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# UNEMPLOYMENT RATE AND THE INTERNAL MIGRATION IN ROMANIA

Case  
Study

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## Keywords

*Unemployment rate,  
Development,  
Internal migration*

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## JEL Classification

*E00, J60, R13*

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## Abstract

*This article analyzes the influence of the internal population migration phenomenon on unemployment in Romania. During the analyzed period, the years between 1991 and 2015, Romania has gone through important economic and social changes and the long-time economic crisis generated a high unemployment rate involving reduced chances of re-employing the unemployed. At the same time the internal migration rate from urban to urban area, respectively from urban to rural area shows the fact that in Romania the population living in cities is influenced by the professional status and they take risks easier than the ones that come from rural area. The conducted research has a high degree of novelty as it refers to internal migration that, besides the external one, may generate economic unbalances and this is the reason we take into consideration that these analyzed aspects and tendencies be known and taken into consideration especially by the decision factors at socioeconomic level.*

## INTRODUCTION

After 1990, Romanian society has known a series of economic and social transformations, with new reforms that would integrate all fields. Simultaneously, the transition process faced great difficulties, demanding high social costs during inflation, unemployment, income polarization, reduction of purchasing power etc. (Țoțan, Geamănu, & Tudose, Mutații structural ale forței de muncă din, 2012).

The present stage of the evolution of the employment rate concept is also characterized by important qualitative transformations in relation to the rapid growth of the education level in developed countries, changing the conditions needed to be fulfilled by the young people in order to enter the labor market, applying new hiring requirements for the workers in full professional career, but with a relative lower level of preparation for whom the young people represent competition. At present, in the European Union and different other countries, a set of programs and projects for entering the labor market, including for the young people, are being elaborated (Cojuhari, 2015).

## THEORETICAL APPROACHES REGARDING UNEMPLOYMENT AND MIGRATION IN ROMANIA

In our country, the labor and social security affairs have been regulated as different forms from the 12<sup>th</sup> -14<sup>th</sup> century when there were commonalities and corporations. Around 1890, through the development of industry in Romania, essential modifications appeared on the labor market; hence the issuance of some common regulatory documents that were intended to regulate the new affairs (Sunday Rest Law, Professional Education Law). After the First World War, the Ministry of Labor and Social Protection was established by decree no. 1327 in 29.03.1920, and one of its main purposes was to protect and organize labor, later on widening its attributions for organizing the allocation of workforce, migration and unemployment problems.

Between 1967 and 1968 the issues related to labor were taken over by the State Committee for Labor and Salaries. Starting with 1968 the Ministry of Labor was reintroduced and it functioned until 1990 when the Ministry of Labor and Social Protection was established. Starting with 2001 its name changed to Ministry of Labor and Social Solidarity (Agenția Națională pentru Ocuparea Forței de Muncă, 2007).

In January, 1991 the law no. 1/1991 regarding the social protection of the unemployed and their professional reintegration was adopted; this was a

regulatory document through which, after several decades, the existence of the unemployed people in Romania was finally acknowledged.

It is a well-known fact that until the end of the '80s in Romania the term „unemployed” was basically non-existent, the planned economy having as a major objective the full employment of every individual. Starting with 1990 this phenomenon has manifested in our country also as a result of an unbalance on the labor market (Gibescu, 2013).

According to the International Labor Office (ILO) an unemployed is an employable person who is at least 15 years old and who, during the period of reference, meets the following conditions simultaneously: does not have a job that provides an income; is searching for a job; is available for wage or nonwage labor, is able to start working anytime in the following 15 days.

Unemployment is a contemporary, complex, surprising phenomenon that includes in its scope economic, social, political, psychological and moral aspects. Unemployment appears as an exclusive result of job offers or workforce while demand is not taken into consideration. The situation of the labor market, if there is unemployment or not, can only be correctly appreciated by correlating the demand with the job offers. A growth of the offer simultaneous with a decrease of demand determines a deterioration of the situation of the employment rate. On the contrary, the rise of the demand and decrease of the work offer lead to a diminution of unemployment. On the labor market one can find: a balanced situation which reflects an optimal employment rate, and an unbalanced situation which reflects a degree of underemployment or over employment (Țoțan, Popescu, & Cristache, Impactul șomajului asupra creșterii economice din România în perioada de criză, 2013).

