IMPLICATIONS OF COMMON AGRICULTURAL POLICY ON THE GEOGRAPHY OF THE ROMANIAN AGRICULTURE

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Abstract. This paper focuses on the changes in regional specialization and geographic concentration of economic activities, which occurred in Romania from 1995 to 2009. The study mainly highlights the evolution of agriculture, as economic activity. The evolution of regional specialization and geographic concentration of agriculture is studied in correlation with the gradual implementation of the Common Agricultural Policy and the Romanian agriculture integration process in the European market. The statistical indicator used within the empirical study is the Herfindahl- Hirschman Index. The results of the study reveal that the transformations that occurred at the Romanian economy level in the pre-accession and post-accession process led to minor changes in specialization of agriculture. The concentration of agriculture and its sub-activities was not affected.
1. Introduction
The transformation involved by the integration in the Common Market efforts made by the new European Union member states (MS) generated modifications of their regional specialization and geographic concentration in certain activities. According to the opinions formulated by Baldwin and Wyplosz (2006), two major approaches connect the economic integration with the changes occurred in the geographic location of economic activities. The first one is the comparative advantage, which suggests that nations become more specialized in sectors in which they have a comparative advantage. The second one is represented by the new Economic Geography, which postulates that integration tends to spatially concentrate the economic activities.

Analyzing the main theories of specialization, two opposite approaches can be identified. The promoters of the economic integration theory predict that regional specialization generated by integration has a positive influence on regions development (Helpman and Krugman, 1985; Hitiris, 1998). Baldwin and Wyplosz (2006) suggest that these gains stem from comparative advantages, increased international competition and efficient exploitation of economies. For agricultural activities, integration in competitive markets should lead to regional specialization and product concentration within homogeneous regions. Some critics addressed to the Common Agricultural Policy suggest that the integration policy introduces a market distortion that biases producers against product concentration within the development regions, due to the price and guaranteed income provided by the Common Market.

The aim of the research is to analyze the evolution of regional specialization and geographic concentration of agriculture in a new European Union member state. The influence of the accession process over the specialization of regions was emphasized by Marely (2006) in a study conducted at EU level. The hypothesis formulated by Traistaru et al. (2002) about whether industries may demonstrate a different pattern of regional localization, or alternatively, whether specific regions are able to attract new industries shall be checked for the particular case of agriculture and its sub-activities at the Romanian development regions level. The development of agriculture could attract and reshape other industries in the region, especially the food industry (Musso, Risso and Francioni, 2011).
The efforts made by Romania in order to meet the accession requirements, together with the significant logistic and financial support provided, allowed Romania’s accession to the European Union on January 1st, 2007. The changes that had occurred in agriculture during the pre-accession period were marked by restoring the right to land ownership, which had as first consequence the destructuring of farms. When land was returned to its former owners, numerous small-sized family farms were created that brought in a low yield, especially for self-consumption. Pre-accession negotiations influenced Romanian agriculture evolution through the support of small, yet numerous individual farms. Thus, the stage for commercial farms development was created and the revitalizing of domestic markets for food products had begun based mainly on the principle of product development pathway.

Moreover, the efforts and effects of Romania’s pre-accession period are still visible in the field of agriculture and rural development: first of all, the compatibility of the Romanian legal framework with the *acquis communautaire* on the Common Agricultural Policy (CAP), then the changes undergone by the institutional system in order to meet the requirements of the European Community. Thus, farming and rural development encompassed in a coherent concept, which is structured on seven-year stages in a single system based on the CAP strategic principles, but at the same time taking into account the specificity of the Romanian rural space, creates the premises for unprecedented allocation of funds in Romania’s agricultural history, both from internal sources and European funds. Concerning the following cycles of European funding, i.e. 2014-2020, and 2021-2027, the Romanian agriculture is expected to be fully integrated in the common agricultural structures.

