public pension system. Due to the short time interval since its elaboration, the expenses made by this system are very low, only Hungary and Sweden reporting payments to the pensioners which are quite higher, but which are very low if related to the GDP. For 2060, the forecasts show that the level of the expenses related to the mandatory private pension schemes will represent 1.4% of the GDP in Sweden and 4.8% of the GDP in Latvia.

The value of the pensions which will be granted by the private pension schemes depends not only on the contributions, but also on the evolutions of the financial markets. As a consequence, the revenues from pensions can get decreased under the terms of some shocks which generate the decrease of the assets’ prices. When making an analysis for the impact of the current financial crisis upon the private funds existing in five member countries which have a tradition in the voluntary private pension schemes, the European Commission (2009) identified the following evolutions:

- in Ireland, an economy which is characterized by a high dependency of the pensioners on the private pensions, the private funds recorded negative efficiency during the last months;
- in the Netherlands, the system’s security is provided if the ratio between assets and liabilities of the private funds is at least 130%; it decreased from 140%, at the end of 2007, up to 90% in February 2009;
- in Denmark, the value of the private funds’ assets decreased from 138% of the GDP in 2007 up to 119% of the GDP in 2009;
- in Sweden, the value of the assets within the mandatory private pension system decreased by 34.5%, at the end of 2008, compared to the end of 2007;
- in Great Britain, approximately 90% of the existing funds record deficits.

The deepening recession, already anticipated for EU in 2009 and its possible extension in 2010, will result in much higher decreases of the assets’ value administrated by the private funds, thus increasing their deficits and affecting the possibility to pay the pensions. In such a situation, the deficits of the private funds will be even higher than that recorded by the public pensions, which encountered decreases in the collected financial resources. The occurrence both of a recession period and also of a slowing down of the economic growth during the next period and of a huge increase in the number of pensioners, together with the retirement of the baby-boom generation, will seriously affect the sustainability of the pension funds, either private or public.

3. Results and discussions

The solutions identified for decreasing the stress set upon the EU demographic changes, as well as the increase of labour force’s employment, the increase of productivity, the inclusion of immigrants on the labour market and providing sustainability to the public finances, they all seem utopias under the terms of the economic crisis experienced by the European Union. Thus, the demand of labour force has significantly decreased and this fact determined the increase in the rate of participation on the labour market. According to the estimates made in April 2009, the unemployment rate will fast make the transit from a minimum to a maximum of the last 30 years, and the employment earnings recorded during the last 3-4 years will be cancelled. Moreover, the increase of unemployment has generated additional stresses upon the immigrants on the labour market. All these will be completed with the decrease of the budget returns as a result of the decrease in the national revenues, and this resulted in the increase of the member countries’ budget deficits.

Regarding this aspects, we consider that the employment rate increase and not the increase of the social transfers will generate the long-term decrease of poverty and of social
inequities. Growing the employment rate (investments, flow taxation, attractiveness of the business environment, flexibility of companies and of labor) will constitute a fundamental condition in order to provide the sustainability of the public pension systems and, generally, of the national public budget. The vulnerable groups' integration in the labor market to a larger extent (women, persons between 55 and 64 years old, young persons) will provide the employment rate increase. In order to diminish the impact of the demographic changes upon the public pension budget, we consider that it is absolutely necessary to increase the pensioning age, but this should be made taking into account the expectation of life.

Any decision referring to the increase of the budget resources for the social policy will have to be justified by the increase of the economy's competitiveness; otherwise, the budget resources will come from higher taxes or from loans, and this will negatively affect the future economic development. The social transfers will provide both the social security of the vulnerable groups (excluded from the labor market), and also, in the case of the people who are capable of working, the decrease of dependence on the social security budget. From our point of view, the main measures adopted for this purpose should refer to the following: the increase of incentives for entering/maintaining on the labor market, the implementation of active and preventive policies for the vulnerable categories, providing assistance in job searching, joining programs for continuous training and for providing social security.

We conclude that the accompanying structural reforms require maximum urgency during the substantiation and implementation stages. The economic development of an economy should also be conditioned by the increase of the educational degree and by the labor’s joining the continuous training programs, in order to increase flexibility. The government and the public institutions will play a pro-active role in promoting competition, innovation and structural changes in economy, thus encouraging the implementation of new technologies in order to stimulate the long-term economic growth.

Aknowledgements

This article represents the result of grant research Building and implementation of an econometric model in order to increase the efficiency of the fiscal policy considering Romania’s adhesion to the Euro area, financed by CNCSIS Exploratory research projects, Program Ideas, code 1766.

Notes

(1) In five of the member countries (Slovakia, Malta, Romania, Cyprus and Lithuania), the intensity of the population ageing influence upon the expenses for pensions will not decrease after 2040; considering this fact, the estimates show that Romania will be the most vulnerable economy during the period between 2040 and 2060.
(2) The only exception could be the situation of the economic recession, accompanied by the decrease of the average nominal wages; under these terms, the indexation applied according to the inflation (assumed to remain positive) will generate a nominal increase of pensions, and that which is related by wages will determine a decrease of the transfers made towards the pensioners.
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Postdoctoral researches
Abstract. The multidisciplinary character of quality of life (QOL) leads to the necessity to identify a pertinent definition of the concept, either through an overall conceptualization of QOL, or through its dimensions. Although this concept is most frequently included in the much broader area of sociology, scientific papers present a series of approaches when it comes to defining QOL (economic, marketing, environmental, health, etc.), all these leading to the building of a much clear image for quality of life and for its implications within different domains. The present paper makes a short review of the most important moments that influenced QOL evolution, then focusing on the most important definitions given to the phenomenon, by stressing out the originality elements brought by each of these definitions.

Keywords: quality of life; multidisciplinary; conceptualization; QOL dimensions.

JEL Code: I31.
REL Codes: 2B, 18F.

1. Quality of life evolution

Although about quality of life we can speak at the macroeconomic level since the early ’50, when the main areas of interest were the level of happiness and the well-being of the society, the QOL concept gained theoretical valences in the ’70, for starters in papers from the Scandinavian countries and the United States, and then in many articles from all over the world, papers that argued the importance that society and each individual have to give to improving quality of life.

The starting point for developing the QOL concept in the United States was represented by the fact that, in full economic development, the society was facing an increase in violence, crimes and riots. Therefore, the economic growth wasn’t sufficient anymore in describing the quality of life; researchers had to take into account social indicators also. The source of QOL studies is represented by the awareness that economic development doesn’t necessary brings wealth and happiness (Baltatescu, 2009).

In the last three decades, the QOL domain has became one of official interest within the European Union (Marginian, 2004). An example is the fact that European Foundation for the Improvement of Living and Working Conditions (founded in 1975, with headquarter in Dublin, Ireland) regularly launches research and monitoring programs for quality of life.

Giving the society’s evolution and the social trends in the periods of time mentioned above, quality of life gained in importance, mainly because of the ecological movement, which imposed its valences both at the macroeconomic level (through directives and legislative rules), and at the individual’s level (through the development of a social responsible behaviour).

In Romania, quality of life studies developed since the ’70, when our country was trying a political delimitation from the Soviet Union, fact that favoured a series of occidental concepts, such as concern for well-being and quality of life.
After the 1989 revolution, the QOL importance enhanced within the context of the new expectation that the population about improving their living conditions. This fact was supported also by the foundation of the Quality of Life Research Institute, on January 2nd, 1990, within the Romanian Academy. The development of such bodies that focus on QOL studies led to shaping both a vast literature, and a complex research methodology, with specific techniques and instruments.

Romania’s EU accession opens even more the opportunities for QOL research, considering the fact that the European directives promote generic programs for improving quality of life, and also specific programs referring to a series of QOL components (such as health, well-being, public services, ecology, etc.). Thus, in our country also are designed and implemented a series of legislative directives, which promotes a healthy lifestyle, and therefore, an improvement in the quality of life (for example, the National Strategy for Sustainable Development – 2013-2020-2030).

2. Quality of life conceptualization and dimensions

The need to identify a QOL definition emerges from the fact that the concept evolved faster in practice than in theory, fact that requires a clear delineation in QOL theory, a conceptualization of the phenomenon in a overall approach, but also with a specific analysis on activity areas, so valid measurements for QOL can be developed.

Another motive for the need to define the quality of life derives from the multidisciplinary character of the concept, which leads to identifying a series of evaluating criteria that belong to different domain. Without a clear conceptualization for QOL, the evaluation will be spread in too many domains, fact that will make difficult an objective and pertinent evaluation of the concept.

Moreover, because of the multidisciplinary character (Raphael, 1996, p. 149), the existing definitions approach the QOL either at the society’s level (definitions from domains such as sociology, economy, public health), either at the individual’s level (definitions made by specialists in psychology, marketing or medicine).

In literature, QOL definition has a lot of variants, starting from a general definition to one that presents the concept through its components or its areas of application.

Starting from one of M. Farquhar paper (1995), Scottish Executive Social Research presents a classification for the existing QOL definitions (shown in Table 1).

As mentions earlier, a lot of QOL papers doesn’t give a clear definition of the concept, but rather identify the way in which it can be measured. K.D. Keith (2001, p. 51) says that this is the point of view of many researchers that advocate the need to analyze QOL within a domain of interest, rather than trying to give a general definition of the concept.

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<tr>
<th>Type</th>
<th>Name</th>
<th>Description</th>
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<tbody>
<tr>
<td>I</td>
<td>Global definitions</td>
<td>The most common, general, type of definition – usually say little about the possible components of QOL. Usually incorporate ideas of satisfaction/dissatisfaction or happiness/unhappiness.</td>
</tr>
<tr>
<td>II</td>
<td>Component definitions</td>
<td>Break down QOL into a series of components, dimensions or domains, or identify characteristics deemed essential to any evaluation of QOL.</td>
</tr>
<tr>
<td>II a</td>
<td>- non-research-specific</td>
<td>Identify a number of dimensions of general QOL, but may not necessarily claim to cover every possible dimension</td>
</tr>
<tr>
<td>II b</td>
<td>- research-specific</td>
<td>Explicitly tailored to meet the objectives of a specific piece of research. May therefore overlook or exclude certain dimensions of QOL considered less relevant to the research aims.</td>
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Table 1
Most QOL specialists include the quality of life concept in the much larger area of sociology. However, I. Marginean (2004, p. 29) affirms in his work “Quality of Life in Romania” that trying to link the QOL concept to only one disciplinary area will lead to diminishing the significance that this concept has both in theory and in practice. Therefore, in order to be more close to the truth, we can state that QOL is at the junction of a series of domains, such as sociology, economy, ecology, medicine or political science.

However, first definitions for quality of life came from sociological papers, the authors being preoccupied with defining a series of terms that describe overall the QOL. Starting with the ‘70, those terms are found in increasingly more sociological researches (Ferriss, 2004, p. 38), the specialists focusing especially on human condition.

A pertinent analysis of the way QOL is approached in sociological researches was made by Scuessler and Fisher (1985), in their paper „Quality of Life Research and Sociology”, presenting the most important studies starting with 1970. To make more obvious the relationship between sociology and the quality of life, we can make a simple search of the QOL term in ISI Web of Knowledge (www.isiknowledge.com - data base acknowledged at the international level as having the most important and relevant papers from scientific journals and books, as well as research raports and conferences), search that will reproduce more than 100,000 results for papers that approached QOL until now, from which 44,000 belong to social science.

Quality of life is defined in the Oxford Dictionary of Sociology as a concept that although has its origins in sociology, has long exceeded its borders, through the multitude of economic indicators that are used in the QOL measurement. M. Farquhar (1995) states that quality of life is the most multidisciplinary concept in use today, R. Cummins (2000) highlighting that this multidisciplinary represents also the biggest advantage of the QOL.

I. Marginean gives a comprehensive definition for quality of life, assuming that this concept can’t be separated from the elements that determine and defines it at the same time (well-being, human development, social capital, society’s quality, social exclusion/inclusion, etc.). Thus, the author defines QOL as the ensemble of elements that refers to physical conditions, social economic situation, culture, politics, health in which individuals live, to the content and nature of their activities, to the characteristics of their relationships and the social processes to which they participate, to the goods and services to which they have access, to the models of consumptions adopted, to the environment evaluation and its results, to the subjective state of satisfaction/insatisfaction, happiness, frustration etc. (Marginean, 2004, p. 216).

The same author has identified two decades ago a series of specific attributes through which QOL can be defined (Marginean, 1991, p. 15): the person (health, safety, fears), the population (vital statistics), natural environment (pollution factors, affected areas, standards), human settlement, home, social environment (trust in people, social pathology), family, employment, macroeconomic resources for the standard of living (GDP/capita, population’s

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<tr>
<td>III</td>
<td>Focused definitions</td>
<td>Refer only to one or a small number of the dimensions of QOL</td>
</tr>
<tr>
<td>III a</td>
<td>- explicit</td>
<td>Focus on a small number of dimensions of QOL considered essential to QOL, but does so explicitly.</td>
</tr>
<tr>
<td>III b</td>
<td>- implicit</td>
<td>Focus on one or two dimensions of the broader concept of QOL, but implicitly, without making this clear.</td>
</tr>
<tr>
<td>IV</td>
<td>Combination Definitions</td>
<td>Global definitions (same as type I) that also specify dimensions (as in type II).</td>
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consumption fund), income (sources, level, structure), consumption, services, household, education (access, quality), social assistance and assurance, culture, leisure, politic environment, public order, general satisfaction with life and its components.

Quality of life was defined in the same manner by Robert L. Schalock (2004, p. 206), who separated the concept in eight dimensions: emotional well-being, interpersonal relations, material well-being, personal development, mental well-being, auto-determination, social integration and human rights.

The two definitions mentioned above are not the only ones which present QOL through its components, but the analysis of quality of life by individual evaluation of each component doesn’t lead to a overall imagine of QOL, this is way an aggregated analysis is more appropriated, considering the fact that this type of analysis will take also into consideration the inter-conditioning within the QOL components.

In his work “An Integrative Approach to Quality of Life Measurement, Research, and Policy”, Robert Constanza gives a definition to quality of life from the perspective of the two approaches that determine it – objective and subjective. From his point of view, “quality of life is the extent to which objective human needs are fulfilled in relation to personal or group perceptions of subjective well-being” (Constanza et al., 2008). While objective human needs are basic needs for subsistence, reproduction, security, affection, etc., the subjective perception focuses on happiness, satisfaction with life, utility, or welfare.

On the same principle of the duality in QOL, Robert A. Cummins (1997) defines the concept as being both objective, and subjective, each axes representing the aggregation of the seven domains: material well-being, health, productivity, intimacy, security, community integration and emotional well-being.

Quality of life was defined also by marketing specialists, especially through the relation that is built between customer satisfaction and his quality of life. Ph. Kotler says that marketing efficiency can be evaluated in terms of QOL, considering the fact that the main objective for marketers is to offer value to consumers, in order to maintain or even improve the well-being both for the individual and the society (Kotler, Armstrong, 2003, p. 20).

M. Sirgy and A. Samli (1995) present QOL from the marketing mix perspective and its influence on consumer behaviour in general, and on improving the quality of life in particular. The marketing mix represents the synergy of the four components of any marketing activity: product, price, placement, and promotion.

The relations between QOL and marketing is even more obvious within the new paradigm – relationship marketing. This concept focuses in building a long-term relationship with the customer, considering the fact that his loyalty towards the company is based on the level of satisfaction perceived after using the company’s products and services.

Starting from this philosophy specific to relationship marketing, we can state the fact that marketers have a subjective approach on quality of life, one that is based on individual need and the level of satisfying them.

Definitions for QOL can be found also in practice, not only in scientific work. Such a definition is the one given by the World Health Organization (WHO), through its project WHOQOL (WHOQOL = World Health Organization Quality of Life), initiated in 1991 with the aim of identifying an instrument of QOL evaluation suitable at the international level. Therefore, in WHO vision, quality of life can be defined as individuals’ perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns (WHOQOL, 1997). This definition underlines the subjective approach for quality of life, within a cultural, social and environment friendly context.
3. Conclusions and perspectives in defining QOL

The possibility to define quality of life through the multiple theoretical and practical perspectives inheres the importance given to this phenomenon, and also develops the number and quality of the evaluation instruments. Although there is no unanimous opinion referring to the most appropriate evaluation method, the fact that specialists from domains such as sociology, economy, marketing, health make a contribution to the QOL methodology leads to a conceptualization that is characterized by clarity, consistency and adaptability to market realities.

For the next period, specialists must try to adapt QOL definitions by considering the effects of the economic crisis on how QOL is perceived both at the society’s level (depending on the macroeconomic indicators with applicability in this period of crisis), and at the individual’s level (considering the decrease in purchasing power, which influences the way a person satisfies his basic needs, but also those of safety, belonging, or self-knowledge).

Acknowledgements

This work was co-financed from the European Social Fund through Sectoral Operational Programme Human Resources Development 2007-2013, project number POSDRU/89/1.5/S/59184 „Performance and excellence in postdoctoral research in Romanian economics science domain”.

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ASSESSING QUALITY OF LIFE –
SOME METHODOLOGICAL ISSUES

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Abstract. The inclusion of quantitative methods placed economics in the field of
knowledge with an undoubted scientifically character. Nevertheless, the current complexity of
social phenomena cannot be explained and neither properly measured using methods implied
by economics. The need for multi- and inter-disciplinary appears to be particularly intense
when one tries to explain and asses the specific dimensions of quality of today human life.
Such a daunting task was undertaken by the Commission on the Measurement of Economic
Performance and Social Progress which opens a new path in social sciences. This path was
immediately followed by a united Franco-German research team which suggests a
methodological guide for statistical assessment of quality of life and also provides a case
study which attempts to demonstrate how the proposed methodology can be applied. In this
context, this paper aims to analyze the commission report and especially the Franco-German
study, in order to assess the methodological difficulties and challenges derived from the
suggested quantitative methods.

Keywords: methodology; empiricism; inductivism; quality of life.

JEL Code: I31.
REL Codes: 2B, 18F.

1. Introduction

In order to access the restricted group of human knowledge with an undoubted scientifically character, economic science, like the rest of the social sciences, must demonstrate not only its concerning with issues vital to the human existence, which it has already proven, but that has the capacity to provide its theories, in addition to a priori logical foundation, a strong practical sense. Usually, the relationship between theories and phenomena which are described is established through measurement. A good theory not only explains the observed phenomena, but also tries to measure it. In the relatively short history of economics, an important series of economists have understood very quickly that the task of a theory should not be reduced to an abstract explanation but also should be extended to quantification. Thus, statistics and econometrics have become a kind of extrasensory organs through which the economist attempts to perceive the phenomena that the theory describes. The inclusion of quantitative methods has provided economics with a fast ascent and recognition that few other academic social sciences have been able to match. It is no less true that another major category of economists, accusing an overrated importance of quantitative methods, preferred to remain faithful to the explaining role of economic theory which is, in their view, the only one able to ensure the real progress of scientific knowledge. This explanatory versus quantitative dispute seems to be solved by economic science that tries to be on a middle ground, where both quantitative observation and abstract explanation plays an equally important role in pushing the limits of this science field.

This symbiosis has allowed economics to provide viable solutions to the initial problems and to push the limits of this science field. The old problems have been replaced by new ones to which, apparently, economics is not able to answer by itself. Current complexity
of social phenomena cannot be measured nor adequately explained by using only the economic methods. In this context, no one questions the need for an interdisciplinary approach. This necessity is even more urgent when one tries to explain and clearly assess the specific dimensions of quality of today human life. The modern interdisciplinary approaches in quality of life are bound not only to explain this complex phenomenon by its very nature, but especially to provide viable methods for assessing the phenomenon, methods which should also be useful to policymakers. From this perspective, perhaps the most important achievement is the work of the Commission on the Measurement of Economic Performance and Social Progress (referred as SSF Commission) which aims to discover the limits of traditional methods of assessment and to provide new approaches to the measurement of social phenomena. The SSF Commission published its results in September 2009 and made a series of recommendations on addressing specific economic performance and especially the quality of life. These recommendations were immediately implemented by a joint German and French research team which, in January 2011, published a case study on the two countries that also represents a methodological guide for implementing the recommendations of SSF Commission.

In this context, this paper aims to analyze the commission report and especially the Franco-German study, in order to assess the methodological difficulties and challenges derived from the new suggested quantitative methods.

2. The SSF Commission recommendations

The analysis of traditional economic indicators derived mainly from the overall assessment of economic outcome using Gross Domestic Product, revealed the necessity of finding new principles which can be used to measure the quality of life as a result of economic and social interactions. The report suggests a sequential approach that operates a separation into three interrelated issues: the identification of economic indicators required for an economic analysis relevant to human and social complexity, the study of welfare and wellbeing, at a multi-dimensional level and, ultimately, a pragmatic perspective on sustainability.