A large amount of macroeconomic literature has investigated employment dynamics in their relationship to the cyclical patterns of economic growth. Labor economics perspectives have focused on the role of knowledge wages in affecting employment and the economical periods of high cyclical unemployment (Boca, 2014).

Unemployment can take numerous forms, depending on the different criteria (age, sex, level of instruction, ethnic group, race etc.), but the most important are frictional, structural and cyclical.

The frictional and structural unemployment represent the normal, natural, balanced unemployment to which a natural rate of unemployment called NAIRU corresponds, to which a national income with a level close to the national potential income can be covered (Luțac, 2010).

On an economical plan one can distinguish the negative consequences of unemployment at national and individual-family level. On a national

plan, the exclusion of one party of the workforce influences the dynamics of GDP capacity, meaning that the training, qualification of the unemployed involves expenses from the individual and the society, expenses which will not be recovered in the case of long term unemployment; this workforce, out of the active population, does not contribute to the growth of GDP; society supports the costs of unemployment by unemployment fund contribution, from economic agents, employees; the existence of long term unemployment especially among the young people can generate assaults, crimes, can accentuate criminality, with an impact on the whole society. At individual - family level unemployment has repercussion on the income (Țoțan, Popescu, & Cristache, *Impactul șomajului asupra creșterii economice din România în perioada de criză*, 2013).

Unemployment constitutes in market economies, under the aspect of the psycho-social, a major risk, with multiple and sustainable development effects, thus representing: factor of deepening of the segmentation of the labor market; factor of enlargement and deepening of poverty for the unemployed and their families; it may affect the undertakings, branches of economic, geographical areas, occupations or professions; factor of deterioration of the health status; factor of political instability, destructive economic and social conflict; deterrent, social marginalization and exclusion of people with limited qualification or with a level of precarious schooling (Ighian, Toader, Hordău, & Toader, 2016).

Unemployment is influenced by several factors, one of the most important being internal migration. The geographical or territorial mobility of the workforce, also called migration, represents a spatial process of adaptation of workforce to the demand of the productive system, achieved either in the guise of changing the residence, of getting closer to the workplace (definitive migration), or through keeping the residence and travelling to the workplace (pendulum migration or commutation) (Constantin, Goschin, & Pârlog, 2002). Through internal migration of the workforce a relative balance of the workforce dimensions is achieved (number, structure of occupancy and territorial distribution) involving the productive system, and a growth of the work demand on their professional and territorial structure (Luțac, 2010).

The theories about migration are diverse.

One of them considers that the main reason that leads to the occurrence and development of the migration flux is the difference between the income level in the donor country and in the one receiving the work force (Harris & Todaro, 1970). According to the Harris-Todaro model, migration takes place from rural to urban areas because people compare the expected incomes in the urban area with the salaries they earn in the rural sector and decide to

move in case the first one is greater. Migration appears as a cost-benefit process and will continue to take place until the marginal net benefit expected for the migrant is zero (Harris & Todaro, 1970).

Another theory considers that migration can be explained better as a collective farm that can serve in order to minimize the risks when facing uncertainty and the market's multitude of issues of functionality that predominate in the developing countries (Stark, 1991).

In the specialized literature, there are many arguments to support both theories.

The fundamental hypothesis of the classical approach is that the migrant is an individual that maximizes utility and makes the object of a budgetary constraint (Bauer & Zimmermann, 1999). Moreover, migrants are young, well-educated persons (Ghatak, Levine, & Price, 1996). Every potential migrant calculates the updated value of the expected income in all potential regions and only migrates if these minus the migration costs are higher than the ones gained at the origin place (Zimmerman & Bauer, 2002).

Moreover, the improvement of welfare as an effect of migration is due to a workforce transfer from low productivity areas to high productivity ones (Ghatak S. , 1991). People move from home because of a series of different reasons and it is well known that the migration intensity fluctuates throughout life (Champion, Fotheringham, Rees, Boyle, & Stillwell, 1998), age having a selective influence upon migration (Stillwell, 2008).

