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Assessing Romania’s Labour Market Security Performance

Vasilica Ciucă and Cristina Lincaru

Purpose. The purpose of this paper is to assess Romania’s labour market security performance in unemployment periods, taking into account OECD’s argument that in developed countries: “becoming and staying unemployed is the most significant risk for a worker”.

Design/methodology/approach. The paper analyses the literature on Job Quality Assessment in developed countries in the OECD framework and the ILO Methodology based on development theories.

Findings. The paper argues that emerging countries need to adjust OECD’s methodology according to the ILO’s methodology in order to produce more accurate data.

Research limitations/implications. This research covers only a part of the broader OECD’s framework. Romania’s job quality profile needs to be supplemented with other dimensions, e.g. labour market insecurity due to low pay, earnings quality and the quality of the work environment.

Originality/value. The paper attempts to focus on the missing link between aspects such as 2014 and 2015 OECD methodology used to assess the risk of migration (work mobility), unemployment, and low pay considering countries featuring highly interconnected systems.

Paper type assessment paper.

Keywords: Romania, OECD, labour market performance, econometrics.

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1. General Context Insights on Job Quality and Labour Market Performance Assessment

1.1. Job quality Assessment in Developed Countries. The OECD framework

Since 1992, the European Employment Strategy (EES) is still the “cornerstone of the EU’s employment policy”. Under its primary aim of creating more and better jobs a joint program on “Defining, Measuring and Assessing Job Quality and its Links to Labour Market Performance and Well-Being” was launched in 2013. The implementation of the program has initiated an extensive process regarding assessment of labour market performance, not only in terms of the numbers of jobs but also concerning the quality of a job. The Stiglitz-Sen-Fitoussi report (2009) and the OECD Better Life Initiative (2013) are the basis on which the OECD 2014 framework for measuring well-being was formed. It identifies "jobs and earnings" as one of the dimensions of "material conditions"; and "work-and-life balance" as an aspect of the "quality of life". Work is currently ongoing to incorporate measures of "economic insecurity" in the framework.

Sen (2008) proposed the “capabilities approach” as the person’s ability to “achieve valuable functioning as a part of living, as a method particularly relevant for the assessment of well-being – in the both achievement and freedom – and for the related problem of judging living standards”.

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6 A. Sen, Commodities and Capabilities, North-Holland Publishing, Amsterdam, 1985
Among the eight dimensions of well-being expressed through the "economic performance and social progress" (Stiglitz et al., 2009, p. 14) three are relevant for employment status: material living standards; insecurity of an economic and physical nature, and personal activities including work. For each of the three relevant dimensions for employment status that are specified by the OECD 2014 Methodology another three complementary aspects of job quality, well-being essential for workers, the quality of earnings, labour market security and the quality of the work environment are included.

The OECD methodology for job quality measurement has been incrementally improved since 2009, starting from defining indicator categories with intrinsic relevance to job quality and reaching a broader relevance indicators set that includes labour market outcomes (unemployment duration, unemployment access), etc.

Following the recent economic crisis, the report, How's Life? 2013: Measuring Well-being, OECD reinvigorated the international debate on the importance of workers' well-being for policy makers. They state that "modern labour markets are characterised by a continuous reallocation of labour and other productive resources across firms and sectors. While this process of "creative destruction" is one of the engines of economic growth, it may have detrimental effects on people's well-being by lowering workers' sense of job security. In other words, we can say that job security is the second engine of inclusive economic growth.

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8, are: i) material living standards (income, consumption and wealth); ii) health; iii) education; iv) personal activities including work; v) political voice and governance; vi) social connections and relationships; vii) environment (present and future conditions); and viii) insecurity, of an economic as well as a physical nature.


10 http://www.oecd.org/employment/emp/onlincoecdmemploymentdatabase.htm

11 Including the indicators: job duration; incidence of temporary employment; working time and annual hours worked; incidence of part-time employment; involuntary part-time workers; economic short-time workers; average annual wages per full-time equivalent employee; earnings dispersion, incidence of low pay and relative earnings: gender, age and education gap;

12 Including the indicators: unemployment rates; employment to population ratio; labour force participation rates; unemployment; employment; labour force; population of working age (15-64); unemployment duration; discouraged workers.
The OECD Job Quality Framework concerning labour market security has recently improved (2015 OECD\textsuperscript{13}) by including an aspect of economic security next to labour market risk due to unemployment, a new distinct component – the labour market risk due to low pay as an assessment of the risk of extremely low pay while employed. This new approach is a response to the need for a better understanding of job quality not only for developed countries but also for emerging economies. Considering that "in OECD countries, becoming and staying unemployed is the most significant risk for a worker" (2015 OECD, p. 217) in emerging economies, there is the need to add the already mentioned dimension of the low pay. This particular issue is a result of “the absence or weakness of social insurance schemes, which makes unemployment unaffordable and pushes many workers into jobs of ‘last resort’” (mostly jobs with low and often uncertain earnings). A useful and complementary dimension of insecurity is thus the risk of falling into such undesirable jobs, defined here by a threshold of “extreme low pay”. “(OECD 2015, p.217)

The individuals with jobs at this low level are typically from households where they are the single earner, who works full-time, with net hourly earnings under the threshold of 1 US dollar (PPP-adjusted) income level. This income level represents a threshold for absolute material deprivation that translates into a disposable per capita income of USD 2 (PPP-adjusted). (OECD 2015, p. 217, citing Bongaarts, 2001).

### 1.2. Measuring Job Quality in Developing Countries – ILO Methodology Based On Development Theories

The recent World of Work Report 2014 - ILO WWR 2014\textsuperscript{14} illustrates that the traditional indicators of employment growth, unemployment and labour force participation cannot provide a clear image regarding labour market performance measurement, especially in the case of developing countries.

Developing countries have some unique features such as low-income levels, low levels of social protection and social transfers that could

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generate negative income effects with the negative impact on education participation and not in the least on the failure of growth productivity. The ILO (WWR 2014, p.15) use the following typology of countries by income level using criteria set by the United Nations and the World Bank:

- Least Developed Countries (LDCs), are those that fall below US$1,000 average per capita income and include, also, a few countries whose structural characteristics place them within this group. The UN definition of LDCs defined according to the income criterion (GNI per capita <US$992 for inclusion, >US$1190 for graduation), human assets index and economic vulnerability index.

- Lower Middle-Income Countries (LMIs), which include economies where the average per capita income ranges between US$1,000 and US$4,000; WB income category: lower middle income (GNI per capita US$1,026–US$4,035) and low income (GNI per capita <US$1,025) countries that are not classified as LDCs.

- Emerging Economies (EEs) with the average per capita income ranging between US$4,000 and US$12,000. The World Bank income category: upper middle income (GNI per capita US$4,036–US$12,475) with the exceptions of Angola and Tuvalu (LDCs).

Considering these characteristics, the cited report emphasises the following limits:

I. Employment growth is highly correlated with the growth of the labour force so, "employment growth is then determined more by demographic supply side factors than by economic demand side factors" (ILO WWR 2014, p.48).

II. The unemployment limit is given by the social protection limited level of development – “given the limited availability of social protection or other forms of transfers” (Majid, 2001, Chapter 7, ILO WWR 2014, p.33).

III. The labour force participation limit is given mainly by income effect. The following cases could be possible:

- The negative income effect that encourages labour market participation:
  - Low-income levels induce a compulsory character of entering the labour market with a high level of employment but under low levels of productivity. In this case,
participation in the labour market is high regardless of the labour force category, including women and youth, with a high risk of early exit from education. The negative income effect manifests through the high risk of poverty.

- The positive income effect is present in the labour market as:
  
  A. It encourages market participation:
  
     o The high-income households allow educated women to pay “for housework services or technology, in conjunction with global changes in attitudes towards women working and accepted practices” (ILO WWR 2014, p.36) while they are active in the labour market. This is the case for emergent economies, where the youth are more likely to remain in education, allowing for increasing productivity growth potential;

  B. It discourages labour market participation:
  
     o High incomes in households could enable women to exit the labour force, which is the case in advanced economies.