From the first approach perspective, one can notice that the actual economic realities show a situation which, in the past, was treated as a paradox: a high level of production does not necessarily ensure an evolution in the same sense of income and consumption. Blamable for this paradox are, among other things, the flow of revenues entering or leaving a country and the significant differences between output prices and final consumers prices (2009, p. 13). On the other hand, overall indicators such GDP tend to lose their relevance at individual level. There is a growing gap between the overall indicators of global production and those which reflect income, consumption, resources transfers between separate entities and government directed revenue flows such as social benefits provided by the state. These kinds of problems produce a major impact on public policies which should provide a more important role to statistical reconciliation (2009, p. 13). Although income and personal consumption are crucial information in assessing the living standard, one should also focus to the effect of consumption-revenue ratio on wealth. An income-consumption ratio shift reflects a change in the long-term perspective on the standard of welfare. Therefore, a coherent analysis of long-term living standards should be based on an array of data showing the dynamic evolution of preferences and economic behavior (2009, p. 13). Also, this analysis should take into account the unequal distribution of income and consumption among individuals, social groups or even countries. In addition, there is a default in assessing the outside the market activities induced by the high cost of accessing the market mechanisms which led some traders to internalize market transactions. Thus, current indicators fail to take into account services produced within the household and used throughout the household, but especially the distribution of activities between leisure and work (2009, p. 14).
Under the multi-dimensional aspect of welfare, the report notes the need for interdisciplinary approaches to assess quality of life at least from the following perspectives: material living standards, health, education, personal activities including work, governance and political voice, social relationships and connections, environment, economic and physical insecurity (2009, pp. 14-15). From the beginning, such a multidisciplinary approach involves combining objective and subjective indicators. If the standard indicators may be still used to ensure an objective assessment of economic performance, the rest of quality of life dimensions require the need for value judgments based on subjective perceptions of individuals. Thus, welfare itself is the result of subjective perceptions derived from evaluations of individual cognitive aspects such as happiness, satisfaction, joy, pride, pain and worry. The success of quantitative assessment of such matters will result in a significant shift in how quality of life can be understood beyond its purely material aspects. In this case, the methodological challenge resides in the identification of relevant indicators, but especially in the combination of extremely heterogeneous elements. The proper correlation between specific dimensions of quality of life is absolutely necessary to enable the creation of a true image of reality to constitute, at the same time, a useful guide for public policies. The complexity and heterogeneity of data claims the impossibility of a single global indicator, thus the research direction is to suggest relevant sets of indicators that allow both the evaluation and comparison of quality of life dimensions.

Nevertheless, the research goal should focus not only on a static evaluation, but should capture the premises to ensure the sustainability of specific elements of quality of life. Therefore, any measure of quality of life should be accompanied by a separate analysis of its future development.

Consequently, taking into account all aspects previously reported, SSF Commission recommendations are: 1) assessment of material welfare through indicators that measure the consumption and income rather than production itself, 2) analysis should be focused on household perspective, 3) study of income and consumption jointly with wealth, 4) increased attention on how income, consumption and wealth are distributed, 5) extension on non-market activities, 6) identification of indicators able to assess the quality of life through objective capabilities available to individuals, 7) focusing on measuring inequalities, 8) design of observation methods which ensure the relevance for the quality of life of each people and, secondly, satisfy the need for methodological comparability, 9), these data should also permit aggregation into relevant synthetic indicators, 10) observation data must take into account the personal perceptions of individuals who tend to assess their priorities and experiences in a hedonistic manner, 11) the sustainability indicators set should be extended to other social issues than the purely economic; 12) the need to assess the environmental sustainability should generate thorough researches.

3. Franco-German report "Monitoring economic performance, quality of life and sustainability"

3.1. Brief description

In a relative short time after publication of the SSF Report, Franco-German Ministerial Council has asked German Council of Economic Experts and Conseil D’Analyse Economique to conduct a study based on report recommendations in France and Germany. This study finished with a new report completed in December 2010 and made public in January 2011. The report is, on one hand, a methodological guide for statistical evaluation of quality of life and, on the other hand, case study which attempts to show how the proposed methodology can be applied. As the authors say, the study follows closely SSF Commission guiding principles and aims to provide answers to the following questions: (1) “How can we improve our
monitoring of economic performance in order to allow policy makers to gauge the current state of affairs and to react timely and appropriately when crises emerge?” (2) “How can we broaden our perspective from its current focus on economic performance to an assessment of the quality of life more generally, in order to appreciate what really counts for human welfare?” and (3) “how can we design warning signals that alert us whenever the current manner of organizing our lives endangers sustainability, in order to correct our course of action for the sake of our own future and that of generations to come?” (ACE/SVR-Report, 2011, p. III). Assuming that the monitoring of material wealth is a prerequisite for a rational economic policy, life is more than material wealth and human progress in its non-material aspects is difficult but not impossible to evaluate (CAE/SVR-Report, 2011, p. 1) study proposes a structure that betrays, once again, its close relation with SSF Commission report. The study structure revolves around three pillars: economic performance and material wealth, quality of life and sustainability but does not neglect the fundamentals, conceptual framework and guiding principles. The research also suggests an analysis of the current state of affairs by drawing attention to seminal works which study the difficulties of measuring economic performance at individual and global levels (Simon Kuznets, National Income, 1934, William Nordhaus and James Tobin, Is Growth obsolete?, 1972 Marc Fleurbaey, Beyond GDP: The Quest for the Measure of Social Welfare, 2009) and also challenges regarding the assessment of subjective states which decisively influence the quality of life (Richard Layard, Happiness: Lessons from the New Science, 2005 and Bruno Frey, Happiness: A Revolution in Economics, 2008). At the same time, the study firmly place itself in reality, with reference to official documents of the European Union such as Strategy 2020 which mentions the concepts of smart growth (knowledge-based economic development), sustainable growth (promoting a greener, more energy efficient and more competitive economy) and inclusive growth (employment-based economy that provides economic, social and territorial) (ACE/SVR-Report, 2011, p. 7).

In terms of economic performance and material wealth, the study seeks to highlight the limits of traditional methods of measurement based on GDP and the need for a distinction between material wealth and economic performance. It also tries to show that gross domestic product may not represent a proper measure unit even for material wealth. In general, the common flaw of traditional statistical methods is the excessive aggregation of indicators (as in gross domestic product), which tend no longer to reflect the real distribution of data. From the authors perspective, wealth and its spread can not be properly captured by current macroeconomic indicators (CAE / SVR-Report, 2011, p. 14). However the authors admit that, at least in terms of assessing economic performance, gross domestic product provides a solid enough foundation for most relevant indicators derived from it. Consistent with SSF Commission Report, the study suggests a set of six indicators for assessing economic performance and material wellbeing which, according to the authors, provides a balance between comprehensiveness and scientific pragmatism: a) GDP per capita; 2) GDP per hour worked as a unit of productivity, 3) employment rate for the group of persons between 15 and 64, 4) national net income per capita, 5) final consumption expenditure per capita, including government consumption, 6) an internationally harmonized distribution measure of net income per consumption unit (income quintile share ratio S80/S20) (CAE / SVR-Report, 2011, p. 15).

Quality of life is assessed through specific dimensions derived from SSF Commission report which are assigned with a set of relevant indicators, selected from a number of objective and subjective suitable measure units. Thus, quality of life assessed through specific dimensions can be summarized through the following table:
<table>
<thead>
<tr>
<th>Specific dimension</th>
<th>Proposed indicator</th>
<th>Future indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material well-being (Income, consumption, change in wealth, income distribution)</td>
<td>This dimension was analyzed through economic performance and material well-being</td>
<td></td>
</tr>
<tr>
<td>Health (Life expectancy, diseases, disabilities, infant mortality, physical and mental illnesses, health distribution)</td>
<td>Potential years of life lost This indicator collects information on premature deaths, sums up the differences between age at death and 70 years for each of them, and presents the result per 100,000 people. Calculated by OECD Does not reveal the true dimension of health</td>
<td>Healthy life years Built upon the remaining years a person of a certain age can expect to live without disability. Collected by Eurostat. As soon as consistent and reliable data are available for a sufficient intertemporal comparison, it will replace the previous indicator.</td>
</tr>
<tr>
<td>Education (Basic reading and writing skills, knowledge of calculus, problem solution competence, information and communication technology, pupils and students performance, life-long learning, education distribution)</td>
<td>Students aged between 15 and 24 as a percentage of the population of the same age group</td>
<td>Programme for the International Assessment of Adult Competencies</td>
</tr>
<tr>
<td>Personal activities (Working, commuting, various kinds of recreational activities, distribution of personal activities)</td>
<td>Employees working on shift work Shows the ratio between work and leisure.</td>
<td></td>
</tr>
<tr>
<td>Political voice and governance (Citizens’ voice, legislative guarantees, rule of law; possibility to participate in the political process, voter turnout, membership rates of parties, unions, non-governmental organisations, participation in protests, degree of democracy, independence of media, corruption, distribution of political voice)</td>
<td>Voice and accountability Estimated by World Bank as a result of empirical analysis conducted by experts in the field</td>
<td></td>
</tr>
<tr>
<td>Specific dimension</td>
<td>Proposed indicator</td>
<td>Future indicator</td>
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<td>-----------------------------------------------------------------------------------</td>
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<td>in the field. Direct surveys are rare, irregular and survey methodologies does not allow comparison of data.</td>
<td></td>
<td></td>
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<tr>
<td>Social connections and relationships (Family relationships, friends, intensity of friendships, social contacts, distribution of social connections)</td>
<td>Frequency of spending time with people at sport, culture, communal organization</td>
<td></td>
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<tr>
<td>This dimension has assumed increasing importance in the current social context in which social isolation is a risk of premature death as important as smoking.</td>
<td></td>
<td></td>
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<tr>
<td>Environmental conditions (Availability of clean air, water and soil, reachability of pleasant environment next to one's home, climate, distribution of environmental conditions)</td>
<td>Urban population exposure to air pollution by particulate matter</td>
<td></td>
</tr>
<tr>
<td>This dimension reflects a short-term focus and its evaluation shall be based on directly measurable physical indicators rather than individual opinion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal and economic insecurity (Risk of illnesses, injuries, damages, theft, robbery, murder, death, unemployment, social exclusion, becoming poor, distribution of personal and economic insecurity)</td>
<td>Not-at-risk-of-poverty rate Eurostat defines the at-risk-of-poverty rate as “the share of persons with an equivalized disposable income below the risk-of-poverty threshold, which is set at 60% of the national median equivalized disposable income (after social transfers)” . The not-at-risk-of-poverty rate is one minus the at-risk-of-poverty rate.</td>
<td>Personal security index To be developed in accord with that of the Canadian Council on Social Development</td>
</tr>
<tr>
<td>This dimension can be assessed both indirectly through objective indicators and through direct testing of individual opinion on the perception of insecurity.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source**: CAE/SVR-Report, 2011.

Finally, sustainability is assessed, in turn, through three specific dimensions: social, economic and environmental. Social sustainability corresponds, in the author's perspective, to quality of life and can be assessed by dimensions specified above. Economic sustainability is called into question from a medium and long term macroeconomic outlook under the following aspects: (a) sustainable growth that occurs only when a significant amount of wealth created in economy is allocated to investment or non-material capabilities, (2) fiscal and external sustainability, and (3) financial sustainability and the private system. Analysis of macroeconomic sustainability aims, among others, to identify a set of indicators that can provide early warning signals about problems that may occur in the long term. In turn, environmental sustainability is addressed through a series of indicators calculated, however, outside market conditions which focus on biodiversity, the emission of greenhouse gases and global climate change.

### 3.2. Methodological difficulties

First the methodology for assessing economic performance and material well-being raise some problems caused by the limits of applicability of global macroeconomic indicators which can be solved relatively easily through a separation between economic performance and well-being and the identification of relevant welfare indicators derived from overall indicators. Nevertheless the assessment of non-material aspects of a person well-being is facing serious
epistemological difficulties. Overtaking these difficulties is even more necessary for a study endowed both with positive implications consisting of determining verification methods of the current direction in the quality of life, but also with a normative task in determining the social and economic priorities capable to ensure sustainable development (CAE / SVR -Report, 2011: pp. 2-3). The problem is further heightened in the context in which a significant number of European countries, especially those who attach a high priority to the social aspects of the economy (such as France and Germany) provide various social indicators. However, the collected data provides scattered, inconsistent and uneven information. In addition, the lack of an appropriate methodology, these indicators do not allow the possibility of examination through different time periods or different countries. Such indicators may prove useful only if they have the ability to simultaneously meet the following criteria: 1) relevance (to adequately capture changes in welfare), 2) consistency (to be consistent with the theories, to define a limit for aggregation in case heterogeneous information), 3) measurability (statistical data can be observed and collected on reasonable terms).

The daunting task of complying with these conditions is explained by the fact that individual preferences differ and therefore, there are certain limitations in applying the concept of happiness and especially to make interpersonal comparisons of well-being. Therefore a major problem in research of happiness is the impossibility of knowing exactly what subjective evaluation of well-being can be compared between individuals and countries. Moreover, the incompatibility between observed data is completed by the difficulty in terms of aggregation in synthetic indicators capable of accurately describe the real situation. On the other hand, the complexity of the problem requires very cautious interpretation of numerical indicators derived from observations. Even the best indicators of happiness can only be a mere approximation of the actual situation and, therefore, should be treated with caution especially when used in the normative sense as a foundation for policymaking. Considering the limitations of these indicators, one can draws attention to an important danger in this context: data manipulation so as to support certain political interests.

Considering all these empirical observation difficulties of a phenomenon so complex and subjective such as quality of life, the authors distinguished, conceptually speaking, two possible approaches. The first approach, from up to bottom, consists in identifying a global indicator for measuring subjective well-being from which can be derived other relevant indicators. The difficulty of this approach is to design a plausible method of direct measurement of subjective well-being (satisfaction, life satisfaction, happiness). Once this difficulty could be overcome, such an observation method might be used in constructing an aggregate indicator of quality of life that could even replace the classical economic indicators. This method would present compelling advantages both in normative terms through properly oriented social policies and in positive terms where by measuring subjective welfare we can deduce whether an economic policy is effective or not. Although extremely tempting, according to the authors, this approach encounters an insurmountable problem: the observer's inability to directly observe a person's happiness level. Subjective well-being is an honest reflection of the genuine welfare state which the individual is aware but which, due to its complexity, can not be fully observed by an independent researcher. In addition, one can find a strong discrepancy between reality and perception - although a number of objective indicators (consumption, income, housing, food, health) can be interpreted as a significant improvement in the level of countries, many individuals do not aware of or do not perceive that the quality of life has improved in recent decades. Actually, this is a very common empirical problem observed at one point even by Hume who drew attention to the fact that the scientific observer must have normal senses, be in good physical condition, free from any bias able to make comparisons because he must report faithfully what he sees and what he hears (Hume, 1985).

The second approach, called bottom-up, is based on the premise that there are various factors affecting quality of life and only some of which can be assessed monetary. This
approach suggests an indirect welfare assessment based on observation of individual aspects of human existence. Influenced perhaps by SSF Commission report, the authors adopt this approach which is very close to the methodology used in Sen’s capability theory. Thus, the methodology proposed in this study consists of the following steps: 1) organizing the various aspects that influence quality of life in several relevant dimensions, 2) identification of relevant indicators for this dimension, 3) condensation of each dimension to one significant indicator.

One can notice the interesting fact that the conceptual distinction proposed in this study is remarkably similar to the separation operated by John Stuart Mill between reasoning methods available to economists: upwards and downwards, or in logical terms, induction and deduction (Hausman, 1993, p. 28). By choosing bottom-up approach, the study places itself, according to the taxonomy proposed by Mill, in the category of inductive reasoning derived from generalized empirical observations. This result is not surprising, since the study is intended as a methodological guide for the calculation of statistical indicators and statistics by excellence belongs to empirical-inductive methods. Although this kind of reasoning may be viable for complex phenomena such as quality of life in which observation may represent a starting point for knowledge there are some pitfalls specific to induction which the researcher should have in mind.

Thus the first challenge is to systematize the various dimensions that can be significant for the quality of life. Requirements for observations made in a variety of circumstances claims a clarification of relevant criteria for significant variables. Significant variables, as opposed to insignificant or useless variables, originate in theoretical knowledge of the situation. Therefore theory plays a crucial role in observation. Facing such a complex phenomenon and a host of explanatory theories, the authors of this study find themselves in a position to determine the relevant dimensions for quality of life. This subjective choice will always endanger the study results to the risk of being considered irrelevant because certain variables were excluded from the start.

Secondly, choosing individual indicators relevant to a certain quality of life dimension raises the question of limiting the number and types of observations to an extent hold as significant in this context. Always the very vague syntax of the "large number" of comments made in “very different” circumstances raised doubts on inductivist reasoning. The key question that this study should answer is: How many observations are needed to obtain a “large number”? or, in other words, when accumulated observations are sufficient to be relevant to the circumstances? Unfortunately, even this study fails to avoid this serious problem: there is no single answer to these questions and any response different from that of the authors may create vulnerability for this study.

In the third row, the definition of synthetic aggregate indicators is a decision often subjective and arbitrary. Therefore, another problem faced by this study is the relevance and limits of induction. As the primary observation data are processed in increasingly more complex statements, the significance of these statements tend to fall. The authors try to avoid this problem by refusing to design a single indicator of quality of life arguing strongly the lack of significance of such an indicator. This item has been resolved, but only partially, the problem of relevance. While the aggregation problem is solved, there still remains the choice of significant subjective indicators which has to be made. To solve the selection of significant indicators for each quality of life dimension an objective approach is proposed based on the following conditions: regularity, accessibility and comparability. However, imposing such criteria holds the risk of exclusion of truly significant observations because they do not meet the conditions.

Finally, the issue of individual preferences which can not be directly observed is another difficulty of empirical nature. In this context, the researcher may have to apply indirect observation methods through which a series of complementary data can be extracted and interpreted in favor of the study. The use of indirect observation method raises two problems. On the one hand, the alternative use of direct and indirect methods may lead to
inconsistency and incompatibility between the data obtained. On the other hand, processing indirect data in order to extract conclusive information is subject to the risk of different theoretical interpretations. These issues are present in the study where it is noted that, while a number of dimensions (material well-being, health, education, personal activities, and social relationships) are assessed through direct observation, to other dimensions (political voice and governance environmental conditions) are evaluated using data extracted by indirect observation methods. Consequently, this determines, among other things, the impossibility of the comparison between the quality of life dimensions.

4. Conclusions

Epistemological tradition started from the sixteenth century by scientists such as George Berkeley and David Hume and continued until the early twentieth century highlights the fundamental role of observation in the accumulation of scientific knowledge. Thus, it is very evident that natural sciences such as physics, astronomy, medicine and others like them would not have developed in the absence of the empirical method. Yet the emergence and development of knowledge sciences and disciplines of moral or social character highlight the limits of observation. Failure of the experiment, the double perspective of the researcher as participant and observer, random manifestation of social phenomena are reasons which may call into question the ability of quantitative empirical methods to help increase knowledge in the social sciences. On the other hand, it is not less true that empirical studies in economics are measuring and estimating the role at some point in time of some quantitative values for variables relative and subjective and may be useful to obtain predictions of the trend of the evolution of the variables in question.

In this context, the French and German study “Monitoring Economic Performance, quality of life and sustainability” manages to achieve two equally important objectives. On the one hand to test the viability of theories advanced by the SSF Commission report and secondly to capture trends in quality of life dimensions for two major countries: Germany and France.

Report authors of SSF Commission and hence those of the study were placed in the position to make some decisive choices for the destiny of the concept of quality of life. Clearly, such decisions, because of their importance, can be criticized. From this point of view, the most questionable decision seems to be choosing the empiric-inductive method to the detriment of the predominantly deductive one. This choice is justified by the external observer's inability to directly observe a person's happiness level. However, in economics can be identified at least one concept which though it may be determined by external observation is fundamental to economic analysis. It is the economic utility concept, a concept that was not excluded from economic science because of its inability to be determined objectively through empirical observations. Thus, deductively defining an abstract concept that would designate the quality of life, though difficult, it is not necessarily an impossible task. This possibility should be excluded even less under the circumstance that even the empiricist – inducivist methods prove that they are not perfect yet, fact demonstrated by the Franco-German study itself, which beyond its undeniable merits, at least from a pragmatic point of view, fails to achieve a sufficiently high level of objectivity to allow comparisons between the results obtained for the two countries under analysis.

Acknowledgements

This work was cofinanced from the European Social Fund through Sectoral Operational Programme Human Resources Development 2007-2013, project number POSDRU/89/1.5/S/59184 „Performance and excellence in postdoctoral research in Romanian economics science domain.
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RELEVANT INDICATORS OF EMPLOYMENT AND VOCATIONAL TRAINING IN ROMANIA. OPINIONS AND SUGGESTIONS ON IMPROVING THE MONITORING OF LABOR. PROPOSAL OF NEW INDICATORS RELEVANT TO THE FIELD

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Abstract. The study is a rigorous analysis of relevant indicators of employment and continuous professional training, direct approach of determining the design and statistical shortcomings of these indicators, suggest new approaches to the calculation of statistics and how new indicators would serve as faithful reflection for economic realities and social in our country. The declared purpose of the suggested changes and proposals is to achieve a relevant and effective monitoring so as to create necessary conditions for taking proper measures and decisions with full knowledge of the case. In conclusion, the study could be the base for a new approach to the statistical calculation of employment indicators.

Keyword: indicators; employment; vocational training; the number of civil servants; labour market flexicurity.

REL Code: 12G.
JEL Codes: E24, J21.

The analysis conducted covers a range of issues relevant to the implementation of the flexicurity labor market in general and specifically in terms of economic and financial crisis. Moreover, this concept is endorsed by one of the winners of the Nobel Prize for Economics in 2010, as the main instrument of economic recovery and reduces the massive unemployment rate surging to the EU. On the other hand, a number of autonomous trends of labor market actors itself show an upward trend of the implementation of labor market flexicurity.

In the current global financial-economic crisis – the EU, especially some state members, among which Romania, are facing problems with very serious economic, social and political implications. Under these conditions, attenuation and suppression solutions of the crisis effects require fast and effective governmental and institutional reactions and, unfortunately, most of the times rough social measures. However, all these reactions must be weighed carefully and responsibly to avoid any “social collapse”. Like an advanced alloy – very useful when properly made, but rather useless or harmful when made incorrectly – it is imperative that the measures of recovery, of any kind, be taken in full awareness. As in the case of an alloy, the first and probably one of the most important conditions – its formula, must be well known and rigorously respected. Anything in excess or deficit can lead to disastrous effects. Therefore, proper and detailed monitoring of social-economic field becomes a crucial element, without which any attempt of recovery is doomed. Thus it requires a careful scan of key indicators in the social-economic field, namely the relevant, specific indicators of employment, unemployment and professional labor training – in case of inevitable economic shifts across sectors, from the budget to the private sector and the low skilled workforce to the highest qualifications, according to the perspective of the decade 2010-2020, in view of the High EU forums.