2. Methodology

The present paper aims to accomplish a brief analysis of the main changes that Romanian agriculture has undergone over the analyzed period, in order to align to the Common Agricultural Policy objectives, as well as the financial instruments through which the European Union has supported the Romanian agriculture, distinguishing between the pre-accession and post-accession funding programmes. The first part of the research is dedicated to the presentation of the most important phases that Romania had gone through, in order to become a Member State.
Specialization, along with concentration, could be evaluated using absolute and relative measures. Following the review of the empirical studies, the statistical analyses are based on Herfindahl-Hirschman Index, the Krugman Dissimilarity Index and Gini Index (Goschin et al., 2009; Traistaru, 2002). The statistical measure used within the empirical study is Herfindahl-Hirschman Index, which is the most commonly used indicator in regional studies. It ensures an absolute measure of the above mentioned aspects, in connection with the regional framework. If the indicator is equal to zero, then the economic activity is evenly distributed across regions. If it is equal to one, then the economic activity is completely localized in one region.

\[ H^C_j = \sum_{i=1}^{n} (g^C_{ij})^2 \quad \text{and} \quad H^S_j = \sum_{j=1}^{m} (g^S_{ij})^2 \]

where:

\[ g^C_{ij} = \frac{X_{ij}}{\sum_{i=1}^{n} X_{ij}} = \frac{X_{ij}}{X_j} \quad \text{and} \quad g^S_{ij} = \frac{X_{ij}}{\sum_{j=1}^{m} X_{ij}} = \frac{X_{ij}}{X_i} \]

For the overall economy of Romania, \( i \) represents the region and \( j \) represents the economic activity, \( X_{ij} \) represents the employment in the economic activity \( j \) in region \( i \), while \( X_j \) represents the employment in the economic activity \( j \) and \( X_i \) represents the employment in region \( i \). The indicator \( g^C_{ij} \) represents the share of region \( i \) in the total national value of the economic activity \( j \), while the indicator \( g^S_{ij} \) represents the share of the economic activity \( j \) in the total value of region \( i \).

Herfindahl-Hirschman Index is computed by processing the statistical information regarding the employment of the population, on economic activities and sub-activities and localization elements. The scope and the analytical character of the study are determined by the data supplied by the Romanian National Statistics Institute and the purpose of the paper.

The level of thoroughness of regional specialization was set depending on the degree of disaggregation of statistical data, for ten economic activities, as follows: Agriculture, hunting, forestry and fishing, Industry, Constructions, Commerce, Transports, storage and communications, Real estate transactions, Financial intermediations and other services, Public administration and defence, Teaching, health and social assistance and Other activities of the national economy. For Agriculture, hunting, forestry and fishing, the study goes further on Agriculture, Forestry, forest
exploitation and hunting economy, and Fishing and fisheries. Data was supplied for all eight Romanian regions.

The comparison of the results recorded in Romania with those recorded in other European countries, could not be very conclusive, because the available empirical studies focused on location of industrial activities and regional transformation are individual country reports, issued by the accession countries or they are based on different system of indexes, geographical structures or economic activities (Mora and Carlos San-Juan, 2001). Also, Herfindahl Index is suitable only for direct comparisons between countries that have the same number of regions (Goschin et al., 2009).

3. The most important phases of the accession to the European Union that impacted the evolution of the Romanian agriculture

As a result of the preliminary discussions from December 1991, which took place in Bucharest on Romania’s application to become a full member of the European Community, the Agreement of Romania’s Association to the European Union was signed. The negotiations held between May and November 1992 were completed by signing the Europe Agreement, which records the association between Romania and the European Community and its Member States. This agreement entered into force on February 1st, 1993, for a 10 years transition period, during which Romania and the European Community established a free trade area based on mutual and balanced obligations in accordance with the provisions of this Agreement and in compliance with the General Agreement on Tariffs and Trade (GATT-WTO).

Due to the slow economic and administrative progresses, the beginning of the accession negotiations was postponed for February 27, 1995. The National Strategy for preparing Romania's EU accession was the result of collaboration between institutions and parties working groups and was signed by the representatives of all parliamentary political parties. Under these circumstances, on June 22, 1995, Romania submitted formal application for EU membership and the European Council in Cannes approved the White Book on preparing the associated countries of Central and Eastern Europe for integration into the EU internal market in May 1995. The appendix of this political document includes a schedule of meeting the requirements of the Single Market, schedule which is recommended to the candidate countries.
The accession negotiations were launched after the Intergovernmental Conference in 1996. In December 1996, at Dublin, the European Council adopted a new strategy for Central and Eastern European candidate countries, according to which all candidate countries were recommended to make better use of the existing instruments: European Agreements, structured dialogue and PHARE (Vataman and David, 2008).

The European Commission’s Agenda 2000 published in July 1997 consisted of three main parts: the future of EU policies, EU enlargement and the EU financial perspectives for 2000-2006. The document included the Commission’s views developed on the basis of the Copenhagen accession criteria, regarding the applications for membership submitted by Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia. Among the criteria that candidate countries had to meet to become members of the EU, was the one concerning the assuming of the EU membership obligations, including accession to the political, economic and monetary union objectives.

