## ANALYSIS OF THE ACTIVE MEASURES IMPACT APPLIED ON THE YOUTH LABOUR MARKET FROM ROMANIA BY THE METHOD OF MAIN COMPONENTS

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#### Abstract

Today, finding a job is a major concern for 5.64 million European young individuals with ages between 15 and 24 years of age (from among which 2.16 are Romanian nationals) under the conditions in which an alarming increase of unemployment takes place in their ranks even if since 2014 a slight decrease is recorded in this respect.

Even though Romania, just like the other EU member-states has policies aimed at protecting the youths, respectively providing for their employment, but also ensuring their protection on the job, still the adoption of a series of additional measures proved necessary aiming to diminish the unemployment rate and increasing the duration of youths' employment, measures that should be efficient on short-term and sustainable on long-term. In their transition from education to work, young individuals are faced with increased risks of early school leaving, or of job abandon.

The paper intends a brief analysis of measures adopted by Romania for stimulating youths' employment, and for improving the chances of youths in the labour market from Romania. At the same time, by the method of main components is analysed also the impact of active measures enforced in the youths' labour market from Romania.

Key words: youths, youths unemployment rate, vacancies, measures, policies, statistical techniques

JEL Classification: C19, E24, J21, J 58, J63

#### Introduction

On January 1<sup>st</sup>, 2016, in the European Union the youths with ages between 15 and 29 years of age represented according to Eurostat 17% of total population. Even if modern Europe provides currently for the youths unprecedented opportunities, they are still faced with some challenges (aggravated by the economic crisis) related to the educational and training systems and to access to the labour market.

. The issue of youths' social inclusion was always present on the political agendas, but only during the last three decades it became of particular relevance.

In this context, attaining the objective of 75% of labour force employment for the population with ages between 20 to 64 years of age according to the "Europe 2020" strategy requires improving measures/transitions regarding the youths for access to the labour force market.

The unemployment rate among young Europeans is twice as high than the one of the adults (7.6% in 2016) and in Romania the unemployment rate for this population segment is almost four times higher than the one of the adults. The decrease in the numbers of permanent jobs during the crisis affected disproportionately the youths, also during the post-crisis as they are overrepresented in the category of temporary contracts. Even though temporary contracts might be a first step towards more stable employment forms, this might generate segmented labour force markets, as they youths are caught at the lower segment levels, and benefiting of less training on the job, low remuneration and worse perspectives regarding employment and long-term career.

The high level of unemployment among youths leads to decreased employment chances for individuals in general, but also to fewer opportunities of economic growth both at national and global level.

In the context of increasing higher levels of unemployment, the youths have a hard time finding a job, and many of them might decide to extend the period of studies or to

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resume studying. This might be an investment for the future, provided that corresponding and labour market matching competences are acquired. Nevertheless, the reality is that many of the youths are not involved either in the labour market or in education.

The measures for stimulating labour force employment in general are aimed both at increasing the employment chances, but also at incentivizing employers in view of providing jobs for unemployed and for creating new jobs.

Employment volume and structure are influenced directly and most times decisively by macroeconomic policies (of economic growth), by fiscal policies (level of taxes and duties), by monetary policies (level of interest rates), and by wage policies or the level of public investments in infrastructure.

#### 1. Mechanisms for increasing labour market supply adjustment to demand

Today, finding a job represents a major concern for 5.64 million European youths with ages between 15 and 24 years of age under the conditions of an alarming increase in the unemployment rate among young graduates of almost 18.4%, which is 2.5 times higher than the unemployment rate of adults.

From among the young graduates who entered employment in 2016, 43.8% work based on temporary labour contracts, and 32% are employed part-time, and this is most often because of lacking alternatives. A concern raising issue is that in Europe over 6.5 million youths do not attend currently any form of education, vocational training, nor are gainfully employed. At the same time, in Europe, a bit more than one out of three persons (35%) has a higher education diploma, while in the USA the percentage is of over 40%, and in Japan it exceeds 50%.