As we all know, The National Institute of Statistics monitors – both by means of Employment Balance and also by quarterly Social Surveys, also known as AMIGO – the main
aspects of employment, unemployment and educational/vocational training of the workforce in Romania. In all data collected, references are made – as it is well known - to employed civilian population. This includes, according to the methodology of work balance, all persons who have a lucrative occupation, which they regularly exert in any activity in the national economy, being included in an economic or social activity under a contract of employment or independently, in order to receive income in the form of wages, payment in kind etc. The categories of people included:

- employees working in one of the national economic activities of public sector units (state and national interest), mixed, private, cooperative and universal units;
- employers – managers of private enterprises – who use employee workforce to carry out business activity;
- freelancers;
- unpaid family workers.

Employed civilian population does not include military personnel and people assimilated to them (MND staff, MIA, SRI, conscripts), prisoners and employees of political and public organizations.

\[ \text{ECP} = E + O + F + \text{UFW} \]

Where:

- \( E \) = employees: people who pursue their activities under a contract of employment in an economic or social unit – regardless of ownership, in exchange for remuneration as wages in cash or in kind;
- \( O \) = owners: people who work in their own enterprise, for whose work employs one or more employees;
- \( F \) = freelancers: people who exert their activities in their own premises with their own equipment or who work based on their professional training, without hiring anyone, but may be helped by unpaid family members;
- \( \text{UFW} \) = Unpaid family workforce: people who work in a family economic unit led by a family member or relative who do not receive remuneration in the form of wages or payment in kind.

In the definition of employed civilian population results a lack of a significant segment – namely the military personnel and people assimilated to them (MND staff, MIA, SPP, SRI, SIE and other secret service conscripts), prisoners and employees of political and public organizations. As a result, the transparency of an indicator, considered to be the most important in the last two years, to which, in official statements, both the International Monetary Fund (IMF) and the government with State authorities report to – the number of civil servants – is in Romania a “state secret”.

This indicator, unlike the other relevant indicators such as unemployment rate, published monthly by the Ministry of Labor, the reference interest rate, published monthly by the RNB, or average wage in the economy, published monthly by The National Institute of Statistics, does not appear in any official document of any state institution in Romania. Data on the number of civil servants have been delivered to the press only at the request of media institutions by the Ministry of Finance.

Unfortunately, the Ministry of Finance does not deliver that data programmatically, but only upon request, which, even if the number of civil servants announced by the Ministry is real, makes the most important indicator in Romania, at the moment, impossible to track by anyone interested.

Is it normal that for an indicator, which became so important these days, there are so few public data, therefore, irrelevant? Among many other personalities from the economic and financial field, economic analyst Aurelian Dochia says that it is not normal for such data to be
kept away. From this point of view is very relevant his statement: "There are non-govern mental organizations that have sued the state institutions for this secrecy, especially since such data are of public interest and therefore are subject to law". It is true that the Ministry of Finance gives that data in request. However, if this data would be offered promptly and transparently, the government and the press could become allies, in the sense that having all these indicators in time, the media could explain why the government is obliged to take severe restrictive measures, at least apparently, against the popular interest. It is a shame, but we are dealing, after all, with this secrecy inherited from the previous years.

On the other hand, departmental interests might exist because various contradictions may arise: we report that we fired people and actually, we did not. I think there is such a motivation".

In the spirit of this situation and the positions taken by a number of non-governmental institutions or public figures in this field, I consider of high importance the establishment of a new official and extremely relevant indicator as the total number of civil servants – both from the civil sector and the non-civil, military sectors – throughout the employed population in Romania.

In other news, the National Institute of Statistics – in its many published statistics – introduces the breakdown of employed population by type of property, namely “People employed by ownership of workplace, gender, areas of national economy”. This category, named “public ownership”, which includes ownership of the “state” and “national and local public interest”, is partially irrelevant because it does not highlight the degree of self-financing industries. As we all know – in state property – there are many stock companies with full self-financing. Also, a significant number of public institutions in education, health and other central or local public interest activities are partially, or maybe even full self-financed. Almost the same reasoning applies to “mixed ownership” – included in the statistical report mentioned above.

I consider the indication of the cash flow rate, on the various areas of activity that include public and mixed ownership, to be an element of utmost importance and relevance. This is because a taxpayer from an economic organization, regardless of its ownership, but with all or at least substantial cash flow, is incomparable, as a contribution to the state budget, compared to one derived from an economic organization or public institution funded entirely, or even preponderant, in this budget. Equally true is, of course, the fact that, although their wages are theoretically self-financed, in the end, the state budget is the one that covers possible “holes” in companies with public or mixed ownership.

Therefore, a more intimate, coherent and transparent connection between the National Institution of Statistics, as a national authority having the role to monitor all macroeconomic and social phenomenon, on one hand, and the government, also the Ministry of Finance, the Ministry of Defense and the Ministry of Administration and Interior, on the other hand, can lead to a more correct point of view on these key issues both in social-political and economic terms.

Probably the transparency of this item, though difficult to realize, would lead to a much clearer and intuitive overview on our society and our business. Certainly a more accurate and profound knowledge of economic and social realities of our country, would be the first step in making fair and effective decisions to stop the destructive effects of the economic and financial crisis that has befallen on the general welfare of the society. Obviously, a necessary step, but not nearly enough. Without knowing in detail the data problems, how could we dare propose ourselves to suggest relevant and effective solutions?

Another point to consider is the definition of the National Institution of Statistics concerning the unemployed population. As it is apparent from the quarterly Social Survey, AMIGO, the unemployed population is defined as:
The unemployed population includes, economically speaking, for the purpose of the investigation, all persons who have not worked even an hour and were not even unemployed during the reference period, being in one of the following situations: pupils or students, pensioners (all categories), housewives (performing only household chores), persons supported by other people or by the state or who support themselves on other income (rents, interests etc). In the unemployed category are also included people absent from home for over a year, gone abroad for various reasons (work, education, business, health issues, etc.). Since 2002, unemployed people are also: those who said they were absent from work in the reference week, those who are not certain if they will return to work in the next three months and do not receive at least 50% of the salary from the employer, those who are not available to start work and those who have not actively sought a job.

From the definition of unemployed population taken into consideration, it resulted that in the balance of employed/unemployed population or employed/total population is a parasitic element that misleads the public opinion and the executive and legislative state organizations. This statement is based on the inclusion in this category of people absent from home for over a year, gone abroad for various reasons (work, education, business, health issues, etc.). Also, the statement can be extended to people performing only household chores or to those supported by other people or who support themselves on other income (rents, interests, etc). Although correct in terms of the definition given to the unemployed and employed population, the inclusion in this category of the unemployed creates a false and sometimes alarming image of the overall welfare budget effort.

As such, I consider the classification of unemployed population to be more relevant in the following three groups:

1. Passive-neutral unemployed population: unemployed population that does not require social security budget, they are the group of unemployed whose financial support is not provided by the state, including those supported by other people (even the subgroup of people who engage only in household activities), people who support themselves with other income (rents, interests, etc.) and those who are absent from home for over a year, for various reasons (work, education, health issues, etc.)

2. Unemployed population who requires partial social protection, even if their financial support is taken care of by other people or they support themselves with their own revenues: unemployed population requiring partial social protection from the state budget are pupils and students.

3. Unemployed population that requires full social protection: unemployed population requiring full social protection from the state budget are pensioners of all categories and all those who are supported, in legal terms, by the state.

On the other hand, the subgroup of people, absent from home for over a year, who left to work abroad – includes almost all of those who went in EU state members, from the official or practical status of unemployed ILO, to find a relatively decent, acceptable job.

In these conditions, for a fair and equitable assessment of the economic and social situation of our country, I consider it necessary to introduce the concept of potential unemployed ILO – for those who, at the time they left the country, were unemployed or were not included within the employed population, although they were capable of working (in working age). The forecast would obviously be applicable only to people who kept Romanian citizenship. Probably the quantification of potential unemployed ILO and adding them to the official ILO unemployment figure would reveal the true value of the unemployment rate in Romania.

Also, the number of “discouraged persons” should not be ignored. According to the definition of the social investigation, AMIGO, from the National Institute of Statistics, “discouraged persons” are unemployed people available for work in the next two weeks.
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(including the week in which the interview took place), who declared that in the last four weeks (including the reference week) they sought a job using passive methods or that they did not seek a job because: they thought there were no available job vacancies or they did not know where to look, they do not feel professionally prepared; they think that they will not find a job because of their age or that they sought a job before and they did not find one. Usually, these people are not registered at Labor offices. The lack of motivation to register at these offices is due to the reduced amount of unemployment benefits and the lack of confidence that these institutions may provide relatively acceptable jobs, so that they have an appropriate wage and also be assigned jobs specific for their professional training, age and generally for the complex ratio work/sacrifice/expenses/income.

Note that these people were declared unemployed. According to the definition, the ILO unemployment rate represents the share of unemployed people in the employed population. As such, these people who are actually unemployed do not participate in the exact calculation of the unemployment rate.

For our society, which is in the midst of the economic and financial crisis, it is essential to identify those areas of social life that could become an object of social policy. In this respect, the unemployed, people without a job, who seek and are available for work, are one of the social categories most affected by recent economic changes and it is of great interest to analyze this segment of the population. For social policy measures to have the desired effect, their focus is required on that segment of the population that needs support, in other words, a more rigorous identification of vulnerable social groups. Consciously or unconsciously, based on false premises, the results will lead us farther away from the real impact of this phenomenon. The truth can be hidden, but its effects will sooner or later emerge, creating social tension and disastrous economic effects.

Last but not least, I would like to clearly emphasize the need for statistical detail of the following key dynamic aspects in the field of employment and professional training in the near future:

1. The number of people aged 15-29 years seeking employment in an economic or social activity, under a contract of employment or independently in order to receive income in the form of wages, payment in kind etc./ total number of this population-quarterly.

2. The number of people aged 15-29 years who have requested and applied for free training courses specifically designed for specialized professional training in order to combat the lack of appropriate skills in relation to the jobs in the labor market in Romania/ total number of this population-quarterly.

3. The number of people aged 15-29 years employed in an economic or social activity, under a contract of employment or independently, in order to receive income in the form of wages, truck payment etc./ total number of this population-quarterly.

4. The number of employed people –in their working age- employed on temporary contracts or non-standard contracts/ total number of employed population-quarterly.

5. The number of unemployed people who became employed by enrolling in an economic or social activity, under a contract of employment or independently in order to receive income in the form of wages, payment in kind etc. total number of unemployed people before being assigned a job-quarterly.

These details, backed by government reactions and appropriate organizational measures, can be extremely useful in the present situation – as Christopher Pissarides, the English professor who received last year – 2010 – the Nobel Prize for Economics, said while attending the conference “The Future of European Labour Markets”, held in Brussels by the European Commission.

According to these statements, the solution for creating new jobs in the European Union, after we recover from the effects of the crisis, is to create a more flexible labor market
through the use of temporary employment contracts, this being the only way that young people will have access to the labor market. In Romania, according to data provided by the Social Survey, AMIGO, the number of people working on temporary contracts is estimated at approximately 54,000 people.

The rate below 1% of temporary employees, from a total of 6.2 million Romanian workers, is very low, given the fact that in countries like Germany, Great Britain and Denmark, almost one in three employees has a temporary or part-time job.

The importance given to employment for young people in an economic activity is undeniable for those people, especially for a society as a whole – in order to refresh the labor market and, thus to avoid the phenomenon of aging and establishing a maximum number of this resource. Otherwise a “shot” of labor workforce from outside the country will be needed, a situation which many developed European states ate already facing. However, unlike Romania, these countries have the necessary economic and financial resources to “import” this workforce.

Notably, according to statements, in Spain, where the overall unemployment rate reached about 20% and among young people it reached the historical peak of 43%, temporary employment contracts have almost never been used, while Germany, where currently there is a shortage of workforce and the lowest unemployment rate in the last 18 years, had the fastest recovery for allowing a more flexible labor market by using temporary contracts and by reducing wages and working time. Germany knew very well how to manage through the crisis in terms of controlling labor market phenomena: cutting wages, reducing working hours, allowing easier layoffs but also easier hiring. In this context, it should be noted that in Romania almost one of five unemployed – registered in the last autumn of 2010 – were under 29 years, meaning approximately 160,000 people who were unable to find a job.

The biggest ratio – almost 50% – of part-time employees is however in Netherlands, according to statistics published by Eurostat.

According to professor Pissarides, although there should be a flexible labor market, it is not fair to take the benefits given to permanent employees so far, but it is also not fair that two types of employees should exist on the labor market: some very secure and others who are not.

The main challenge of the European Union state members, that currently have over 4 million job vacancies, will be finding solutions to combat the lack of suitable skills for the jobs on the market, using the principles of flexicurity. “By 2020, the number of jobs for qualified workers will increase by one third, while the number of jobs available for unqualified workers will drop by 15%” (László Andor, European Commissioner for Employment, Soacial Affairs and Social Inclusion).


Education and training is an important element in the EU efforts to become more competitive and socially cohesive, as outlined in the Lisbon Strategy. Creating a society based on knowledge confirms that this strategy should be based on the investment in quality and improving human resources. A more efficient use of resource and a future oriented model of VET, involving new approaches to learning, both in schools and at work, are essential ingredients.
Compatible with most existing systems, the Common Quality Assurance provided common principles and a reference point that made it possible to promote a number of initiatives at European and national level. However, quality criteria, indicative descriptors and indicators supporting the implementation of CQAF are not sufficiently explicit and make the document difficult to generalize. This approach to quality assurance is reflected in the general principles for quality assurance in education and training in Annex 3 at the Recommendation on the establishment of a European Qualifications Framework (EQF).

The framework fully respects the competence of state members. It tries to stimulate:
- establishing quality assurance and more developed and coherent training systems across countries;
- increasing transparency of quality assurance and VET training and approaches to improve mutual trust and mobility facilitation;
- cooperation and mutual learning in order to stimulate involvement of interested parties in a culture of quality improvement and accountability at all levels.

Using the framework is going to be voluntary. Its main users will be public authorities and organizations responsible for quality assurance and improvement. The facility will contribute to achieving the European Employment Strategy for employment, in terms of a more effective investment in human capital. The facility will especially contribute to improving the quality and efficiency of investment in human capital through better education and better skills, in accordance with the Employment Guidelines (2005-2008), in particular Recommendation 2.

The Commission intends to support state members in implementing the task mentioned above, especially through the Program for Lifelong Learning and by monitoring the progress implementing the Framework, in the program on Education and Training 2010.

The Framework does not intend to replace existing systems and does not require the creation of new structures, using existing reporting systems to reduce the administrative burden. It is based on existing experience and the cases of success in state members and other participating countries.

There will be no financial impact on the EU budget since the program Lifelong Learning – Leonardo da Vinci – includes specific provisions to support initiatives in this area. Only the costs of monitoring will be taken into account.

**Detailed description of the proposal**

The main users of the European Quality Assurance Reference will be national/regional authorities and public and private organizations for quality assurance and improvement, including the suppliers. However, improving the quality of education and training is crucial in order to meet the needs of consumers, therefore the framework has a particular relevance for the final users of the system.

The framework also provides a closer and greater mutual trust between national interested parties and national organizations involved in education and training. However, successful implementation requires that the national authorities in education and training and other public and private parties interested to adhere to this framework on a voluntary basis. Particular attention should be paid to the development – by testing, experimentation and direct cooperation – of support and guidance materials.

The framework contains:
- a cycle of assurance and improvement in planning quality, implementation, VET evaluation and review supported by common quality criteria (Annex 1 to the proposal), indicative descriptors and indicators (Annex 2 of the proposal);
- the monitoring processes, including a combination of internal and external evaluation mechanism which must be defined by state members in order to appropriately identify: (I) the value of systems, processes and procedures, (II) areas for improvement;
- the use of measuring tools to provide evidence of effectiveness.

While focusing attention on learning and on the VET outcomes and also on the relationship between VET systems, learning throughout life, the labor market, workforce and economy, the set of indicators is organized as a coherent chain which reflects the objectives, inputs, processes and learning outcomes. It contains two general indicators, four mutually reinforcing indicators that provide information on efficiency and outcomes of training compared to policy priorities. This is complemented by two contextual indicators that provide contextual information in order to enable assessment of achievements and two descriptors that provide additional qualitative information on factors that determine the VET quality. With the exception of descriptors, all indicators are based on quantifiable data and can therefore support the evaluation of achievements compared to defined objectives.

From the extensive presentation on the RECOMMENDATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL, concerning the establishment of a European Framework of Reference for Quality Assurance in Education and Training, results a major interest of the European Union on the implementation of a coherent and effective learning process and a continuous professional training throughout life. As it is normal, this important action of professional training, is viewed as a primary element of the principles of flexicurity labor markets, of sustainable economic development and last, but not least, of a better quality of life.

Finally, I would like to mention that article published in “Ziarul Financiar” – referred to position 13 of this bibliography – was violently opposed by the publication “Criticatcă” (see reference pic.4), bringing as an overwhelming counterargument the direct response, arrived at the newsroom, from Professor Christopher A. Pissarides, one of the winners of the Noble Prize in Economics in 2010. More specifically, Professor Christopher A. Pissarides denies the statement that he would support the widespread use of part-time and limited-term contracts, as it appeared in an article in “Ziarul Financiar” as referenced in this article. Note that this statement, launched by “Ziarul Financiar”, was even used in the speech of the Romanian Prime Minister, Emil Boc, in support of the New Labor Code in Romania, recently voted by the majority of the parliament. Currently, there are no official reactions from the Prime Minister or the editorial of the “Z.F.”.

What should really be noticed, regardless of the real and respectable position of the remarkable economic professor Christopher A. Pissarides – on the above mentioned – is the undeniable fact that, lately, the overwhelming majority of the EU state members have resorted to that type of employment. From this point of view, Romania is the last in a ranking of the EU use of part-time, limited-term and atypical contracts. This trend of massive increasing of such contracts in the European Union seems to be a rather spontaneous and sincere response, of both employers and employees, to the real threats of the economic and financial crisis, than a national or even European policy or strategy of the area of labor market flexicurity. Slowly but surely, fixed-term contracts will go from the sport, cultural, artistic, media area to the economic area. Basically, they will be economically and legally interpreted as prolonged contract on a medium or long period, between employer and employee. So, both sides will be able to know and assess each other on a long term basis, enlightening in all ways. In addition, any macro or micro economic evolution that is unfavorable will be overcome more easily by both parties involved, employer and employee, with positive repercussions for the welfare of the state budget.
Acknowledgements

This work was cofinanced from the European Social Fund through Sectoral Operational Programme Human Resources Development 2007-2013, project number POSDRU/89/1.5/S/59184 „Performance and excellence in postdoctoral research in Romanian economics science domain”

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UNIVERSITY – AN ACTIVE FACTOR OF GROWING
THE QUALITY OF LIFE?

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Abstract. Over time, economists and not only have recognized that without a wellorganized educational system, to provide reliable results, one cannot talk about the prosperity of a nation. The crisis which is characteristic to most of the countries today leaves its mark on all sectors, including the education system. Many economists blame the crisis for the difficult situation that education is going through, but most of them do not take into account and are not able to see education as one of the causes of the crisis, or as a solution. Starting from the place of the Romanian universities in the international rankings, this paper aims to highlight some of the problems that are facing the Romanian higher education institutions.

Keywords: higher education; institutions; universities; quality of life; rankings.

JEL Codes: I23, O15.
REL Codes: 12C, 4D.

1. Introduction

Over the time, a lesser or greater importance has been allocated to the study of education, in function of many factors. Education exists since immemorial time. The foundations of education, and implicitly the ones of the current economic education are to be found in the distant past. Many ideas have endured over time proving their perenniality and ensuring the continuity and trust in education as a means of achieving not only personal fulfil, but also on understanding and influencing the components of the economic reality. Since ancient times, people have increasingly understood more clearly the meaning of education in enhancing the welfare and personal satisfaction, but also in improving the quality of life.

Education acted in society as a function depending on the characteristics of the environment in which man lived and adapted to the social requirements. Education and instruction have been generated among others by the need to administer the individual and public property.

The fact is that education itself is a major factor when talking about the past of the society, but especially when we think about its future.

Thus, authors like John Kenneth Galbraith tried to show that our evolution as individuals and as a society is inextricably linked to education: “The main factor of evolution, as individual, or as its children on the social scale is represented by education. Ignorance leads only to hard work, uncomfortable, boring and often, to not work at all. The improvement comes once with education and only with it; there is nothing without education and the only plausible last appeal is to crime and violence. It may be possible that people on the lower social level get the best education, as they are in great need of means to allow them to climb, to get rid of ignorance” (Galbraith, 1997, p. 67).

Nobel Laureate in Medicine, Albert Szent-Gyorgy said that: “education is one of the most important activities of people. It opens the path towards the wonderful possibilities, but, in the mean while, it states the mankind to some terrible dangerous, as through education, any dictatorship system can change society in accordance with its interests, and if it is its wish it can transform decent persons in wild killers, as we saw it happened repeatedly during the century” (Szent-Györgyi, 1981, pp. 22-24).
Through the perspective of life lived in society, education is the one that “makes democracy to be possible and, together with the economic development, to become necessary, even unavoidable” (Galbraith, 1997, p. 68).

According to some eminent philosophers, democratic ideas are in disagreement with the data of psychology and experience: “To some well known philosophers – Gustave Le Bon showed, among them the remarkable Herbert Spencer, it is not difficult to notice that education does not make people either moral or happy, that it does not modify either its instincts or its hereditary inheritance, and when it is not well directed, it can be rather devastatingly than usefully” (Le Bon, 1999, p. 43).

