

EVOLUTION OF THE INDICES USED TO ASSESS THE IMPLICATIONS OF INTEGRATION ON AGRICULTURE

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Abstract: *The agricultural character of the region is mostly vegetal, about 64% of agricultural production being provided by that sector. However, agricultural services, which should be a real support for agricultural development in the region, were low and declining.*

A negative aspect of the evolution of agriculture is drafted by the high share of intermediate consumption in the production value, that shows on the one hand a dependency of agriculture on the products within this sector and on the other hand a high dynamic of input prices.

Key words: *agricultural, evolution, indices, prices.*

INTRODUCTION

Impact assessment has been carried out, first, through comparisons between structural and dynamic evolution of agriculture in the Northwest and the overall evolution of the Romanian agriculture. This has allowed us to identify the direct and indirect implications of the integration process on agricultural sector. Assessment continued with an analysis of the mode of allocating financial support during the period of post-accession by highlighting irregularities compared to national and regional averages.

MATERIALS AND METHODS

Northwest region experienced a positive economic development during 2006-2011, leading to an economic growth and an increase of GNP (gross domestic product) per capita almost at the same rate as the indicator development at the national level.

However, GDP per capita remains at a level of 91.6% of the country average. The region is highly based on agriculture, its share in forming regional GDP being superior to the share at the national level.

The value of agricultural production and gross value added in agriculture have seen a less dynamic than at the country level, but, nevertheless, compared to the overall cultivated area it is noticed that GVA per hectare had a superior dynamic, about 28% higher than the level of the national GVA per hectare, which resulted in a growth of labor productivity and represents a positive aspect related to the performance of agriculture in the region.

Table 1

Evolution of the indices used to assess the implications of integration on agriculture

Indicators	MU	2006	2011	2011/2006	2006	2011	2011/2006
Macroeconomic indicators							
Share of agriculture (including forestry and fishing) in GDP	%	9,7	7,4	-2,3 pp	7.8	6.5	-1.3 pp
Gross domestic product (GDP)/nominal	Ron/resident	14947	24755	165,6 %	15967,6	27017,7	169,2 %
General indicators							
Value of agricultural production	Ron million	7555,9	9695,5	128,30 %	50649.6	76508.7	151,1 %
Gross value added in agriculture (GVA)	Ron million	3178,8	4195	132,00 %	26861.9	36478.2	135,8
Gross value added per hectare	Ron/ha	3981,8	5784,1	145,3 %	3407,2	4513,7	132,5 %
Intermediate consumption share in output value	%	57,9	56,7	-1,2 pp	46,9	52,3	5,4 pp
Labour productivity in agriculture calculated at VAB	Ron/resident	9447,2	14126,0	149,5 %	9446.8	13963	147,8 %
Share fallow arable area	%	21,4	29,1	7,7 pp	16,4	13,6	-2,8 pp
Dynamics and structure of agricultural holdings (2005-2010)							
Farm - total	number	591510	528460	89,3 %	4256150	3859040	90,7 %
Individual farms	number	588500	523130	88,9 %	4237890	3828340	90,3 %
Agricultural units	number	3020	5330	176,5%	18260	30700	168,1%
Individual farms	%	99,5	99,0	0,5 pp	99,6	99,2	-0,4 pp
Agricultural units	%	0,5	1,0	-0,5 pp	0,4	0,8	0,4 pp
Under 2 ha	%	59,2	63,5	4,3 pp	63,9	70,8	6,9 pp
2-4,9 ha	%	27,5	25,1	-2,4 pp	23,8	18,8	-5,0 pp
5-9,9 ha	%	8,8	7,3	-1,5 pp	6,8	4,7	-2,1 pp
10-19,9 ha	%	2,3	1,5	-0,8 pp	1,5	1,1	-0,4 pp
20-29,9 ha	%	0,3	0,3	0,0 pp	0,2	0,3	0,1 pp
30-49,9ha	%	0,1	0,2	0,1 pp	0,1	0,2	0,1 pp
50-99,9 ha	%	0,1	0,2	0,1 pp	0,1	0,2	0,1 pp
Over 100 ha	%	0,2	0,3	0,1 pp	0,2	0,4	0,2 pp
UAA per farm types							
Utilized agricultural / farm - total	ha/holding	3,28	3,42	104,3 %	3,27	3,45	1,06 %
Utilized agricultural / Individual farms	ha/holding	2,44	2,26	92,8 %	2,15	1,95	0,91 %
Utilized agricultural/ Agricultural units	ha/holding	168,28	117,41	69,8 %	263,13	190,77	72,5 %
Specific indicators							
The structure of agricultural production							
The value of crop production	%	62.1	63.5	1.4 pp	61.9	70.8	8.9 pp
Agricultural Services	%	0.5	0.3	-0.3 pp	0,9	0,7	-0.2 pp
Dynamics of the main crops cultivated farmland							
Acreage	ha	798329	725261	90,8 %	7883954	8081613	102,5 %
Cereals for grain	ha	490033	441771	90,2 %	5114415	5224729	102,2 %
Wheat	ha	142679	120130	84,2 %	2012565	1947008	96,7 %
Maize	ha	251281	239673	95,4 %	2520098	2589667	102,8 %
Structure of the main crops cultivated							
Cereals for grain	%	61,4	60,9	-0,5 pp	64,9	64,6	-0,2 pp
Wheat	%	17,9	16,6	-1,3 pp	25,5	24,1	-1,4 pp
Maize	%	31,5	33,0	1,6 pp	32,0	32,0	0,1 pp
Dynamics of average crop yields							
Cereals for grain	kilo/ha	3138	3831	122,1 %	3081	3989	129,5 %
Wheat	kilo/ha	2775	3620	130,5 %	2746	3663	133,4 %
Maize	kilo/ha	3762	4425	117,6 %	3565	4525	126,9 %
The dynamics of purchase prices of agricultural products							
Wheat	Ron/kilo	0,25	0,74	295,8 %	0,25	0,69	276,9 %
Maize	Ron/kilo	0,36	0,67	185,8 %	0,36	0,62	172,7 %