The living standards of the member-states depend significantly on the young generation, with ages between 15 and 29 years of age. This population segment was in 2016 of 88.65 million persons within the EU, representing a fifth of the total population of the European Union. In spite of the opportunities provided by modern Europe, the youths have to face some challenges aggravated by the economic crisis and related to the educational systems of training and accessing the labour force market. Up to 2020, it is estimated that over 35% from all jobs will assume higher skills and competences, as compared to 29% in the present. This presupposes the necessity of creating more than 15 million high-skilled jobs. Digital competences are required increasingly more in all jobs, and the EU economy still cannot avail itself of enough high-skilled personnel with ITC competences.

Because of early school-leaving, the risks are higher to be unemployed or inactive on the labour market, and of living in poverty while economic and social risks increase. According to Eurostat statistics, about 16.9% from the EU-28 population with ages between 20 and 24 years of age has finalized lower levels of secondary education, but did not pursue other education or vocational training programmes in 2016. Another stringent issue faced by modern Europe is the fact that the PISA 2015<sup>1</sup> test has shown that 19.7% from the population with ages between 15 and 16 years of age obtained extremely poor results regarding reading. For Romania, the results of the PISA 2015 test have shown that 24.3% from the Romanian pupils/students are illiterate for all three fields: difficulties in reading and understanding a text, and they can solve only basic maths exercises.

#### > Measures for stimulating labour market employment of youths

The coordination of policies, both at European and national level, together with public labour force employment offices, NGOs, and social partners might lead to joint actions at

<sup>&</sup>lt;sup>1</sup> is used by the Organisation for Economic Cooperation and Development (OECD) in 65 states and economies and takes place once at three years and shows the level of pupils aged between 15 and 16 years of age with respect to mathematics and reading skills.

European or national level regarding the diminishment of unemployment and the creation of employment opportunities for the youths. Increasing the employment rate of the youths has positive impact both for partner and neighbouring countries of the EU, but also for the EU.

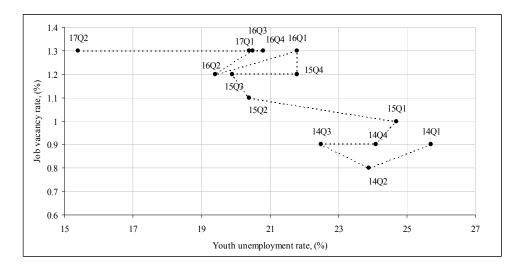
After graduating upper secondary education, the youths must follow other educational programmes or obtain a job. This fact is important, necessary and useful as it allows for youths' entering into higher education or vocational training systems, according to the requirements of the labour market. Moreover, graduates of vocational training or of higher education have need and enjoy support from public labour force employment services in identifying a first job. In recent times, this action is fulfilled by the public labour force employment services increasingly more in partnership with other stakeholders, including here enterprises and thus contributing to fulfil parts of the corporate social responsibility policy targets, as well.

In general, employers show preference for experienced workers instead of new entries on the labour market and, even if incentives are provided for the employment of young debutant workers, and even if they are employed, this employment is based often on temporary contracts allowing the enterprises they are employed with to test aptitudes, skills, and productivity of workers before employing them based on contracts for undetermined periods of time. To a large extent are preferred temporary contracts which exempt the employer from certain responsibilities in case of layoffs, such as compensation payments, periods of notice, and instances when these measures might be contested in a law suit, etc. the consequence is a segmented labour force market in which many young workers shift alternatively between employment based on temporary labour contracts and unemployment spells. The same risk is present also in the case of women. The risk of entering into such a vulnerable segment of alternating employment with unemployment is particularly high in the case of young women. The use of such practices should be limited because it is detrimental to productivity, competitiveness and profitability, respectively to economic growth, and employers fail to pay accordingly for delivered work, not invest in vocational-professional training of young employees.

