

POST – CRISIS TRENDS IN EMPLOYMENT IN ROMANIA AND THE IMPACT ON POTENTIAL GROWTH^{1,2}

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Abstract

Labour force was more affected by the crisis than other categories of the population and even than the capital. The crisis has led to serious and visible effects on European society and economy. Social protection systems have mitigated some of the impact, but the target groups were the disadvantaged categories and the elderly. Measures to support capital (European Economic Recovery Plan, Juncker Plan, etc) have not put restrictions regarding the effectiveness and productivity; on the contrary, they favoured restructuring and technological upgrading with effects on employment in the European area.

As a result, unemployment has become the main challenge for European countries. Even today, almost 22 million people are unemployed in the European Union, of which 10 million are in this situation for more than a year⁴.

If in 2008, on overall EU, the employment rate of labour between 26-64 years was 69%, being an achievable objective, the one undertaken by the 2020 European Strategy in 2012 approached 68%. Only in 2014 the employment level returned to pre-crisis level.

Average annual reduction of employment in the period 2009-2013 was on the whole EU-28 of 0.6%, given that the average annual rate in the last 10 years before the crisis was strongly positive, of 1% respectively.

In this extremely unfriendly European context for labour market, Romania has registered developments, that most often diverge from European trends, developments that apparently favoured better utilization of labour resources.

After the crisis unemployment in Romania was kept relatively low, well below the European average and the employment rate of labour force aged between 20 and 64 years has increased from 63% in 2009 to 66% in 2015.

At the same time, however, part-time employment was extended, representing a positive phenomenon from the perspective of capital, but with negative implications on economic growth potentials. Labour productivity has improved, which has faded the impact of declining employment on potential gross domestic product. Comparative analyze with the situation in developed countries shows that, overall, the economic crisis has reduced the contribution of labour to potential growth.

Keywords: *number of employees, hours worked, employment, potential GDP, total factors productivity*

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⁴ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on "Launching a consultation on a European Pillar of Social Rights", Strasbourg, 8.03.2016, COM(2016) 127 final.

I. Evolution of the remunerated labour

The complexity of the labour market does not only stem from the general features of the daily people flows between sub-sectors or the labour market inputs and outputs, but also from the Romanian economy particularities of structural and behavioural nature.

The labour market broadly includes issues linked to employment, unemployment and labour quality, productivity, gains and labour costs.⁵ The complexity and importance of the labour market is also reflected in the role designated within the Europe 2020 Strategy that has the employment rate as main indicator and the creation of more and better jobs in the EU as general objective. Moreover, The European Union has detailed the future preoccupations and action directions for increasing employment within the European Employment Strategy and for assessing the evolutions in the labour market sector, a comprehensive analytical and statistical sector based on structural approach.

In order to capture as well as possible the complex diversity of employment in Romanian statistics, European indicators and statistics are used, as well as national indicators and surveys. To these, we add databases and wide administrative statistics for separate use, especially those from the National Agency for Fiscal Administration and labour inspections.

From this point of view, the labour statistics is the most comprehensive sectoral statistical system, surpassing in number of indicators and diversity of information all the other sectoral statistics (industrial, foreign trade statistics etc.).

Another argument in this direction is the fact that the same phenomenon, for example unemployment or employment, is analysed and statistically highlighted from different perspectives: that of the employee and that of the employer, of the one who considers he/she is unemployed, searching for a workplace or that of the one who actually addressed the competent public institution regarding employment. Moreover, the labour market is characterized not only by the employment indicators, but also by indicators highlighting the jobs. Under these circumstances, there is often the risk of using a statistical indicator concerning the labour market without explaining its expression or conferring it another expression.

A specific meaning has the number of employees which reflect the jobs occupied either receiving revenue or not.⁶ This indicator associated with vacant jobs result from a statistical survey having this subject and offer a measure of the jobs within the economy.

If we do not take into account the reference period one might say that the number of employees resulted from the difference between the number of employees and the average number of employees, represent the jobs occupied by persons which do not work in that certain period, being detached, in unpaid leave, in study leave, etc or those who work part time.