In June 1999 Romania submitted the first National Programme for EU accession. Romania’s negotiations for accession were officially launched on February 15, 2000 in Brussels during the European Union Intergovernmental Conference. In April 2005 the European Parliament gave its assent to Romania. The signing of the Accession Treaty was scheduled for April 25, 2005.

Romania fully accepted the *acquis communautaire* on Chapter 7: Agriculture in force on December 31, 2000, and intended to implement this acquis beginning with its accession to the European Union, with the exceptions listed in the position paper. During the accession lengthy discussions, could be concluded that negotiations on Chapter 7: Agriculture had been conducted in a difficult context. The negotiations started in 2002, and after two years, they were temporarily ceased, six months before Romania received the assent of the European Parliament to join the European Union. This aspect was determined by the complexity of the Romanian agrarian problems, generated by the significant agricultural resources, labour surplus and lack of performance in rural economy and low level of rural development. On all these aspects, the poverty poles and non-involvement in environmental protection were overlapping. All these issues had been subject of intense negotiations between Romanian and EU experts. For the 2007-2013 horizon, EU strategic guidelines focused on rural development, improving agriculture and forestry competitiveness,
environmental and rural areas improvement and improve the quality of life in rural areas and diversification of rural economy.

The most important stages that can be identified in the accession process in order to establish certain correlations with the changes occurring in the geographical location of agriculture and also of its sub-activities, as it follows:

- 1995: submission of application to become European Union Member State (MS);
- 2000: beginning of the previous programming period;
- 2004: closing negotiations with the European Union;
- 2007: beginning of the new programming period;
- 2009: last year for which statistical data are available.

4. Consequences of Romania’s accession to the Common Agricultural Policy
At the beginning of the first decade of the 21st century, the European Union undertook the most important reform in the Common Agricultural Policy (CAP) history. Thus, according to it, certain payments that sometimes encouraged overproduction were replaced by payments that stimulate farmers to produce according to consumer needs and requirements, through extending to various products such as wine, fruits, vegetables, bananas, corn and sugar. Another challenge that the CAP had to cope with was the enlargement of European Union as a result of the accession of other countries. After the last two expansion waves, in 2004 and 2007, the number of the farmers in the European Union increased. The new MS farmers and processing firms benefited from funds for modernization. They received a financial allocation tailored to their needs, for early retirement, deprived areas, environmental protection, reforestation, semi-subsistence farms, producer groups and compliance with the rules on food items, hygiene and animal welfare.

On the other hand, in base of the Law no. 18/1991, further supplemented by the Law no. 1/2000, the restructuring of land ownership continued in Romania. As a result, almost all agricultural land was returned to its former owners and more than 4 million homeowners and approx. 40 million agricultural parcels were created. Moreover, the storage units, grains and oil seeds and the whole chain of processing, transport and marketing system became private properties.
Certain principles of the Common Agricultural Policy had to be implemented gradually in order to allow an adjustment period. Due to the liberalization of the internal trade in agricultural products, Romania faced difficulties generated by competition, both on the domestic and global markets. In order to apply the horizontal measures resulted from the Position Paper on agriculture, Romania accepted the *acquis communautaire* on the European Agricultural Guidance and Guarantee Fund (EAGGF) and did not require any transitional arrangements. Full implementation of the institutional and legislative requirements on EAGGF specific community legislation had been ensured by 2007.

5. Financing instruments for Romanian agriculture during the pre-accession and accession periods

Most part of the European Union budget was allocated to support the CAP. This fund receives money from all Member States and the expenses were intended to support agriculture in various EU countries, taking into account their specific needs. Funding for the CAP adoption was accomplished through the European Agricultural Guidance and Guarantee Fund (EAGGF) until 2007. This fund was a materialization of the financial solidarity principle on which the CAP was based. EAGGF was made of two sections: the Guarantee Section, that financed the common market organizations and rural development measures and the Guidance Section, which financed rural development measures included in the Regional Policies (Ciupagea, 2004). The structural reform process of the Romanian economy that had been initiated in pre-accession period was assisted by the European Union through various pre-accession instruments like PHARE, ISPA and SAPARD (Special Pre-Accession Programme for Agriculture and Rural Development). Financial resources allocated between 2000 and 2006 included 1,159 million euro from the European Union budget, to which the national co-financing (351 million euro) and the private financing (644.7 million euro) were added. Thus, on average 300 million euro were annually allocated (Giurca et al., 2006).