The decrease in the numbers of permanent jobs during the crisis period and in the post-crisis affected disproportionately the youths from the age segment 15-24 years as these are overrepresented in the temporary and part-time contracts category (43.8% and, respectively 32.0% from total jobs in the year 2016)<sup>1</sup>. Women are overrepresented in part-time jobs by 40.5%, as compared with 24.8% for men, and in Slovenia, Finland, Ireland, Sweden, Denmark and the Netherlands the share of women with ages between 15 and 24 years of age working part-time increased to over 50%.

For the last 4 years, in Romania, the number of vacancies remained relatively stable in average, and the unemployment rate had a slight decreasing trend indicating a continuing deterioration of the labour force market. The analysis of the Beveridge curve (Figure 1) shows that after the  $2^{nd}$  quarter 2015 the direction the curve takes is rather to the left meaning that young unemployed are compatible with the vacancies. In the  $1^{st}$  quarter 2014 and up to the  $1^{st}$  quarter of 2015 the curve tended to right, meaning severe deficiencies and a high rate of equilibrium unemployment.

<sup>&</sup>lt;sup>1</sup> *Eurostat statistics,* www.eu.europe.eu



# Figure no. 1 Beveridge's curve for EU-28, young individuals with ages between 15 and 24 years, Q 1/2014-Q 2/2017

Data source: Eurostat statistics (online code: [jvs\_a\_nace2] și [une\_rt\_q), author's processings

During the period 2008-2014, the high levels of unemployment coexisted with the issue of failing to fill in these vacancies. This phenomenon is indicative for an increase in issues regarding mismatches on the labour market, due to inadequate skills and competences, to limited geographic mobility, and to inadequate wage earnings for all sectors and regions of the EU. Even though forecasts at EU-28 level indicate that up to 2020 will be available 73 million jobs as result of the retirement of large numbers of workers, and these vacancies need to be filled by new personnel with adequate skills which also implies increased opportunities for youths, there are some leftover uncertainties because at least 15% of the young Europeans with ages between 20 and 24 years did not benefit of any educational or vocational training programme, nor are gainfully employed. Thus, instead of diminishing, the risk of being completely excluded from the labour force market is very high for these young individuals, just as the risk of remaining absolutely dependent on social services and assistance.

#### > Required social protection measures for the youths

The active inclusion of youths presupposes assistance that includes adequate incomes, an inclusive labour force market and access to quality services. In the case of young unemployed, for avoiding the dependence on social services, assistance should be granted only if the respective youths are actively seeking a job, or to follow an educational or vocational training programme.

The modernization of the social security systems must take into account the health condition issues of the youths. Increasingly higher numbers of youths benefit of (permanent) disability indemnities. Some of them cannot work full-time, but could be employed part-time, or for smaller fractions of the working time, and yet other might return in the labour market by applying corresponding active labour market policies and measures.

By adopting an inter-sectorial approach short-time solutions might be integrated into the long-term effort of mobilizing the youths.

#### > Measures for improving youths' opportunities on the labour market

The professional insertion and the creation of new jobs for youths turned into priorities of the governmental policies, as these are measures furthered and supported also by the European Union and national legislation in the field of social policy. The positive effects of these policies in Romania became visible by decreasing the unemployment rate among youths benefitting from these measures. While providing for the young unemployed from urban areas, at the same time attention needs to be paid to the unemployed from the rural area, but also to those with only basic or medium-level education or training.

Currently, the education system does not provide according to the needs of the labour market, and some of the reasons are found in the inertia and rigidity of the system. In the Romanian economy, the private sector ensures most jobs and vocational training for employees.

Measures were initiated for stimulating entrepreneurial initiative and spirit among the youths by support programmes provided by some non-governmental institutions, but the obtained outcomes are modest, at best. From among these, we mention the following programmes aimed at:

- *stimulating the entrepreneurial spirit of youths*: providing some subsidised credits for students with ages up to 30 years of age and who are attending their first higher education institution; providing for fiscal facilities for students planning to set-up their own business;
- *Increasing the employment level of youths*: increasing expenditures allotted to active measures for combating unemployment; easy access of youths to active measures implemented in view of combating unemployment.