Therefore, it is obvious that education plays an active role in designing the society and that the way it is directed affects the future of nowadays generations.

Currently, however, academicians believe that educational market begins to face a very difficult situation. Globally, they are speaking about the economic crisis and the causes, respectively its effects. What usually is not emphasized is that we can not address the economic crisis without being concerned about the progress and quality of education. The academician Mircea Maliţa said that unlike the economic crises that periodically erupts in acute or moderate forms, the global education system seems to be in a continuous crisis, chronic, slow and persistent, which has not yet found its cure. Universities, which are the crown of their educational systems, at the end of cycles, totalling up to two decades of life, are always a subject of critical observations resulting from the economy and made by the representatives of the public administration, by politicians, by the ones coming from the industry and are always confronted by the growing demands of the old professionals, and especially of those that currently appear (Maliţa, Georgescu, 2010, p. 275).

Contemporary economists are beginning to wonder when talking about the cause or causes of the crisis we must search for them to the others or inside of us. Is there the economic science the guilty one for our brief and incomplete knowledge? Do we face an unprecedented crisis, with a far future, “infecting” our economic way of thinking? Is there the economic thinking in crisis or are we running out of ideas? On such type of questions should answer those concerned with the development of our present society in order to be able to go further.

Increasingly more often at the academic level, there are discussions about the indissoluble link that exists between the education in general, and higher education, in particular and prosperity or economic development or quality of life etc.

Analysing the higher education, H.R. Bowen showed that: “The primary purpose of higher education is changing people in the wanted ways. In their turn, these changes can have profound effects on the economy and society and even on history. But in the first instance, the objective is to modify the qualities and behaviours of human beings” (Bowen, 1977).

The experts stress the importance that education had and continues to have in achieving a higher level of living. Currently, in our country the analysis of the educational system and of its implications on the economy shows that the travelled road was long and difficult and, unfortunately, it still requires overcoming some significant obstacles.

2. Higher education

After the fall of the totalitarian regime, Romania has gone through a complex process of transition towards a functioning market economy and, at the same time, towards a real democracy. These processes covered all the spheres of economic, social and political life, and in this framework have attempted to register the reforms in the education system. Romania has inherited from the communist regime a system with high standards (stringent entrance examinations to the most coveted high schools and universities), a massive participation (albeit decreasing) and a considerable stress on science and technology, but also characterized by a lack of flexibility (SAR, 2007, p. 5).

During the communist era the interest zone in higher education was mainly focused on the technical area, this being the probably a reason for which after 1989 we assisted in the
rapid spread of education-oriented towards social sciences and humanities. It still remained a
type question on how the graduates of higher education are “trained”: why the educational system
in general, the economical one, in particular, mainly trains specialists with clerk mentality?

Today, we see that the order to align the Romanian education system to those existing
in the EU, Romania started to implement the Bologna process; in this regard the tertiary
education system of Romania is enjoying positive reviews and a good image. According to the
Bologna Process Stocktaking Report (prepared for the Ministerial Conference in Leuven,
2009), our country has received the rate “excellent performance” for 8 of the 12 indicators that
measure the degree of the implementation of the Bologna Process (ARACIS, 2009). Thus,
there were highly rated the international ARACIS evaluation and the receiving by the
Romanian agency of the full membership in the European Association for Quality Assurance
in Higher Education (ENQA) and particularly in the European Quality Assurance Register
(EQAR) (ARACIS, 2009).

The Bologna Declaration was adopted by a large number of countries and thus,
between the European universities there exists currently a very close cooperation. However,
with few notable exceptions, it has been recorded no obvious change in the funding and
administration of European universities, which remain in the public sector, with an
insignificant private support. The public-private partnership in education still remains an
exception. The investment in the research and development area remains inadequate, as show
the majority of the reports drawn up at European or at global level.

The image that Romania has at European level in terms of formal implementation of
the Bologna principles is not exclusively positive. In this respect, among the problems of the
Romanian higher education system one may include:

- delays in implementing the national framework of qualifications in higher
  education; this issue is not only one of Romania, it is somewhat general in Europe;
- a low rate of participation in training programs and professional development of
  employees, Romania being next to Bulgaria in the European rankings (1.3% versus
  29.2% - Denmark, the highest recorded in Europe). This is hardly encouraging,
given that for Romania, the degree of professional employability of the population
between 15-64 years was 59% in 2008 compared to the EU27 average of 65.9%
(ARACIS, 2009, pp. 6-10);
- a gap between the external national system of quality assurance, positively
  evaluated at the European level, and the ability of universities to implement the
  mechanisms of providing and improving the quality in education. According
  ARACIS many of the Romanian universities do not have active committees for
  internal quality assurance and face difficulties in providing data and information for
  the quality certification;
- underdeveloped systems for advice and career guidance and employment of
  students;
- alignment to the trends reported at the European and global level concerning the
  population aging and the population demographical decline;
- reduced funding, compared with the EU Member States;
- a low standard of living, which can be an obstacle to the access to a higher
  education;
- poor, inaccurate, incomplete and changing law in the field of education;
- widening the imbalance between the public and the private higher education
  system, manifested even by differences in the quality;
- plagiarism in academia;
- ability to meet the criteria considered by the international bodies to highlight the
  quality and quantity of scientific research;
- transparency and fairness of academia administration;
- etc.
Starting from just a few of the problems that our system is facing, one can easily understand why the Romanian universities do not occupy the leading places in international rankings. The implementation issues relating to higher education rankings typically involve two centres that evaluate globally the universities on a systematic basis:

- Shanghai Jiao Tong University, which publishes a top with the top 500 universities worldwide.
- The Times in Britain, which in „Education Supplement” publishes a list of the top 200 universities (http://www.arwu.org/).

The rankings made by the two institutions are not identical, but basically they report the same results concerning the competitiveness of the European universities. Unfortunately, local universities are not found on the list of best universities in the world, according to the international rankings. The ranking of the Shanghai Jiao Tong University shows that Romanian universities are missing from the top of the best 500 universities in the world. According to the Shanghai Jiao Tong University the best university is Harvard.

On the first 10 positions, only two universities are in Europe: Cambridge and Oxford, the rest being American universities: MIT, Stanford, Princeton, Columbia etc. (http://www.arwu.org/).

In this ranking, The United States have 54 universities in the top of the first 100 positions. In the higher education system, European Union seems to be dwarfed by the US, which is understandable if we consider that less than one in three people aged between 25 and 34 are graduates compared to 40% in the US and over 50% of the population in Japan (EC, 2010, p.14). Based on these considerations, the EU is trying to remedy the situation. Policy makers, aware that investment in education and training systems, anticipation of skills needs are fundamental factors in increasing productivity and competitiveness, accelerate growth and employment growth have been undertaken to improve the levels of education through reducing dropout school to 10% or less and the expansion of completed tertiary education or equivalent to at least 40% in 2020 (EC, 2010, pp.10-15).

The top of the above is realized on the basis on scientific activity and it does not shed light on all performance criteria. There are taken into account the number of Nobel prizes obtained by professors or graduates, medals won, the number of citations in scientific papers and the number of research articles published. Therefore, the criteria by which this top is obtained were often challenged because they do not reflect the whole reality, and the Europeans claim that they are made against the universities from Europe.


Figure 1. Graduates by level of education
Generally, in the rankings, it is noticeable that the Romanian higher education system does not occupy the leading places. For example, in the 2010 rankings conducted by the World Economic Forum, Romania ranks the 54th position regarding the fifth pillar - higher education and training (WEF, 2010b, p. 21).

According to some analysts, one cannot conclude that all the rankings at European or world level are best in order to correctly highlight the current state of Romanian higher education. However, one can quite easily see the problems that the system is facing.

It is not to be neglected the fact that in Romania, starting with 1990 the higher education has experienced an intense process of massification. Thus, over time the number of students and graduates of higher education has seen a significant increase compared with the characteristic level of the years before 1990. The chart below shows that the trend of higher education graduates was preserved.

Upturn in student population has been accompanied over time by at least two problems (ARACIS, 2009):

- a bad correlation with a corresponding increase in the required resources (the system being characterized by under-funding);
- the increase was not uniform in the areas of study: some areas have experienced an inflation of candidates, while other areas have experienced a phenomenon of depopulation, as can be seen from the graphic below.

![Diagram showing changes in student population by specialization groups](source: Institutul Național de Statistică (2010), Anuarul statistic al României 2010, p. 244, www.insse.ro)

**Figure 2. Students in higher education institutes, by specialization groups**

The rise in the number of students has created other problems, such as:

- a gap between the number of students and the number of teachers.
- different behaviors at the university level, some being focused on obtaining additional financial resources by sacrificing the quality (reducing the requirement for admission and subsequent examinations).

There were universities that have chosen other means for survival, and kept the quality, not being interested only in quantity. Thus, some universities which have experienced significant growth in the number of students have chosen, mainly because of underfunding, to cover the additional costs by attracting more students in the charge regime. Some faculties, who have experienced depopulation, have chosen, mainly because of underfunding, to center their behavior on attracting research grants. Of the two behaviors described, it appears that the dominant is to attract fee-paying students.

Unfortunately, many of the universities that have experienced a serious decline in the number of students have chosen to relax the conditions for admission of their candidates, from the need to cover the number of places put up for competition (ARACIS, 2009).
Another problem of the system is the dropout rate. The higher education system is characterized by a gap that grows every year between the number of students registered in the system and the number of graduates.

Currently, analysts are asking questions, in addition to those related to funding and to the quality of the education system, related to the compatibility of the education system with the labor market demands, as this compatibility is the essence of a possible balance between the present and the future, functional education becoming the spearhead of the economic performance of human capital. Some are wondering whether the market demand and supply of education are not counter to the evolution of labor market supply and demand. The obvious evolution of the demand for legal and economic sciences on the education market can now be accompanied by a similar trend in the labor market?

Analysis shows that universities in Romania are stacked on quality learning outcomes, especially in research, although all are presented as humboldtian universities in which the learning process is based on research performance. According to some estimates, a little over 20% of the universities, in a generic version, and only 5%, in a more stringent version, succeed to reveal outstanding results in research and to produce graduates, which are competitive on the national and especially on the European market (ARACIS, 2009, p. 42).

When speaking about education, and especially about the public one, one may ask about the fairness of the system. Thus, in Romania it is drawn the CUC Report – Fairness in universities, which takes into account: the transparency and fairness of administration of universities, the academic accuracy, the quality of governance and the financial management (UCC, 2010, p. 1). According to the conclusions of the mentioned above report, we can see that one of the difficult obstacles to overcome is the plagiarism, which remains widespread in the case of the students and teachers. Some universities have invested serious sum of money in order to buy specific software for avoiding the plagiarism in the case of students, but there still is a problem regarding the behavior of some teachers which are still plagiarist. There is no court to pursue the cases of plagiarism, as there were no cases in our country where the diplomas to be withdrawn because of plagiarism (UCC, 2010, p. 13).

From fairness to trust the system there is only one step. Higher education system consists of universities both public and private. According to the Romanian Statistical Yearbook for 2010 in our country there are 52 private higher education institutions and 108 public. The Quality Barometer, however, shows that the highest degree of confidence is further manifested when speaking about the public system. More than half of employers (54%) believe that public universities are better than the private ones (ARACIS, 2009, p. 24). Also, most of the employers (42%) would prefer, in conditions of similar training, those who have graduated their faculty in Romania, and not those who have studied abroad, and over 51% would prefer graduates which have studied four or five years (as it was our old system, before the implementation of the Bologna Process), to the detriment of the Bologna graduates (ARACIS, 2009, p. 24), this being clearly an evidence of lack of confidence in what the new system is ready to provide appropriate training for graduates. It is also worth noting that the views of employers on the value of the diploma are divided: 40% consider that the bachelor's degree is not a guarantee of the quality of knowledge of the graduates, while 36% believe the contrary (ARACIS, 2009, p. 24). In addition, employers perceive graduates as better prepared from a theoretical point of view than from a practical one (51% of employers believe that graduates have a good theoretical training in the field and only 27% are convinced that graduates have a good practice training) (ARACIS, 2009, p. 24).

The Romanian university area is saturated with representations of differences and gaps between teachers and students in what concerns the academic quality. Also here are to be included the differences and disparities in representation between employers and academic communities. Moreover, the problem is expanded by the inconsistencies in the national regulations and law. In the case of a public academic space, which is fed up with gaps and discrepancies, one may still see a state of confusion regarding the needed standards for building what is called academic quality (ARACIS, 2009, pp. 40-45).
What was previously mentioned is only a brief analysis of the system. But starting just from a few items like those mentioned above, we conclude that we are at a crossroads: either we admit that it is time for some vigorous action to identify and foster the academic quality, where they exist, and sanction, guidance and quality improvement, where needed, or we preserve a state of complacency, which may plunge us into a homogeneous stage, as uniform as devoid of perspective and competitiveness.

The alignment of the Romanian higher education in terms of structure to the European educational system does not represent the guaranty of a great efficiency of the national educational system.

The way out of this state is largely correlated with the economic and social problems of Romania, where higher education should contribute not only to fulfill its traditional missions, but also should contribute with the ideas discussed in a wide public space in order to attain economic development.

3. Instead of conclusions

Analysts say that the crisis in education today is a global one, and it exists both in developed countries and in the developing ones. If our society will not fundamentally rethink the education system, both in terms of financing, as well as compatibility with the labor market, the future will not look very good. It is noted that, in general, the educational system in the world, and hence the local one, face a series of obstacles that are difficult to overcome, such as:

- Lack of innovation in the educational system
- Worldwide deficit of qualified teachers
- Poor infrastructure (hard and soft) for training and retraining teachers
- Lack of innovative and effective financing mechanisms for education
- Major deficiencies in collaboration and aid frameworks for education
- Complex outcomes of the education process and long time horizons for results
- Rigidity, size and complexity of education systems
- The lack of senior-level leadership and a global vision for education (WEF, 2010a).

The world today is affected by many problems that could be solved through improving the access to quality education. Politicians recognize the value of education in tackling a long list of problems, among which include poverty and threats to global security. However, with the completion of the electoral campaign, politicians lose interest in the education system, perhaps because the rewards of the investment in education are to be seen in a long time and are often to be collected by another generation of politicians.

Therefore, the system should not be left only in their care, as it requires a partnership between the public and the private sector in order to develop a new vision of education, able to respond meaningfully to the needs of the changing labor market. According to representatives of some international organizations, the educational system could be improved if more attention would be given to achieving a correspondence between the two markets, the educational and that the labor market. One aspect of international reports is closely related to the financing of education. Thus, if people would spend at least 16 billion dollars annually for education, then the developing countries could really make a difference (WEF, 2010a, p. 15).

While this figure may seem huge, it to be taken into account that it is equivalent to what US consumers spent in one shopping season (WEF, 2010, p. 15).

The same sources state the need for training and/or retraining of teachers in the context of transition to the use of ICT in learning, stressing the importance of public sector, NGOs and businesses in changing the system. Also in the present context it is to be noted that the system tends to phase out traditional teaching methods that focus mainly on knowledge transfer, and in this case it stress that teachers should put increasingly more emphasis on training higher critical thinking of their students. It should be noted that the performance of the educational, vocational
training and adaptation is unthinkable without the provision of competent teachers, able to transmit the content of different sciences, and to use the right methods and training techniques.

The human factor is crucial in achieving the educational process, the quality of learning depending on the quality of teacher training and on equipping them with modern methods. In some countries, like Romania, the status of the teacher is not of a great interest for young graduates with high average in order to their retention in the system. Strongly affected by the level of pay cuts in 2010, the teachers are still far from being linked to the social importance of work and responsibility for training the new generations.

Also, now the question is to reorient education towards the sustainable development. Thus, it requires a reorientation of the current system, based exclusively on providing information to one based on treating the problems and identifying possible solutions. Therefore education should maintain its traditional focus on individual subjects and at the same time, to "open the doors" to the examination of multi-and inter-disciplinary problems arising in real situations. It is therefore necessary to develop specialized training programs in order to provide practitioners and policy makers the needed knowledge and skills to contribute to achieving a sustainable development (UNECE, 2005, p. 6).

Therefore, higher education must meet several challenges: to achieve a level of quality that stand the test of international comparison, to improve management and accountability, to increase funding and to diversify funding sources. These goals involve major changes in higher education, which should be the top priorities on the political agenda and on national strategies of European Union member countries.

Acknowledgements

This work was cofinanced from the European Social Fund through Sectoral Operational Programme Human Resources Development 2007-2013, project number POSDRU/89/1.5/S/59184 „Performance and excellence in postdoctoral research in Romanian economics science domain”.

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*** http://www.arwu.org/
THE CURRENT STATUS OF LABOUR RESOURCES EMPLOYMENT IN ROMANIA: THE ANALYSIS OF THE EMPLOYMENT STRUCTURES

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Abstract. The specialized literature published in the recent decades devoted to labour resources employment is extremely rich and diverse. In the problem of labour resources employment, a special place is occupied by the occupational structures, analyzed in time and space. These employment structures are in fact the relationship between the quantitative and qualitative demo-economic aspects, indicating the efficiency with which labour resources are used.

This paper presents the concept of employment of labour resources and the significance of the employed population according to the methodology used by the national and international statistical institutes and analyzes the employment of labour resources in Romania in terms of the occupational structures.

Keywords: employment of labour resources; full employment; employment structures.

REL Codes: 12G, 12I.
JEL Codes: E24, J21.

1. Conceptual analysis

The term employment of labour resources, with all the attributes that reflect its status in time and space, usually has an identical or similar semantics with the terms of use of labour resources.

The specialized literature published in recent decades devoted to labour resources employment is extremely rich and diverse. The employment of labour resources of an economy refers to providing employment to all able-bodied people, according to the professional qualifications.

Some authors consider employment as a source of a productive contribution, as a main source of income required to meet their own and family needs. This income, together with the social incomes allow the development of labour and a better welfare for the people.

In quantitative terms, the employment of labour resources is measured strictly by the number of those attracted into the economic activity in conjunction with the working time. The employment level is also relatively determined as the ratio between the employed population and working age population. The increase of the employment ratio shows an increase in the number of employed population from the total of working age population, in other words, a decline in unemployment. This measurement technique is not acquired by all professionals and all specialized institutions.

The quality side of employment is expressed by the labour efficiency through performance. This involves: respect for optimal need for workforce in line with the existing needs at the enterprise, branch, national economy level, working time (actual time worked); the valorification of work capacity of each person who leads at increased yields per unit of labour expense (Dictionary of Economics, 2001).

Currently, the concerns of economists and of decision makers are increasingly aimed at the goal of increasing the employability of workforce. The increase of employment
contributes, on the one hand, to ensuring a decent living, and, on the other hand, to ensuring a high level of product supply.

In the specialized literature there are different views on achieving the level which characterizes the highest employment degree. It would be a huge mistake if it would be considered that there are economies in which there is full employment of workforce. In any economy there is, permanently, frictional unemployment. The consensus of economic analysts, in terms of frictional factors, is that the highest level of employment is achieved when the unemployment rate is between 3% - 4% of the total civilian labour force.

Thus, in terms of full employment of labour resources it has been imposed the opinion that such a situation can only exist in a functional market economy, the competitive market mechanisms being able to provide a certain type of full employment. The economist who founded the new theory of full employment in the conditions of the last quarter of the twentieth century was Milton Friedman (a Nobel Prize winner for economics in 1968), creator and mentor of the School of Economics from Chicago.

In 1968, Milton Friedman and Edmund Phelps considered full employment as corresponding to a natural rate of unemployment. But to achieve full employment, Friedman argues that policy makers should keep prices stable (a low inflation or a zero inflation rate). If this policy is supported, Friedman argues that the economy will automatically reach the natural rate of unemployment.

Friedman's point of view, widespread in the modern macroeconomics, refers to the full employment as the lowest level of unemployment that can be sustained by the economy. Using the terminology introduced by James Tobin, this unemployment rate is equal to NAIRU (Non Accelerating Inflation Rate of Unemployment), a level at which the real GDP is equal to the potential one. This concept is identical to the natural rate of unemployment. If the unemployment rate is below the natural level or below inflation for several years it is likely for inflation to grow increasingly more (in the absence of prices and wages control). Similarly, the inflation will decrease if the unemployment rate exceeds NAIRU for a long time. The theory claims that the inflation does not rise or fall when unemployment is at its natural rate.

In fact, monetarists replace the Keynesian thesis of full employment of labour with the concept of the natural unemployment rate. We consider that this concept is realistic because, not even during the Second World War, when much of the labour force was mobilized in the army, unemployment lacked.

The natural rate of unemployment is the sum of structural and frictional unemployment, that is, that unemployment rate which persists when the economy faces a constant inflation, characteristic of a macroeconomic stability period (Tasnadi, Doltu, 1996, pp. 144-145).

A more regulatory, alternative definition has the full employment as the realization of the ideal unemployment rate, which reflects the absence of labour market inefficiencies (such as structural unemployment). Only frictional unemployment could exist when temporary workers are looking for a new job. For example Lord William Beveridge defined full employment as being the number of unemployed workers equal with the number of vacant job.

There is a theory which suggests that full employment – especially as regulatory definition – may be associated with inflation (positive inflation), referring to the Phillips curve. The Phillips curve tells us that there is not a single unemployment rate corresponding to the full employment one. However, there is a relationship between unemployment and inflation: a government may choose a lower unemployment rate, but under the conditions of a higher inflation rate. But in the late 1960s there was an increase both in unemployment and inflation.