Romania's accession to the European Union required, besides other significant changes, the implementation of the CAP, including the assimilation of a new funding mechanism from budget funds for agriculture and rural development. According to the provisions contained by Chapter 7 - Agriculture, the accession agreement negotiated by Romania with the EU, this country had the possibility to specify its options concerning the mechanism for allocating budgetary resources from the EU and supplementing them with financial resources from the national budget. Since 2007 the National Rural Development Programme (NRDP) has become the instrument of adjusting
Romanian agriculture in order to meet the EU requirements by 2013. This programme was meant to be a continuation of the SAPARD programme.

Once the EU enlargement headed to the East, a reform of structural funds emerged, including the funds intended for agriculture, leading to the abolition of the EAGGF Guidance section and the establishment of two more funds for agriculture i.e. the European Agricultural Guarantee Fund (EAGF) and European Agricultural Fund for Rural Development (EAFRD). The first pillar of the CAP, funded by the European Agricultural Guarantee Fund (EAGF) is the basis of direct payments and market measures. It is complementary to the second pillar of the CAP, financed by the EAFRD, which was intended equally both for rural development and environmental improvement. The actions implemented by the two pillars of the CAP are closely linked and complement each other.

Between 2007 and 2009 the financial support allocated by the European Union to the new Member States, from the community budget for the CAP implementation exceeded 4 billion euro. The amounts were allocated as follows:

- the financial support for direct payments worked out at 881 million euro, used to financially support products or sectors for which quotas, surfaces of reference or national ceilings were set and did not require co-funding from the national budgets;
- the amount of 732 million euro was proposed for market measures without national co-funding;
- the amount of 2,242 million euro, corresponding to the support of rural development policy to which Romania had to contribute its own co-funding amount working out at approx 606 million euro.

Regarding the annual contribution allocated to Romania through the EAFRD Programme between 2007 and 2009, the amounts are summarized in Table 1.

<table>
<thead>
<tr>
<th>Funding type (thousands of euro)</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total amount financed by EAFRD</td>
<td>0.000</td>
<td>1,146,687.683</td>
<td>1,442,871.530</td>
</tr>
<tr>
<td>Regions of convergence</td>
<td>0.000</td>
<td>1,146,687.683</td>
<td>1,442,871.530</td>
</tr>
<tr>
<td>Amounts that result from the voluntary</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>
6. The regional specialization and geographic concentration of the Romanian Agriculture

For all analyzed moments, the Bucharest - Ilfov Development Region, which is the most developed region in Romania, shows the lowest degree of specialization, followed by the West Development Region, which is the second developed region of the country. These facts verify the theory that postulates that developed regions equalize the structure of their economic activities, conducting to a low degree of specialization.

Analyzing the values registered by Herfindahl-Hirschman Index from 1995 to 2009, presented in Table 2, it is clear that the values have a fluctuant evolution.

In 2000, after five years since Romania officially expressed its intention of joining the European Union, the increase in the specialization level became obvious. The only exceptions were Bucharest - Ilfov Development Region and Center Development Region, which had an ascending trend. In the period 2000 – 2007, when Romania made a lot of transformations in order to align to the European Union acquis, a descending trend of the specialization was registered. After 2007, the decreasing pace of the specialization slowed down. Moreover, two of the evaluated development regions went in the opposite direction. Therefore, it is a fact that, after the integration, certain economic activities showed a greater development potential and the tendency of all the regions was to focus on them, leading to the strengthening of specialization.

Table 2. Statistical measures of specialization computed at NUTS2 level using employment data by Herfindahl-Hirschman Index