The ILO methodology for measuring job quality in developing countries is based on development theories and uses three key indicators, including the Millennium Development Goal (MDG) 1b, under the assumption that all these “3 dimensions are correlated with employment informality”:

- “the share of working poor (a headcount of the proportion of workers living below the US$1.25 poverty line);
- the proportion of workers in vulnerable employment (a headcount of the working population judged to be at greater risk of weak and unreliable incomes). Vulnerable employment: contributing family workers and the self-employed.
- labour productivity (at the macroeconomic level, labour productivity trends provide an important indication of

the evolution of output capacity and the use of new technology. Labour productivity indicates potential income for workers (ILO WWR 2014, p.37).

1.3. Romania’s Short Profile Based on ILO’s Methodology for Job Quality Measuring for Developing Countries

Based on economic growth performance, Romania is an emerging economy (EEs), a subcategory of developing countries that are similar to developed economies (advanced economies) based on the GDP growth rates per capita, according to the ILO’s World of Work Report 2014. During 2000-2011, EE had economic GDP growth rates per capita higher (on average 5.5%, for Romania it was 5%\(^{16}\)) than advanced economies – AE (0.8% in AE). Before the crisis, during the 2000-2007, EE’s rates were 5.4% (and in Romania, it was 6.77%), while emerging economy rates were 1.5%. After the economic crisis, during 2008-2012, a sharp decrease was registered in general for these rates, but accentuated in AE at -0.1%, while in EE countries the average was 4.9% and, in Romania it was still positive of 1.38%.

In Romania, in the past two decades, there are similarities and specific evolutions compared with the major trends identified for the Emerging Economies and Advanced Economies, and they could be iterated in the following trends (ILO WWR 2014):

- Working poverty is retreating, and a middle class is emerging.

Under the standard ILO indicator: the share of working poor\(^{17}\), a headcount of the proportion of workers living below the US$1.25 (PPP) poverty line, this value was 0% during the period 2004-2012. (But at the beginning of the transition this indicator was at 0.29%, reaching a maximum in 1994 of 4.97%, and in 2003 it was 1.57%). Therefore, following 2004 Romania has achieved the MDG 1b. Goal of eradicating extreme poverty and hunger. Under the ILO’s indicator the share of working poor,\(^{18}\) (a headcount of the proportion of workers living below

\(^{16}\) Calculated by authors based on World Development Indicators, The World Bank, 28 July 2015, downloaded on 5.08.2015

\(^{17}\) Poverty headcount ratio at $1.25 a day (PPP) (% of the population), SI.POV.DDAY, WDI Dataset, World Bank, http://data.worldbank.org/indicator/SI.POV.DDAY;

\(^{18}\) Poverty headcount ratio at $2 a day (PPP) (% of the population), SI.POV.DDAY, WDI Dataset, World Bank, http://data.worldbank.org/indicator/SI.POV.2DAY;
the US$2 (PPP) poverty line was 1.59% in 2012, slightly increasing from 1.57% in 2011 (but at the beginning of the transition, this indicator was 0.59%, reaching a maximum in 1994 of 23.25%). Romania as an "EE saw dramatic reductions in both extreme and moderate working poverty, with some expansion of the near-poor group and more rapid expansion of the developing middle class." (ILO WWR 2014, p.41)

Other indicators used in the working poor assessment indicate the presence of a high risk of working poor, especially from the developed countries working poor measurement methodology perspective: “The New commonly agreed indicators at the EU level stated at European Laeken Council”²⁰: the in-work at-risk-of-poverty rate for employed persons.²⁰ Romania’s value for this indicator was 18% in 2013 for the total population aged 18 and over, slightly decreasing from 19.1% in 2012.

- The share of vulnerable employment in total employment is increasing, and the proportion of wage and salaried workers in total employment is decreasing.

In Romania the share of wage and salaried workers in total employment is decreasing with 1.6pp from 69.4% in 1991 to 67.8% in 2013 and at the same time, the share of vulnerable employment in total employment was increasing from 26.8% in 1991 to 30.9% 2013 (estimates), a fact that indicates that Romanian workers "move down the income ladder". This tendency was in opposition to the general trend registered by advanced and emergent economies, where the increase of wage employment share in the total employment was accompanied by the decrease in vulnerable employment, a fact that indicates that countries "move up the income ladder". We should emphasise that “since 1991, the increase in the incidence of wage and salaried employment has been stronger in EEs than in developing countries.” (ILO WWR 2014, p.40)

- Labour productivity is growing, but achieving parity with Advanced Economies levels is still in the distant future (ILO WWR 2014, p.41).

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²⁰ ***, In-work at-risk-of-poverty rate by age and sex (source: SILC) [ilc_iw01], Extracted on 05.08.15, Source of data Eurostat;
²¹ LABORSTA, online statistical database, European Labour Force Survey (Eurostat)
In Romania, labour productivity growth was prevalent especially in the second decade 2000-2013 with an average rate of 5%, (level close to EEs average for this period) that compensates low performance in this indicator realised during 1991-2000 of approx. -1.4%, achieving an average for the last two decades of 2.2%. In the last two decades 1991-2013, the Development Countries’ labour productivity growth was on average 3.2% higher than the Advanced Economy's countries that reach an average of 1.4%, Emergent Economies achieved a 3.7% average for the labour productivity (the highest rate among all categories of DCs).

2. Research Question

Romania is an emerging economy that in the last decade almost eradicated extreme and moderate working poverty, and is in a full process of transition towards a developed economy country status (at least as a normative objective). Our primary goal is to assess and compare the Romanian labour market security performance using unemployment as its key features, based on the 2014 OECD's Methodology. The main argument for this approach rests on the assumption stated (2015 OECD, p 217) that in developed countries - becoming and staying unemployed is the most significant risk for a worker.

Among acceptable tools to measure and assess labour market security we apply the "Aggregate outcome measure of job quality" in view to evaluate the "Expected earnings loss associated with unemployment". (Stiglitz et al., 2009, p. 198). This dimension is defined regarding probabilities by two main subcomponents (at the individual level): unemployment risk and insurance against unemployment risk. In this framework, the unemployment risk depends both on the risk of becoming unemployed and on the expected duration of unemployment. The second subcomponent, Insurance against unemployment risk, depends on the eligibility for unemployment benefits and the generosity of benefits (replacement rates)

An assessment of Romania’s labour security is completed through evaluating OECD.Stat databases. Romania (as a non-OECD country) is reported in the main indicators used in the mentioned methodology. Romanian data is present in publically accessible databases like the OECD

22 Table 3.1. Broad outcome measures of job quality and their subcomponents, 3. HOW GOOD IS YOUR JOB? MEASURING AND ASSESSING JOB QUALITY, OECD EMPLOYMENT OUTLOOK 2014 © OECD 2014, p.87;
Labour Market Programme database and OECD Taxes and Benefits database.

This research is only a small part of the broad framework described by the OECD toward the assessment of labour market performance regarding both the number and the quality of job opportunities, under the consideration that policies should seek to promote more and better jobs. This article will proceed in three main directions:

- First by presenting an update on Romania’s Labour market insecurity due to (extreme) low pay according to the new improved methodology provided by 2015 OECD, launched in June 2015 and focused on enhancing job quality in emerging economies;

- Second through raising concerns on the measurement of both other dimensions of job quality described in the OECD 2014 Methodology, respectively earnings quality and the quality of the work environment;

- The third direction regards the analysis of the main labour market and social policies (employment protection legislation, tax and benefit systems and active labour market policies) that are in a direct relation with job quality under its labour market security dimension.