Milton Friedman and Edmund Phelps were the first economists who contradicted „Phillips curve”. They noted that if the opposite connection between inflation and unemployment exists on the short run it disappears after a certain period of time, and
unemployment returns to its initial level, whereas price increase persists. This phenomenon is based on the fact that in a period of time the inflation set to re-launch is not felt by the employees who do not yet realize the decline in purchasing power. Moreover, the companies are interested in hiring, as price increase led to the annulment of wage growth (the real labour cost decreased). This phenomenon occurs only until price increase is no longer deceiving anyone, and wage claims will lead to an increase in wages. The fact that the cost of labour has increased once again, it will cause the companies to lay off. Thus, the unemployment that initially decreased returns again. According to the economists Campbell R. McConnell and Stanley L. Brue, full employment does not mean zero unemployment (McConnell, Brue, 1996, p. 148).

In other words, full employment is the volume and structure of employment, of use of labour resources, which allow the achievement of maximum coverage of goods for human needs in different communities. So, the full employment is compatible with the natural rate of unemployment, with normal unemployment; the natural rate of unemployment (or $NAIRU = \text{non accelerating inflation rate of unemployment}$) being that general level of unemployment which is correlated with a stable rate of inflation. This natural or normal unemployment that exists in any society is not determined by the monetary and conjunctural factors, therefore, the French economist Edmond Malinvaud called it non-inflationary unemployment.

The economists Joseph E. Stiglitz and Carl E. Walsh consider that full employment occurs when demand equals supply of labour. No person who wishes to work at her or his qualification level at the current market level of wages will remain without a job. All companies that wish to employ a worker at the current salary level will be able to find a suitably qualified person. The wage adjustments assure us that these results will be achieved (Stiglitz, Walsh, 2005, pp. 458-463). Of course, when economists talk about the full employment of labour they refer to the fact that there will always be unemployed people. This unemployment can occur as a result of the the transitional period spent by people between two jobs, or by the new entrants seeking employment (frictional unemployment), from the mismatch which appears between the skills required by employers and the ones of the unemployed people (structural unemployment), but also as a result of seasonal configurations (seasonal unemployment). Thus, even at full employment level the measured normal unemployment in these cases will be positive. So, it is difficult to determine the exact unemployment rate that corresponds to full employment.

The term of full employment was and remained, however, poorly shaped. This falling behind of the economic science and statistics is also conditioned by multiple angles from which employment can be addressed (from a microeconomic and macroeconomic angle; from the user's position on paid work and that of the labour bearer etc.).

In the specialized literature there are also used the notions of over-employment and under-employment of labour.

Over-employment is the employment level from which the production costs resulting from the use of an additional working unit are increasing.

It is generally considered that over-employment usually generates: labour shortages in fields and occupations; indiscipline; an increase in wage costs; a decrease in labour efficiency; reducing the adaptation level of supply to the demand for labour, when the margin of available workers is diminishing; the changes of jobs, of industries, of region generated by the technical progress will be more numerous, the chances of finding work in the same job, industry and region will decrease (Răboacă, 1998, pp. 31-32).

Under-employment is the employment level which corresponds to a production capacity utilization rate lower than the one which allows to simultaneously ensure this capacity’s growth and price stability (Răboacă, 1998, pp. 356). In other words, under-employment means the unemployed workforce.
In order to analyze the employment situation in Romania, it starts with the identification of the significance of the employed population according to the methodology used in the statistics of the National Institute of Statistics, Eurostat and ILO.

The employed population includes persons engaged as employees and those working on their own in family-type or familial auxiliary holdings, this is actually the job demand satisfied by their offerers.

The national and international statistics record and analyze the occupational status of working legal working age and able to work population.

According to the methodology „The Labour Force Balance”, the employed persons (civil employment) includes all persons who, during the reference year, performed an income generating economic and social activity, excluding the military personnel and their assimilated persons (staff of the Ministry of National Defense, of the Ministry of Administration and Interior, the Romanian Intelligence Service, conscripts), of political organizations employees, of public organizations, and inmates.

According to the methodology of the statistical research on household labour force, the employed population includes all persons aged 15 years and over who have conducted an economic or social activity producing goods or services for at least one hour during the reference period (one week) in order to get certain incomes in the form of wages, payment in kind or other benefits.

Except for the working persons who have a job and who worked as employee, as self-employed or unpaid family workers during the reference week, are considered employed persons:

- the persons temporarily absent from work during the reference week who maintain their formal relation with the workplace, reasons for absence may be: annual leave, sick leave, maternity leave, parental leave, leave without pay, study leave, temporary work disability, labour disputes or strikes, professional or training courses, temporary suspension of work due to weather conditions, unfavorable economic climate, the persons employed during the off-season, shortages of raw materials or energy, technical incidents;
- the persons who have a job (working full and part-time) and are seeking another job;
- the persons who during the reference week held a certain work, paid or generating income, even if they were in compulsory school preparation, they were benefiting from a pension or retirement, they were included in employment agencies, receiving or not the unemployed;
- unpaid family workers, including those temporarily absent during the reference week;
- paid apprentices and trainees who work full or part time;
- the armed forces members (active personnel and conscripts).

According to the EU methodology, employed persons are all persons who worked at least for pay or profit for one hour for pay or profit during the reference week or were temporarily absent from such work. Employed persons are persons:

- aged 15 year and over (16 and over in Spain, United Kingdom; 15-74 years in Denmark, Estonia, Latvia, Hungary, Sweden, and Finland; 16-74 in Iceland and Norway),
- who during the reference week performed work, even for just one hour a week, for pay, profit or family gain,
- who were not at work but had a job or business from which they were temporarily absent because of illness, holidays, industrial dispute or education and training.

In ILO conception, employment is defined in the Resolution concerning statistics of the employment, adopted by the Thirteenth International Conference of Labour Statisticians (Geneva, 1982).
The “employed” comprise all persons above a specific age who during a specified brief period, either one week or one day, were in the following categories:

(a) “paid employment”:
- “at work”: persons who during the reference period performed some work for wage or salary, in cash or in kind;
- “with a job but not at work”: persons who, having already worked in their present job, were temporarily not at work during the reference period and had a formal attachment to their job.

This formal job attachment should be determined in the light of national circumstances, according to one or more of the following criteria: the continued receipt of wage or salary; an assurance of return to work following the end of the contingency, or an agreement as to the date of return; the elapsed duration of absence from the job which, wherever relevant, may be that duration for which workers can receive compensation benefits without obligations to accept other jobs.

(b) “self-employment”:
- “at work”: persons who during the reference period performed some work for profit or family gain, in cash or in kind;
- “with an enterprise but not at work”: persons with an enterprise, which may be a business enterprise, a farm or a service undertaking, who were temporarily not at work during the reference period for any specific reason.

Based on the above, we note that the methodology used by the National Institute of Statistics for the calculation of indicators on employment corresponds to that used by the EU Institute for Statistics (Eurostat).

2. The analysis of employment structures in Romania

In the employment of labour resources problem a special place is occupied by the employment structures, analyzed in time and space. These structures of employment are in fact the relationship between the demo-economic quantitative and qualitative aspects, indicating the efficiency with which labour resources are used.

Over the decades, with the development of demography, sociology of labour and economics, the structural analysis of human resources has become increasingly broad and deep, using various criteria for grouping and regrouping of workforce, the most common criteria being: the social-economic sectors (primary, secondary, tertiary), skill level, age, urban or rural areas, professional status etc.

In 2009, the total employed population (Household Labour Force Survey) included 9,243 thousand persons of which 44.8% being female population and 54.4% being employed persons in urban areas. The evolution of the employed population in Romania follows decreasing trend of the total population, due to the rise of the aging demographic process and the decline of birth rate.

During 1998-2009 the employed population decreased from 10,596 thousand persons to 9,924 thousand people, which means a decrease of 6.4%. The roots of this evolution are the population decrease and the current crisis effects, by reducing certain activities.

Regarding the components of the active population in the period 1998-2009 the strongest decrease is recorded by the employed population, compared to the decline which is recorded by the number of unemployed persons. This can happen because those who leave unemployed are not necessarily re-hired. It is possible that they may not declare that they are unemployed and stop seeking a job or to get hired illegally.

The extent of the underground economy and informal employment in Romania has taken alarming proportions, which can threatening the macroeconomic and macro-social balance. Employers choose informality in Romania because of high perceived tax and
contribution rates, and they get away with it because of insufficient mechanisms to penalise tax evasion. Workers fail to see the link between social security contributions and benefits, and in any case deplore the low quality of public services. Hence they prefer informal employment.

Informality in Romania is above all an expression of the lack of trust in public institutions, the negative perception of the role of the state and the limited understanding of the benefits derived from social security.

**Source:** The Romanian Statistical Yearbook 2010, The Labour Balance, January 2010.

**Figure 1. The evolution of total population, of active population and employed persons (1998-2010)**

Within the employed persons, in 2009, the largest share is held by males (55.17%), and from these, persons with ages between 25-54 years old. On average, it predominates the employed population in the urban area (54.45%). At the same time the employed population in rural areas is quite high if we consider the development of rural areas in terms of agriculture, services, infrastructure. For the elderly population (age group 65 years and older) the employment rate in rural areas was 23.4%, compared to 1.4% in the urban areas. This shows that many older people are still caught in the population employed in agriculture in the conditions of a subsistence agriculture.

If we analyze the structure of employment in sectors (agriculture, industry and services) we observe a high rate of population employed in agriculture, under a very low contribution of this sector to GDP. In the last years the farming population has decreased, but its share remains high compared with the results obtained, with recorded efficiency.

According to some specific studies compared to the agricultural area registered in EU countries, Romania has the advantage of a much larger agricultural area, namely 62% of the total country area. The arable land area of 9.4 million hectares, which is 0.45 hectares per capita, Romania ranks 5 in the European Union. However, Romania still has subsistence agriculture, 35% of the farmland owned to small and very small farms that have less than 5 hectares and is predominantly of family type and involves the production of goods for self-consumption.

The agriculture labour market differs greatly from that of the industrial or service sectors due to the sector specificity which consists in seasonal work, lack of employment alternatives, the development of agriculture. In general, the seasonal nature of agricultural
production, climatic conditions and difficult access of farmers to financial resources provided by the capital markets (stock exchanges, commercial banks) and the reduced attraction of European funds kept the Romanian agriculture to low efficiency.

For example, in 2008, the employed population in agriculture was 27.6% and the value added of the sector to GDP was only 8%. In 2009, the employed population in agriculture increases (compared to 2008) to 28.7%, under the economic crisis, which makes agriculture to become an occupational buffer, absorbing the surplus of discharged labour force in other sectors. However, the sector contribution to GDP, analyzed using the gross value added, is decreasing, reaching a value of 7.2%.

![Graph showing employment by main activities of the national economy during 2000-2009](image)

**Source:** The Romanian Statistical Yearbook 2010, NIS.

**Figure 2. Employment by main activities of the national economy during 2000-2009**

Regarding the evolution of the employed population share in industry it may be seen a slight increase in the last years, from 28.3% in 2008 at 28.5% in 2009. The value added of the industrial sector to GDP also knows a slight increase in 2009 compared to 2008, although in 2000-2008 it decreased mainly due to the implementation of inefficient reforms in industry.

Indeed there is an increase in employment in the service sector, this sector having the largest contribution to GDP (compared to other sectors). But this development of services sector has not achieved the same way that manifested itself in the developed countries. According to global trends, the economic development requires focus on superior training services, but in the last years Romania has developed services sector that uses low-skilled workers. The increase of the contribution of the services sector in GDP is based on the development of financial, trade services and those without higher qualifications.

**Table 1**

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>VA in agriculture</td>
<td>13</td>
<td>13</td>
<td>14</td>
<td>11</td>
<td>8</td>
<td>7.2</td>
</tr>
<tr>
<td>VA in industry</td>
<td>36</td>
<td>38</td>
<td>35</td>
<td>37</td>
<td>25</td>
<td>26</td>
</tr>
<tr>
<td>VA in services</td>
<td>51</td>
<td>49</td>
<td>51</td>
<td>52</td>
<td>67</td>
<td>66.8</td>
</tr>
</tbody>
</table>

**Source:** World Development Indicators 2010, www.worldbank.org
The structure of the employed population on age groups in 2009 suggests a relatively high proportion of employed population aged over 50 years, due to an aging population. In the age group of 50-64 years and in the group of 65 years and older, the largest share of employed population is recorded in agriculture, followed by education and health. It is also seen an approximation of the share of employed persons in the age groups 25-34 and 35-44 years, as a result of demographic aging. The reduced share of the employed population aged 15-24 years is the result of a reduced birth rate, but also of young people's involvement in educational activities in the last years prolonging the period of study.

The transformation process of economic structure led to essential changes in the professional structure of the population. There were massive job losses in the industry, which were only partially compensated by new jobs in services and industries that have regenerated. Unemployment can not be accurately quantified, however, the decreased number of jobs being accompanied by an important activity in the underground economy, by hybrid forms of formal and informal activity, making it hard to conduct a concrete examination of labour market.

In 2009, the largest share of the employed population is recorded by the employees, even whether there have been reductions in the number of employees due to the financial and economic crisis effects of limitation of some activities and closure of certain firms. The share of unpaid family workers (12%) remains high, most of them being women and being employed in rural areas. The self-employed workers and the unpaid family workers represented 31.3% of the employed population and 90% of them lived in the in rural areas, which once again demonstrates the serious problems of the Romanian agriculture.
In 2009 employees concentrated in a proportion of 56.4% in services, 41.1% in industry and construction and 2.5% in agriculture. From the distribution of the number of employees according to their work, the majority (99%) were registered as permanent employees.

The number of owners was 132,000, of which 67% were operating in small businesses with fewer than five employees, particularly in commercial activities.

Regarding the employed population by educational level, this knows an increase of the share of those with higher education and those with secondary education and professional school. Even if it has decreased the share of those with primary education or no education in the total of the population, this is still very high in Romania (24.8%).

It is noted that the greatest shares return to people with high school education (31.8%), professional education (23.5%) and secondary school graduates (19.1%). The percentage of persons with higher education was of 15%.
genders and environments, but in the case of persons with average level of education there has been a higher degree of employment in rural areas and among men, and the people with low education level have been employed particularly in rural areas. Thus, although there are some disturbances in the labour market in terms of linking the educational programs with the labour market demands, the graduates of higher education are more likely to integrate on the labour market.

The structure of employed population (civil employment) by types of ownership shows a substantial increase in the employed population in the private sector, following its development. The distribution of the employed population by type of ownership shows that the private sector absorbed 80.1% of the employed population in 2009, among which 56.7% are men. The public sector had 18.5% of the employed population, most employed people in the public sector being from urban areas.

Areas of activity with higher share of employed population in the state sector than the private sector are: education, health, public administration and transport.

Table 2

Civil employment by activity of national economy and by type of ownership in 2009 (thousand persons)

<table>
<thead>
<tr>
<th>Employment by type of ownership and by activity</th>
<th>Total 2009</th>
<th>Of total, by type of ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>State majority</td>
</tr>
<tr>
<td>Total</td>
<td>9,243</td>
<td>1,711</td>
</tr>
<tr>
<td>Agriculture, forestry and fishing</td>
<td>2,689</td>
<td>32</td>
</tr>
<tr>
<td>Industry</td>
<td>1,851</td>
<td>88</td>
</tr>
<tr>
<td>Construction</td>
<td>725</td>
<td>25</td>
</tr>
<tr>
<td>Wholesale and retail</td>
<td>1,156</td>
<td>14</td>
</tr>
<tr>
<td>Transport, storage</td>
<td>455</td>
<td>152</td>
</tr>
<tr>
<td>Public administration and defence</td>
<td>489</td>
<td>489</td>
</tr>
<tr>
<td>Education</td>
<td>386</td>
<td>360</td>
</tr>
<tr>
<td>Health and social assistance</td>
<td>394</td>
<td>315</td>
</tr>
</tbody>
</table>


It is noted that the largest share of the employed population in the private sector is found in agriculture, industry and commerce. The main private form of ownership in agriculture is the result of re-allotment and does not necessarily mean the agricultural sector development through investment in private projects (farms), but the existence of small owner-producers who usually produce to ensure their own consumption, under the conditions of an undeveloped agriculture.

Based on the analyzed data on the employment structures in Romania, we can conclude the following:
- the employed population follows the same downward trend as the total population, due to the decreased birth rates and the aging of population;
- the decrease of the employed population in the last years has also been determined by the effects of the economic and financial crisis, which have led to a reduction of some activities or closure of certain firms;
- in 2009, largest share of the employed population is held by men (55.17%), especially by men aged 25-54;
- there is a high rate of the employed population in agriculture, under a very low contribution of this sector to GDP;
• the population employed in the industry records a slight increase in the last years;
• it increases the employed population in the services sector, this sector having the largest contribution to GDP, compared to other sectors;
• there is a high percentage of the employed population aged over 50 years as a result of the aging of population, its highest rate being recorded in agriculture;
• the highest share is recorded by the employees, the business environment in Romania being underdeveloped as a result of the legislative instability and high taxation;
• the self-employed workers and the unpaid family workers represented 31.3% of the employed population and 90% lived in rural areas, which once again demonstrates the serious problems of the Romanian agriculture;
• in 2009 there were employed 84.1% of people with higher education, 62.2% of those with medium level education and only 42% of people with low education level, which shows an increase in the chances of labour market integration, with the increase of investment in education;
• the share of the employed population in the private sector increased (80.1% of the employed population), most of the employed persons in this sector is reflected in agriculture, industry and commerce;
• it remains high the share of employed persons in the private sector in agriculture as a result of the existence of small owners-producers, generally producing to ensure their own consumption, in terms of a subsistence agriculture.

The ideas drawn from the analysis of the occupational structures in Romania highlight some issues related to employment demographic imbalances, employment in agriculture, the underdeveloped business environment. Therefore, it is required the development of employment policies and strategies taking into account the labour resources and the characteristics of employment structures, of atypical cases that were registered, compared with the trends in the developed countries, the developments and forecasts on the employment of labour resources in Romania.

Acknowledgements

This work was cofinanced from the European Social Fund through Sectoral Operational Programme Human Resources Development 2007-2013, project number POSDRU/89/1.5/S/59184 „Performance and excellence in postdoctoral research in Romanian economics science domain”

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AGEING AND ITS SOCIAL AND ECONOMIC CONSEQUENCES IN ITALY AND ROMANIA: A COMPARATIVE ANALYSIS

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Abstract. The main aim of this paper is to investigate how aging can influence the Romanian social and economic development potential starting from Italian experience. The objectives refer to the assessment of the current and future demographic trends in both countries, the analysis of their impact on the economic structure and educational system and the evaluation of the possible responses to the sustainable development challenges.

After a short presentation of the theoretical approaches related to the effects of aging on global economic performances, the paper presents the features of the Italian economy, followed by a comparative analysis with the situation in Romania. A final part discusses research outcomes and conclusions.

Keywords: aging; structural changes; qualifications; sustainable development.

JEL Codes: J11, J21, O16.
REL Codes: 12I, 20A.

1. Introduction

The negative demographic trend of the recent years and the changes projected for the coming decades will affect the overall performance of the European Union economies in a very complex manner.

Thus, in the paper entitled The economic impact of ageing populations in the EU25 Member States (Caron, Costello, 2005) the authors identify two types of effects and some channels through which they can be propagated in the economy: direct effects (population aging influences the quality of labour force supply, capital/labour ratio and technical progress) and indirect effects (effects on budgets and through them on the whole economy).

Another possible effect of aging on the overall long-term development of a country is consumption’s structure change. Aging is expected to lead to the development of sectors such as services for elderly, but to restrict others (Oliveira et al., 2005).

In this respect, empirical studies based on panel data for developing countries and developed ones show that population aging could lead to the development of low-productivity sectors (Thießen, 2007).

Sectors that are expected to decline in importance in consumption structure are: education, transport, recreation and durable goods, or housing services, while the food sector and most notably the health services will increase (Hagemann, Nicoletti, 1989).

Thus, aging will lead to changes in the labour market not only through direct effects on the size and quality of the working age population, but also by changing the composition of employment.

Friction unemployment is expected to increase and with it the skills deficit, i.e. the number of people with higher qualifications, while the low qualified workforce could be excluded from the labour market (Börsch-Supan, 2003).

2. Demographic transition and overall performance of the Italian economy

In the following decades, the EU population as a whole will be characterized by low fertility, increasing life expectancy and internal migration. In most Member States these changes will lead to increased population aging process.
Italy is one of the states that even nowadays is forced to face a severe aging process. In 2008, the share of population of 65 years and over exceeded the European average being the highest in the European Union, approximately 20% (Figure 1).

![Graph: Population ages 65 and above (% of total) in EU-27 countries in 2008](source)

**Source:** World Bank, World Development Indicators.

**Figure 1.** Population ages 65 and above (% of total) in EU-27 countries in 2008

Projections until 2060 for the main demographic indicators show that in Italy this aging process will continue. Thus, even if the fertility rate will increase from 1.42 births per woman in 2008 to 1.46 in 2030 and 1.55 in 2060, these increases will not be sufficient for natural replacement of the population. The fertility rate is going to remain well below the natural replacement rate of 2.1 births per woman, but also below the European average of 1.57 in 2030 and 1.64 in 2060 (Figure 2).

![Graphs: Total fertility rate, Life expectancy at birth - males, Life expectancy at birth - females, Net migration (thousands)](source)

**Source:** World Bank, World Development Indicators and EUROSTAT, Population projections.

**Figure 2.** Demographic trends in Italy (1980-2060)

In contrast, life expectancy at birth will increase steadily for both men and women. For men, life expectancy will increase from 78.6 years in 2008 to 81.7 in 2030 and 85.5 in 2060, exceeding the European average of 84.5 years in 2060.

In the period under review, women's life expectancy at birth will increase by six years, from 84 years in 2008 to 90 years in 2060.

