Abstract

Present study proposes to give an overview on the evolution of some income indicators of the Romanian agricultural sector with a special focus on small farms during the first programming period after accessing the Union. Data currently available within the framework of the Farm Accountancy Data Network (FADN) for the years 2007-2012 are used to depict the Romanian agricultural income situation status-quo. The indicators are going to be analyzed in a European Union context in order to embed the position of Romania in the general framework of the Union. The situation of direct payments, an important income component of small agricultural holdings that meet eligibility criteria and are entitled for these payments, is also discussed.

Key words: small farms, income situation, Romanian agriculture, Farm Accountancy Data Network

JEL classification: Q14, Q15, Q18

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1. Introduction

Present study provides an overview of the development of the income indicators in the Romanian agricultural sector, as compared to averages on the European Union level with a special focus on small farms. The analysis is based on data from the Farm Accountancy Data Network, on a six year time horizon, latest data being available for the year 2012. FADN data is accompanied with data from the EUROSTAT database in order to depict the evolution and the current situation of the Romanian farm structure.

The current land structure of the country offers slight chance of exploiting opportunities of economies of scale. With an average farmsize of 3.5 ha [9] Romania occupies a peripheral position among CEE countries that have an average farmsize of 6 hectares [3], [12]. From a European perspective, the lagging-behind position of Romania is more accentuated, as EU27 member states have an average farmsize of 12.6 hectares [11].

Most recent data on farm structure shows that the average farm size of a Romanian agricultural holding equals 3.66 hectares. We mention here, that updated data referring to year 2010 shows an average Romanian farm structure of 3.57 hectares.

2. Small agricultural holdings in the Romanian farm structure

Romania’s agrarian structure has a dual character with a very large number of small, and very small farms, and a small number of very large farms. Distribution of farms by their physical size as well as by their economic size confirm the above stated. This implies that the share of subsistence nd semi-subsistence farms is very high in Romania. In a European context, Romania is the country with the largest share of small farms out of the new member states of the European Union. There is a sharp difference between the average economic size of a farm in the EU27 and the one in Romania, latter being 9.4 times lower (2700.2 euro SO/farm) than former (25450.0 euro SO/farm) [10].

1 available since 28.07.2015, using the dynamic reporting tool of EUROSTAT database
Both the distribution of the agricultural holdings by their physical size (expressed in hectares) as well as by their economic size (expressed in euro standard output) shows the image of an agriculture dominated by small farms in Romania. 95% of the agricultural holdings, operating on 39% of the total utilised agricultural area, in Romania have an economic size smaller than 8000 euro SO, according to EUROSTAT data referring to year 2013. On the other hand, only 0.5% of the agricultural holdings are larger than 50000 euro standard output, and they are operating on ly on 46% of the total utilised agricultural area. The above depicted dual character of the Romanian agriculture is captured by Figure 1. Semi-subsistence farming predominates in Romania, major part of the utilised agricultural area being occupied by small and very small agricultural holdings, while labour force in the agriculture sector is mainly family-type, producing mostly for their own consumption [1]. Alexandri et al., 2015 [2] claim that out of the 3.7 Romanian farms 3.3 millions can be consiered semi-subsistence agricultural holdings.

3. Income situation of the Romanian small farms

An essential income indicator when analyzing the agricultural sector of the European Union using its FADN database, is the Farm Net Value Added (FNVA). The term corresponds to the amount – in monetary terms – available to remunerate all fixed production factors, i.e. land, labour and capital, either owned or rented by the farm [7]. As depicted in Figure 2, Gross Farm Income equals Market revenues decreased by Intermediate consumptions and increased by Balance subsidies and taxes. FNVA is composed by Gross Farm Income minus Depreciation. In 2007, the FNVA for Romania that of 4754 EUR, lagged behind the EU27 average: 26807 EUR (Table 1). From 2007 to 2012, a significant improvement is noticeable regarding the indicator FNVA for Romania, which – according to the data derived from the FADN Public Database – produced a 49.01% increase, from a value of 4754 EUR in 2007, to that of 7084 EUR in 2012, while in the EU27 FNVA increased on average only with 10.40% during the same time period (Table 1). In terms of partial labour productivity, measured by FNVA per AWU, also shows emphatic growth in the
case of Romania: from the value of 2224 EUR/AWU in 2007 grew up to 14947 EUR/AWU in 2012. This value is almost 80% of the EU27 average measured in the same year (18962 EUR/AWU) (Table 1).