The pursuit to improve the response of policies related to the well-being of workers, and the opportunities available to people is a highly interdisciplinary process in the development of a multidisciplinary perspective that involves different domains such as the economy, the labour market, education, legislation, taxes and benefits. The success of this process could accelerate the transition towards advanced economies performances from the emerging economy status, in conditions of improvement of the well-being of workers and their families.

3. The OECD Approach to Labour Market Security due to Unemployment Performance Assessment

Based on Green (2011) findings that labour market security is important for individual well-being, the OECD Methodology uses job-quality as a second dimension of “labour market security” the characterisation that “job insecurity reflects not only the probability of job loss but also its expected costs” (OECD, 2014, p.94).

3.1. The Probability of Job Loss or the Probability of Becoming Unemployed
The traditional framework for job quality measurement uses two measures as a proxy for the job insecurity (OECD, 2013, p.157):

a) the proportion of short-term workers in employment;
b) the incidence of temporary work.

Those two indicators were evaluated and integrated into the job quality assessment scale in OECD 2014 p.94 and were considered relevant as an instrument that allows an objective measurement for the determinants of the probability of job loss.

The incidence of temporary work and short term work is illustrated in Annex 1 and Figure 1 for 35 OECD countries and other countries including Romania as well, using 2013 OECD data. Because in 2013 there still is a low tendency of correlation (0.07 correlation coefficient), of this trend unchanged with the one emphasised by the (OECD 2013, p.156), we can surmise that the two mentioned indicators correspond to two independent dimensions, both relevant for the job security measurement. This result is contrary to the intuition described in theory, according to which both job tenure and temporary work is dependent on job security. Consequently, we assume that the job tenure underlines the risk of job loss and, in its turn, that temporary work is associated with a fixed term working contract that implies a high probability of job loss.

The proportion of short-term workers in employment as a measure of job quality

Job tenure is said to “have the advantage of focusing on the length of time workers have been with their current employer, regardless of the length of their contract. This, for instance, allows for the fact that fixed-term contracts may be renewed with the same employer over extended periods.
Figure 1

Incidence of temporary work and of the proportion of short-tenured workers in employment (job tenure < 1 year) in 2013

The proportion of short-tenured workers in total dependent employment

The share of temporary work in total employment [%]

\[ y = 0.0733x + 14.314 \]
\[ R^2 = 0.6972 \]

Figure 2

Incidence of temporary work and of the proportion of long-tenured workers in employment (job tenure > 10 years) in 2013

The proportion of long-tenured workers in total dependent employment

The share of temporary work in total employment [%]

\[ y = 0.4572x + 32.233 \]
\[ R^2 = 0.1471 \]

Note: these indicators were calculated for total population, dependent employment.


Metadata Dataset: LFS - Employment by job tenure intervals – Frequency. OECD Stat – “Job tenure is measured by the length of time workers have been working with their current employers. This information is valuable for estimating the degree of fluidity in the labour market and in identifying the areas of economic activity where the turnover of labour is rapid or otherwise.”
Nonetheless, job tenure indicators measure job stability rather than job security (OECD 2013, 158). In the OECD (2009) it was concluded that people are deciding to leave explained the “account of a large proportion of job losses.”

Another conclusion formulated in the 2013 OECD report, states that short job tenure (<1 year) is highly correlated with involuntary job departures and describes job insecurity more than the incidence of temporary work as an effect of both temporary and regular employment. This indicator monitors changes in job security over time:

- “the share of workers with very short job tenure has a major drawback for monitoring job security trends as it is highly sensitive to the business cycle (since it reflects net job creation, in addition to worker reallocation across existing jobs). Therefore, changes over time in the share of workers with short job tenure reflect first and foremost fluctuations in economic activity, rather than changes in job insecurity” (OECD 2013, p.158);
- The short job tenure diminishing indicates a slowdown in job creation and higher job losses more than an improvement in job quality;
- This indicator is sensitive to the business cycle and to structural factors “that need to be disentangled before drawing conclusions about trends in employment quality over time” (OECD 2013, p.158).

- The proportion of long-term workers in employment as a measure of job quality

On the other hand, long-term workers (>10 years) explains the voluntary departure, and it is highly correlated with "the stringency of national dismissal rules as measured by the OECD index on employment protection for regular workers” and therefore “could constitute a good proxy of employment security” (OECD 2013, p.158) measurement. This indicator is less sensitive to business cycle variations.

- The incidence of temporary work – an indicator of labour market segmentation

The incidence of temporary work (defined by employment with fixed term working contracts) reflects labour market segmentation aspects rather than job security characteristics. This is a measure for the precariousness of employment (Venn, 2009, cited by OECD 2013, pg. 156), assuming that: “the incidence of temporary work is primarily a measure of labour market duality, rather than an average measure of job insecurity. Indeed, the incidence of temporary work tends to be higher in
countries with strict dismissal rules for regular workers, as it often provides firms with a buffer against fluctuations in demand. This factor may contribute to creating a dual labour market, characterised by both a high share of temporary workers and a relatively high share of long-term workers. By contrast, temporary work is less prevalent in countries with less stringent employment protection legislation; the downside, however, is that regular workers face greater job insecurity as they can be dismissed easily during periods when firms implement reductions in workload.” (OECD 2013, p.157) (Figure 2).

- Romania’s job security profile from the perspective of the traditional framework perspective

In 2013, the job security assessment from the perspective of the three indicators, “the proportion of short-tenured workers in employment, the proportion of very long term workers in employment and the incidence of temporary work”, positions Romania in the context of the 35 OECD countries and other countries, as follows (details Annex 1):

- the incidence of temporary work was 1.5% the lowest in the entire set of 35 countries included in our analysis, close to Lithuania and Estonia with 2.7% to 3.5%. In 2013 OECD concludes that in countries with a low incidence of temporary employment at a low-level strictness of dismissal from employment allows release without difficulty. This indicates that workers face a high degree of job insecurity because they can be relatively dismissed. A consequence of the long-term contract reflects the downward trend in job stability in these countries, as well as in Romania. The respective percentage of persons employed in a job for more than ten years tends to be lower. For Romania this level is 34.7%, lower with 2pp than 36.7%, the median level of selection, farthest to the maximum of 48% in Greece, 50% in Italy and 52.1% in Croatia, respectively closest to the minimum of 21.4% in Russia, 28% in Lithuania, 28.6% in Denmark and 28.7% in Iceland);

- the proportion of short-tenured workers in employment (less than one year) in total dependent employment was 5.3%, the lowest value of the whole set of 35 countries included in our analysis, a level close to Slovakia 8.9%, Croatia 9.4% and Italy 9.4%. This low level is correlated with a lower incidence of temporary employment.

- the proportion of very long term workers in employment (more than 10 years) in total dependent employment was 33.7%, a level close to that of Norway (33.7%), United Kingdom (33.3%) and Bulgaria (32.8%), also a close level to the OECD average of 33.4%.
In short, under the traditional framework for job quality measurement, Romania matches the pattern of countries pictured by OECD’s (OCED 2013, p. 158). It registered long-term workers and a low incidence of temporary work, with the lowest proportion of temporary workers that also tend to have a low level of the share of long-term workers. Romania’s workers experience a lower (close to extremes among the selected countries analysed) degree of job security than is faced by regular workers from OECD countries. The very low level of incidence of temporary work in Romania reveals, on the one hand, a low level of segmentation of the labour market, coupled with a less stringent employment protection legislation, and on the other hand a low level of fluidity/flexibility of the labour market, indicating a low level of reallocations flows (inside and across economic sectors).

- Romania’s job security profile from the dynamic perspective of the incidence of short-term workers and long-term workers

In Romania, the net job creation decreased (monitored through the incidence of short-term workers’ variation), during 2005-2010 with 4,4pp from 12.2% to 4.8%. In 2011 there was a brief comeback with 1,1pp comparing to 2010, followed by a very slight decrease to 5.3% in 2013. This downward trend of employment in jobs with low duration does not indicate an increase in the quality of employment, joining the trend with the global trend recorded (OECD 2013, p.158) for 2007-2010 where there is indicated a decrease by 26pp in 14 countries! This tendency rather reflects the impact of the crisis on employment manifested by “slowing job creation and job losses” (Figure 3).