Regarding migration, if the number of immigrants in 2008 was 259,500 higher than that of migrants, in 2060 the difference will be reduced to only 174,300 persons representing a net migration loss of 85,300 persons in 2060 compared to 2008.
These transformations will lead to a relatively stable population throughout the period analyzed. Thus, from an estimated 59.6 million persons in 2008 Italy will reach a population of 61.9 million people in 2030 and 59.4 million in 2060, a slight downward trend (Figure 3).

![Population projections in Italy (1980-2060)](image)


**Figure 3. Population projections in Italy (1980-2060)**

One of the main effects of the population number reduction and aging process is the decrease in population of working age. This has an impact on labour market functioning by reducing labour supply, but also by lowering its quality.

For Italy, the effects of population aging on the labour market overlap on existing problems, manifested primarily by a weak labour utilization, given the very low employment rate compared to the European average and to the EU’ targets for 2020.

For a long period, the Italian labour market was regarded as one of the least efficient (Dell'Aringa, 2002). By the late 90s it was characterized by a high rate of long-term unemployment and youth unemployment, a rather low participation of women and older people in economic activity but also by a high share of people working in the informal economy. There were also significant regional disparities in terms of labour market performance.

Labour market reforms started in 1993 with Cost of Labour Agreement continued in 1997 with TREU package and in 2003 with Biagi Reforms aimed at improving labour market flexibility have helped to raise overall employment, but also led to increased labour market dualism (Schindler, 2009).

These reforms had as main effect the increase in temporary and part-time employment but didn’t lead to labour productivity growth which stagnated. Unemployment rate fell, but long-term unemployment remained high (Table 1).

### Table 1

<table>
<thead>
<tr>
<th>Years</th>
<th>GDP per capita growth (annual %)</th>
<th>GDP per person employed (constant 1990 PPP $)</th>
<th>Employment to population ratio, 15+, total (%)</th>
<th>Unemployment, total (% of total labour force)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>1.97</td>
<td>40,940</td>
<td>-</td>
<td>9.8</td>
</tr>
<tr>
<td>2000</td>
<td>3.64</td>
<td>47,247</td>
<td>41</td>
<td>10.8</td>
</tr>
<tr>
<td>2001</td>
<td>1.76</td>
<td>47,154</td>
<td>41.6</td>
<td>9.6</td>
</tr>
<tr>
<td>2002</td>
<td>0.14</td>
<td>46,571</td>
<td>42</td>
<td>9.2</td>
</tr>
<tr>
<td>2003</td>
<td>-0.79</td>
<td>45,875</td>
<td>42.3</td>
<td>8.9</td>
</tr>
<tr>
<td>2004</td>
<td>0.54</td>
<td>46,374</td>
<td>42.9</td>
<td>7.9</td>
</tr>
<tr>
<td>2005</td>
<td>-0.09</td>
<td>46,411</td>
<td>42.7</td>
<td>7.7</td>
</tr>
<tr>
<td>2006</td>
<td>1.46</td>
<td>46,446</td>
<td>43.1</td>
<td>6.8</td>
</tr>
<tr>
<td>2007</td>
<td>0.74</td>
<td>46,562</td>
<td>43.8</td>
<td>6.1</td>
</tr>
<tr>
<td>2008</td>
<td>-2.07</td>
<td>45,932</td>
<td>43.6</td>
<td>6.7</td>
</tr>
<tr>
<td>2009</td>
<td>-5.65</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: World Bank, World Development Indicators.
Under these conditions, a long period of time (1993-1999) GDP per capita has been below its potential. In 1993 the difference was $389.10 per capita (2000 prices), and in 1999 of $114.22 per capita (Figure 4).

**Figure 4. Output gap (real GDP per capita versus potential GDP per capita)**

### 3. Aging and its socio-economic effects in Romania and Italy

Regarding Romania’s population, last years’ downward trend will continue for the next period. If in 2008 the population numbered about 21.5 million people falling by 4.4% compared to 2000 in 2060 it is projected to reach 16.9 million by about 20% less than in 2008.

Even if the assumption of a population of 16.9 million inhabitants in 2060 will not be done, as being one of the most pessimistic, Romania can not avoid a strong aging process.

This is supported primarily by the evolution of the population age structure, characterized by increasing elderly (people over 65 years) and reduced the share of young persons (people under 15 years) in the total population (Figure 5).

Compared with Italy, Romania had and still has a population structure more favourable to long-term economic development. Thus, in 2000 young people represented 18.4% of the total population compared to only 14.3% in Italy, whereas the share of the elderly was 13.5% by 4.9 percentage points lower than in Italy.

However, in a short time in Romania the age distribution of the population will change in a negative sense. The share of elderly will equal the share of young. In 2060 it is expected that Romanian population will be more aged than Italian one. The share of elderly will reach 35% compared to 32.7% in Italy, while the proportion of young people and the share of the working age population will be similar in the two countries.

Thus, in 2030 Romania will reach an equal share of the elderly population that Italy has now, which means that the changes that will experience the Romanian economy in the future due to population aging might be similar to what has happened so far in Italy.

This is supported by the common features that the two countries shares, particularly in terms of labour market performance, but also in terms of business related features.

**Source:** World Bank, World Development Indicators.

**Figure 5. Population age structure in Romania and Italy**
Thus, in both countries the most important problem is the low employment rate. For every person working there is one person who could work, but for some reason this does not happen. It is true that, both in Italy and Romania, the share of working is higher than statistics show, but many people work in the informal economy (Dell'Aringa, 2002).

In both countries unemployment rate is below the European average, which represents around 10%, but Romania and Italy are facing the problem of long-term and youth unemployment (Figure 6).

These two phenomena are related both to population aging (older people are less adaptable to changes and have bigger problems than young people in finding a job) and the education system which is not directly connected to labour market needs.

In these circumstances, it is expected that the economic effects of the projected demographic trends to be very sharp and sustainable economic growth to be questioned. The main reason is represented by the reduction of the working age population number and the change of its structure. This is compounded by changes in the structure of the economy: increasing demand for products and services for older people and employment, especially in the tertiary sector.

Source: EUROSTAT, Population and social conditions.

**Figure 6. Recent trends in labour market in Romania and Italy**

Source: World Bank, World Development Indicators.

**Figure 7. Changes in employment structure**
Even if the structure of employment in Italy is very different from that in Romania i.e. the share of tertiary sector employment is the largest (over 66% compared to 40% in Romania in 2008), both economies have evolved in the period analyzed in the same direction, reducing the share of employment in agriculture and increasing the services sector (Figure 7).

However, in Romania, tertiary sector growth was much higher. It grew by around 45% in 2008 compared to 1990 against only 12% in Italy.

It is however important to consider which of the tertiary sector activities will be supported in the future by aging process, given that labour productivity could be affected and sustainable economic growth questioned.

3. Changes in consumption structure, labour market and education system.

What can we learn from Italy?

Italy is a country that is facing the largest share of elderly in the European Union, 20% of the total population, the same percentage that Romania will have in 2030. Also, for a long time it has experienced the same labour market problems that Romania is facing now: “the highest rate of long-term unemployment, the highest youth unemployment rate, the lowest participation rate of women and older workers, and the lowest employment rate, very far from the target of 70% of the working age population that the European Union has set for 2010” (Dell’Aringa, 2002).

It is therefore interesting to find out how the labour market was influenced by the changes in Italian population age structure.

First of all, during the period 1990-2008, the structure of consumption has changed. If in 1990 the largest share of households consumption expenditure was dedicated to the acquisition of food and non-alcoholic beverages (18.9%), in 2008 it was directed to housing, water, electricity, gas and other fuels (21.3%).

As expected, due to the impact of technological change and especially the development of information technology in 2008 communications services recorded the largest increase in the share of household consumption expenditure compared to 1990.

As a result of aging process the consumption of health services, hotels and restaurants as a share of total household expenditure has increased by 29.2% and 22% respectively, while the expenditure for education and recreation dropped by about 10% (Table 2).

Changes in consumption structure are reflected by the labour market trends. Employment in agriculture has registered the biggest drop from 9.1% in 1990 to 5.4% in 2008, followed by employment in industry (-19.8%), while employment in services increased significantly, especially in financial intermediation and real estate (+63.6%), public administration and community services, activities of households (+12.1%) (Table 3).

| Final consumption expenditure of households by consumption purpose (% of total) |
|---------------------------------|--------|--------|-----------|
| Fields                          | 1990   | 2008   | % of change |
| Clothing and footwear           | 9.9    | 7.6    | -23.2      |
| Food and non-alcoholic beverages| 18.9   | 14.7   | -22.2      |
| Recreation and culture          | 7.6    | 6.8    | -10.5      |
| Education                       | 1.0    | 0.9    | -10.0      |
| Communication                   | 1.6    | 2.5    | 56.3       |
| Housing, water, electricity, gas and other fuels | 16.0 | 21.3 | 33.1 |
| Health                          | 2.4    | 3.1    | 29.2       |
| Restaurants and hotels          | 8.2    | 10.0   | 22.0       |

Source: EUROSTAT, Economy and finance.

Also, within the industry sector, the textile branch has registered the most significant decrease during the period analyzed, approximately 46%, proving the internationalization of their
activities. Regarding the services sector, employment in health and social work industry has grown by about 24% (EUROSTAT, National Accounts employment date).

### Table 3

**Employment structure by branches, percentage of total (based on hours worked)**

<table>
<thead>
<tr>
<th>Fields of activity</th>
<th>1990</th>
<th>2008</th>
<th>% of change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture and fishing</td>
<td>9.1</td>
<td>5.4</td>
<td>-40.7</td>
</tr>
<tr>
<td>Industry (except construction)</td>
<td>24.7</td>
<td>19.8</td>
<td>-19.8</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>23.7</td>
<td>19.2</td>
<td>-19.0</td>
</tr>
<tr>
<td>Wholesale and retail trade, hotels and restaurants, transport</td>
<td>29.8</td>
<td>28.6</td>
<td>-4.0</td>
</tr>
<tr>
<td>Financial intermediation, real estate</td>
<td>8.8</td>
<td>14.4</td>
<td>63.6</td>
</tr>
<tr>
<td>Construction</td>
<td>6.2</td>
<td>7.9</td>
<td>27.4</td>
</tr>
<tr>
<td>Public administration and community services, activities of households</td>
<td>21.4</td>
<td>24.0</td>
<td>12.1</td>
</tr>
</tbody>
</table>

*Source: EUROSTAT, Economy and finance.*

Regarding the capacity of higher education system to adapt to market demands, in Italy this is evidenced by the substantial increase in the number of graduates in the services sector. It rose in 2000-2008 by approximately 8.5 times. However, during the period under review the number of graduates in health and welfare and science, mathematics and computer recorded the lowest increase compared to other areas, which can lead us to the idea that some of the jobs in such sectors have been occupied by immigrants (Table 4).

### Table 4

**Graduates from tertiary education**

<table>
<thead>
<tr>
<th>Fields of education</th>
<th>2000</th>
<th>2008</th>
<th>% of change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>10,391</td>
<td>42,123</td>
<td>305.38</td>
</tr>
<tr>
<td>Humanities and arts</td>
<td>30,096</td>
<td>57,671</td>
<td>91.62</td>
</tr>
<tr>
<td>Social sciences, business and law</td>
<td>74,235</td>
<td>123,755</td>
<td>66.71</td>
</tr>
<tr>
<td>Science, mathematics and computing</td>
<td>15,577</td>
<td>24,344</td>
<td>56.28</td>
</tr>
<tr>
<td>Engineering, manufacturing and construction</td>
<td>31,013</td>
<td>51,601</td>
<td>66.39</td>
</tr>
<tr>
<td>Agriculture and veterinary</td>
<td>3,935</td>
<td>6,622</td>
<td>68.28</td>
</tr>
<tr>
<td>Health and Welfare</td>
<td>35,536</td>
<td>56,673</td>
<td>59.48</td>
</tr>
<tr>
<td>Services</td>
<td>1,215</td>
<td>10,324</td>
<td>749.71</td>
</tr>
</tbody>
</table>

*Source: EUROSTAT, Education and training.*

### 5. Results and conclusions

Nowadays, among the EU countries most affected by aging there are developed countries like Italy and Germany. In the future, demographic crisis will be felt very strongly in emerging countries such as Romania.

Changes in the Italian economy in recent decades characterized by gradual reduction of the young people share in the total number of the population and elderly population growth can bring useful information to anticipate changes in the Romanian labour market. This comparison is possible, given the similar features of labour markets in both countries: the relatively low participation in economic activity and the problems posed by long-term and youth unemployment.

Even if the differences in the structure of employment are significant between the two countries (Romania has a share of population employed in agriculture of approximately 30% compared to only 4% in Italy, and a share of population employed in services of only 40% compared to over 66% in Italy), long-term labour market trends in both countries are similar, namely increasing the share of the tertiary sector but with a much higher rate of growth for Romania (46% in 2008 compared to 1990 against only 12% in Italy).
In Italy, aging influenced consumer preferences leading to an increase in household spending on the services dedicated to the elderly (health services, hotels and restaurants), while services for youth (education, recreation and culture) had the largest decrease.

Changes in consumer preferences were reflected in the structure of employment through direct and significant employment growth in services and a significant increase in employment in health services (+24% in 2008 compared to 1990).

Demographic trends and labour market changes have led to changes in the education system. In 2008 as in 1990 the largest share of graduates in Italy came from specializations like Social Sciences, Business and Law, followed by Art and other Humanities areas, Health and Welfare. However, in the period under review the highest increase in the number of graduates has been in the specializations Services and Education, partly reflecting changes in the labour market.

For Romania it is assumed that the aging process will significantly affect the labour market structure. Thus, services for the elderly will increase as a share of consumer preferences, but unlike Italy these newly created jobs will not be filled by immigrants.

Italian experience also shows that population aging does not favour the growth of high productivity sectors. In addition, even if this country has promoted measures to ensure a more flexible labour market and tried to integrate vulnerable people, labour productivity has not increased.

In these circumstances, Romania can learn from the Italian experience that without taking a unitary package of measures to solve both demographic and labour market problems and to exploit the potential of the education system will be very difficult to overcome the present economic crisis and the future demographic one.

Acknowledgements

This work was cofinanced from the European Social Fund through Sectoral Operational Programme Human Resources Development 2007-2013, project number POSDRU/89/1.5/S/59184 „Performance and excellence in postdoctoral research in Romanian economics science domain”

References

WEF, The Global Competitiveness Report 2010-2011
Abstract. This paper analyzes health care systems from the perspective of the economic theory through macro and micro-economic parameters such as: health services financing, allocation of resources in the health system, types of medical assistance payment, demand and offer of medical services, particularities of health services market etc., in order to determine a better understanding of the difficulties and challenges which the decisions makers in health policies are facing.

Keywords: health care system; financing; allocation of resources; demand and offer of medical services; informational asymmetry.

REL Codes: 13B, 13K.
JEL Codes: H51, H75, I11.

The health system is a complex set of services provided by professionals, economically constrained to use resources effectively. Health economy is an important element of health care systems, both at the strategic (macroeconomics) and tactical (microeconomics) level. In the medical field, macroeconomics with total financing and resource allocation; so the economic effects of decisions on the allocation of resources is the main macroeconomic determinant of health, while microeconomics is concerned with comparing alternative methods for solving specific problems. Many countries face the same kind of difficulties in reforming the national health systems, related to changes in the services, according to new needs and economic outcomes of previous decisions.

1. Health care systems macroeconomics

Financing the health care services has evolved significantly over the time, starting with the individual health care insurance when the patient benefits from a certain service and going on with the one guaranteed by the employer or by the state in accordance with the national regulation.

The analysis of medical assistance financing requires the radiography of the financial resources collection methods as well as of the allocation of these funds. In any health care system there is a competition for funds, the way they are allocated depending on both the type of service and priorities (“laws”) of health economy (box 1).

The question that was asked constantly, still being of interest, is the one concerning the optimum financing in the medical sector. The answer to this question involves a political decision, reflecting the socio-economic value of health for a particular state (Ashworth, Armstrong et al., 2005). The attitude of policy makers on health is reflected in the salary of medical personnel compared to other professions, as well as by providing human and material resources to the health care assistance. Practically, all the developed countries have recognized the importance and the role of national health financing systems in order to ensure the universal access to the health care assistance. The solutions to these problems differ from one country to another, but it is important to bear in mind that the financing systems influence significantly the supplied services. The costs for medical and sanitary assistance vary widely from one country to another, between 4% and
14% of GDP. Resources allocated to health and their methods of distribution are issues of major importance to any system.

Box 1: “Laws” of sanitary resources allocation

1. **Sutton’s Law**: Willy Sutton, bank robber, being held responsible for his acts and asked why he was robbing the banks, replied: „Because there is money there”. This expression is used to indicate that health services focus their efforts on those medical aspects that are better financed. If the treatment is allocated more financial resources, while preventive care is inadequately funded, the primary focus in medical and health care will be placed on methods of treatment at the expense of prevention.

2. **Capone’s Law**: The famous Al Capone, planning with his colleagues the share of influence areas in Chicago said: „Take the northern part and I shall take the southern”. In the context of the health care systems, this expression shows that sanitary planning may reflect the interests of medical assistance suppliers, opposed to the ones of general audience. An alternative use of this concept may highlight that the macroeconomic planning stands for general interests and not for individual ones.

3. **Roemer’s Law**: „Hospital beds, as soon as they are built and supplied, they will be full.” Supplying hospital beds is the main determinant of their use, particularly when an individual is health insured. This "law" was subsequently amended by the introduction of financial incentives because of the need to reduce use of hospital beds. The methods of financial incentive to control the supply and the use of hospital beds stand for key elements in terms of sanitary planning in most industrialized countries.

**Source**: Tulchinsky, Varavikova, 2003.

The allocation of financial resources requires a comprehensive and thorough planning process meant to balance the costs of various sectors of the health care field and support the adequate level of equity between regions and social groups. In this respect, the World Health Organization (WHO), focusing on efficient use of resources as vital element of health development, recommended the preferential allocation of resources towards primary and intermediate care services, especially to ensure that disadvantaged social groups benefit from medical assistance.

The methods of financing the medical assistance mainly consist of:

- **general taxes** – collected to the state budget and then distributed to the health sector, according to the approved budget;
- **mandatory insurance premiums** – cover the entire population, regardless of the health of those who pay; these premiums are a fixed percentage of the insured people's income, not correlated with the risk of disease to those who are responsible. Premiums are calculated on the basis of a fixed percentage of the employees' and employers' income, being called social health insurances;
- **voluntary insurance premiums (optional)** – related to the insured individual's health or illness risk. This leads to the phenomenon of adverse selection, forming two groups: a group with high disease risk, who would have to pay high insurance premiums but who cannot afford them and another group composed of those with low disease risk, who take down the voluntary insurance premiums and, as such, do not subscribe to this insurance system – both groups remain uninsured;
direct payment, “from one’s own pocket” – rarely in the western countries, usually in the system of co-payment (Vlădescu, 2004).

The main categories of sanitary expenditure that the health care system must cover are found in Table 1.

**Table 1**

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional assistance</td>
<td>Clinical hospitals</td>
</tr>
<tr>
<td></td>
<td>General hospitals</td>
</tr>
<tr>
<td></td>
<td>Psychiatric hospitals and of other specialization</td>
</tr>
<tr>
<td></td>
<td>Long-term care institutions</td>
</tr>
<tr>
<td></td>
<td>Palliative care hospitals</td>
</tr>
<tr>
<td>Medication and vaccines</td>
<td>Primary care, family medicine, pediatric care, prenatal care</td>
</tr>
<tr>
<td>Ambulatory assistance</td>
<td>Specialized assistance of diagnosis and treatment</td>
</tr>
<tr>
<td></td>
<td>Hospitals and health clinics of surgery, medical, geriatric, dialysis, psychiatric, oncologic care and treatment of drug and alcohol abuse</td>
</tr>
<tr>
<td>House assistance</td>
<td>-</td>
</tr>
<tr>
<td>Assistance for elderly persons</td>
<td>-</td>
</tr>
<tr>
<td>Special destination programs</td>
<td>Immunization</td>
</tr>
<tr>
<td></td>
<td>Mother’s and child’s health</td>
</tr>
<tr>
<td></td>
<td>Family planning</td>
</tr>
<tr>
<td></td>
<td>Mental health</td>
</tr>
<tr>
<td></td>
<td>BTS, HIV, tuberculosis</td>
</tr>
<tr>
<td></td>
<td>Cancer, diabetes mellitus, arterial hypertension screening</td>
</tr>
<tr>
<td>Dental health</td>
<td>-</td>
</tr>
<tr>
<td>Community health activities</td>
<td>Health promotion in communities and risk groups</td>
</tr>
<tr>
<td></td>
<td>Environment health and labor hygiene</td>
</tr>
<tr>
<td></td>
<td>Food hygiene</td>
</tr>
<tr>
<td></td>
<td>Water safety</td>
</tr>
<tr>
<td></td>
<td>Special social groups</td>
</tr>
<tr>
<td>Scientific research</td>
<td>-</td>
</tr>
<tr>
<td>Professional training and education</td>
<td>-</td>
</tr>
</tbody>
</table>

In the countries where there are multiple sources of health financing, it is difficult, without direct support from the state, to develop a national program of health funding to prevent the inequities between different socio-economic groups. If the medical insurance covers more social and economic agents, the provided health services can vary and, as a consequence, certain population strata may be affected, usually those with the greatest health needs, but also with the lowest financial resources. Under such circumstances, health services often focus on providing basic services to individuals who lack medical insurance. The countries with a similar medical organization (most of them developing countries) have to introduce national medical insurance for all disadvantage people (poor and elderly people), treating them differently which means lower contributions than the middle class and active persons.

In the countries with centralized financing of health care assistance, there is a potential of rational allocation of resources, depending on the total volume of financing and the political strategy of rational allocation of resources to ensure equitable access to health services and the balance between a health sector and another. However, the inadequate allocation of resources in different health sectors can result in an unproductive and wasteful health system (Mincă, 2005).