The number of employees reflects the employment from a global point of view, without referring to the effective labour type and to the quality of employment. The second indicator referring to the effective labour time is the **average number of employees**, which takes only into account the daily program as a whole. In consequence, in order to better highlight the employment beyond these two indicators it is good to add in the analysis another one – **the number of hours worked**. The evolution of each indicator is expressive itself but a complete assessment of the remunerated labour needs a comparative assessment of those 3 indicators.

As it is known the average number of employees (or the number of employees in ILO's statistical version) results from two surveys: (i) the European one, realised in the households, highlighting the remunerated employment from the commitment perspective and (ii) the national one, done at economic agents in civil sector, which highlights the employment from the employer's perspective.

⁵ Albu, L., L., Caraiani, P., Iordan, M. – *The perspectives of the labour market in Romania in the context of the Europe 2020 strategy*, study developed within the "Improving the institutional, assessment and macroeconomic policy formulation capacity in the field of economic convergence of the National Prognosis Commission with the European Union, code SMIS 27153" project, Ed. Economică, Bucharest, 2012

⁶ NIS – *Methodological specification*, Press release no. 46/february 2016

A comparative analysis of the indicators gives the possibility for highlighting some trends in employment, specific to the Romanian economy including the impact of the financial economic crisis on the labour market:

- **The crisis has affected especially the official economy**, namely **the average number of employees**; in other words the business environment has kept the competitiveness especially through labour force fiscal cost reductions;
- The recovery of the economic growth after 2011 **was not based upon a quantitative expansion of the employment but rather on labour productivity**; the remunerated employment in 2014 was below the one registered in 2007.
- **the informal sector** was less affected and it was **the source for ensuring the labour resources needed** without affecting competitiveness;
- **the official jobs have not been dissolved in the same share as the reduction of the remunerated employment**; some have been kept as vacant, but those who have been occupied (included in the number of employees) **have been employed with part time**; the extension of the part time contracts has represented a second source for compensating the effects of the global crisis.

Evolution of the remunerated labour

- thou persons -

	2000	2007	2014	2014/2000 (%)
Number of employees (HLFS)	5,785.4	6,144.9	5,850.3	1.1
Number of employees	4,646.3	5,126.9	4,900.7	5.5
Average number of employees	4,623.0	4,885.3	4,507.7	-2.5

Source: NIS – HLFS and LFO

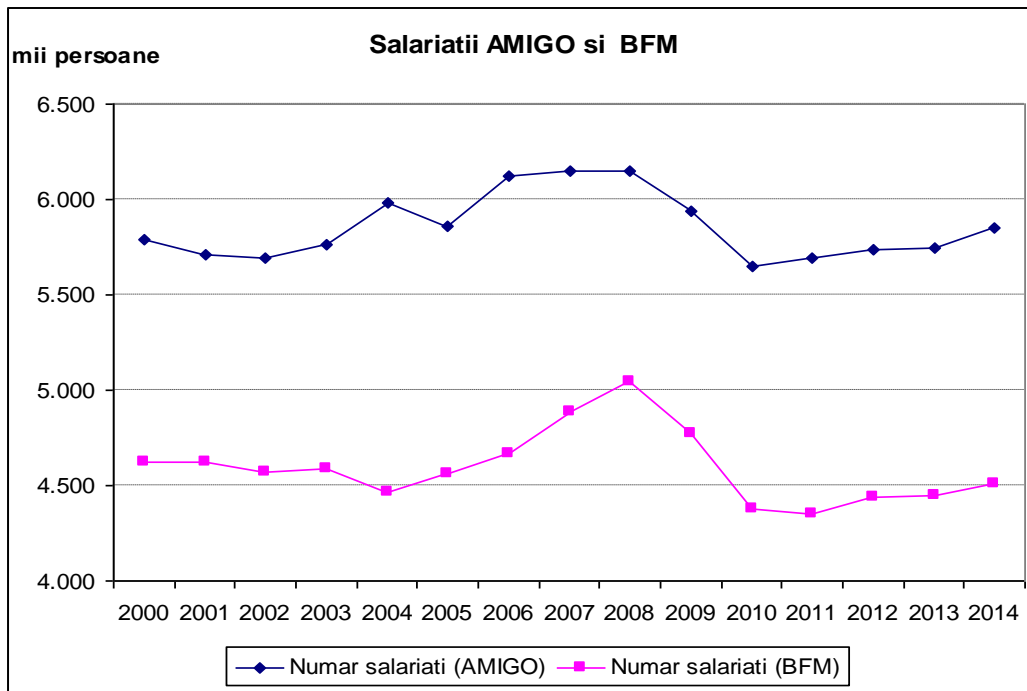
The trends highlighted are supported by the evolution of those three indicators which characterise the remunerated employment in post-crisis period as compared to the evolution up until Romania's EU accession.