Figure 2. Definition of Farm Net Value Added


Differences in the income situation of EU27 average values and the Romanian situation are depicted in Figure 3. The indicator used for graphical representation is that of income per worker, i.e. FNWA per AWU. In the 2007, Romania reached the lowest level of income per worker in the Union: that of 2224 EUR/AWU, being far lower than the 14947 EUR/AWU Union average (Table 1). We also intended to capture in our analysis the evolution of the income situation of agricultural holdings from different farm size classes. Figure 3 suggests that smaller Romanian farm size classes’ income per worker performance are lagging more behind the EU average than those who have larger economic size. A general improvement of income per worker of the Romanian farms compared to the EU27 average is noticeable during the first programming period of Romania as a member state. We can observe a general decreasing tendency of FNVA per AWU in the EU27 referring to all size classes of agricultural holdings in the years 2008 and 2009, followed by a general increasing tendency in the following time period (most recent data is currently available for the year 2012).
Figure 3. Evolution of the income per worker values (FNVA per AWU) by economic size (SO) of agricultural holdings in Romania and in the EU27

Source: own calculations based on FADN data

Farm Net Income indicator, meaning by definition the remuneration to fixed factors of production of the farm (work, land and capital) and remuneration to the entrepreneurs risks (loss/profit) in the accounting year shows high discrepancy comparing the Romanian value (3028 EUR) with the EU27 average (18367 EUR) in 2007. From 2007 to 2012 the Romanian FNI indicator shows significant improvement (93.30% increase) (Table 1).

Table 1. Income situation analysis based on FADN data

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>2007</th>
<th>2012</th>
<th>change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm Net Value Added (FNVA)</td>
<td>EUR</td>
<td>4754</td>
<td>26807</td>
<td>49.01%</td>
</tr>
<tr>
<td>Total labour input</td>
<td>AWU</td>
<td>2.14</td>
<td>1.79</td>
<td>-39.25%</td>
</tr>
<tr>
<td>FNVA per AWU</td>
<td>EUR/AWU</td>
<td>2224</td>
<td>14947</td>
<td>144.29%</td>
</tr>
<tr>
<td>Farm Net Income (FNI)</td>
<td>EUR</td>
<td>3028</td>
<td>18367</td>
<td>93.30%</td>
</tr>
<tr>
<td>Average asset value</td>
<td>EUR</td>
<td>28765</td>
<td>259299</td>
<td>38.21%</td>
</tr>
<tr>
<td>Average liabilities</td>
<td>EUR</td>
<td>741</td>
<td>36324</td>
<td>147.64%</td>
</tr>
<tr>
<td>Net worth</td>
<td>EUR</td>
<td>26930</td>
<td>222974</td>
<td>44.88%</td>
</tr>
<tr>
<td>Average liabilities to net worth ratio</td>
<td>%</td>
<td>2.75</td>
<td>16.29</td>
<td>17.83</td>
</tr>
<tr>
<td>Paid labour input</td>
<td>%</td>
<td>21</td>
<td>24</td>
<td>11</td>
</tr>
<tr>
<td>Unpaid labour input</td>
<td>%</td>
<td>79</td>
<td>76</td>
<td>89</td>
</tr>
</tbody>
</table>

Source: own calculations based on data from FADN database, 2015

Average asset value stays only for assets in ownership. Capital indicators are based on the value of the various assets at closing valuation, i.e. Fixed assets + current assets. Average asset value in Romania (28765 EUR) highly lags behind the EU27 average (259299 EUR) in 2007. However a 38.21% increase is noticeable regarding the average asset value indicator in Romania in 2012, compared to 2007, reaching the value: 39757 EUR (Table 1). On the other hand, average liabilities are considered, representing the value at closing valuation of total of (long-, medium- or short-term) loans still to be repaid. Average liabilities indicator is far smaller in Romania (741 EUR) than in EU27 average (36324 EUR) in 2007 (Table 1). There is still room for higher average liabilities value for Romania, after a 147.64% increase from 2007 to 2012, from 741 EUR to 1835 EUR. Asset value minus liabilities indicate the value of net worth. Based on the
above assessment and having a look at Table 1, it is obvious, that high differences are noticeable between the Romanian and EU27 net worth values both in 2007 and in 2012. Considering labour input - in terms of differentiating paid and unpaid one – the emphatic role of the unpaid labour input type is noticeable both in the case of Romania and in EU27 average, approaching the 80%-20% ratio in 2007 (79%-21% in Romania and 76%-24% in the EU27). Analysing the evaluation of these rates between 2007 and 2012 we can conclude that the EU27 average values stayed the same, while the Romanian 21%-79% paid labour input – unpaid labour input changed to 11%-89%.