In the last decade, Romania has faced three periods according to the job security criteria (monitored by the incidence of very long term workers’ variation). The first period was during 2005-2008 with a downward trend, with a decrease of 4,9pp for the stability of jobs/employment stability and respectively increasing the job insecurity from 35.4% to 30.5%. The second period was during 2008-2010 with a slight comeback of 3,5pp from 30.5% to 34%; and finally, the third period during 2011-2013 there was a very slow trend of job security from 33.2% in 2011 to 33.7% in 2013 (ignoring that in 2011 the job insecurity increased with 0,8pp comparing to its 2010 level). (See also Figure 3)
3.2. Labour Market Insecurity and the Expected Costs Induced by the Job Loss

- Methodological aspects regarding the measurement of the expected costs induced by job loss

In literature, the expected costs induced by job loss or the envisaged cost of the job loss was analysed by (OECD, 1997; Anderson & Pontusson, 2007; Cuyper et al, 2008; Green, 2011 et al.), as a function of unemployment risk and the degree to which insurance compensates for lost earnings during unemployment. The new 2013 OECD’s methodology expanded the job security assessment under the broad framework of labour market insecurity outcome, taking into consideration not only the inside job security but also outside job security. In consequence, the “overall labour market insecurity is defined regarding the combination of unemployment risk and unemployment insurance” (OECD 2013, p.95) based on two fundamental assumptions that unemployment is involuntary and wage losses due to job displacement can be ignored).

The expected costs induced by job loss are synthesised by an index built of two indicators calculated with micro-aggregated data provided by OECD Stat, respectively: the risk of unemployment (in the absence of unemployment insurance) and the effective unemployment insurance, as follows the risk of unemployment.
The risk of unemployment represents the cumulated probability C, where
\[ C = A \times B \]
the probabilities product of the probability of becoming
unemployed and the expected duration of unemployment provides an
indication of the overall risk of unemployment. (OECD 2014, p.95) and it
gave “an indication of the share of the year that an employed person is
expected to spend in unemployment, or alternatively, under the
assumption that the value of work only relates to the earnings it generates,
of the average expected earnings loss due to the risk of unemployment as
a share of previous earnings” (OECD 2014, p.95). The unemployment
risk could be expressed as a share of the labour” (the actual
unemployment rate) force when “the unemployment inflow and outflow
probabilities remain constant” (Elsby et al., 2009; Shimer, 2012, cited in
OECD 2014, p.95, 13). The OECD methodology considers the monthly
probability of becoming unemployed as a measure of job security and the
average expected the duration of completed unemployment spells in
months, which is the inverse of the probability of finding a job once
unemployed (a measure of employability).
Where there are used the detailed definitions for:
- the probability of becoming unemployed (A) “the ratio of unemploy-
  ed persons who have been unemployed for less than one month over
  the number of employed persons one month before” (OECD 2014, Figure
3.3. p.96.), with its second formula as the “Unemployment inflow
probability (I) of the unemployment inflow rate defined by the relation:
\[ \ln(1 - I) \]
(OECD 2010, Figure 1.25, p.79), (see Annexe 2)
- the expected duration of unemployment or in equivalent sentences the
expected duration of staying / being in unemployment (B) is defined as
the inverse of the unemployment outflow probability where the latter is
defined as one minus the ratio of unemployed persons who were
unemployed for one month or more, over the number of unemployed
persons one month before.” (OECD 2104, Figure 3.3. p.96.) This is
noted as the “Unemployment outflow probability (O) of the

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23 OECD Employment Outlook 2014 - © OECD 2014, Chapter 3, Figure 3.3.
Unemployment risk and its components in OECD countries, Version 1 - Last updated:
26-Aug-2014
24 OECD EMPLOYMENT OUTLOOK 2010 – MOVING BEYOND THE JOBS
CRISIS © OECD 2010
unemployment outflow rate defined by the relation: \(-\ln(1 – O)\)". (OECD 2010, Figure 1.25, p.79), (see Annex 3a and 3b)

- Effective unemployment insurance

Effective unemployment insurance in the 2014 OECD Methodology is represented by the “effective replacement rates based on the combination of benefit coverage and benefit generosity for unemployment insurance and unemployment assistance”. Consequently, “allowing the measuring of the effectiveness of unemployment insurance in absorbing the risk of unemployment in a given country,” describes specific conditions of the generosity of benefit entitlements (OECD, 2014, p.97). Therefore, this indicator is, according to the 2014 OECD methodology:

\[
F = D \times E = \frac{\text{NRR}_{\text{unempl/UI}} \times \text{UI}}{\text{UI}} + \frac{\text{NRR}_{\text{unempl/UA}} \times \text{UA}}{\text{UA}}
\]

where:
- The average replacement rates for recipients of UI and UA take account of family benefits, social assistance and housing benefits (see notation and formulas in Table 1, Annex 4a and 4b, Figure 9).


26 Comment: "Cross-country comparisons of unemployment insurance typically focus on the generosity of unemployment concerning the replacement rate of previous earnings over a given reference period and set of household of types" (OECD, 2007 quoted OECD 2014 p. 96). “While such comparisons are very useful for providing an indication of the generosity of benefit entitlements, they do not take account of cross-country differences in the risk and nature unemployment and, therefore, do not allow measuring the effectiveness of unemployment insurance in absorbing the risk of unemployment in a given country” (OECD 2017, p.97).

27 Figure 3.4. Effective unemployment insurance in OECD countries - Percentage of previous net earnings averaged across household types, 2010, 3. How good is your job? Measuring and assessing job quality, OECD Employment, p.97.
“Net replacement rate (NRR) is a measure of work incentives and is published by OECD at the address: www.oecd.org/els/social/workincentives. This indicator “analyses the effects of labour market transitions on household incomes”.

\[ \text{NRR} = \text{Income}_{\text{NET, out of work}} / \text{Income}_{\text{NET, in work}} \]

The NRR measures the fraction of net income in work that is maintained when becoming unemployed.

- Unemployment-benefit coverage rates\(^29\) are measured as „the share of ILO unemployed persons receiving unemployment benefits”:

\[ E = \frac{\text{Number of unemployed with benefits}}{\text{Number ILO unemployed}} \]

These coverage rates are a proxy for “eligibility rates (i.e. the share of unemployed eligible to benefits)” (OECD 2014, p.98, Box 3.4.). This eligibility rate\(^30\) is a variable according to unemployment duration. Access exists during the initial eligibility and continuing eligibility period - including even the period when the person is no more entitled to unemployment benefit. The detailed regulations at national level in countries such as Germany, Hungary and Ireland differentiate the coverage for unpaid unemployed receiving social assistance.

- Labour market insecurity

Labour market insecurity is the “unemployment risk time’s one minus unemployment insurance which may be interpreted as the expected earnings loss associated with unemployment as a share of previous earnings”\(^31\)

---

\(^28\) [Link](http://www.oecd.org/els/soc/Methodology_2013.pdf), p.10

\(^29\) Chapter 3. HOW GOOD IS YOUR JOB? MEASURING AND ASSESSING JOB QUALITY, OECD EMPLOYMENT OUTLOOK 2014, p 98

\(^30\) Where „Eligibility rate: the number of employed persons who have worked the minimum number of months required for initial benefit eligibility during the reference period as a share of the number of employed with complete employment histories for the entire qualification period.” (OECD 2014, p.99, Box 3.4.)