Thus, in 2014 the average number of employees was 7.7% below the level in 2007, when this was by about 6% higher than the one in 2000 (the year when the pre-accession process has started). The level in 2014 was still 2.5% below the average number of employees in 2000.

On the other hand, **the number of employees** reached a 5.5% increase in 2014 as compared to 2000, even if as compared to 2000 there were still 226 less occupied jobs.

On long term, the total number of employees and those within enterprises (average number of employees) had similar trends, showing that the informal sector is keeping its share in total remunerated labour. In 2000 the difference was 1162 thousand persons and in 2014, 1342 thousand persons.

The employees according to HLFS and LFO survey



Returning to the differences between the number of employees and the average number of employees, it is worth to notice that the main cause leading to a discrepancy of about 400 thousand in 2014 (9% of the average number of employees), compared to only 23 thousand in 2000, is the enforcement in 2011, of the new Labour Code provisions, which have stimulated the part-time employment contracts.

In the period 2012-2014, the number of part-time employment contracts registered at the Labour inspection showed an upward trend. On December 31st 2014, the number of part-time contracts was 1,020,527 (up 16.9%), as against 873,140 in 2012, while on September 30, 2015 their number was 1,086,283, increasing by 6.4%, compared with December 31, 2014.

Evolution of the employment contracts

-number-

	2011	2012	2013	2014	2015 September 30
Total active employment contracts	5,263,900	5,540,846	5,614,058	5,824,582	6,098,953
of which:					
1. Indefinite period	4,873,401	5,102,151	5,178,501	5,342,159	5,548,656
2. Fixed period	390,499	438,695	435,557	482,423	550,297
of which:					
1. Full time	-	4,667,706	4,671,761	4,804,055	5,012,670
2. Part time	-	873,140	942,297	1,020,527	1,086,283

Source: <http://www.inspectiamuncii.ro/documents/66402/187655/Raport+anual+2014.pdf/>

As a result, the share of the part-time contracts in total active employment has increased from 15.8% in 2012, to 17.8% in September 2015.

The extension of the part-time contracts is favoured by the fact that there are no **restrictions regarding the part-time jobs**. Moreover, the Labour Code provides the opportunity of both part time and full time jobs for the same business, but does not introduce any criterion to justify the need for a part-time job.

For example, what happens if similar activities include mostly part-time employment contracts, which in fact, is a way to reduce the tax burden of the employer? If they represented only a requirement for efficiency and full utilization of the workforce, it would have been sufficient to replace those contracts with a single full-time employment contract. In fact, the employees with part-time jobs usually exceed the norm established in the contract.

Analyzing the data on part-time wage employment (on the basis of the annual average equivalent), according to HLFS survey, one can notice that the impact on the number of employees is still low. The number of part time employees is still insignificant, accounting for less than 1% of total employees. Consequently, in 2014, from a total of 5.850,3 thousand employees, only 41.107 people were part time employed, of which, 75% were active in the field of services. Regarding the part time employed population, the share is similar, reaching about 1%, being influenced by over 700 thousand people working part time in agriculture (underemployment in this sector is also the main cause of low productivity). In 2014, the proportions were as follows: 0.7% for employees and 1% for the total employed population.

II. Domestic and national employment

The second approach of the post-crisis evolution of employment significant for the determination of the potential economic growth is the one based upon **territoriality principle**, the basic principle in the national accounts system and implicitly in GDP and GNI calculation.