Within this frame, the migration probability decreases with aging, rises with a higher level of education, because the higher capacity of an individual to collect and process information gained through higher education reduces the migration risks, and the relocation costs are expected to rise with a longer distance because the information regarding the labor market will be better for closer locations (Bauer & Zimmermann, 1999).

Migration involves a great level of stress and anxiety for those who migrate and their family (Carballo, 2007).

## METHODOLOGY

To analyze the possibility that unemployment might have an influence upon the internal migration in Romania, we chose as an independent variable the unemployment rate and as independent variables 4 rates that determine the structure of internal urban and rural migration flows induced by residence change. These rates are represented by the individuals that changed their residence from urban to urban area, from urban to rural area, from rural to rural area respectively from rural to urban area in relation to a 1.000 inhabitant's basis. In

exchange, the unemployment rate is calculated as the ratio between the number of unemployed individuals (registered in the employment agencies) and the civil active population multiplied by 100.

The statistical data that describe both the unemployment and the internal migration phenomenon in Romania have been taken from the official website of the National Institute of Statistics and represent a period of time of 25 years, starting with 1991 until 2015. The data have been processed in order to obtain some Microsoft Office Excel 2007 charts that describe the development over time, and in order to obtain descriptive statistics and new correlation coefficients we have used the statistical software SPSS 17.

## RESULTS AND DISCUSSIONS

We start our study by a graphical representation of the unemployment rate between 1991 and 2015 in figure 1. The minimum value of 3% (table no. 1) recorded in this time interval is shown in 1991 due to the politics of the former communist regime that targeted the workforce, so the first years of the study were influenced by the dissolution of the regime at the end of 1989. Once a new regime was installed, the privatization process started. Even though this process was slow, it led to massive layoffs and implicitly to the rise of the unemployment rate to 8.2% in 1992, 10.4% in 1993 respectively to 10.9% in 1994. The maximum value of the unemployment rate in the studied time frame reached a threshold of 11.80% (table no. 1) in 1999, the year shaken by 6 strikes of the miners, which involved violent conflicts between the police force and the miners who went to the capital city in order to protest against the shutting down of numerous mines and implicitly of the miners' layoff.

It is interesting to observe the constant fall of the unemployment rate starting with 2000 until 2007, the year when Romania entered the European Union. Thus the explanation for the perseverance of the decrease of the unemployment rate is offered by the policies adopted in the period of preadmission to the European Union, policies that, among other things, targeted the maintaining a low range of the unemployment rate. Once the global economic crisis started in 2008 the unemployment rate would reach almost double values in the following year (7.80% in 2009 as compared to 4.40% in 2008). Ever since then, the unemployment rate has not dropped below the level recorded in 2008. The effect of the global economic crisis could be felt even in 2010 when the unemployment rate reached 7%. Following this period, small but significant drops are recorded, the unemployment rate reaching 5% in 2015.

The average unemployment rate in Romania during the analyzed time interval is 7.28% meaning that in a total of 25 years, over 13 years the unemployment rate has recorded values below this value (1991, 1996, 2004, 2005, 2006, 2007, 2008, 2010, 2011, 2012, 2013, 2014 and 2015) whilst over the other 12 years the rate exceeded the average value (1992, 1993, 1994, 1995, 1997, 1998, 1999, 2000, 2001, 2002, 2003 and 2009). In table 1 which contains the calculated descriptive statistics for the unemployment rate we can also see that the mean value is 7, which means that over half of the analyzed period the unemployment rate was below 7% and over the other half the values exceed this threshold. Also, the modal value lower than 5.2 tells us that this is the unemployment rate with a maximum frequency of occurrence over the analyzed time interval.

The standard deviation, calculated in table 1 as the variance root, permits the estimation of the uniformity of the unemployment rate values so that a lower value than that leads to grouping the data around the average value. Although the 2.41 value can be considered low in other statistical research, when talking about unemployment rate this is a rather high value due to the fact that it actually represents a percentage, therefore the values of the unemployment rate in Romania in the period between 1991 and 2015 are distinct as compared to the average value.

