

## THE DYNAMICS OF THE NUMBER OF EMPLOYEES, AVERAGE MONTHLY SALARY, INCOME PER HOUSEHOLD AND PENSIONS IN ROMANIA AND THE SOUTH MUNTENIA REGION

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### **Abstract**

*The paper aimed to analyze the number of employees, average monthly wage, average income per household and pension both in Romania and in the South Muntenia region in the period 2007-2017. Fixed indices reflected the evolution of these indicators and the comparisons pointed out the differences among various categories: employees, agriculturists and pensioners. The results proved that at the national level the average number of employees increased by 1.2 %, but in the South Muntenia it declined by 4.1 %. In agriculture, forestry and fishing, this number of employees raised by 30.4 % at the national level and by only 9.8 % in South Muntenia, where there were employed about 19.7 % persons in 2017. The average nominal monthly salary increased by more than 75 % both at the national and regional level, but in the South Muntenia, it is lower. In agriculture, forestry and fishing, the average nominal salary has also increased, but at the regional level is smaller compared tot the country level. Per household, the total average monthly income had a higher growth rate for agriculturists, then for pensioners and finally for employees. But, there is a huge gap of salary level, the highest total average monthly income per household belonging to the employees, followed by agriculturists and pensioners. In 2017, the income per household accounted for Lei 3,392 average in the country and Lei 3,201 average in South Muntenia. In this region, the highest income per household is earned by employees, followed by pensioners, and then by agriculturists. The pensions increased more than 2.5 times, but the agriculturists' pension is by 50 % smaller than the average pension in the country. Therefore, in Romania both the wage and pension level are the smallest in the EU. This the reason way the labour market in not balanced, migration is intensified and poverty is very high in many regions and rural areas of the country. The Government has to revise and improve the salary and pension system to recompense both the employees and pensioners for their work for society and prosperity of the country.*

**Key words:** average number of employees, average nominal salary, average income per household, pension, South Muntenia region, Romania

### **INTRODUCTION**

"An employee must always live based on his work, and the salary has to be enough to sustain his and his family existence" affirmed Adam Smith in his book "An Inquiry into the Nature and Causes of The Wealth of Nations"(1776) [24].

David Ricardo considered that "the price of labour force is given by the amount of necessary work for producing a good". Karl Marx, in his book on "Capital"(1867), Vol. II, about the "Theories of Surplus Value"(1862), sustained that "between labour force, labour productivity and salary is a close connection" as sustained. More than this, he added that

"the price of labour force is determined by the balanced ratio between demand and offer"[2].

Alfred Marshall pointed out the importance of labour force's education and training which could be considered "an investment in human capital with a deep influence on the labour market and on the economic development and earnings"[6].

Later, John Maynard Keynes in his book "The General Theory of Employment, Interest and Money (1936), sustained that "money salaries depend on the price growth and the offer of labour force is directly linked to the level of the nominal salary" as mentioned Mark Blaug in his "Economic Theory in Retrospect" [2, 8].

In the salary theory, there are approached many types of salaries. First, "nominal salary" is the amount of money received by an employee for his/her work. "Real salary" is the amount of goods which could be purchased with the nominal salary. Therefore, real salary depends on the level of nominal salary, being directly proportionate with nominal salary. But, also, real salary is connected to price level with which it has a relationship of reverse proportionality. Also, we may discuss about "net salary" which is what an employee receives from his/her salary after the subtraction of various taxes and contributions. Also, another category of salary is "minimum salary" which is legally fixed to guarantee a minimum decent subsistence income for the category of deprived employees.

The term of "salary" is used only for the persons who are employed based on an individual work contract.

In Romania, the number of employees declined during the last three decades from over 8 million in 1990. However, in February 2018, the number of employees increased and reached 4.9 million for the 1st time due to the employment in processing industry, trade, health, social assistance, hotels and restaurants and information technology and communications. More than this, in 2018, in Romania there were 5,028,200 pensioners [9]. Comparing the two figures, one can easily notice the non corresponding ratio between the number of pensioners and the number of employees, and this situation was determined by the decreased number of the active population due to ageing and migration flows to the Western countries, and has a negative impact on the sustainability of social security systems [12, 22].