Structuring employees according to the workplace is important, especially for the correlation with the economic growth process⁷.

First, the methodology of quantification considers the space where the economic agents operate, as being essential, without any restrictions, respectively: a country, a region or an economic area. A second criterion is the nationality of the economic operators.

The "domestic" category delimitates the contribution of the business agents operating on the economic territory, regardless their nationality; as long as the production is achieved within the country. From this point of view, the statistical units are grouped by "resident" and "non-resident".

The "national" category delimitates the output of the national business agents; thus, the contribution of all national production factors is taken into account. Accordingly, from this point of view, the macroeconomic indicators measure the results of the national economy, no matter if the economic agent operates within or outside the country.

This criterion translates in the field of employment, by measuring the number of employees and the employed population participating at the achievement of the national accounts, the gross domestic product, respectively. The number of employees⁸ includes both residents and non-residents, working in resident production units (the "domestic employment" concept).

In the context of national accounts, the employed population⁹ is that who works for the resident production units in Romania and creates actually, the Romanian gross domestic product ("domestic employment" concept). The estimation of employment from the national accounts may differ, as compared to other statistics and surveys, in particular the Labour Force Survey (LFS - in Romania, AMIGO). Even though, employment is defined according to the criteria of the International Labour Organization (ILO). The differences are conceptual and depend on the sources which have been used.

Thus, in the context of the national accounts, the employment integrates information from multiple sources, such as surveys on employment, population censuses, surveys on

⁷ Ghizdeanu I. - *Applied Macroeconomics*, Ed.Bren, Bucharest, 2007, ISBN 978-973-648-677-7, p. 24

⁸ The number of employees represents all the full title working people, on the basis of a formal or informal contract, for a resident institutional unit, a salary or an equivalent remuneration (National Institute of Statistics - *National Accounts*, Bucharest, 2015).

⁹ The persons (employees and self-employed) that perform a productive activity within the European System of Accounts (ESA) corresponding production, concerning residents and non-residents working in resident production units.

business, labour cost surveys etc., seeking to combine information to get a complete and consistent estimate, related to other variables, such as GDP, output, remuneration, etc.

Following the global crisis, **the employment from the national accounts perspective has worsened**. This process has two characteristics totally different: (i) **the length of the process is negative itself, being a long lasting one** and thus becoming one of the main causes for potential GDP reduction and (ii) **the improvement of the occupational structure** by transferring the self employed those from agriculture in other similar activities; the structural modernization of the employment in positively influencing the potential GDP, through total factors productivity (TFP).

The continuous post-crisis reduction of the employment has multiple causes, from the much lower flows of the labour force on the EU single market to the reduction of jobs and the self employment as a consequence of ageing population in agriculture or quitting independent labour.

Evolution of the employment

- annual percentage changes -

	2010	2011	2012	2013	2014	2015
Employment	-0.3	-0.8	-4.8	-0.9	0.8	-0.9
Employees	-3.4	1.9	-3.8	-0.2	1.7	2.9
Other categories	6.5	-5.9	-7.0	-2.4	-1.2	-9.4

Sursa: INS – Conturi naționale.

In 2015 employment was almost 8% below the one registered in 2009 and 9% below the one in 2007. More pronounced decreases have recorded in non-remunerated employment (other categories of employment) which represented 80% of the employment in 2009.

The number of employees decreased until 2013; afterwards the high economic growth reflected in increases of the number of employees over 2% annually.