In Romania's labour market is found an increase in the training level of youths (more and more youths graduate a higher education entity), concomitantly with the emergence of a rather spread-out phenomenon regarding the education level required for filling a position meaning that often a position that could be filled by a person with upper secondary education is made available but for individuals who graduated higher education and have a higher education diploma.

Among the measures adopted by the Government of Romania is included also the project "Young Professionals" that has as objective to diminish the numbers of young experts leaving the country, but also to implement the reform of public administration.

Diminishing the numbers of unemployed among youths can be achieved also by higher *diversification* of jobs, and especially for those with lower educational levels who most often are active in sectors like trade, constructions, tailoring, catering, etc. At the same time, stimulating the various forms of working from at home, and also jobs with flexible working hours can become useful instruments, in particular regarding women who have children in their care. Setting up some associations at community level for ensuring the care of people with disabilities, or for baby-sitting would lead to creating new jobs both for young women but also for the women who went into anticipated retirement. If such actions are frequent in western countries (as result of population ageing), in Romania they are still in an incipient stage (many persons without jobs preferring to deliver this type of services abroad where they are better paid than in the country).

A good *system of monitoring law enforcement* would be an important aspect and would give a strong incentivising and safety message for the youths. Institutions should be organised that monitor the actions regarding the legal framework for labour and to which youths could turn for signalling failures to comply with the provisions of the law. At the same time, the facilities provided by the Government to the employers should be allotted for longer periods, so that they would no longer be tempted to search for firing reasons in order to make room for other young graduates. This type of action has to do with the periods on which subventions are granted for the young employees – and from the measure to extend their duration would benefit especially small- and medium-sized enterprises. Another concrete way of supporting employers is represented by fiscal facilities: tax deductions for those employers hiring certain professional and age groups.

From the institutional viewpoint, other intervention means to support youths' access to labour market would include:

• useful *information dissemination* regarding the dynamics of the labour market, employment and specialisation trends required by the market;

• *professional guidance* regarding sources for seeking and identifying jobs, professional counselling depending on skills, aptitudes and attitudes;

• *adjusting the skilling and reskilling training courses portfolio* provided by the Municipal Labour Force Employment Agencies;

• providing possibilities of on-the-job skilling;

• job fairs;

• organising at increased frequency job fairs depending on certain specialisations with the purpose of harmonising the interests of the employers (matching candidates with low financial and time costs) and of persons seeking jobs having thus the opportunity to compare and opt for the intended position;

• *adopting a flexible working programme* which would be an advantage for women with children or for young families with children who cannot have the support from other members of the family, parents or other relatives;

• creating some collective associations with information and support purposes

• free legal counselling;

• human resources counselling services;

• *intensified partnerships with mass-media* that has a fundamental role in informing the population, with consequences both regarding legislation in the field of labour and social protection, but also regarding the dissemination of some new models of professions.

Changing the attitude of passivity and of expecting help from the state, while altering also the perception according to which it is "the duty of the state" to support unconditionally those in poverty without setting up some systems of encouraging them to get more involved in actions that could help them escape the poverty trap are all major requirements in combating unemployment in general and unemployment among youths in particular.

# 2. Applying the method of main components for analysing the impact of the active measures used on the youths labour market from Romania

Law 76/2002 regarding the system of unemployment insurances and stimulating labour force employment with the subsequent amendments and completions regulates the measures for enforcing the strategies and policies developed in view of protecting persons against the unemployment risk, of ensuring high employment levels and for adapting labour force to the requirements of the labour market, as the purpose of all these measures is to achieve some concrete objectives on the labour force market, respectively:

- preventing unemployment and combating its social effects;
- employment or re-employment of individuals seeking for a job;
- supporting employment for persons included into vulnerable groups of population;
- ensuring equal chances in the labour market;
- stimulating unemployed in view of filling a job;
- stimulating employers for hiring persons seeking for a job;
- improving the employment structure on economic activities and geographic areas;
- increasing labour force mobility under the conditions of structural changes that take place in the national economy;

• ensuring the protection of persons within the system of unemployment social insurances"<sup>1</sup>.