In countries where funds are allocated to regional or local health authorities there are great possibilities for reallocating resources to meet the full needs of the local population. This potential may be compromised by lack of data and analysis at the local level, to establish regional priorities, some features of highly centralized systems being particularly important for promoting the interests of national health and interregional equity.

2. Health care systems microeconomics

The resource allocation strategies developed at national, regional and local levels must take into account many specific determinants that influence the quality of services and their cost.

Fundraising is only one component of a health system, the way of distributing it to suppliers being the main determinant of the system performance; the effective medical assistance is closely linked to motivating the medical personnel and correct organization of health services. Therefore, the main mechanisms for redistribution of funds to health service providers, with their advantages and disadvantages, are:

- **payment per capita (capitation)** – each physician receives a fixed amount for each person enlisted whether he/she will become ill or not. This method has the advantage that doctors paid by capitation are competing to attract more customers on their lists, which creates the potential for increasing the quality of medical care. Moreover, this method allows a better understanding of the patient by the current doctor. This method can be applied both for medical complex services, as well as for family doctors;

- **payment per act** – doctors are paid a certain amount of money for each medical activity performed; the main advantage of this method is that it provides a salary in line with workload, yet, with the disadvantage of generating high costs for the system administration;

- **payment for services** – it refers to covering any provided medical service (for example, consultations or surgery interventions). In some cases, payments can be fixed through negotiations between the medical and health care providers and public or private medical insurance organizations. Typically, specialized health care costs exceed the amount paid to primary care. Service payment method promotes an abundance of expensive services, including surgery, which often exceed the actual
needs. This occurs when the patient is fully insured, with a payment capacity bigger than the one of an uninsured person;

- **wage payment** – staff are paid based on the number of hours worked. The advantages are the easy management of such a system, the doctor's capacity to predict revenues and the financial incentive for unnecessary medical interventions is excluded. The disadvantage is generated by the lack of correlation between the labor volume and quality and the income, itself;

- **co-payments** – implies the patients involvement in covering the costs of the medical assistance, namely co-participation. The argument in using this method is that it stimulates consumer not to access useless medical services. The opponents of this method claim that co-participation affects disproportionately poor people and blocks preventive assistance.

During the '90s, pressures to reduce costs caused a shift in the remuneration of the medical personnel. The first direction requires to replace the method of payment per service (which encourages excessive provision of medical services), with mechanisms that move the economic pressure on doctors and hospitals (various services in a single payment) to limit the number as well as the cost for the rendered medical services. The second direction regards the negotiation of the levels of payments. Direct negotiations between payers and providers appeared (initially, the price level was established, in large part by health care providers). Given that the medical staff remuneration arrangements significantly affect the use of medical resources and that each of them, considered separately, highlights drawbacks, too, more and more health systems apply combined payment options to providers of medical services (Donev, 2004). One of the challenges involved in developing an optimal payment system is to achieve a balance between economic incentives for excessive or minimal treatment of patients. The National Health Service in Britain is using mixed payment systems for general practitioners, by allocating a global budget for running costs (rent and personnel wages), uses capitation for each patient enrolled in a cabinet and, selectively, payment service for some medical services (e.g. for vaccinations, Pap tests, some consultations at home) to encourage the provision of these services.

Special attention should be paid to the payment of medical services in hospitals, bearing in mind that a hospital is the most expensive component of the health care system. Traditionally, hospitals were paid for the day of hospitalization or with a fixed amount per day/ per patient. The cost per a single day in a hospital can be represented by its actual cost or by dividing the total costs of health care per day by the number of beds, so the average cost can be calculated at the national or regional level, further adjustments being possible. The costs per day for hospitalization, which reflects hospital costs for a patient's medical care in a hospital for a day, may be higher or lower than the amount allocated for this purpose.

*Methods of paying hospitalization per day* encourage a long period of hospitalization, being of great support for the hospitals with worn out technologies. Based on national or regional environments, this method can lack profit for the hospitals with cutting edge technologies and highly trained personnel (clinical hospitals). If the service is covered by medical insurance, there is no reason to shorten the patient's hospitalization. The hospitalization payment per day facilitates efficient use of the institution, such as the admissions to hospital for diagnostic and treatment services that could be provided by less costly alternatives. The health provider is encouraged to hospitalize and provide a long-term care to a patient in relatively good condition, while the patient in serious condition is a financial responsibility. This system, penalizing hospitals that reduce the length of hospitalization or the use of hospital beds, lacks any motivation to improve the efficiency of medical care, represented by the development of alternative ambulatory assistance or day care. Also, this method does not generate any reduction of the hospital costs and utilization. The payment for each service provided in the hospital favors exaggerated and unnecessary assistance, prolonged length of hospitalization, higher hospitalization rates and duplication of
services. This method has been widespread in the United States but is now almost completely replaced by the method of diagnoses related groups - DRG(1).

The **DRG system** is a prospective payment system for hospital care based on the diagnosis and treatment of 495 categories, each having a fixed price. This system provides financial incentives to reduce the duration of hospitalization, efficient use of diagnostic and treatment services as well as a decreasing number of hospital beds. As a result of the DRG system, in the United States, the number of out services has increased significantly, and bed occupancy rates have dropped considerably. Implementation of DRG system, however, does not decrease the number of hospital admissions. In addition, it creates prerequisites for falsifying diagnoses followed by exaggerated diagnostic criteria to achieve a higher income (“DRG theft”).

**Historical budgeting** is a method of remuneration based on the adjusted precedent year budget, taking into account inflations and new services costs. The budget may be revised for each category by the funding agency or can be formed in the block, which offers to the hospital the possibility of reallocating funds. Funding may include capital investment for renovation. This method is often used where the hospital is managed directly by the Ministry of Health. Unlike the per day hospital funding, this system, at least in theory, should provide some incentives to reduce the duration of hospitalization and efficient use of hospital resources.

**Financing considering normative tariffs**, practiced in the former Soviet Union, supports, at national level, the growing number of beds in hospitals, small wages and low quality medical services. The reform in the countries that belonged to the former Soviet Union generated the cancellation of those historical norms and the diminishment of the excessive capacity of hospital beds, as well as the adoption of financial incentives to improve health care.

Each method of financing the medial assistance, generally, and in hospitals, particularly, has its advantages and disadvantages. The DRG method seems, at least for this moment, to be the best solution to promote rational use of assistance in hospitals. Regional budgeting on the basis of the principle of capitation associated with the payment of hospital services through DRG method may be a good mechanism to fund the hospital and outpatient care, promoting inter-regional equity and fostering the efficient use of diagnostic and treatment services. However, prospective payment systems for medical services must be associated with mechanisms for ensuring quality of health care, which is an issue of vital importance for health management.

### 3. Necessity, demand and medical services use

Under the context of medical assistance, necessity and demand do not represent the same thing.

Necessity, in terms of medical assistance, is the situation when, for patients affected by a disease or disability, there is an effective and acceptable treatment (Matthew, 1971). Donabedian A. (1973) defined the concept of necessity as “*that state of individual that makes her/him ask for medical care, turning her/him into a potential user of health services*”. Other services that are not necessarily medical, such as prevention and immunization services, stand also for necessity.

Beyond the boundaries of a strict clinical interpretation, there are of great importance such issues as patients’ perceptions and attitudes towards their health, the impact of disease on individuals and society, the degree of dysfunction and disability caused by disease and not in the least, its social origins.

Since the definition of disease status is open to much broader interpretation than in the past, health needs are present in many aspects, as follows:
normative necessities – medical and sanitary services determined by experts as being essential to solve a certain necessity or to a specific population group. This includes a series of preventive and clinical services, such as prenatal assistance, immunization, medical and sanitary assistance for infants and young children, management of diabetes and hypertension, screening for breast or uterine cancer etc. The professional views on various health topics are often controversial, this alternative interpretation being determined by the information available and incomplete accessible data. Professional thinking may be incorrectly targeted by trends in medical opinion or influenced by the results/achievements of clinical and epidemiological technology. Therefore, legislation needs to be reviewed and updated by competent specialists, representatives of clinical and public health services as well as managers and consumers of medical and sanitary assistance. In addition, health economics, sociology, education and health planning can contribute significantly to the detection of factors that determine the occurrence of diseases and their approaches. An important factor in determining the type and volume of health services required is the individual characteristics such as age, gender, geography etc. For example, a 50 year old woman requires a mammogram more often than a 40 year one; a 45 year man should have his blood pressure checked more frequently than a 25 year old, and a teenager requires a much higher preventive attention in terms of risky behavior than a 35 year old man;

perceived necessities represent the subjective feeling of the individual or the community, which may match or not with their physiological needs. Despite its subjectivity, the need itself determines the demand for health services in the community. For this reason, it is becoming increasingly recognized the importance of distributing information to the public health in order to increase the correspondence between perceived necessity and the physiological one. Increasing competence in matters of population health is particularly important for mass acceptance of preventive programs (vaccinations), ensuring compliance with the treatment regimen of chronic disease, primary care development etc. The perceived need also influences the health planning;

expressed necessities stand for an achieved perceived necessity (e.g.: visiting either the physician or the clinic). Perceived needs may remain unachieved due to economic, geographical, social, psychological and religious barriers, which prevent the patient to seek health care providers. Availability may be limited by the fact that the individual cannot afford to pay costly health services; even free medical service is not always accessible due to language and cultural barriers, distance or long waiting periods. As a result, a person wishing to receive medical help cannot access it and her/his interaction with the health care system is delayed until a more serious, urgent and expensive problem occurs. Distance, time and travel costs, inconveniences and location of health facilities for fear of losing their work affects people who are seeking health care services, especially preventive ones. Older people tend to pursue their perceived health needs more frequently than younger ones, which is determined by the psychological discomfort experienced due to illness and the fear of becoming a burden to society. In other situations, policy makers, religious and cultural barriers are obstacles for women when trying to approach family planning services, even if the birth can be life threatening. The rational location of health care services, as well as the warranty of free operation for some services may change these factors impeding equitable access to health care facility;

comparative necessities reflect the needs of two similar populations of two adjacent regions, of the same social class, and with the same coordinates regarding sex, age and ethnicity. In such a situation, in a region there may be an appropriate health care service, such as water fluoridation, and in the other region, the same service may be
missing, although the population of this community has the same objective need of this service or another with similar action. Comparative needs relate to basic standards, which are part of the current global standards and promote preventive health care within the health care assistance. These standards, established through studies and scientific research through laboratory experiments and clinical observations must be constantly reviewed and updated in light of new knowledge and information gained and the benefits and costs derived from their implementation.

Demand of health services occurs when an individual considers that she/he needs medical assistance and is ready to spend funds, time, energy, as well as to time off from work and to incur a lot of inconvenient to receive this assistance.

As a consequence, demand in the field of health is determined by individual and communitarian expectations on medical and sanitary services (Figure 1). Economists consider it to be the component of the theory of non-intervention of the state in economic demand, according to which individuals set their own personal needs. In the context of this type of application, the individual may feel he needs a service, which may be considered unreasonable by the specialized staff, or can ask his doctor to prescribe a drug/treatment not only ineffective in certain cases of disease, but also causing adverse effects (such as prescribing antibiotics for uncomplicated viral infection). In such cases, the patient believes that the refusal of being treated as she/he wishes or the fact of being directed to a specialized health institution is not justified, even though there are many legitimate and ethical arguments in this regard. On the other hand, physicians may wish to have expensive medical equipment, which may be inadequate in terms of economic and planning; however, any procedure that is not currently justified may become appropriate in the future therefore conflicts are inevitable in health planning.


**Figure 1. Factors influencing demand of medical and sanitary services**

Demand is also induced by health insurance or health care provision. A large number of hospital beds may lead to unjustified use of them or can result in increased expectations/demands from patients and their families regarding the hospitalization duration. Free provision of services may lead to their excessive use, exceeding the objective requirements, in accordance with accepted standards. In some cases, the interests of medical care providers to promote health can lead to excessive use of services (a situation exemplified by excessive surgical activity in terms of surplus surgeons).
Demand in the medical field can be assessed from one of the most used models of economic demand that is described by Grossman. He analyzes demand as part of the production function in which the health status (credit) is the result of health care activities (debit) exerted by the individual or the health care system. Individual's demand of medical assistance is influenced by many factors, including: socio-economic, educational and cultural barriers, age, health determinants etc.

In this model, each individual inherits at birth a certain reserve of health. Over time, this reserve is exhausted, while the rate of depletion is the curve of health impairment. To maintain the health reserve the use of health care services and health promotion (e.g. rest homes) is required. Therefore, along with the ageing process, morbidity and mortality rates and the use of medical services grow, substantially increasing costs of health services.

The maintenance or the change of health status do not depend only on the received medical assistance; it is of extreme importance to take into account the living standard, the job location, rational nutrition, lack of addiction (such as smoking, consumption of alcohol etc.) economic and social factors and, not least, individual behavior (for example personal option of consuming fat products, smoking or practicing exercises etc.) and of society as a whole.

In the Grossman model, health is a means of production. Poor health causes, in addition to psycho-social discomfort, a significant reduction of personal income by reducing the ability or work performance. Health as a consumer product is linked to activities that improve, enhance the quality of life through prevention, improvement or treatment of disease. In this context, as previously mentioned, the elderly use more health services and outpatient or hospital care than younger people, determined by the depletion of their health reserve. However, within the health system or medical insurance system there are, factors that may restrict or limit individual access to health care and its quality (denial of health insurance companies to ensure the elderly, those vicious or persons which are not targeted by preventive services).

In the medical field, in terms of profits increase, Grossman demand model can lead to worsening of public health practices due to the spread of unhealthy or risky behavior. In the years 1940-1950, in industrialized countries, per capita income growth has determined a considerable increase in consumption of foods rich in fats, alcohol, cigarettes and car sales and their consequences have been translated into increased mortality due to cardiovascular diseases and traffic accidents. This paradoxical phenomenon has emerged between 1980 and 1990 in developing countries, affecting mainly the middle class. The extremely poor populations where basic health problems are inadequate nutrition and infectious diseases have also benefited from per capita income growth.

According to economists, consumer product is a use of resources in a manner that ensures the greatest benefit for the individual and society. Initially, the economists who were advocates of the concept of free market have found that medical assistance is a means of inefficient use of resources and, therefore, recommend their investment in more “productive” areas. In similar terms, the opposed economic theory (Marxist) considers investment in health as unproductive consumption of resources compared with investments in heavy industry and infrastructure. In Scandinavian countries, since the years 1970-1980, the concept that health investments are justified both socially and economically was adopted, the right to health becoming one of the main social rights of the individual. In this context, the 1993 World Bank report – Investing in Health – states that health and education is an investment in sustainable growth and not a waste of resources. This concept has been accepted as a fundamental right and social argument of the WHO’s *Health for All* international program.
4. Particularities of health services market

In accordance with the classical economic theory, the individual is considered to be the best expert of his/her needs and, therefore, decide what to buy (consumer sovereignty). In health care, this means that the patient procures health services based on price and quality, as does any person when buying any other product. Individual decisions are taken based on perception, information and personal resources. The advocates of the concept of market health economy argue that the market offers a higher possibility for individual choice and, indirectly, increase competition among suppliers, leading to increased service quality and lower prices.

The opponents of this point of view consider that market economy is not applicable to the health services market, due to the fact that the medical sector is much more complex and cannot be reduced only to supplier-consumer relations. Market mechanisms in health are strongly influenced by the type of insurance, access to services, payment and patient choice.

Specifically, the medical services market does not work the same way as other markets. In this regard it is necessary to give some specific details of the medical market. As it is well known, a properly functioning competitive market works only if customers have sufficient information to choose correctly. Market-mediated transactions are problematic because of information asymmetry between providers, consumers and health care funds. Information asymmetry is high: most doctors are informed (by nature of their profession), which can thus induce the behavior of consumers (patients). For the consumers of medical services, it is very difficult to be properly informed, mainly because of high cost of information. Most often, they are unable to determine whether their symptoms are severe or do not know the type and form of therapy required, and generally have little information about the effectiveness of all existing treatments. As such, it is based on information provided by physician. For a clearer explanation of this phenomenon, we can make an analogy with the economic sector or other services. Thus, a person (client) with a normal market behavior, who wants to buy, for example, a TV, decides by herself/himself what type of TV would like, with the technical characteristics (type, size, number of channels, resolution, sound etc.), at what price and under what conditions (amount, rate) then, she/he would look for best provider who meets her/his needs and conditions and would choose, from his point of view, the best offer on the market. Translating this behavior in the health care, we can imagine the situation of a patient (health care consumer) that has, for example, joint pain. To have a typical market behavior, the patient should know in order to assess the severity of the condition of the health care needs (type of x-rays, therapeutic modalities: drugs, surgery and/or remedial) and then to seek a supplier who give the best service at the best price, which obviously does not happen very often in the health services market.

As for a free market of health services, the problems that may appear when missing information are:

- physicians could recommend a more expensive treatment than necessary; moreover, if it’s for their interest, they may persuade their patients to accept treatment which are not necessary, but that are profitable (the so-called moral-hazard);
- pharmaceutical companies, through advertising, may persuade their patients on the superior quality of their products to the detriment of general and similar cheaper ones;
- patients could go to a physician only in advanced stages of their diseases, when the treatment might turn out to be too expensive or when its efficiency would be minimum for a complete cure.
5. Conclusions

The question is whether all health services could be allocated through market mechanisms like any other goods or services. If the doctors and hospitals operate in a free market by seeking to maximize profits, it is unlikely to lower the price of health services due to competition. In a situation of tacit cooperation between physicians and hospitals, to set standard prices and to protect their income, one can speak of an imperfect competition. Even if the doctors would compete freely, it is unlikely that patients should be informed so as to choose the best quality medical service and the lowest price.

There is a number of fundamental constraints (uncertainty about the anticipated medical needs, lack of complete information and patient ignorance, unfettered access to medical services determined by income, etc. oligopolistic situation.), which make it impossible to allocate all health resources through a free market and build up the frame that makes health care market be a typical example of market failure. Constraints that make a free market mechanism fail in the allocation of health resources, do not stand for an argument that government intervention and free medical services offer would be the best alternative. Most often, free market failure reflects in government's interventions that subsidize the consumption of medical services, regulating the behavior of medical services producers (doctors, hospitals) or impose taxes on consumption, such as co-payment.

Certainly, the attitude and activities of doctors and other medical personnel will play a decisive role in the health care market. In the competitive environment, they will have to find a balance between the traditional responsibilities and the financial side.

Acknowledgements

This work was cofinanced from the European Social Fund through Sectoral Operational Programme Human Resources Development 2007-2013, project number POSDRU/1.5/S/59184 „Performance and excellence in postdoctoral research in Romanian economics science domain”

Note

[1] DRG (Diagnosis Related Groups) – The Diagnostic Related Group appeared in the 1960’, in the United States of America, as a result of people and community permanent concern for the problems generated by high medical costs and excessive use of hospital assistance. This system was adopted in 1983 by the Department of Health Care Financing Administration (HCFA) of the USA as basic method for health care assistance payment offered to the beneficiaries of Medicare; starting with 1999, the DRG represents the main model of health care assistance payment in the Unites States.

References


INNOVATIVE SOLUTION FOR A MORE COMPETITIVE AGRICULTURE FOR ROMANIA. A CONCEPTUAL APPROACH

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Abstract. According to the Lisbon Declaration and Europa 2020 strategy superior outputs of agriculture producers and traders are necessary so that they must adopt higher competitive behaviour. We aim continuing present circumstances with proposing a conceptual model for agrifood industry: agrifood industrial city which requires all stakeholders’ cooperation in a direct and immediate connection with the intention to raise economic performance. The vision of this model is to concentrate all actors on an agriculture product branch in order for them to obtain higher added economic value. The research methodology consists in documentation, synthesis of data, statistical analysis and comparative analysis.

Keywords: agriculture; agricultural output; agricultural holdings; organic farming; competitiveness.

JEL Codes: Q10, Q15.
REL Codes: 15B, 15E.

Introduction

Rural economy polarizes numerous researchers. New perspectives of rurality are constantly tested. Studies’ results demonstrate the raising importance of new industrial models, where education and innovation seem to be a priority for SMEs’ survival (Nijkamp, P., 2006, pp. 8-10). The relations between agrifood companies and environment also appear vital (Voicu, R., 2003, pp. 8-15), as well as compatibilization of all agrifood organizations in Romania. The SMEs’ key role for rural development is demonstrated by their contribution to regional income and labour stabilization. In Romania there are 4SMEs/1000 inhabitants and over 50% of are involved in trade activities. They are not involved in production and this represents a weakness of rural activity.

In his speech on 7th September 2010 in front of European Parliament in Strasbourg, the President of European Commission, José Manuel Durão Barroso, presented The State of the Union 2010. With this occasion, he mentioned five challenges for the Commission for 2011:

• “dealing with the economic crisis and governance;
• restoring growth for jobs by accelerating the Europe 2020 reform agenda;
• building and area of freedom, justice and security;
• launching negotiations for a modern EU budget;
• pulling our weight on the global stage.”

Thus, alternative solutions for rurality were founded by authors in the field. Moreover, an European strategy for this domain was somehow designed. Local authorities of Modena, Italy, finance inhabitants for finding solutions in order to finance urban centres for food processing on EU territory. Cities as Svishtov, Bulgaria, and Viadrina, Poland, that were founded centuries ago, were recently develop as university centres; in Svishtov, more than 25% of population are students, and the main part of infrastructure has this specific destination. Cluster is the main instrument in IT industry and it is used for process’s profound efficiency by diminishing the effort and used time.
Precursor ideas are given by recent efforts in order to concentrate and put together agriculture land so that farmers to be more performant. Therefore, why not apply these models for Romanian rurality? And this is my research question.