The pension level in Romania is a very modest one and for many pensioners the only income source. Average pension is an important social indicator of living standard of the old population, and a low pension reflects the level of poverty.

More than 27 % of the EU population over 60 years represent people at risk of poverty or social exclusion, and in Romania comes on

the 2nd position after Bulgaria regarding this aspect.

This means that the pension public budget is not enough to assure a higher pension. The explain should be found in the structure of the labour force market and the number of pensioners, because the number of the employees determines the volume of the pension budget by means of their social contributions [1].

The rural areas are characterized by a high number of people living there, representing about 44 % of Romania's number of inhabitants [21].

Most of the rural inhabitants are dealing with agriculture and just a few with forestry and fishing or other activities. The income coming from agriculture is the smallest one among other types of incomes, and more than this the rural population is aging, has a low education level and is not able to work the whole land that it owns or to raise more animals, therefore the productivity is low, and production is in most of cases used for the family consumption as specific for subsistence family farms or if the family has an income its level is very small. Many pensioners live in the rural areas and their pensions are very small [4, 11, 14, 16, 20].

These aspects of the rural areas regarding the economic state and social problems affects the sustainable economic development of the rural communities. The monographs resulting from the multidisciplinary projects destined to study the rural space and communities pointed out the need of investments in local infrastructure, diversification of the activities valorising the local material, natural and human resources [7].

In this context, the paper aimed to analyze the evolution of the number of employees, average monthly salary, nominal income per household and pension level in Romania and also in the South Muntenia region, considered one of "the poles of poverty" in the country. The reference period of the study was 2007-2017 and the empirical data were collected from the National Institute of Statistics.

## MATERIALS AND METHODS

Romania is situated in the South Eastern part of Europe, being the 12th country based on its surface (238,397 square kilometres) and on the 7th position for its population (19.5 million inhabitants). In 2017, for its nominal GDP, Romania ranked the 47th position in the world and had the highest economic growth rate (7 %) among the EU countries. Despite that Romania's GDP share in the EU average GDP increased from 41 % in 2007 to 63 % in 2017, the economic development level is still far away from the one in the most developed EU countries [26].

In 2019, Romania's GDP (PPP) accounted for USD 547 Billion, meaning USD 28,189 GDP per capita (PPP) [5].

Compared to other EU countries, Romania has one of the smallest average monthly salary, whose level was Euro 540 in 2016. In December 2016, the average gross nominal earnings accounted for Lei 3,257 and the average net nominal earnings for Lei 2,354 [10].

The South Muntenia region is one of the development regions situated in the South part of Romania, and comes on the 3rd position based on its surface (34,453 square kilometers, 14.5 %). From an economic point of view, the region is among the most deprived ones in Romania, considered a "pole of poverty" as its GDP is below 75 % of the EU average GDP [23].

The region is characterized by the dominance of rural settlements, the degree of rurality being 58.6 %. The main activity which is carried out the rural localities is agriculture. The region is favoured for cereals (wheat, rye, maize, barley), oil crops (sun flower, soya bean and rape), leguminous crops (peas and bean), and forages. Agricultural production are high in some parts of the region but also low in the deprived areas due to soil quality, drought, aridity. Beside de high number of agriculturists running their activity in small farms, there are also other more industrialized activities producing cars, chemicals, fridges and other house goods and food [13, 15, 17, 18, 19, 23].

Employment in Romania's primary sector: agriculture, forestry and fishing represents about 30 % of the total employment in the economy, very high compared to 5 % the EU average. In Romanian agriculture, 11 % are employees, 88.7 % are unemployed people, 69 % are full time and 31 % part time. The EU average of employees in agriculture is 33 %.