Based on data from the European Commission [8] we analysed the labour force structure of small Romanian farms, those under 2 hectares (Figure 4). Most recent data from this perspective was available referring to the year 2010. Results show that two-thirds of the labour force belonging to the agriculture sector works in farms with sizes smaller than 2 hectares. Major part of those working on these small farms are the owners or their family members. Non family labour force is very scarce in this group of agricultural holdings.

Results of a recent study [5] show that the financial support value per a person occupied in agricultural sector in Romania is 32 times lower than the financial support received by a farmer in Ireland, 21 times lower than in Finland, 17 times lower than in Denmark and France, 14 times lower than in Slovakia and 8.7 times lower than the support received by a farmer in Hungary.

4. The role of direct payments

First pillar direct payments of the Common Agricultural Policy are supports entitled to farmers by the European Union to Romanian farmers under the conditions in which they are eligible and submit an application requesting the payment. The eligibility criteria a farmer must satisfy in order to receive this support are as follows:

- Cultivating an agricultural area that is equal or larger than 1 ha, consisting of parcels larger than 0.3 ha;
- Maintaining this land in good agricultural and environmental condition (Good Agricultural and Environmental Conditions compliance).

Although small farms are not directly excluded from the group of beneficiaries of direct payments, they often do not receive support because they do not reach the minimum threshold of eligibility or receive small amount of money due to their physical size. According to the eligibility criteria presented above, farms having at least 1 ha consisting of parcels of at least 0.3 ha are eligible under the Single Area Payment Scheme. In Romania around 3 million individual farms do not meet at least one of these eligibility criteria [6]. The threshold was set at 1 ha both based on agricultural efficiency considerations and in order to avoid additional administrative burden [4]. We mention here that those small farms who meet these eligibility criteria and benefit from this support, the direct aid is an important contribution to their household income.
As a result of our analysis, the shape of the Lorenz curves show that direct payments of the financial year 2013 were unevenly distributed between small and large farms. It is also obvious that the Romanian concentration curve highly differs from the EU27 average one. The extremely uneven distribution of the direct payments may be interpreted as a consequence of the dual nature of the Romanian agriculture: characterized by a large number of small and very small farms (which altogether use a very small share of the total Romanian UAA) and a small number of large farms using a relatively large agricultural land. In Romania, in the financial year 2013 the majority: 76.41% of the beneficiaries (those receiving less than 500 euros / beneficiary) received only 18.62% of total direct payments. Consequently, 81.38% of direct payments concentrated in the hands of 23.59% of the beneficiaries. The share of those who received larger amounts than 5000 euro/beneficiary was 1.21%, they received together 51.68% of the total direct payments allocated in Romania during the financial year 2013.

5. Conclusions

We can draw the conclusion that key economic indicators of the agricultural sector of the European Union show rather high differences between the values referring to Romania as a member state, and the EU27 average values. Detailed view on agricultural income situation reflects that Romania occupies a peripheral position among member states. The lagging-behind character of the Romanian agricultural sector, as well as promising growths detected between the two accounting years analysed (2007 and 2012) are obviously reflected from the calculations of present study based on the FADN Public Database, referring to key income indicators of the agricultural sector. Farm structure and the distribution of direct payments among farms from different farm size classes also differ highly from average EU27 values. The extremely dual farm structure of the country results in the uneven distribution of the direct payments. The large number of small farms dominating the Romanian agriculture result in low average income values in the sector. A land concentration process, resulting in the establishment of medium-sized family farms, would be essential both from social and economic reasons.

References