Employment in Romania

-thou persons-

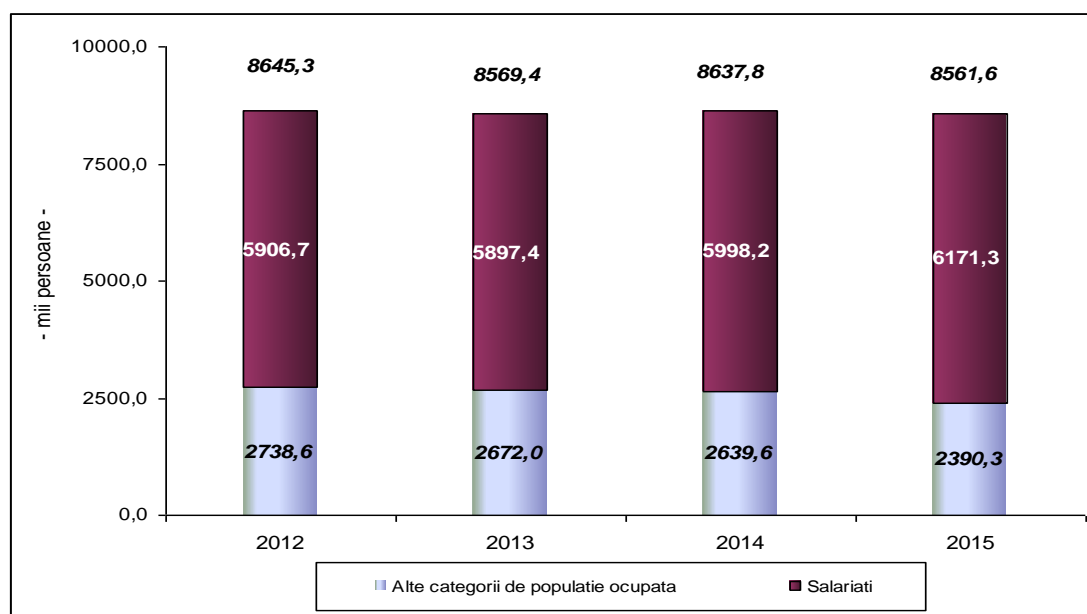
	2000	2007	2014
Total employment	10,771.6	9,364.8	8,637.8
Number of employees	5,881.8	6,436.5	5,998.2
Other categories of employment	4,889.8	2,928.3	2,639.6
% of employees within employment	54.6	68.7	69.4

Source: NIS – National Accounts

Relating to the reduction of non-wage employment, it is significant that, until the accession, this category has diminished by almost 2 million persons, respectively by 40%. After the accession, the decrease was only by 288 thousand persons (almost 10%). The data are consistent with the intensity of the labour movement, from Romania to EU countries, before and after accession.

It is significant the fact that in the latest years when Romania registered a high economic growth, among the highest in the EU, the reduction on non-remunerated employment, especially in agriculture was the most pronounced. During 2013-2015 the annual average decrease of the non-remunerated employment was over 4%. Correspondingly, in the same period the number of employees increased with an annual average of 1.5%. This structural modernisation has amplified the TFP contribution to the growth potential, leading potential GDP from a growth below 2% to over 3% presently.

Employment, according to the National Accounts



*) Revised starting 2012 based on Census2011

Overall, the number of employees within the national accounts is lower than the result of LFS surveys, showing partly, that **the number of Romanian employees** officially working abroad is higher than the number of specialists and foreign workers in Romania.

Evolution of employment and net migration

- thou persons -

	2012	2013	2014
Employment - national concept (Eurostat)	8,814.5	8,723.6	8,779.2
Employment - domestic concept (Eurostat and NIS)	8,645.3	8,569.4	8,637.8
- Difference	169.2	154.2	141.4
Employees - national concept (Eurostat)	6,028.4	6,009.4	6,097.7
Employees - domestic concept (Eurostat and NIS)	5,906.7	5,897.4	5,998.2
- Difference	121.7	112.0	99.5
Other categories of employment - national concept (Eurostat)	2,786.2	2,714.2	2,681.5
Other categories of employment - domestic concept (Eurostat and NIS)	2,738.6	2,672.0	2,639.6
- Difference	47.6	42.2	41.9

Source: EUROSTAT and NIS

According to the National Accounts, in 2014, the total employment increased by 0.2%, compared to 2012, due to the 1.9% rise in the number of employees and to the reduction of other categories of employment, by 3.6%, respectively. This development has resulted in increasing the share of employees from 68.3% in 2012, to 69.4% in 2014.

Real employment, in the sense of working time is reflected by the **evolution of hours worked**. Statistics of hours worked has become important after this indicator began to be used by the European Commission and Member States in assessing potential GDP. After the crisis, the expansion of part-time employment contracts as a way of maintaining jobs and reducing unemployment was materialized in reducing of hours worked and hence of the employment contribution to potential GDP.