The value of the coefficient of kurtosis (-0.979) is negative, which demonstrates that the variance curve is lower than the normal distribution, and the fact that it is close to value 1 emphasizes the fact that the unemployment rate does not record many values that take distance from the average value. The degree and direction of the variance skewness are measured through Skewness coefficient in table no. 1, of which positive value of 0.208 shows that the unemployment rate is right skewed, which appears due to the fact that the median is lower than the average.

We continue with the research through graphical representation of the 4 variables that represent the structure of the internal urban and rural migration flows. We start by representing, in figure no. 2, the development of the internal migration rate from urban to urban area and from rural to rural area. That is to say we analyze the migration from an area to the exact same type of area. On an overview of figure 2 we can observe that migration from rural to rural area is higher until the end of 2005 than the one from urban to urban area. Following this year the situation changes and the rate of those who migrate from rural to rural area is lower than the one describing migration from urban to urban area. If we are to compare the average values of the two types of movements we can observe that there is no significant difference between them (6.89

from urban to urban area respectively 6.79 from rural to rural area).

In figure no. 3 there are graphical representations of the other two variables of internal migration rural-urban and urban-rural. At the first glance we can observe that there is a greater distance between the values of the two variables in the analyzed period of time. Implicitly the difference between the average values will also rise as compared to the previous situation (the average value in the case of internal migration in rural to urban area is 6.07, while in the case of internal migration from urban to rural area it rises to 8.78). One characteristic that stands out is the fact that in the beginning of the analyzed period (1991-1994) the internal migration was higher from rural to urban area as compared to the one recorded from urban to rural area. One explanation for this phenomenon is the legacy of the communist regime that through a heavy industrialization and the construction of a great number of homes it encouraged the ones living in the rural area to move to cities. After 1994 the internal migration rate from rural to urban area continued to drop with some periods of recovery, but it never reached the same level as in 1991-1992.

We go further with the analysis and intend to study the possibility of a correlation between the unemployment rate and the four types of internal migration. All of the analyzed variables are quantitative, but the studied period of time of only 25 years forces us to use the Spearman's rank correlation coefficient presented in table no. 2 in order to study correlations. In order to interpret the results we choose the level of the significance value of 0.05, so the Sig. value which is lower than this chosen significance threshold will indicate the presence of a connection. Based on these considerations, the correlations are shown between the unemployment rate and the internal migration from urban to urban area ( $p=0.002$ ) and the unemployment rate and the internal migration from urban to rural area ( $p=0.006$ ).

We go further with the analysis and study the values of the Spearman coefficients that are negative which means that these formed correlations are inverse correlations. That is to say that with the rise of the unemployment rate the two internal migration types record drops, but when the unemployment rate rises, the internal migration from urban to the other 2 areas will drop. In table 2 we can see other existing correlations between the 4 internal migration types, namely:

Internal migration from urban to urban area – migration from rural to rural ( $p=0.000$ ), - migration from urban to rural ( $p=0.000$ )

Internal migration from rural to rural area – migration from urban to urban ( $p=0.000$ ), - migration from urban to rural ( $p=0.000$ )

Internal migration from urban to rural area – migration from urban to urban ( $p=0.000$ ), - migration from rural to rural ( $p=0.000$ )

All of the correlations enumerated above are positive which means that the rise of one internal migration rate will lead to a rise of the other migration rates, but the opposite is also valid, if there are recorded drops of the first rate which will generate drops of the other migration rates.

## CONCLUSIONS

There are numerous studies carried out so far at Romanian level developed on the connection between the unemployment rate and internal migration. This research brings a new approach as it relates to the internal migration which, alongside the external one, can also cause economic unbalances even though on a more reduced scale. Throughout the analyzed time period Romania has gone through major economic and political changes that have been reflected both in the evolution of unemployment and in the development of the internal migration of the population. In order to prevent and diminish the negative effects of unemployment both for the nation and for the individual, the political factors affecting decision making must grant special consideration to the economic branches and sectors. This can only be achieved by knowing and understanding the behavior of the ones who do not have a job. The long duration unemployment situation in Romania needs active policies both at micro and macroeconomics level.