The measures for stimulating labour force employment, in general, aim both at increasing employment chances, but also to incentivise employers in view of hiring unemployed and creating new jobs.

The volume and structure of employment are indirectly influenced and most times decisively by macroeconomic policies (of economic growth) as well as by fiscal policies (level of duties and taxes), by monetary (level of interest rates) and wage policies or by the level of public investments in infrastructure.

Another series of public policy measure of less amplitude have, as a rule, direct impact and on short-term on the employment level of individuals on labour market; these might be grouped into two large categories depending on the nature and intensity of their influence on the labour supply and demand structure.

The so-called "passive" measures of employment are material support ones (unemployment indemnities, support allocation) with the role of compensating to a certain degree the lack of incomes because of unemployment or inactivity and, accordingly, also to maintain the work capacity during the period of joblessness and while seeking for a new job.

In turn, "active" employment measures represent an assembly of interventions that influence directly and on short-term the volume and structure of employment, and of unemployment accordingly in view of finding the balance between labour supply and demand, either by increasing labour force demand, or diminishing the oversized supply of labour force.

The increase in labour force demand can be stimulated by granting subsidies to employers, or by measures aimed to develop the entrepreneurial capacity of a community or region while, other measures, like granting mobility bonuses are meant to diminish a relatively oversized supply of labour force.

The active measures of labour force employment policies are developed both for employers and for persons seeking a job. Among the most important active measures aimed directly at persons seeking a job might be reminded *vocational training and employment stimulating services*.

In order to determine the impact of active measures applied to young labour force employment was taken into account the data set regarding the number of persons with ages below 25 years of age and who were employed in each year during the period 2006-2016 by means of the measures adopted at the level of the National Agency for Labour Force Employment (Table no. 1).

Table no. 1 Active measures for the employment of youths provided by the National					
Programme of Labour Force Employment					

X1	Youths' information and vocational counselling			
X2	Youths' vocational training			
X3	Stimulating employment of fresh young graduates of educational institutions			
X4	Employment for unemployed before the termination of the indemnity period			
X5	Employment of persons aged over 45 years, or unemployed who are single			
ЛЈ	supporters of mono-parental families			
X6	Employment by stimulating labour force mobility			
X7	Employment of persons with handicap/disabilities			
X8	Providing assistance and consulting services for starting-up self-employment			
ЛО	activities			

<sup>&</sup>lt;sup>1</sup> Law 76/2002 regarding the system of unemployment insurances and for stimulating labour force employment with subsequent ammendments and completions.

X9	Labour mediation					
X10	Personalised social guidance granted to young persons exposed to the marginalisation risk					
X11	Unemployment prevention measures					

Data source: selection realised by the author

By applying the main components' method for the data set taken into account, the correlation matrix was obtained and this allowed for determining the positive or negative correlations between the considered variables.

Based on the analysis of the correlation matrix of own values was highlighted that the cumulated share in the total variance of the first four components is of 94%. By applying the Kaiser technique (1960) and Cattel (1966) was determined the number of main factors (components). For the considered case, was highlighted that the first 4 factors are dominant, which suggests that for the set of measures taken into account, the first 4 component can be considered as dominant.

In order to determine the correlations between the main components, and the initial characteristics, was used the correlation matrix of the "loaded" components for each group of considered active measures. The outcomes are presented in Table no. 2.