\(^31\) Chapter 3. How good is your job? Measuring and assessing job quality, OECD Employment Outlook 2014 p. 103
\[ G = C^*(1-F) \]

Where for notation and formulas see Table 1:
- (G) Labour market insecurity;
- (C) Unemployment risk;
- (F) Effective unemployment insurance is "defined regarding the effective level of risk absorption through the tax-and-benefits system" (OECD 2014 p.100)

Table 1. Summary of the OECD methodology for measuring labour market insecurity

| Labour market insecurity | G
|---------------------------|-----
| Substitution income for the income from work | Behaviour on Labour Market |
| Effective unemployment insurance | Unemployment risk C = A^B |
| F = D*E = \( \frac{\text{NRR}_{\text{unempl UI}}*\text{UI}}{\text{NRR}_{\text{unempl UA}}*\text{UA}} \) | C |

- *average net replacement rate* among unemployment insurance recipients
  \[ \text{AS}_{\text{net UI}} = \frac{\text{UI}_{\text{net}}}{\text{Sal}_{\text{net}}} = \frac{\text{NRR}_{\text{UI}}}{\text{family}, \text{household}, \text{taxation}} \]

- *average net replacement rate* among unemployment (social) assistance recipients
  \[ \text{AS}_{\text{net UA}} = \frac{\text{UA}_{\text{net}}}{\text{Sal}_{\text{net}}} = \frac{\text{NRR}_{\text{UA}}}{\text{family}, \text{household}, \text{taxation}} \]

Formulas, notation and results coordinates

<table>
<thead>
<tr>
<th>Other indicators used, sources and values</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Net income from unemployment insurance for unemployment insurance recipients</td>
</tr>
<tr>
<td>- Number of unemployed persons who have been unemployed for less than one month</td>
</tr>
<tr>
<td>- Net income from unemployment (social) assistance for non-insured unemployed persons</td>
</tr>
<tr>
<td>- Number of employed persons one month before</td>
</tr>
<tr>
<td>- Net income from work before entering into unemployment</td>
</tr>
</tbody>
</table>

Unemployment-benefit coverage rates among unemployment insurance and unemployment (social) assistance recipients (\( E = UI + UA \))

\[ E = \text{the average expected duration of unemployment} \]

\[ B = 1/(\ln(1-O)) \]

Formulas, notation and results coordinates
• Unemployment-benefit coverage rates among unemployment insurance

\[ UI = \frac{N_{UI}}{NT} \]  

• Unemployment-benefit coverage rates among unemployment (social) assistance recipients

\[ UA = \frac{N_{UA}}{NT} \]  

• Unemployment outflow probability

\[ O = \frac{N_{som} > lluna}{N_{som} < lluna} \]  

But we applied

\[ O = \frac{N_{som} < lluna}{N_{som} > lluna} \]  

Other indicators used, names and values

| Number of unemployment insurance recipients | N_{UI} | Number of unemployed persons who have been unemployed for more than one month | N_{unempl} > 1month |
| Number of unemployment (social) assistance recipients | N_{UA} | [Annex 3a] |  |
| Number of total ILO unemployed people | NT |  |  |

Table source: synthesis made by author based on OECD 2014, Chapter 3.

**Sources of data used for jobs security and labour market security assessment**

The Unemployment Duration Database of OECD with aggregate data covers a large number of OECD and non-OECD countries, except Romania for this specific indicator (but as presented before reported for all other used in this methodology). These indicators are measured according to the methodology of LFS and allow a better comparability between countries, offering complementary information to micro approaches, with some limits and advantages (Table 2).

Table 2 Sources of data used for jobs security and labour market security assessment according to 2014 OECD Methodology

<table>
<thead>
<tr>
<th>Data sources characteristics</th>
<th>Advantages / Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sources aggregate data</td>
<td></td>
</tr>
<tr>
<td><strong>LFS Labour Force Survey</strong></td>
<td>Compared between countries</td>
</tr>
<tr>
<td>* Unemployment risk</td>
<td></td>
</tr>
<tr>
<td>Specific Indicators:</td>
<td></td>
</tr>
<tr>
<td>- job duration</td>
<td></td>
</tr>
<tr>
<td>- incidence of temporary work</td>
<td></td>
</tr>
</tbody>
</table>

Benefit Recipients Database, the OEC Labour Market Programmes (database),
http://dx.doi.org/10.1787/data-00312-en

* Number of unemployment insurance recipients
  * Number of unemployment (social) assistance recipients
OECD Taxes and Benefits (database),
http://dx.doi.org/10.1787/data-00201-en
* The income level by labour market status, family type, taxation, etc.

<table>
<thead>
<tr>
<th>Sources of data at the individual level (Application Specific Inquiry):</th>
<th>Detailing various socio-economic groups on the risk of unemployment and unemployment insurance, including by the previous status of unemployment</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Description of patterns/models over the workforce groups</td>
<td>Suitable for analysing risk determinants of unemployment and unemployment insurance and their impact on subjective well-being of the worker</td>
</tr>
<tr>
<td>* Analytical purposes</td>
<td></td>
</tr>
</tbody>
</table>

Source: Synthesis made by author based on EMPLOYMENT OUTLOOK 2014 © OECD 2014, p.96

- Assumptions and limitations given by methodologies of used data sources induced to 2014 OECD's "Methodology for measuring job quality."

The applied OECD methodology presents some specific assumptions and limitations that have to be taken into consideration in the final analysis:
- “any flows in and out of the labour force are ignored.” (OECD 2014, p. 96). Measuring the probability of becoming unemployed or the average expected duration of unemployment is calculated under the assumption that all inflows are exclusively between unemployment and employment.
- “the cross-sectional nature of the data implies that one cannot follow individuals over time and, therefore, document the probability of becoming unemployed and the expected duration of unemployment spells conditional on job status in the last job before becoming unemployed. Thus, it is not possible to construct separate measures of the probability of becoming unemployed and the expected duration of unemployment spells, depending on whether the last job was part-time or full-time or whether it was temporary or open-ended” (OECD 2014, p. 96).

Compensation for these limits was made by the realisation of a set of alternative data calculated in EU-SILC. After comparing the two sets of results, there was obtained a correlation coefficient of over 0.7 which confirmed that "ignoring transitions in and out of the labour force is not a major issue for the purpose of cross-country comparisons of unemployment risk" (OECD 2014, pg.96).

4. Labour Market Security Assessments for Romania in the European Context. Results of Applying the 2014 OECD Methodology
In this section we present the main results achieved by the 2014 OECD methodology for measuring Romania labour market security due to unemployment. In the European context, using micro-aggregate data (OECD 2014). We recalculated all the indicators iterated in the methodology, for different countries, during 2005-2013, under consideration that if there is any unintentional error, it will be at least homogenous. Our results for the OECD countries differ from the values presented in OECD 2014 report, mainly, because we use the population of 15-64 years old instead of 34-60 years old.

The main result of this exercise is the identification of the trend which characterises the security of labour market in general, but based on specific criteria as follows:

- The unemployment risk assessment for Romania in the European Context

Romania presents a high global unemployment risk for 2013 of 11.1%, next to the positions of the Slovak Republic and Spain. (Figure 4) In the rank below Greece and the Slovak Republic,) and "The average expected hierarchy made in the selection of 34 countries (Table 3) Romania is positioned in the 4th position – the first place is occupied by Greece. This position is explained by the high level of probabilities registered by both factors the probability of becoming unemployed and the average expected duration of unemployment. The probability of becoming unemployed is of 0.72% (third rank below Greece and the Slovak Republic), and the average expected duration of unemployment is 15.4%, indicating that the expected duration of unemployment is high - almost 16 months. This points to a stationary lingering risk of long-term unemployment in Romania, where long-term unemployment is fuelled by important entries. The (global) unemployment risk is 11% but at 4pp from the ILO unemployment rate (Table 4), a result from the rule formulated (OECD 2015): the risk of unemployment is approximated by the unemployment rate.”