In the South Muntenia region, the occupancy rate is decreasing like at the national level, being 55.4%. In the agriculture of this region are working more than 1.2 million persons.

The age of farmers younger than 35 is below 10 % in Romania, of the ones between 35 and 55 years is about 25 %, and the share of the farmers over 55 % is 65 %. Therefore, farmers ageing will be a big problem for the future as the young generation prefer going to the cities or migrating to other countries.

Productivity is still low in agriculture, due to the small farm size, low technical endowment, old technologies and low training level. The level of productivity in Romania's agriculture is 29 % of the EU average, more exactly GVA at basic price, Euro 4,329 per AWU [3, 4, 7, 16].

The living standard of the population is low, taking into account the GDP per capita, living conditions, earnings and average wage [11].

In order to set this study case, the empirical data were used form the data base of the National Institute of Statistics for the period 2007-2017.

The main analyzed indicators have been: the average number of employees, the average number of employees in agriculture, forestry and fishing, the average nominal monthly salary, the total average monthly income per household, and the average monthly pension.

All these indicators were analyzed at the national level and also at the regional level, having as example the South Muntenia region of development.

The methodological background included various well known procedures and methods utilized for the dynamic analysis and structural dynamics, and comparison of the chronological series of data between various indicators.

The results have been commented and finally the main ideas resulting from this study have been included in the conclusions.

## RESULTS AND DISCUSSIONS

### The dynamics of the average number of employees in Romania and the South Muntenia Region

In Romania the average number of employees increased by 1.2 % from 4,885 thousand in 2007 to 4,946 thousand persons in 2017.

In the South Muntenia region, the number of employees declined by 4.1 % from 597,039 in 2007 to 573,033 in 2017.

This decrease is explained by the lack of labour force on the labour market, the low training level and skills as people to be employable and the migration to other countries looking for jobs well paid.

As a result, the share of the average number of employees of the South Muntenia region in Romania's average number of employees went down from 12.2 % in 2007 to 11.5 % in 2017 (Table 1).

Table 1. Dynamics of the average number of employees in Romania and the South Muntenia region in the period 2007-2017 (Thousands)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Romania	4,885	5,046	4,774	4,376	4,349	4,442	4,443	4,508	4,611	4,759	4,946
South Muntenia	597	601	575	519	514	523	528	531	541	548	573
Share of No. of employees in South Muntenia in Romania's No. of employees (%)	12.2	11.9	12.0	11.8	11.8	11.7	11.8	11.7	11.7	11.5	11.5

Source: Own determination based on Tempo Online, NIS, 2019 [25].

### The dynamics of the average number of employees in agriculture, forestry and fishing

Despite that Romania has a huge number of farms, about 3.4 million, just a few number of people is employed in agriculture. Even in other activities like forestry and fishing it is a small number of employees.

In the analyzed period, at the national level, the average number of employees in the sector of agriculture, forestry and fishing increased

by 30.4 % from 93,302 in 2007 to 121,720 in 2017.

In the South Muntenia region, it was also registered an increased number of employees in these three sectors of activity, more exactly 9.8 % from 21,838 in 2007 to 23,995 in 2017.

As a consequence, the share of the average number of the employees in the South Muntenia's agriculture, forestry and fishing in Romania's average number of employees in these sectors of activity declined from 23.4 % in 2007 to 19.7 % in 2017 (Table 2).

Table 2. Dynamics of the average number of the employees in agriculture, forestry and fishing in Romania and the South Muntenia region

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Romania	93,302	104,819	110,079	95,185	97,630	103,663	103,813	107,728	112,699	117,046	121,720
South Muntenia	21,838	21,768	23,633	19,924	19,766	21,623	20,857	21,332	22,745	23,698	23,995
Share of No. of employees in South Muntenia in Romania's No. of employees (%)	23.4	20.7	21.4	20.9	20.2	20.8	20.0	19.8	20.1	20.2	19.7

Source: Own determination based on Tempo Online, NIS, 2019 [25].