<table>
<thead>
<tr>
<th>Year</th>
<th>1995</th>
<th>2000</th>
<th>2004</th>
<th>2007</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>North-West Region</td>
<td>0.24339</td>
<td>0.27701</td>
<td>0.21810</td>
<td>0.19138</td>
<td>0.18786</td>
</tr>
<tr>
<td>Center Region</td>
<td>0.24017</td>
<td>0.23185</td>
<td>0.19776</td>
<td>0.17968</td>
<td>0.17287</td>
</tr>
<tr>
<td>North-East Region</td>
<td>0.26496</td>
<td>0.31374</td>
<td>0.24645</td>
<td>0.22020</td>
<td>0.22369</td>
</tr>
<tr>
<td>South-East Region</td>
<td>0.22505</td>
<td>0.26202</td>
<td>0.20322</td>
<td>0.18232</td>
<td>0.18180</td>
</tr>
<tr>
<td>South-Muntenia Region</td>
<td>0.26013</td>
<td>0.30143</td>
<td>0.23999</td>
<td>0.21220</td>
<td>0.21200</td>
</tr>
<tr>
<td>Bucharest - Ilfov Region</td>
<td>0.17007</td>
<td>0.14872</td>
<td>0.14191</td>
<td>0.14273</td>
<td>0.14111</td>
</tr>
<tr>
<td>South-West Oltenia Region</td>
<td>0.26497</td>
<td>0.31369</td>
<td>0.24761</td>
<td>0.21750</td>
<td>0.22022</td>
</tr>
</tbody>
</table>
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| West Region | 0.20982 | 0.22448 | 0.19277 | 0.17979 | 0.17549 |

Note: The indexes are computed for the economic activities identified in NSI statistics

**Figure 1. Specialization of the Romanian development regions**

Because the previous analysis did not provide information about the economic activity in which Romania’s development regions are mostly specialized and about the importance of Agriculture as economic activity at regional level, a more detailed survey was conducted. The specialization of Romanian’s development regions in Agriculture, hunting, forestry and fishing and its sub-activities was analyzed. The values registered by Herfindahl-Hirschman Index in the same period, presented in Table 3, show that the values recorded by Agriculture have a fluctuant trend, following the evolution of the specialization, but with different amplitude, depending by the region. The most obvious increase of the concentration of Agriculture took place in 2000, the year when the specialization had the most significant evolution. The greatest increase of Agriculture as economic activity was registered in those development regions known as having a reduced natural potential, as Bucharest - Ilfov and Center Development Regions. Despite of the political efforts and of the European support in 2004, the specialization of agriculture had the same trend as the rest of the economic activities.
Table 3. Statistical measures of specialization computed at NUTS2 level using employment data by Herfindahl-Hirschman Index

<table>
<thead>
<tr>
<th>Year</th>
<th>1995</th>
<th>2000</th>
<th>2004</th>
<th>2007</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>North-West Region</td>
<td>0.94525</td>
<td>0.97501</td>
<td>0.97304</td>
<td>0.97382</td>
<td>0.97982</td>
</tr>
<tr>
<td>Center Region</td>
<td>0.91656</td>
<td>0.95724</td>
<td>0.94789</td>
<td>0.95412</td>
<td>0.96362</td>
</tr>
<tr>
<td>North-East Region</td>
<td>0.94354</td>
<td>0.96863</td>
<td>0.96233</td>
<td>0.96528</td>
<td>0.96740</td>
</tr>
<tr>
<td>South-East Region</td>
<td>0.95748</td>
<td>0.96920</td>
<td>0.96334</td>
<td>0.97041</td>
<td>0.97753</td>
</tr>
<tr>
<td>South-Muntenia Region</td>
<td>0.97449</td>
<td>0.97827</td>
<td>0.97289</td>
<td>0.97457</td>
<td>0.97809</td>
</tr>
<tr>
<td>Bucharest - Ilfov Region</td>
<td>0.88796</td>
<td>0.98540</td>
<td>0.96553</td>
<td>0.96764</td>
<td>0.96710</td>
</tr>
<tr>
<td>South-West Oltenia Region</td>
<td>0.96719</td>
<td>0.98134</td>
<td>0.97730</td>
<td>0.97919</td>
<td>0.98125</td>
</tr>
<tr>
<td>West Region</td>
<td>0.94038</td>
<td>0.95624</td>
<td>0.95053</td>
<td>0.95164</td>
<td>0.95125</td>
</tr>
</tbody>
</table>

Source: authors’ processing
Note: The indexes are computed for agriculture as economic activity having three distinct branches

Figure 2. Romanian development regions specialization in agriculture
The analysis of the values registered by Herfindahl-Hirschman Index, computed for geographic concentration, during the entire period of the research (Table 4), highlight a fluctuant trend, for most of the period, followed by an evolution of the specialization, but with a more reduced amplitude. The most obvious increase of the concentration of agriculture took place in 2000, the year when specialization registered the most significant evolution. In 2000 and 2004 concentration registered a slow decrease, followed by an increasing at the end of the studied period. From 1995 to 2004, the evolution of the rest of economic activities analyzed within this study mostly follows the evolution of specialization, but not in the same proportions. 2007 is the year when concentration increased, in accordance with the specialization in agriculture trend.