- The labour market insecurity due to unemployment and its components assessment for Romania in the European Context

32 In OECD 2015 in chapter 5 ENHANCING JOB QUALITY IN EMERGING ECONOMIES, p 224 there is treated the case of emerging economies and there is calculated the “Labour market insecurity due to extreme low pay”. This will be the subject to our future analysis.
Romania presents a very high level of labour market insecurity given both by a *high level* of Unemployment risk and by a *low level* of Effective unemployment insurance. We mention the fact that in Romania there are internationally reported data exclusively referring to unemployment insurance while the unemployment (social) assistance does not exist, situation considered in the first round of labour market insecurity assessment and presented in Table 5. On the other hand, we take into consideration the socio-demographic categories with the levels of unemployment.
### Table 3

The unemployment risk assessment for Romania in European Context

<table>
<thead>
<tr>
<th>Country</th>
<th>A - The probability of the coming unemployed</th>
<th>B - The average expected duration of unemployment (years)</th>
<th>C - (Global) Unemployment risk = A*B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greece</td>
<td>0.91 0.95 0.97 0.99 1.01</td>
<td>2.65 2.80 2.93 3.12 3.31</td>
<td>2.65 2.80 2.93 3.12 3.31</td>
</tr>
<tr>
<td>Slovenia</td>
<td>0.11 0.13 0.15 0.17 0.19</td>
<td>2.73 2.93 3.14 3.38 3.60</td>
<td>0.30 0.38 0.51 0.73 1.04</td>
</tr>
<tr>
<td>Spain</td>
<td>0.63 0.61 0.59 0.57 0.55</td>
<td>2.31 2.38 2.46 2.53 2.60</td>
<td>1.53 1.63 1.74 1.84 1.95</td>
</tr>
<tr>
<td>Sweden</td>
<td>0.46 0.49 0.53 0.57 0.61</td>
<td>2.96 3.12 3.28 3.44 3.60</td>
<td>0.77 0.92 1.06 1.21 1.39</td>
</tr>
<tr>
<td>Italy</td>
<td>0.30 0.35 0.40 0.45 0.50</td>
<td>2.59 2.69 2.78 2.87 2.97</td>
<td>0.91 1.09 1.26 1.45 1.63</td>
</tr>
<tr>
<td>Germany</td>
<td>0.13 0.15 0.17 0.19 0.21</td>
<td>2.43 2.49 2.55 2.61 2.68</td>
<td>0.32 0.40 0.47 0.54 0.62</td>
</tr>
<tr>
<td>United</td>
<td>0.12 0.15 0.17 0.19 0.21</td>
<td>2.40 2.47 2.53 2.59 2.65</td>
<td>0.28 0.35 0.42 0.49 0.57</td>
</tr>
<tr>
<td>France</td>
<td>0.15 0.17 0.19 0.21 0.23</td>
<td>2.37 2.44 2.51 2.58 2.65</td>
<td>0.35 0.40 0.46 0.53 0.60</td>
</tr>
<tr>
<td>Russia</td>
<td>0.14 0.16 0.18 0.20 0.22</td>
<td>2.31 2.38 2.46 2.53 2.60</td>
<td>0.31 0.39 0.47 0.55 0.63</td>
</tr>
<tr>
<td>Portugal</td>
<td>0.10 0.12 0.13 0.14 0.15</td>
<td>2.37 2.44 2.51 2.58 2.65</td>
<td>0.27 0.32 0.37 0.43 0.50</td>
</tr>
<tr>
<td>Austria</td>
<td>0.06 0.08 0.10 0.12 0.14</td>
<td>2.37 2.44 2.51 2.58 2.65</td>
<td>0.04 0.08 0.11 0.14 0.17</td>
</tr>
</tbody>
</table>

A - indicators and detailed values in Annex 1
B - indicators and detailed values in Annex 2
Table 4. Labour market insecurity in 2013 in Romania by socio-demographic characteristics: gender and age groups.

<table>
<thead>
<tr>
<th>Target Group</th>
<th>Socio-demographic group</th>
<th>Gender</th>
<th>Age group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td><strong>Legend</strong></td>
<td><strong>Notation</strong></td>
<td><strong>Formula</strong></td>
<td><strong>Total</strong></td>
</tr>
<tr>
<td>A</td>
<td>Number of unemployed persons who have been unemployed for less than one month (Thousands pers.)</td>
<td>(N_{\text{unempl}&lt;1\text{month}})</td>
<td>39</td>
</tr>
<tr>
<td>B</td>
<td>Number of employed persons one month before (total employment, (Thousands pers.))</td>
<td>(N_{\text{empl}&lt;1\text{month}})</td>
<td>76</td>
</tr>
<tr>
<td>C</td>
<td>The unemployment inflow probability (I) (Calculated)</td>
<td>(I = \frac{N_{\text{empl}&lt;1\text{month}}}{N_{\text{unempl}&lt;1\text{month}}})</td>
<td>0.51</td>
</tr>
<tr>
<td>D</td>
<td>The probability of becoming unemployed / entering in unemployment (Calculated)</td>
<td>(A = \ln(1-I))</td>
<td>0.72</td>
</tr>
<tr>
<td>E</td>
<td>Number of unemployed persons (OECD ILO)</td>
<td>NT</td>
<td>653</td>
</tr>
<tr>
<td>F</td>
<td>Number of unemployment insurance recipients (TEMPO)</td>
<td>N UI</td>
<td>200</td>
</tr>
<tr>
<td>G</td>
<td>Number of unemployed persons who have been unemployed for more than one month</td>
<td>(N_{\text{unempl}&gt;1\text{month}})</td>
<td>614</td>
</tr>
<tr>
<td>H</td>
<td>Unemployment outflow probability ((1-\text{In}(1-O))), (Calculated)</td>
<td>O</td>
<td>0.56</td>
</tr>
<tr>
<td>I</td>
<td>The average expected duration of unemployment (Calculated)</td>
<td>(B = \frac{1}{1-\ln(1-O)})</td>
<td>15.2</td>
</tr>
<tr>
<td>J</td>
<td>(Global) Unemployment risk</td>
<td>C</td>
<td>C = AB</td>
</tr>
<tr>
<td>K</td>
<td>Unemployment rate ILO - Clock</td>
<td>(r_U)</td>
<td>7.4</td>
</tr>
<tr>
<td>L</td>
<td>Unemployment-benefit coverage</td>
<td>(E = \frac{N_{\text{unempl}}}{NT})</td>
<td>30.6</td>
</tr>
</tbody>
</table>
## Assessing Romania's Labour Market Security Performance

<table>
<thead>
<tr>
<th>Date Proxy</th>
<th>different sources - calculated by authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>N</td>
<td>share from median average net wage</td>
</tr>
<tr>
<td>O</td>
<td>Unemployment Indemnity 75% and 50% from SRI (MMSSF RO, RON)</td>
</tr>
<tr>
<td>P</td>
<td>Average net nominal monthly salary earnings</td>
</tr>
<tr>
<td>Q</td>
<td>Proxy for median average net wage</td>
</tr>
<tr>
<td>R</td>
<td>NRR from 67AW</td>
</tr>
<tr>
<td>S</td>
<td>Effective unemployment insurance</td>
</tr>
<tr>
<td>T</td>
<td>Labour market insecurity</td>
</tr>
</tbody>
</table>

### OECD data for NRR

| U | Net Replacement Rates for single earner, previous earnings = 67% Average Wage (AW): initial phase of unemployment | D | 48 | 48 | 48 | 48 | 48 | 48 |
| V | Effective unemployment insurance | F | D*E | 14,7 | 13,4 | 16,7 | 13,5 | 13,9 | 27,0 |
| X | Labour market insecurity | G | C*(1-F) | 9,4 | 8,3 | 12,5 | 11,2 | 9,8 | 4,5 |