### The dynamics of the average nominal monthly salary

In the last decade the average nominal monthly salary increased in Romania and in

its regions of development grace to the economic growth and progress in the labour productivity.

At the national level, the average nominal monthly salary increased by 78.6 % from Lei 1,309 in 2007 to Lei 2,338 in 2017.

An important growth of 74.5 % was noticed in the South Muntenia region. In 2017, the

average nominal monthly salary in the region accounted for Lei 2,130 compared to Lei 1,220.

However, the data show that the level of the average salary is lower in the South Muntenia region compared to the national level (Table 3).

Table 3. Dynamics of the average nominal monthly salary in Romania and South Muntenia (Lei/month)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Romania	1,309	1,361	1,391	1,444	1,507	1,579	1,697	1,859	2,046	2,338
South Muntenia	1,220	1,294	1,303	1,321	1,394	1,463	1,582	1,798	1,852	2,130
Share of the average monthly salary in South Muntenia in Romania's average monthly salary (%)	93.2	95.0	93.6	91.4	92.5	92.6	93.2	91.8	90.5	91.1

Source: Own determination based on Tempo Online, NIS,2019 [25]

### The dynamics of the average nominal monthly salary in agriculture, forestry and fishing

In Romania, the average nominal monthly salary in agriculture, forestry and fishing increased 2.03 times from Lei 914 in the year 2008 to Lei 1,858 in 2017.

However, its level is much smaller compared to the average nominal monthly salary in the economy. In 2008, the difference was Lei 395 and in 2017 it was Lei 480. Therefore, the salary in agriculture, forestry and fishing represents 69.8 % in 2008 and 74.4 % in 2017 of the average nominal monthly salary in the economy.

In the South Muntenia region, the average nominal monthly salary also increased 2.04 times from Lei 902 in 2008 to Lei 1,845 in

2017. In this region, the level of this salary is also lower than the average monthly salary in the economy of South Muntenia. In 2017, an employee working in agriculture, forestry and fishing earned only 86.6 % of the average salary in the South Muntenia region compared to 73.9 % in 2007, which is a positive aspect, but not enough to cover the gap.

The share of the average nominal monthly salary in agriculture, forestry and fishing of the South Muntenia in Romania's average nominal monthly salary coming from these activities increased from 98.6 % in 2008 to 99.3 % in 2017. But, in the year 2012 and 2014 it was even higher than Romania's average nominal monthly salary by 0.3 % and respectively 2.7 % (Table 4).

Table 4. Dynamics of the average nominal monthly salary in agriculture, forestry and fishing in Romania and South Muntenia (Lei/month)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Romania	914	1,007	1,024	1,044	1,093	1,179	1,270	1,371	1,621	1,858
South Muntenia	902	971	963	1,014	1,097	1,122	1,305	1,318	1,549	1,845
Share of the average monthly salary in South Muntenia in Romania's average monthly salary (%)	98.6	96.4	94.0	97.1	100.3	95.1	102.7	96.1	95.5	99.3

Source: Own determination based on Tempo Online, NIS,2019 [25].

### The dynamics of the total average monthly income per household in Romania

In Romania, in the analyzed interval, the total average monthly income per household

increased 2 times from Lei 1,686.7 in 2007 to Lei 3,391.6 in 2017. In case of the employees, the average monthly income per household increased by 36.3 % from Lei 2,347.1 in 2007 to Lei 3,200.8 in 2017. In case of the agriculturists, in 2017, the average monthly

income per household was Lei 4,694.7 being 3.66 times higher than in 2007. The pensioners received an average monthly income 3.6 times higher in 2017 accounting for Lei 4,618 in comparison with Lei 1,274 per household in 2007 (Table 5).