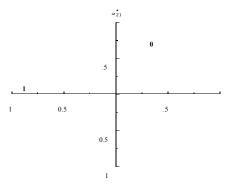
Principal Component Loadings from Correlation Matrix						
				Comp.		
	Comp. 1	Comp. 2	Comp. 3	4		
X1	0.411	0.106	0.876	-0.074		
X2	0.343	0.909	-0.111	0.155		
X3	0.640	0.323	-0.003	0.646		
X4	0.581	-0.732	0.307	0.111		
X5	0.954	0.112	-0.096	-0.185		
X6	0.969	-0.041	-0.122	0.112		
X7	0.840	0.173	-0.210	-0.327		
X8	0.471	-0.806	0.064	0.235		
X9	0.556	-0.190	-0.802	-0.050		
X10	0.371	0.810	0.274	-0.060		
X11	-0.850	0.193	-0.238	0.258		

 Table no. 2 Correlation matrix of the ""loaded" components

Source: author's own processing with the aid of the KyPlot programme

The correlations presented in Table no.2 allowed for a first analysis of the impact of each active measure adopted for increasing the employment level, depending on the sign of the values from the tables that might determine the positive or negative correlations between the variables subjected to the study, and thus the way in which these might influence the evolution of employment in the labour force market.

Based on the main components' method and the representation of the "efficiency" of measures taken into account in the system of axes determined by the "loading" components, the contribution of each active measure to the evolution of the employment degree among youths might be estimated (Figure 2). The number in the figure represents the ordinal number of the applied active measure taken into account. Thus, the components in the first quadrant are those with positive correlations and thus the ones influencing most strongly the youths' employment in the labour market.



### Figure no.2 Contribution of each active measure to achieving the employment objectives on the labour force market

Source: author's processing with the aid of the KyPlot programme

Measures such as vocational training, vocational information and counselling, stimulating employment of graduates of education entities, employment for persons aged over 45 years, or of unemployed who are single supporters of mono-parental families, and the personalised social guidance granted to youths exposed to the risk of marginalisation are, based on this method, the ones with good results in increasing employment of youths in the labour market.

Labour mediation, granting assistance and consulting services for starting-up a selfemployment activity, employment by stimulating labour force mobility and the measure for employing unemployed before the termination of the indemnity period have lower efficiency in increasing employment of youths in the labour market from Romania.

Regarding the measure of preventing unemployment, the data from Figure 2 indicate that its adoption is not efficient for increasing the employment level of the young labour force.

#### Conclusions

The alarming situation of youths on the labour market in the majority of countries draws the attention of international bodies to this topic.

In Romania, only by the end of 2001 was realised the first attempt of strategic planning in the field of youths, by developing the "National Action Plan for Youths – Romania (PNAT-R).

The National Strategy in the field of youths' policy for the period 2015-2020 was adopted in January 2015 and has as general objective the professional insertion of youths. The strategy is built around the following pillars: employment and entrepreneurship, formal, non-formal education and culture, transition from education to work, and the correlation between systems, youths and the use of ITC, culture, health, sports and leisure time.

The initiatives, programmes, and actions launched at national level are intended to train youths in new competences, for a new model of education and vocational training model, a new model of lifelong learning, all of these being necessary elements for maintaining the youths on the labour market in the knowledge-based economy. The change speed in the knowledge-based economy has as effect also the swifter depreciation of aptitudes. In order to mitigate efficiently these changes, the youths need to be able to update permanently their competences.

Increasing the accountability degree of youths by creating favourable conditions for the development of their skills, for working and being actively involved in the development of the society is essential for sustainable economic and social development. Nevertheless, youths' insertion on the labour market represents a huge challenge for the Government. In this context, more attention should be paid to active policies and measures on the labour market that would aim directly at various groups and sub-groups of youths, including here the NEET category.

In order to determine the impact of active measures applied in the field of labour force employment in Romania, the main components' method was used. The obtained results highlighted that measures such as vocational training, vocational information and counselling, stimulating employment of young graduates of education institutions were the most efficient methods in employing young individuals in the labour market.

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