Source: based on INS data, available online at www.insse.ro [2]

RESEARCH RESULTS

The agricultural character of the region is mostly vegetal, about 64% of agricultural production being provided by that sector. However, agricultural services, which should be a real support for agricultural development in the region, were low and declining.

A negative aspect of the evolution of agriculture is drafted by the high share of intermediate consumption in the production value, that shows on the one hand a dependency of agriculture on the products within this sector and on the other hand a high dynamic of input prices.

Also another negative aspect is the increasing share of fallow land, their share in the arable surface increasing 7.7 percentage points.

In terms of the evolution of agricultural structures, comparative analysis reveals the following:

✓ **positive implications**

- ✚ The dynamics of the agricultural units (farms with legal entity) has exceeded the national average growth rate, reaching out to more than 17% of the total holdings of this kind in Romania in 2011;
- ✚ Structural changes of farms in the region are lower than those recorded in the country, the increase in structure of holdings under 2 ha being only 4.3 percentage points, compared with 6.9 percentage points at the country level;
- ✚ Structural changes of cultivated area, on crops, reveal that there are no major changes, but we notice an increase in certain surfaces;
- ✚ Increasing production, given the decrease of cultivated areas, has taken place amid the improvement of yields per hectare in all cultures;

✓ **negative implications**

- ✚ Agricultural area used per holding has exceeded in dynamic the changes to national level, but, nevertheless, the average size of agricultural enterprises has decreased by almost 30%;
- ✚ On the background of increasing of fallow areas, cultivated area decreased both in total and on individual crops. Moreover, without a real and direct support, these areas have decreased to the level of the whole country, but to a much lesser extent;
- ✚ Purchase price trends in the region demonstrate that prices were higher than those charged on the whole country.

Positive aspects identified at the level of agriculture development:

- ✚ Agricultural holdings' dynamics has exceeded the national average growth;
- ✚ Structural changes of farms in the region are lower than those recorded at a national level, especially for holdings under 2 ha, with a share of only 4.3 percentage points, compared with 6.9 percentage points at the national level;
- ✚ Increasing production, given the decrease in cultivated areas, has taken place amid the improvement of yields per hectare in all cultures.

Negative aspects identified at the level of agricultural development:

- ✚ the average size of agricultural units has decreased by almost 30%;
- ✚ On the background of increased fallow areas, cultivated area decreased both in total and on individual crops, especially those with potatoes, vegetables, vineyards and bearing orchards;

- ✚ Purchase price trends in the region demonstrate that prices were higher than those charged on the whole country.
- ✚ The high share of intermediate consumption in the production value, which shows on the one hand a dependency of agriculture products within this sector and on the other hand a high dynamic of input prices.

In conclusion, in the post-accession period, Northwest region was subjected to the pressure of rising prices, with a direct affect on the production value dynamics, gross value added and gross domestic product.

CONCLUSIONS

As regards the financing of agriculture in Northwest region, we notice the following:

- The impact of SAPS granting was not the one expected, the granting of such payments, at the set amount, not encouraging the process of farms restructuring or land agglomeration;
- Direct payments have had a higher impact on restructuring the production sector in the counties of Bihor, Satu Mare and Bistrița-Năsăud and have no positive implications in Sălaj and Cluj counties;
- The quite low number of projects submitted within the PNDR measures allows us to consider the impact of these measures will be insignificant for the economy of the region;
- For projects under Measure 123 we expect that their implementation can have an impact on gross value added in agriculture;
- Concerning projects under Measure 313 it is observed that pensions which will be established at the regional level are rural and not destined to agritourism, hence no direct impact on the agricultural sector, but merely a possible indirect impact by a potential increasing of the sales of agricultural products;
- The situation of payments from PNDR for the contracted amounts outlines that the Northwest region is below the degree of use registered at the national level on most measures.

As regards the impact of subsidy system on the performance of agricultural producers, we noticed the following:

- Overall, subsidies did not have a direct impact on the performance of agricultural holdings in the Northwest region;
- Performance of holdings, although improved by the granting of subsidies, it is more deeply influenced by the conjectural evolution of the input prices and agricultural products from the market;
- Holdings specialized in field crops are much more relying on ensuring performance of the subsidization system than other types of holdings.

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