Table 5. Dynamics of the total average monthly income per household in Romania (Lei/month)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Romania	1,686	2,132	2,316	2,304	2,417	2,475	2,559	2,501	2,687	2,945	3,392
-Employees' income	2,347	2,853	3,105	3,091	3,146	3,238	3,419	3,421	3,656	3,696	3,200
-Agriculturists' income	1,282	1,594	1,823	1,672	2,085	2,029	2,098	2,061	2,181	4,051	4,695
-Pensioners' income	1,274	1,704	1,872	1,905	2,017	2,034	2,073	1,963	2,040	3,822	4,618

Source: Own determination based on Tempo Online, NIS,2019 [25].

One may easily notice from the data presented in Table 5, that the employees have the highest total average monthly income per household, agriculturists are coming on the second position and finally the pensioners have the lowest income.

**The dynamics of the total average monthly income per household in the South Muntenia region**

At the level of the South Muntenia region, the total average monthly income per

household increased by 55.4 % in the studied period from Lei 2,059 in 2008 to Lei 3,201 in 2017. The employees' income declined by 3.4 % from Lei 3,332 in 2008 to Lei 3,220 in 2017. The agriculturists' income increased from Lei 1,534 in 2008 to Lei 2,181 in the year 2017, meaning + 42.1 %. The pensioners' income raised by 35.4 % in the analyzed interval from Lei 1,736 in 2008 to Lei 2,352 in 2017 (Table 6).

Table 6. Dynamics of the total average monthly income per household in the South Muntenia region (Lei/month)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
South Muntenia	ND	2,059	2,251	2,369	2,337	2,435	2,431	2,443	2,466	2,696	3,201
-Employees' income	ND	3,332	3,425	3,472	3,822	4,618	2,779	3,065	3,181	3,065	3,220
-Agriculturists' income	ND	1,534	2,044	1,878	1,951	2,203	2,005	1,919	1,890	1,994	2,181
-Pensioners' income	MD	1,736	1,865	2,027	2,038	2,057	2,046	1,974	1,988	2,102	2,352

Source: Own determination based on Tempo Online, NIS,2019 [25].

Like at the national level, in the South Muntenia region the total average monthly income per household was different among various categories of people. In this area, the employees are also on the top position with the highest level of income, but on the second position are the pensioners, followed by the agriculturists who come on the third place.

It is strange that in a region where the share of the population in the rural areas is 44 % and agriculture is the main activity producing income, the level of this income is the lowest one.

The share of the total average monthly income per household in the South Muntenia region in Romania's total average monthly income per household is presented in Table 7.

Table 7. The share of the total average monthly income per household in the South Muntenia region in Romania's total average monthly income per household (%)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
-Region's share	96.6	97.2	102.8	96.7	98.3	94.9	97.6	91.7	91.5	94.3
-Employees' share	57.3	59.4	102.9	97.4	99.4	97.4	100.1	94.9	94.3	98.3
-Agriculturists' share	96.1	112.1	112.3	93.5	108.5	95.5	93.0	86.6	92.5	82.7
-Pensioners' share	101.8	99.6	106.3	101.0	101.1	98.7	100.5	97.4	97.7	98.1

Source: Own determination.

The figures from Table 7 reflect that there are some differences between the total average monthly income per household in Romania and its level in the South Muntenia region. However, there are a few years in which in the South Muntenia region the level of this income was higher than the average income in the country. It is about the year 2010, when all the categories of people received a higher income than the national average. Also, it is about the years 2008, 2010, 2011, 2012 and 2014 for pensioners, the year 2009 and 2010 for agriculturists, and the years 2010 and 2014 for employees.

### The dynamics of the average monthly pension in Romania and the South Muntenia region

The value of the average pension increased 2.57 times at the national level, 2.64 times for agriculturists in Romania, 2.62 times in the South Muntenia region and 2.66 times for the agriculturists from the South Muntenia, and this is a positive aspect.

But, the share of the agriculturists' pension in the average pension in Romania reflects that the agriculturists receive a pension by 50 % smaller than the average pension in the country.