The process was manifested in Romania, even with greater amplitude and due to changes in the Labour Code in the sense of facilitating partial employment. Even in recent years when the economic crises effects were offset by GDP growth, the reducing of hours worked continued.

Hours worked growth

- Annual percentage changes -

	2010	2011	2012	2013	2014	2015
Employment	-0.7	1.0	-8.9	-1.2	1.0	-0.4
Employees	-4.6	4.9	-7.0	-0.5	1.7	2.9
Hours worked per employed population	-0.4	1.8	-4.3	-0.3	0.2	0.4

As a result, in 2012 the total number of hours worked per employed population was 8.6% lower than in 2009 and 2015 by 0.6% lower than in 2012.

Even in the employees' case the progress in 2014 and 2015, showing that the total number of hours was increased by 4.6%, could not offset the decline in 2010-2013 period of time.

III. Employment's contribution to potential GDP

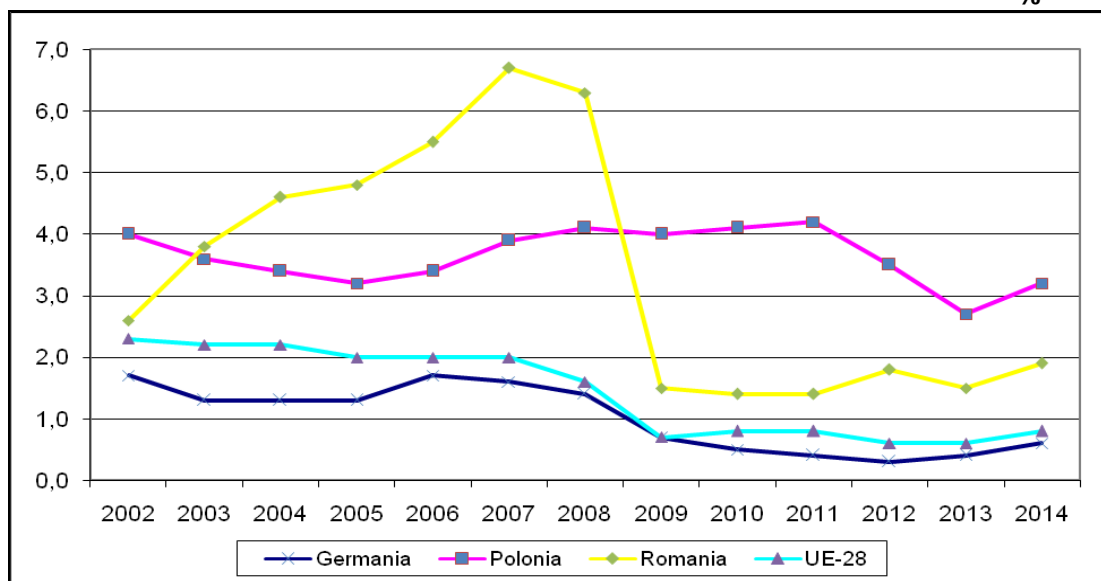
The economic crisis has affected potential GDP in the euro area, at least from two perspectives: on short and long term and also as level and growth rate. It was noticed a growth slowdown during the crisis but also in the recovery period. Even when the actual growth rates have reached levels comparable to the pre-crisis level, the potential GDP was lower.

In order to recover on long term the pre-crisis level, it is necessary that during the recovery the growth rates of potential GDP to accelerate strongly. But the figures till 2013 show a loss of level associated with a slowdown in growth rates.

Significantly noticing that in the new member states (maybe except Poland) the deterioration of potential GDP was much broader, which will reverberate in the dynamic of real convergence.

If the Euro zone, from an annual average of potential GDP growth of 2.0% in the period 2001-2007 it was reached an annual average rate of 1.2% in 2008-2010 and 0.4% in 2013, in Romania the decline was from about 6% to 1.5% in 2013.