Starting this point and taking into consideration the Commission’s goals, I analyse and compared indicators of agriculture and agro-food industry in several countries, including Romania and EU-27 and I proposed a model for a new identity of Romanian rural area.

1. Romanian agriculture in comparison

Romania is on seventh position on EU-27 top of agricultural land, after countries like Spain, France, Great Britain, Italy and Poland and the fifth position on EU-27 top of arable area, after Spain, France, Germany and Poland (www.madr.ro, accessed on 3rd of December 2010). Romanian rurality has two elements of great importance: the wealth of natural and human resources. Still, the economic performance of this sector is missing.

If until 2007 Romanian farmer organised his production by tradition and own needs, now he has to manage his production according to the existing demand. Therefore, he is forced to produce for market, according to European model.

On the other hand, EU agriculture proves performance and competitiveness and the gross added value has considerable values.

Table 1

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of agricultural holdings (1 000)</th>
<th>Holdings with dairy cows (1 000)</th>
<th>Holdings with irrigable area (% of UAA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UE-27</td>
<td>15021.0</td>
<td>14482.0</td>
<td>13700.4</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>665.6</td>
<td>534.6</td>
<td>493.1</td>
</tr>
<tr>
<td>France</td>
<td>614.0</td>
<td>567.1</td>
<td>527.4</td>
</tr>
<tr>
<td>Germany</td>
<td>773.4</td>
<td>714.8</td>
<td>626.3</td>
</tr>
<tr>
<td>Hungary</td>
<td>2,172.2</td>
<td>2,476.5</td>
<td>2,391.0</td>
</tr>
<tr>
<td>Poland</td>
<td>4,484.9</td>
<td>4,256.2</td>
<td>3,931.4</td>
</tr>
<tr>
<td>Romania</td>
<td>1,140.7</td>
<td>1,079.4</td>
<td>1,043.9</td>
</tr>
</tbody>
</table>


Romania has almost half (48%) of the total number of small agricultural holdings in EU-27, around 6.4 million. The small agricultural holdings have less than 1 ESU (European Size Unit, 1 ESU=1200 Euro” (www.insse.ro, accessed on 15th of March 2011). As response to this situation, both small agricultural holdings and commercial agricultural holdings in Romania increased its average surface, from 3.1 ha in 2002 to 3.5 ha in year 2007.

The total number of agricultural holdings decreased with 8.8% in EU-27 between 2003 and 2007, because of several structural changes in Estonia. In the same time, many of the commercial agricultural holdings in Portugal, Bulgaria and Hungary finished their activity and determined an importance diminution of the total EU-27 number of this type of holdings. Therefore, the total number of commercial agricultural holdings in EU-27 was 7.3 million in 2007.
Table 2

Farm labour force, 2007

<table>
<thead>
<tr>
<th></th>
<th>Total farm labour force (1 000 AWU)</th>
<th>Regular farm labour force (% of total)</th>
<th>Full-time regular farm labour force (% of total)</th>
<th>Female regular farm labour force (% of total)</th>
<th>Family farm labour force (% of total)</th>
<th>Agric. holders being a natural person (1 000)</th>
<th>Agric. holders &lt;35 years old (1 000)</th>
<th>Agric. holders &gt;=65 years old (1 000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UE - 27</td>
<td>11,693</td>
<td>92</td>
<td>34</td>
<td>34</td>
<td>78</td>
<td>13,441</td>
<td>823</td>
<td>4,584</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>491</td>
<td>95</td>
<td>38</td>
<td>39</td>
<td>85</td>
<td>490</td>
<td>15</td>
<td>222</td>
</tr>
<tr>
<td>France</td>
<td>805</td>
<td>89</td>
<td>67</td>
<td>25</td>
<td>47</td>
<td>428</td>
<td>34</td>
<td>66</td>
</tr>
<tr>
<td>Germany</td>
<td>609</td>
<td>91</td>
<td>50</td>
<td>28</td>
<td>69</td>
<td>365</td>
<td>28</td>
<td>27</td>
</tr>
<tr>
<td>Hungary</td>
<td>403</td>
<td>97</td>
<td>25</td>
<td>37</td>
<td>77</td>
<td>619</td>
<td>47</td>
<td>172</td>
</tr>
<tr>
<td>Poland</td>
<td>2,263</td>
<td>97</td>
<td>34</td>
<td>42</td>
<td>95</td>
<td>2,387</td>
<td>294</td>
<td>388</td>
</tr>
<tr>
<td>Romania</td>
<td>2,205</td>
<td>93</td>
<td>4</td>
<td>42</td>
<td>90</td>
<td>3,914</td>
<td>167</td>
<td>1,762</td>
</tr>
<tr>
<td>Spain</td>
<td>968</td>
<td>82</td>
<td>42</td>
<td>20</td>
<td>65</td>
<td>988</td>
<td>44</td>
<td>361</td>
</tr>
</tbody>
</table>


The total farm labour force in EU-27 in 2007 was around 11.7 million persons, the majority of them, 92% were involved in the activity of commercial agricultural holdings. Romania’s contribution to European total farm labour force is 18.8%, while Poland’s contribution is 19.4%, France’s is 6.89%. It is remarkable that the western countries gather small population in this sector and accomplish superior economic results (Table 2).

The surface difference between agricultural holdings in Romania and those in France, Spain and Netherlands are considerable. Thus, in 2007, a Romanian agricultural holding has a UAA of 3.57 and one in France has a fifteen times higher surface. Moreover, the distribution of the percentage of Romanian agricultural holdings in UE-27 agriculture has an inverse proportion than the other presented countries.

Table 3

Structure of agriculture holdings on their surface

<table>
<thead>
<tr>
<th></th>
<th>Romania</th>
<th>France</th>
<th>Spain</th>
<th>Netherlands</th>
<th>Hungary</th>
<th>Poland</th>
</tr>
</thead>
<tbody>
<tr>
<td>UAA/ AH</td>
<td>3.37</td>
<td>3.57</td>
<td>47.74</td>
<td>52.1</td>
<td>23.02</td>
<td>23.84</td>
</tr>
</tbody>
</table>

Weight of agricultural holdings on UAA against UE-27 (%)

|                | AH <5 ha | 37.4 | 36.51 | 1.42 | 1.35 | 5.57 | 5.7 | 0.22 | 0.22 | 6.19 | 5.79 | 16.91 | 16.93 |
| AH 5 – 20 ha   | %        | 37.4 | 36.51 | 1.42 | 1.35 | 5.57 | 5.7 | 0.22 | 0.22 | 6.19 | 5.79 | 16.91 | 16.93 |
| AH 20 – 50 ha  | %        | 13.6 | 14.58 | 4.21 | 3.96 | 11.14 | 11.01 | 0.94 | 0.91 | 1.83 | 1.63 | 23.26 | 24.76 |
| AH >= 50 ha    | %        | 1.95 | 1.61  | 13.27 | 9.32 | 13.51 | 11.78 | 2.76 | 2.1  | 1.69 | 1.23 | 11.73 | 10.14 |

Source: Zahiu, Letitia, Toma, Elena, 2009; UAA (Utilised Agricultural Area); AH (Agricultural holding).
Bad land use and bad endowments of agricultural holdings, an increased number of small individual agricultural holdings, and the competition with high quality European products on already overtaken food market represent arguments for Romania to approach organic farming.

The Romanian Ministry of Agriculture and Rural Development shows special care to organic farming and processing. Therefore, laws and regulations on this topic are regulated annually. All of these are issued in order to support local producers adopt this possible market strategy. The Ministry defines organic farming as an activity gathering the following (http://www.madr.ro/pages/agricultura_ecologica/noutati-ae.pdf, accessed on 27th March, 2011):
- very strictly limits of using chemicals, antibiotics, additives and other complementary substances used on agricultural products processing;
- interdiction on using genetically modified organisms;
- crop rotation as premise for efficient use of farm’s resources;
- using manure as fertilizer;
- choosing plant and animal species that are resistant and adapted to local conditions;
- free animal husbandry and use of ecological fodders, obtained especially within own farm;
- production monitoring given by a body that inspects and certifies in this field.


Figure 1. Advantages of organic farming

The number of registered operators in organic farming rose constantly between 2006 and 2010, excepting 2009. But this was a difficult year for the entire economy, not only for organic farming. The highest number of registered operators – 4,322 – in the field can be identified in year 2010, data being still collected by the ministry. This shows that Romanian farmers spotted the market opportunity and the financial support was acknowledged, therefore a considerable number of persons oriented their activities in this direction.

The total area used for organic farming also rose constantly and the difference between 2010 and 2006 is with 81.5% higher. This result is supported by the high percentage of the weight of cultivated areas in organic farming within the total agricultural area.

Data collected in 2010 by the Ministry of Agriculture and Rural Development shows that in Romania there activate:
- 84 organic food producers;
- 33 organic traders;
- 17 operators in organic import activities;
- 22 operators in organic export activities.
A comparative analysis of the situation in Romania and the other five European states prior mentioned conducts to the conclusion that Romania has an important area used for organic farming, comparable with Poland. France and Spain have just twice as bigger areas for organic farming; even their total agricultural land is higher than Romania’s and their tradition in the field might have been an advantage.

Table 4

<table>
<thead>
<tr>
<th>Country</th>
<th>Utilized agricultural area (1 000 hectares)</th>
<th>Organic crop area (fully converted) (% UAA)</th>
<th>Total organic crop area (% UAA)</th>
<th>Irrigable area (% UAA)</th>
<th>Livestock density index (livestock units)</th>
<th>Organic crop area</th>
<th>Coordination index (coordination index base Romania) %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Romania</td>
<td>13,753</td>
<td>0.5</td>
<td>1.0</td>
<td>4.5</td>
<td>0.4</td>
<td>6,876.5</td>
<td>100</td>
</tr>
<tr>
<td>France</td>
<td>27,477</td>
<td>1.8</td>
<td>2.0</td>
<td>9.7</td>
<td>0.8</td>
<td>49,458.6</td>
<td>719.24089</td>
</tr>
<tr>
<td>Spain</td>
<td>24,893</td>
<td>2.6</td>
<td>3.2</td>
<td>14.7</td>
<td>0.6</td>
<td>64,721.8</td>
<td>941.20265</td>
</tr>
<tr>
<td>Netherlands</td>
<td>1,914</td>
<td>2.3</td>
<td>2.4</td>
<td>23.9</td>
<td>3.4</td>
<td>4,402.2</td>
<td>64.018032</td>
</tr>
<tr>
<td>Hungary</td>
<td>4,229</td>
<td>2.3</td>
<td>2.5</td>
<td>3.3</td>
<td>0.6</td>
<td>9,726.7</td>
<td>141.44841</td>
</tr>
<tr>
<td>Poland</td>
<td>15,477</td>
<td>0.9</td>
<td>1.9</td>
<td>0.7</td>
<td>0.7</td>
<td>13,929.3</td>
<td>202.5638</td>
</tr>
</tbody>
</table>

Source: Data processed from Eurostat Statistical Yearbook 2010 and own calculations.

In the same time, we may observe that the Netherlands have has the highest percentage of irrigable area, among the other countries 23.9%. Spain follows with 14.7% irrigable areas from the entire utilized agricultural area covered.

Spain leads the standings in what concerns the percentage of the fully converted organic crop area out of the total utilised agricultural area.

After calculating the coordination index having Romania as base, the situation is much more clear: Spain has the best situation on using organic crop area, with a surface nine time bigger than Romania, than Spain, with a seventh time bigger surface of organic crop, than Poland.

Those represent the targets which Romania has to reach.

Source: Data processed from Eurostat Statistical Yearbook 2010 and own calculations.

Figure 2. Organic Crop Area - Coordination index (base Romania)

The analysis demonstrated that Romania is on the good track of organic farming. Those 21 actions in the Action Plan for Organic Food and Farming are presented in Romania’s legislation. Romania’s agricultural potential is obvious:

- large surfaces of land are under rest;
- large surfaces of land were not covered by chemicals, as the farmers did not have financial support;
- existence of European financial support for start-ups in food processing and organic industry;
- information regarding organic farming and food processing is well organized and is available for the farmers who want to access it;
- the agricultural market is on the process of reorganizing and rebranding, therefore there is space for these products;
- needs for social welfare and food safety are keen and there are strategies aiming to overcome them;
- farmers are in the processes of specific training and education, so that information regarding management and marketing for organic farming may be interesting and approachable as creative and innovative instruments for becoming more competitive.

In this conditions, the economic results of agriculture should be analyzed.

Crop output and animal output represent the main parts of the agricultural output. The analysis took into consideration three years, 1998, 2003 and 2008. In all the studied countries, the crop output, the animal output and, obviously, the gross value added of the agriculture industry knew slightly small diminution in 2003 against 1998, except Romania and Spain. The 2008’s values rose much higher than the other both analysed years. The most interesting fact is to see that Romania with its potential and advantages has such a small gross value added of the agricultural industry.

Table 5

<table>
<thead>
<tr>
<th></th>
<th>Gross value added of the agricultural industry</th>
<th>Crop output</th>
<th>Animal output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>1,802</td>
<td>1,532</td>
<td>1,767</td>
</tr>
<tr>
<td>France</td>
<td>24,947</td>
<td>21,672</td>
<td>24,584</td>
</tr>
<tr>
<td>Germany</td>
<td>12,064</td>
<td>10,899</td>
<td>14,376</td>
</tr>
<tr>
<td>Hungary</td>
<td>1,970</td>
<td>1,727</td>
<td>2,737</td>
</tr>
<tr>
<td>Poland</td>
<td>5,084</td>
<td>4,036</td>
<td>6,740</td>
</tr>
<tr>
<td>Romania</td>
<td>5,111</td>
<td>5,547</td>
<td>7,559</td>
</tr>
<tr>
<td>Spain</td>
<td>19,760</td>
<td>23,449</td>
<td>20,427</td>
</tr>
</tbody>
</table>


Index of income from agricultural activity represents the real income of factors in agricultural activity per annual work unit (Europe in figures, Eurostat yearbook 2010, accessed on 9th of March). Year 2005 has the initial value. We may see that between 1998 and 2008 the income from agricultural activity knew superior values. This proves an increasing efficiency of the agricultural process. This is the case of Bulgaria, France, Germany, and Poland. Romania lost of its efficiency and obtain lower values of the income from agricultural activity.
In year 2008, the best value belongs to Hungary, while Spain has the lowest value of this indicator. Thus, the values diminished in 2008 against 2007, in the case of France, Germany, Poland and Spain. The Romania values just emphasize once again the situation of its sector. It is incapable of obtaining higher values in this sector, even if it has so many and important advantages.

A critical perspective upon Romanian agriculture

For a better understanding, we conducted a SWOT analysis of current situation of Romanian agriculture. The key elements of this analysis are which represent true fundamentals for national agriculture: geographical position, human resources, economy and infrastructure.

### Index of income from agricultural activity (2005=100)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>-</td>
<td>86.4</td>
<td>100</td>
<td>96.0</td>
<td>98.5</td>
<td>127.0</td>
</tr>
<tr>
<td>France</td>
<td>117.8</td>
<td>106.8</td>
<td>100</td>
<td>110.4</td>
<td>122.2</td>
<td>109.4</td>
</tr>
<tr>
<td>Germany</td>
<td>70.7</td>
<td>76.1</td>
<td>100</td>
<td>104.8</td>
<td>125.7</td>
<td>116.6</td>
</tr>
<tr>
<td>Hungary</td>
<td>92.8</td>
<td>63.0</td>
<td>100</td>
<td>111.7</td>
<td>120.0</td>
<td>142.4</td>
</tr>
<tr>
<td>Poland</td>
<td>69.3</td>
<td>58.5</td>
<td>100</td>
<td>110.4</td>
<td>135.1</td>
<td>111.3</td>
</tr>
<tr>
<td>Romania</td>
<td>104.6</td>
<td>106.9</td>
<td>100</td>
<td>99.3</td>
<td>78.8</td>
<td>101.2</td>
</tr>
<tr>
<td>Spain</td>
<td>106.4</td>
<td>123.1</td>
<td>100</td>
<td>95.6</td>
<td>100.5</td>
<td>98.0</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>STRENGTHS</th>
<th>WEAKNESSES</th>
<th>OPPORTUNITIES</th>
<th>THREATS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographical position</td>
<td></td>
<td>Implementetion of strategies against fluds</td>
<td>Non implementation of strategies for Danube region’s protection against fluds</td>
</tr>
<tr>
<td>Large agricultural area</td>
<td>Some areas near Danube and other interior rivers are constantly fluided</td>
<td>Suplimentary allocation of European funds for regional development, including agriculture Organic farming</td>
<td>Inconsistency of the policies for regional development</td>
</tr>
<tr>
<td>Many interior rivers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diverse relief forms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population’s access to educational systems. Existenc of some schools and universitites that educatd in agriculture field. Numerous population in rural area that can be involved in other activities that may support agriculture.</td>
<td>Numerous population involved in agriculture that increases its dependence of the fields’s results. Rural population migration towards other EU countries.</td>
<td>Agriculture specialists training. Possibility or new endowments using European funds. The economy’s incapacity of absorbtion the population that come back from other EU countries. Young and trained persons’ emigration towards more economic developed areas. A diminishing population.</td>
<td></td>
</tr>
<tr>
<td>Human resources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economy</td>
<td>Weak economic performance of agro-food producer. Bad infrastructure that causes high transportation costs.</td>
<td>Development of cross-border business relations by accessing new markets. Accessing European funds for regional development.</td>
<td>Huge psychicological barrier given by the mentality that associations forms belongs to comunist period.</td>
</tr>
<tr>
<td>The existence of agriculture potential. Diverse agriculture products that may be obtained given the local conditions.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Romanian farmer seems to be inside a vicious circle which does not allow him to perform and to become competitive. Romanian public policies should start from this point forward and should observe some gaps where they may interfere.

![Romanian farmer's vicious circle](image)

**Source:** Own concept.

*Figure 3. Romanian farmer’s vicious circle*
An innovative solution. Conceptual model

According to the Lisbon Declaration and Europa 2020 strategy superior outputs of field producers and traders are necessary and, in order for that, they must adopt higher competitive behaviour.

In order for Romania to obtain superior results, immediate intervention in the sector need to be accomplished. The local and national authorities should:

- analyse the local and regional situation and interfere with state support where it is the case;
- improve the absorption of national and European funds;
- support local, regional and national traditional products;
- boost the private-public partnerships to built up new business in the sector;
- enhance the cooperation between individual agricultural holdings in order to integrate the production;
- create a legal framework to stimulate young and educated professionals to accommodate in rural area;
- provide chances for technological and knowledge transfer between research and practical agriculture.

An integrated policy of Romanian authorities and a coherent effort of all stakeholders may conduct to superior results of this traditional Romanian sector. This should conduct to economic growth and social welfare.

This approach may conduct to a better understanding and management of the Europe 2020 goals, according to European behaviour.

Moreover, in order to obtain superior results in rural area and in the field of agriculture, we aim continuing present circumstances with proposing a conceptual model for agrifood industry: agrifood industrial city which requires all stakeholders’ cooperation in a direct and immediate connection with the intention to raise economic performance.

The vision of this model is to concentrate within a modern urban centre all actors on an agriculture product branch in order for them to obtain higher added economic performance. This poses a vertical integration of producers and traders of a product’s branch and their physical and economic proximity. In this way, we start from the premises of growing economic performance of food processing, as this city may benefit of specific transport and utilities infrastructure and modern processing lines, as well as available labour that could be qualified.

Obviously, this model involves high costs. It is necessary to elaborate a methodology of creation and functioning of such city, throughout an economic perspective and to quantify its impact on rural economy as well as its pertinence while creating, calculating and analysing specific indicators.

The main objective is to create such a city as a response to both local rural economy and Romanian food industry requirements. In order to establish this, certain objectives are intended:

- to elaborate a methodology for food industrial city’s creation and functioning;
- to create system of indicators able to quantify the impact of this city’s function on rural economy and other economic sectors and social activity and quality of life in rural areas;
- to quantify and analyse the value modifications of created indicators;
- to be in permanent contact with local authorities, policy makers and stakeholders.

The methodology for food industrial city’s creation and function should involve following activities or steps:
The conceptual model of food industry city is built in a modern perspective, an original specific indicators system should be elaborated so that to be able to quantify the change of its results obtained in pre and post food industrial city’s implementation. These may aim: result indicators (supply time diminishing), accomplishment indicators (obtained food production), pertinence indicators (number of new created jobs, number of families that benefit of urban life conditions), efficiency indicators (value of obtained food production compared with proposed production), performance indicators (change of GDP/inhabitant, GAV), quality of life indicators (number of new created kindergarten).

**Conclusions**

The analysis demonstrates once again the lower economic performance of Romanian agriculture, while European countries improve their results each year. It is obviously that Romanian rurality and agriculture confront major challenges:

- a poor infrastructure of roads, railway, public services, water and canalization, modern and adapted information;
- a weak manifestation of entrepreneur spirit which determines a high unemployment rate and a fragile jobs’ offer;
- an unbalanced access in time and space of pre-adhesion and structural funds which determines economic and social differences;
- a high subsistence and semi-subistence sector of agricultural holdings;
- a poor endowment of those agricultural holdings with specific equipments;
- a high percentage of self-consumption especially within individual agricultural holdings;
- a high numeric and value difference between individual agricultural holdings and commercial holdings.

Through its objectives, the model proves originality and innovation. The food industrial city’s implementation contributes the field knowledge development.
The model may constitute a good practice for other fields or countries, and provides a high level of transfer to public and private sector. Its implementation will give a new identity to Romanian rurality.

Acknowledgements
This work was cofinanced from the European Social Fund through Sectorial Operational Programme Human Resources Development 2007-2013, project number POSDRU/89/1.5/S/59184 „Performance and excellence in postdoctoral research in Romanian economics science domain”.

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