In the South Muntenia region, the average pension is lower compared to the average national level.

But, the agriculturists in the South Muntenia region have a pension a little bit higher than the average pension of the agriculturists in Romania (Table 8).

Table 8. The dynamics of the average monthly pension in Romania and the South Muntenia region (Lei/month)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Average pension in Romania	399	593	711	739	773	778	809	845	886	931	1,02
Average pension of the agriculturists in Romania	159	253	300	309	311	313	327	342	361	381	421
Share of the agriculturists' pension in the average pension in Romania %	39.8	42.6	42.1	41.8	40.2	40.2	40.4	40.4	40.7	40.9	41.0
Average pension in the South Muntenia region	375	560	671	699	732	738	770	807	848	892	985
Average pension of the agriculturists in the South Muntenia	161	257	304	314	317	319	333	348	368	388	429
Share of the average pension of the agriculturists in South Muntenia %	42.9	45.8	45.3	44.9	43.3	43.2	43.2	43.1	43.4	43.5	43.5
Share of the average pension in the South Muntenia in the average pension in Romania %	93.9	94.4	94.3	94.5	94.7	94.8	95.1	95.5	95.7	95.8	96.0
Share of the agriculturists; average pension in the South Muntenia in the pension of the agriculturists in Romania %	101.2	101.5	101.3	101.6	101.9	101.9	101.8	101.7	101.9	101.8	101.9

Source: Own determination based on Tempo Online, NIS,2019 [25].

## CONCLUSIONS

In Romania the average number of employees has slightly increased by 1.2 % while in the South Muntenia it declined by 4.1 %, which led to a lower share of the employees in the South Muntenia, 11.5 % in the total number of employees in the country. The causes are the lack of labour force, the low education level and migration.

The average number of employees in the sector of agriculture, forestry and fishing of Romania reached 121,172 in 2017, being by 30.4 % higher than in 2007. In the South

Muntenia, their number accounted for 23,995 in 2017 representing by 9.8 % more than in the first year of the study. As a result, South Muntenia's employees dealing with agriculture represented 19.7 % of Romania's employees in this sector.

The average nominal monthly salary increased by at the national and regional level, more exactly by 78.6 % and 74.6%. But in the South Muntenia, the average salary is lower than at the national level, accounting for Lei 2,130.

The average nominal monthly salary in agriculture, forestry and fishing at the country

level and in the South Muntenia region two times in the analyzed interval, but its level in the region is smaller compared to its average level at the country level.

The total average monthly income per household increased in the country and also in the South Muntenia region. But taking into account various categories of beneficiaries, the income growth rate of the highest for agriculturists, followed by pensioners and finally by employees.

However, between these three categories of beneficiaries, the employees have the highest total average monthly income per household, followed by agriculturists and then by pensioners.

Per household, the total average monthly income by 55.4 % at the national level, accounting for Lei 3,392 in 2017, In the South Muntenia region it also increased, accounting for Lei, 3201, but in a different manner by category of beneficiaries: the employees earn the highest level of income, on the second position are the pensioners, and on the last position the agriculturists.

Regarding pensions, their level increased more than 2.5 times both at the national level, in South Muntenia and for agriculturists as well. But, the agriculturists' pension is 50 % smaller than the average pension in the country.

As a final conclusion, the wage and pension level in Romania are the smallest in the EU. A positive aspect is that in the analyzed period both the average nominal salary and pension raised, but not enough compared to other countries in the EU.

This is one of the reasons why many people, especially the young people leave the country going to offer their work in the Western countries for getting a better paid job.

The actual public system in Romania should be definitely improved in order to recompense in a correct way the retired persons for their work for society and prosperity of the country. More than this, the wage level should be also improved in order to be more attractive for the potential employable persons in various sectors of activity.

A special attention should be paid to the income of the employees in agriculture and also to the farmers whose efforts to carry out agricultural products and food for the domestic market to sustain the economy and life.

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