Potential GDP in a number of Member States



As following, the assessments regarding the output gap between potential GDP and real GDP were modified in the sense of upwarding its negativity. In these conditions the structural budget deficit was increased. In Romania, it reached 9% in 2009 then was reduced to 3.9% in 2011. The fiscal consolidation process continued and Romania reached the accepted maximum level of 1% in 2014.

Last year represented for the European Union a period of slow economic growth, coexisting on the single European market and even in the euro area, countries with positive developments and countries with economies in or falling back into recession. On EU as a whole, the average annual real growth of GDP in the 2008-2014 period was 0.1%. In the euro area the pace was of - 0.1%.

Turning to the post- crisis evolution of the potential GDP in Romania and its influence factors, some particularities must be highlighted:

- **the reduction of the potential GDP dynamics lasted three years**, longer than in other countries, especially as consequence of the weak contribution of the total factor productivity; such a reduction has been registered before between 1995-1997 but the main cause was the reduction in investments;
- **the potential GDP relaunch was gradual**, its annual growth reaching 1.9% in 2014 compared to 1.7% in 2012;
- **the total employment had a negative contribution to the GDP** even before the crisis; with few exceptions, the negative contribution of labour has been a constant of the Romanian economy, affecting the growth potential for the last 20 years;
- largely, the employment's negative impact has been compensated by growth in productivity; there have been times when **the TFP contribution was the only one contributing positively to the potential GDP.**

The 2000-2004 period was marked by substantial productivity gains, when the total factor productivity dynamics was 1-1.5 percentage points above the annual growth of the potential GDP. During that period, the negative contribution of employment had the highest amplitude, even above 2% (in 2001 and 2002).

Evolution of the potential GDP and its components

- % -

	Potential GDP	Employment contribution	Capital contribution	TFP contribution
2012	1.7	-1.2	1.4	1.5
2013	1.7	-1.1	1.0	1.8
2014	1.9	-0.8	0.9	1.8
2015	2.7	-0.4	1.1	2.1

Source: European Commission – Spring forecast

A positive trend results nevertheless from the data presented in the table above, which by amplification may provide a rapid multiplication of the GDP, respectively: reduction of the negative employment simultaneously with the positive contribution increase of the TFP. The requirement is that investments do not reduce their contribution to less than 1%. In this context we must note that the Romanian economy encountered difficulties during the transition period precisely due to insufficient investments. Therefore, between 1995- 2005, the contribution of the capital accumulation to the potential GDP dynamics was generally negative or slightly above zero.

On that account even the medium term perspectives underline the contribution of the capital to the potential growth. In the last edition of the Convergence Programme it is mentioned that „potential GDP will grow between 2016 and 2019 with an average annual rate of 3.9%, due to the resumption of the investment process (GFCF dynamics) starting 2014¹⁰.”

Turning to the main subject of the communication, **the impact of the worked hours' dynamics on potential growth**, we must underline that the negativity of their contribution is inferior to the contribution of the employed persons¹¹.

Employment contribution structure for potential GDP

- % -

	Total employment	Of which:	
		number	hours/person
2010	-0.9	-0.7	-0.2
2011	-1.0	-0.7	-0.3
2012	-1.2	-0.8	-0.4
2013	-1.1	-0.8	-0.4
2014	-0.8	-0.6	-0.2
2015	-0.4	-0.3	-0.1

Source: European Commission – Spring forecast

If we compare these evolutions with the evolutions of the other EU member states in the area, we can conclude that the concern to increase competitiveness by efficiently using the work factor was a general concern after the crisis, but the results are different.

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¹⁰ Convergence Programme, 2016 edition, p.11, published on the Ministry of Public Finance website, April 2016, Bucharest.

¹¹ The worked hours are used as *proxy* variable for the work factor, replacing the employed population, as a series of data of higher accuracy is obtained because the actual time worked by the employed population is taken into consideration (part time, seasonal contracts, etc.)

The worked hours are obtained by detailing the employed population. It must be mentioned that the worked hours are part of the potential GDP as potential worked hours, since the components of this indicator are filtered (with the aid of the Hodrick-Prescott filter) with the purpose of dismissing the cyclical fluctuations.

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