Data extracted on 27 Aug 2015 09:43 UTC (GMT) from OECD.Stat

### Notes

- **C5** Checked it is the same value but not the order of level with the ILO calculated inflow rate is 0.0058 Inflow rate (Elsby et al., 2013) Table 9c; Unemployment flows (ILO estimates), KLIM 8th Edition
- **H5** It is confirmed with ILO calculated outflow rate is 0.2788 Outflow rate (Elsby et al., 2013) KLIM 8th edition Table 9c; Unemployment flows (ILO estimates)
- **H3** The formula is inverse than the form iterated in Methodology
- **F5-F10** Source NSI - TEMPO, indicator TEMPO_SOM101G, released on 27_8_2015
- **N8-N10** Eurostat, hourly earnings, all employees (excluding apprentices) by age [earn_us_pub2a]
- **P5-P7** Tempo NSI, FOM106F - Average net nominal monthly salary earnings by categories of employees, economic activities at level of CANE Rev.2 division by sec

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Table 5. Labour Market Insecurity and its Components Assessment for Romania in the European Context

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Portugal</td>
<td>8.03</td>
<td>14.11</td>
<td>20.45</td>
<td>35.33</td>
<td>39.78</td>
<td>44.74</td>
<td>43.69</td>
<td>32.25</td>
<td>33.04</td>
<td>4.83</td>
<td>0.00</td>
<td>7.95</td>
<td>13.85</td>
<td>23.66</td>
<td></td>
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</tr>
<tr>
<td>Romania_INS</td>
<td>8.00</td>
<td>12.66</td>
<td>17.56</td>
<td>10.01</td>
<td>12.52</td>
<td>12.41</td>
<td>18.53</td>
<td>32.31</td>
<td>12.82</td>
<td>11.35</td>
<td>7.71</td>
<td>8.00</td>
<td>11.89</td>
<td>8.73</td>
<td>11.09</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Romania_Rest</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Romania_INS_TIMP</td>
<td>8.00</td>
<td>12.66</td>
<td>17.56</td>
<td>10.01</td>
<td>12.52</td>
<td>13.97</td>
<td>40.95</td>
<td>27.27</td>
<td>12.00</td>
<td>13.31</td>
<td>7.57</td>
<td>7.48</td>
<td>12.77</td>
<td>8.81</td>
<td>10.85</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: data OECD 2014, including Romania, values calculated by authors.

Unemployment Indemnity 75% and 50% from Social Reference Index (MMSSF RO, RON), differentiated by unemployment indemnity and replacement income for compensation for the youth and compulsory military according to Law 76/2002.

Effective unemployment insurance depends on the benefit generosity for unemployment insurance and unemployment assistance and also on the unemployment benefit coverage rates. Because the indicator of some unemployment insurance recipients presented by OECD databases does not include data about Romania, we used the values reported by alternative data sources: Romania’s NIS (National Institute of Statistics) TEMPO and Eurostat. Regarding the Effective unemployment insurance, we use in the first round of calculus (the comparative situation presented in Table 4) the net replacement rates for a single earner, previous earnings = 67% Average Wage (AW): initial phase of unemployment provided by OECD. In the second round (Table 4) we use a data proxy from different sources (the Unemployment Indemnity level provided by Labour Ministry, Average net nominal monthly salary earnings provided by NIS...
As a consequence of these aspects, we provide two values for effective unemployment insurance (F) and Labour market Insecurity (G) for Romania, emphasising that the calculated values present minimal differences (see Figure 5).

Romania as a general trend confirm the fact announced in the 2014 OECD study, that the effective unemployment insurance is inversely correlated with the risk of unemployment, entering in the countries group with a very low effectiveness of unemployment insurance and high risk of unemployment. With regards to the labour market insecurity level, it is fourth in rank among the set of selected countries in 2012, below Slovenia, followed by Latvia, Greece, Lithuania and Portugal (see Figure 6). Developed countries such as Austria, Germany, Finland, Denmark and France recorded a security of the labour market supported by low levels of risk of unemployment and a high effectiveness of unemployment insurance.

![Figure 5](image)

In Figure 7 it is also illustrated the fact that there are four results as outliers in our Methodology compared with the results provided by OECD 2014 for 2010. – Spain, Estonia, Slovak Republic and Portugal
The labour market insecurity (G) for Romania in European Context

Source: Graph made by authors with data 2010 for OECD average provided by OECD 2014 and for Romania data calculated by authors.
Considering that labour market insecurity may be interpreted as the expected earnings loss associated with unemployment as a share of previous earnings in our assessment, the result is the fact that in Romania we expected at least a 10% loss from earnings! While in developed countries our scale indicates a loss of under 1%.

• Labour market insecurity in 2013 in Romania by socio-demographic characteristics: gender and age groups.

Based on data from the OECD for unemployment, data from Romania exists by gender and age (different than in the OECD 2014 25-49 and 50+, respectively in OECD Stat. for 25-54 years and 55+ years old) (Figure 7 and Figure 8 and Table 4).

- The subcomponents of labour market security by gender

Using as a reference the men as a category, it is clear that in Romania in 2012 compared with the OECD 2010 data, the following occurs:

a) convergent trends for the subcomponents of labour market security by gender for benefit replacement rates and benefit eligibility where the level for Romania tends to be higher with 0.2-0.3pp than the ratios for OECD. A fact that indicates higher gender inequality in Romania. In other words, in Romania, the rate of employment is higher for women than for men, and in relation to replacement rates for women this transition is more efficient (indicating the wages inequalities in the labour market while the unemployment benefit is reported to a standardised floor);

b) divergent trends regarding the dynamics of labour market by gender. It is indicating a higher flexibility for women in Romania, with almost three times higher probability than men to lose the job, fact in opposition with the OECD trend where the risk of job loss is higher for men than for women with a ratio of 0.74. On the other hand, the duration of unemployment is probable to be almost half for women as compared to men in Romania while in the OECD the average tendency is vice versa, for women, there is a probability of 0.07 higher than that of men to spend in unemployment.
the subcomponents of labour market security by age groups.

Using as a reference the middle category, it is visible that in Romania in 2012 compared with the OECD 2010 data there are:

a) convergent trends for:
youth by the subcomponents of benefit eligibility and unemployment duration with equal probability with the central age group, and respectively for the benefit replacement (with a 0.6 ratio of probability compared to the central group); the aged by the subcomponent of unemployment duration with equal probability with the central age group;

b) divergent trends for:
youth by the subcomponent of risk of losing the job – is higher in OECD countries than in Romania caused by the very low level of temporary work in Romania;
the aged by the subcomponents of benefit eligibility and benefit replacement rate. The coverage rate is almost double for the 55+ aged worker in Romania compared with workers aged 25-54 years old, while in OECD there is an almost equal probability. With regards to the benefit replacement rate, it is visible that in Romania the replacement rate is higher with 1.7 than the central group, while in OECD countries this ratio is only 1.19 – this fact indicating that in Romania the unemployment insurance is more efficient for aged workers than for middle-aged workers.

In respect of the general labour market insecurity output, the most affected socio-economic categories analysed are women (12.9%) and the youth (12.3%). (Table 4).