The negative connection that forms between the unemployment rate and the internal migration rate from urban to urban area respectively from urban to rural area shows the fact that in Romania individuals living in cities are influenced by their professional status when establishing their residence in a different place, which indicates that they take risks much easier than the ones who come from rural areas. Also we observed positive connections among the four types of internal migration generated by the power of the personal example on the peers. The individuals tend to analyze and undertake the migratory behavior of their peers if they consider that the others were successful by achieving the change of the establishment in a different area.

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ANNEXES

Figure no 1. Evolution of unemployment rate between 1991-2015

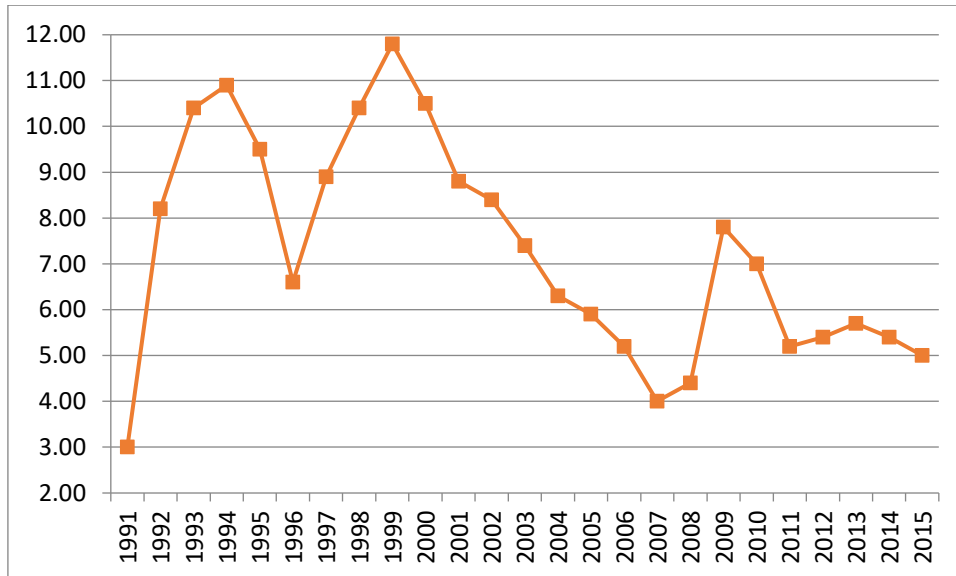


Table no 1. Descriptive statistics

Mean	7.2840
Std. Error of Mean	.48272
Median	7.0000
Mode	5.20 <sup>a</sup>
Std. Deviation	2.41362
Variance	5.826
Skewness	.208
Std. Error of Skewness	.464
Kurtosis	-.979
Std. Error of Kurtosis	.902
Range	8.80
Minimum	3.00
Maximum	11.80