4. Final Remarks and Discussions

Romania is a case of an EE that presents contradictory characteristics which increase the difficulties of measurement with calibrated instruments either for developed countries or for underdeveloped countries. Even if this analysis is only partial, it allows us to make some discussions regarding the fitness of OECD 2014 Methodology in view to evaluate in a comparative manner (based on OECD and Eurostat data). Our results are in line with developed countries results, but with accentuated gaps. Labour market security in Romania presents a Summary index of 9.4-9.6% regardless of the data source used. The ranking in our scale is partially consistent with the ranking provided by OCED 2014, but we can clearly conclude that Romania presents a low performance in terms of labour market security, close to Greece, Latvia and Lithuania, while Austria, Germany, Finland, Denmark and France present high performance on this dimension, (labour market security is correlated with the employment).
We consider the (under)evaluation of unemployment for Romania as the key issue. In 2015 the annual average unemployment rate was 6.8% with 2.6pp below the EU28 average (this trend was conserved recently; in 2011 it was 7.2% with 7.5pp below the EU28 average\textsuperscript{34}). In absolute terms, the national total in 2015 was of 624 thousand annual average unemployed persons (decreasing from 659 thousand in 2011)\textsuperscript{35}. The real level of unemployment is strongly underestimated, and therefore the Romanian labour market security performance is much lower if we consider full unemployment, both national and international dimension given by migration or mobility for labour of Romanians citizens:

- Looking only in European, the number of Romanians abroad has reached nearly 3 million\textsuperscript{36}. On 1\textsuperscript{st} January 2014, Eurostat reports\textsuperscript{37} as the main countries 2120 thousand Romanian citizens as a foreign born : Italy with 1081.4 thousand persons, Spain with 728.3 thousand persons, Germany with 245.2, Portugal with 34.2 thousand persons, Hungary with 30.9 thousand persons. In there were 73.5 thousand persons from other countries, citizens born outside of Romania include: Moldavia with 11 thousand persons, Turkey with 8.1 thousand persons, China with 6.6 thousand persons, Italy with 5.6 thousand persons, Syrian Arab Republic with 3.6 thousand persons, and citizens from other countries working in Romania with 38.6 thousand persons;

- In 2014 Eurostat reports that 376.4 persons are available to work but not looking for it\textsuperscript{38}. From these persons, an important share is working or looking for work abroad. Recently, Romanian Business Leaders (RBL) estimates that “approximately 80,000 Romanian

\textsuperscript{34} Unemployment rate by sex and age - annual average, % \[une_rt_a\], Last update: 01-03-2016, http://appsso.eurostat.ec.europa.eu/nui/show.do

\textsuperscript{35} Unemployment by sex and age - annual average, 1 000 persons \[une_nb_a\], Last update: 01-03-2016 http://appsso.eurostat.ec.europa.eu/nui/show.do


\textsuperscript{37} File: Main countries of citizenship and birth of the foreign born population, 1 January 2014 (1) (in absolute numbers and as a percentage of the total foreign born population) YB15.png, http://ec.europa.eu/eurostat/statistics-explained/images/3/37/Main_countries_of_citizenship_and_birth_of_the_foreign_born_population%2C_1_January_2014_%28%C2%B9%29_%28in_absolute_numbers_and_as_a_percentage_of_the_total_foreign_born_population%29_YB15.png

\textsuperscript{38} Supplementary indicators to unemployment by sex and age - annual average, 1 000 persons and % \[lfsi_sup_age_a\], Last update: 21-01-2016, http://appsso.eurostat.ec.europa.eu/nui/show.do
national leave the country annually to work abroad, the equivalent of the population of 24 regions population, most coming from the rural places.39

- The National Institute for Statistics based on the 2011 Census data reports that 385.7 thousand of persons were temporarily absent from their domicile, as abroad (169.7 thousand in Italy, 71.1 thousand in Spain, 29 thousand in Germany, 21.7 thousand in Germany, 19 thousand in the United Kingdom, 14 thousand in Hungary, etc.).

The causes of migration from Romania - The International Organization for Migration highlights the factors that underlie the migration phenomenon:

- **push factors:** low standard of living, poverty, lack of employment, ethnic issues, the existence of crises resulting from natural disasters, technological accidents or terrorism, or financial crises, the political and social conflicts, etc.

- **pull factors:** a higher standard of living, higher wage level, the possibility of finding a better job, the experience of social networks, individual freedom. We can also highlight the non-economic factors (language, cultural and geographic contingency, tradition, history, former colonies).40

With this in mind, we can conclude that Romania presents the main risk of the migration for work and its associated risks (illegal work, exits from the social protection umbrella, etc.). While the security of labour market performance is calculated for registered unemployed persons in Romania, there is expected 10% loss from earnings, ten times higher than in developed countries. This low threshold of labour market performance is accompanied by a continuous annual flow of 80 thousand persons that migrate for work annually, accumulating around three million persons that live abroad, which represents more than 15% of the total population of Romania. We have to mention that this process is difficult to evaluate, while the frontier between temporary and definitive setting out is still

blurred in statistics. A breaking point that, coupled with a high process of demographic ageing, indicates other kinds of risks (pressure on national social protection systems, difficulty in increasing productivity and being competitive, etc.) with a potential of irreversible processes, catastrophic in the wellbeing of people’s life.

Romania’s case is a local one, but with a high potential of being a global model, if we take into consideration migration and mobility for work. The labour force movement in a global framework is increasing its numbers in EU28 countries, but more accentuated in developed countries. Recent data figures that on 1 January 2014, the number of people living in the EU-28 who were citizens of non-member countries was 19.6 million while the number of people living in the EU-28 who had been born outside of the EU was 33.5 million. In absolute terms, the largest numbers of non-nationals living in the EU Member States on 1 January 2014 were found in Germany (7.0 million persons), the United Kingdom (5.0 million), Italy (4.9 million), Spain (4.7 million) and France (4.2 million). Non-nationals in these five Member States collectively represented 76% of the total number of non-nationals living in all of the EU Member States, while the same five Member States had a 63% share of the EU’s population.

On the background of increasing the pressure of migrant movements both 2014 and 2015 OECD Methodologies could become only theoretical case studies. The measurement of labour market security performance realised by the 2014 OECD Methodology, assumes to ignore the low pay, while the labour force flow dimension could be improved if they included the migration and immigration risks alongside becoming and staying unemployed is the most significant risk for a worker. The “missing link between the 2014 and 2015 OECD Methodologies is the migration risk (mainly for work and for a better life), risk that links the unemployment risk with the low pay risk. This approach is requested if the countries become open and more and more interconnected systems.

Romania needs to assess the labour market performance not only from the quantity point of view but as well as from the quality point of view. The inclusion of Romania in large databases of OECD allows us to realise a relatively comparable assessment with the OECD methodology, focused mainly on developed countries.

41 http://ec.europa.eu/eurostat/statistics-explained/images/3/37/Main_countries_of_citizenship_and_birth_of_the_foreign_foreign-born_population%2C_1_January_2014_%28%C2%B9%29_%28in_absolute_numbers_and_as_a_percentage_of_the_total_foreign_foreign-born_population%29_YB15.png
Romania as an emerging economy is still a country in development, and therefore we consider it from an optimistic perspective that it is at the crossroads between developing and developed worlds. Under the assumption that this transition is normal and desirable, we consider that any policy-building process, therefore, needs to take into consideration both types of methodologies – ILO and OECD. Under this approach, a more precise diagnosis, from the basis of wanting to increase the efficacy and efficiency of policy processes targeted at inclusive and sustainable growth, with outcomes assuring wellbeing are valued.

Labour market security represents the only environment that could ensure the success of the process of creative destruction, as a continuous function critical to stabilising economic growth. It is impossible to be ignored and should be considered as its output increases workers’ sense of job security, adding to an assurance of wellbeing.

To support employment performance, there is a need to achieve all three synergic dimensions: next to higher labour market security, quality earnings and a decent working environment.
ADAPT is a non-profit organisation founded in 2000 by Prof. Marco Biagi with the aim of promoting studies and research in the field of labour law and industrial relations from an international and comparative perspective. Our purpose is to encourage and implement a new approach to academic research, by establishing ongoing relationships with other universities and advanced studies institutes, and promoting academic and scientific exchange programmes with enterprises, institutions, foundations and associations. In collaboration with the Centre for International and Comparative Studies on Law, Economics, Environment and Work, (DEAL) the Marco Biagi Department of Economics, University of Modena and Reggio Emilia, ADAPT set up the International School of Higher Education in Labour and Industrial Relations, a centre of excellence which is accredited at an international level for research, study and postgraduate programmes in the area of industrial and labour relations. Further information at www.adapt.it.

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