a. Multiple modes exist. The smallest value is shown

Figure no 2. Evolution of internal migration rate between 1991-2015 – part I

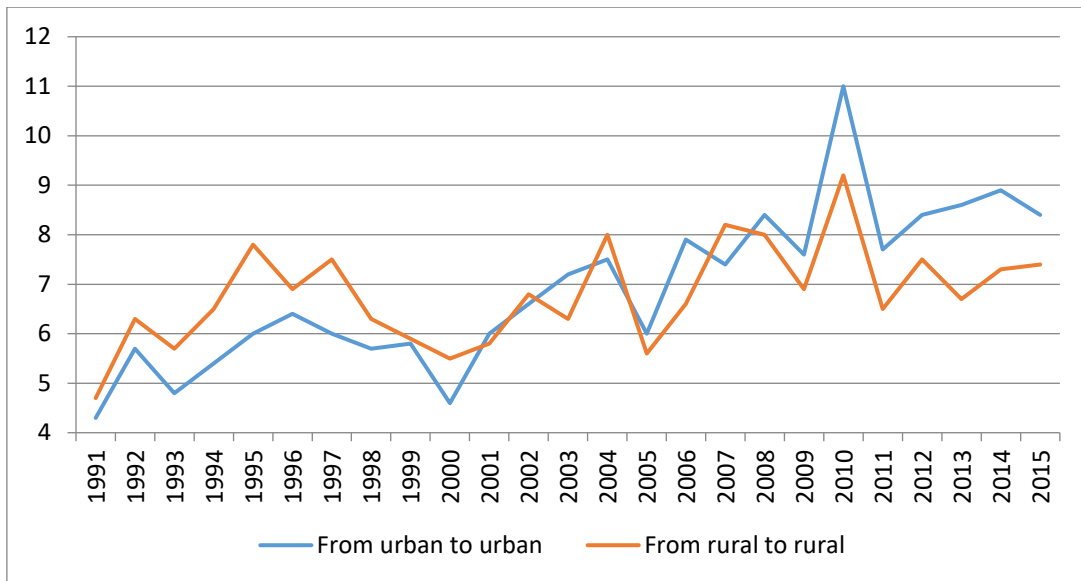


Figure no 3. Evolution of internal migration rate between 1991-2015 – part II

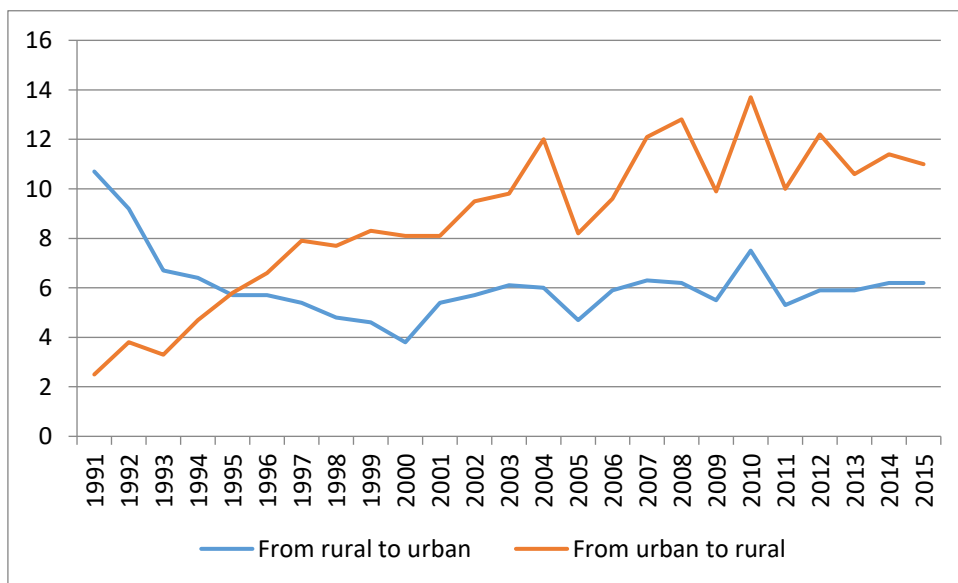




Table no 2. Spearman Correlations

			unem- ployment	<b>From rural to urban</b>	<b>From urban to urban</b>	<b>From rural to rural</b>	<b>From urban to rural</b>
Spearman's rho	unemployment	Correlation Coefficient	1.000	-.383	-.585**	-.336	-.530**
		Sig. (2-tailed)	.	.058	.002	.100	.006
		N	25	25	25	25	25
	<b>From rural to urban</b>	Correlation Coefficient	-.383	1.000	.146	.255	.062
		Sig. (2-tailed)	.058	.	.486	.218	.769
		N	25	25	25	25	25
<b>From urban to urban</b>	Correlation Coefficient	-.585**	.146	1.000	.693**	.880**	
	Sig. (2-tailed)	.002	.486	.	.000	.000	
	N	25	25	25	25	25	
<b>From rural to rural</b>	Correlation Coefficient	-.336	.255	.693**	1.000	.661**	
	Sig. (2-tailed)	.100	.218	.000	.	.000	
	N	25	25	25	25	25	
<b>From urban to rural</b>	Correlation Coefficient	-.530**	.062	.880**	.661**	1.000	
	Sig. (2-tailed)	.006	.769	.000	.000	.	
	N	25	25	25	25	25	

\*\* . Correlation is significant at the 0.01 level (2-tailed).