Table 4. Statistical measures of concentration computed at NUTS2 level using employment data by Herfindahl-Hirschman Index

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, hunting, forestry and fishing</td>
<td>0.14712</td>
<td>0.14883</td>
<td>0.14841</td>
<td>0.14838</td>
<td>0.14905</td>
</tr>
<tr>
<td>Industry</td>
<td>0.12921</td>
<td>0.12873</td>
<td>0.12790</td>
<td>0.12806</td>
<td>0.12829</td>
</tr>
<tr>
<td>Constructions</td>
<td>0.13236</td>
<td>0.12975</td>
<td>0.13446</td>
<td>0.14271</td>
<td>0.14295</td>
</tr>
<tr>
<td>Commerce (includes hotels and restaurants)</td>
<td>0.12766</td>
<td>0.12829</td>
<td>0.12990</td>
<td>0.13290</td>
<td>0.13474</td>
</tr>
<tr>
<td>Transports, storage and communications</td>
<td>0.13072</td>
<td>0.13230</td>
<td>0.13783</td>
<td>0.13742</td>
<td>0.15129</td>
</tr>
<tr>
<td>Real estate transactions, Financial intermediations and other services</td>
<td>0.15914</td>
<td>0.16517</td>
<td>0.17033</td>
<td>0.19519</td>
<td>0.21351</td>
</tr>
<tr>
<td>Public administration and defense</td>
<td>0.13014</td>
<td>0.13184</td>
<td>0.13025</td>
<td>0.13231</td>
<td>0.13177</td>
</tr>
<tr>
<td>Teaching</td>
<td>0.12975</td>
<td>0.12935</td>
<td>0.13002</td>
<td>0.12982</td>
<td>0.12934</td>
</tr>
<tr>
<td>Health and social assistance</td>
<td>0.12930</td>
<td>0.12775</td>
<td>0.12741</td>
<td>0.12805</td>
<td>0.12864</td>
</tr>
<tr>
<td>Other activities of the national economy</td>
<td>0.15059</td>
<td>0.14514</td>
<td>0.14655</td>
<td>0.15097</td>
<td>0.15273</td>
</tr>
</tbody>
</table>

Source: authors’ processing
Note: The indexes are computed for the economic activities identified in NSI statistics
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**Figure 3. Concentration of the economic activities for the Romanian development regions**

Analyzing the values registered by Herfindahl-Hirschman Index for concentration, presented in Table 5, it can be noticed that the values recorded by Agriculture and Forestry, forest exploitation and hunting, except Fishing and fishery have the same trend as the economic activity to which they belong. The evolution of the third branch concentration follows the evolution of Agriculture, hunting, forestry and fishing specialization, including the amplitude of evolution, except the value registered in 2009. The great concentration of Fishing and fishery is due to the existence of the fishery potential only in certain regions of Romania.

**Table 5. Statistical measures of concentration computed at NUTS2 level using employment data by Herfindahl-Hirschman Index**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>0.14754</td>
<td>0.14895</td>
<td>0.14857</td>
<td>0.14852</td>
<td>0.14917</td>
</tr>
<tr>
<td>Forestry, forest exploitation and hunting economy</td>
<td>0.15323</td>
<td>0.15732</td>
<td>0.15184</td>
<td>0.15051</td>
<td>0.15515</td>
</tr>
<tr>
<td>Fishing and fishery</td>
<td>0.45784</td>
<td>0.63314</td>
<td>0.41723</td>
<td>0.27148</td>
<td>0.20313</td>
</tr>
</tbody>
</table>

Source: authors’ processing
Note: The indexes are computed for Agriculture as economic activity having three distinct branches
7. Conclusion

The study analyzes the evolution of the specialization of Romania’s development regions and the concentration of agriculture at regional level. The aim is to identify the correlations between these two aspects on the one hand and the evolution of agriculture and the changes occurred within the Romanian agriculture in order to fill the criteria imposed by the European Union for candidate countries and also, with the financial support for Romanian agriculture up to the present moment on the other hand. Agriculture, Forestry, Forest exploitation and Hunting economy and Fishing and Fishery were analyzed as sub-activities included in Agriculture as a whole.

After joining the EU, several significant transformations in the geography of the economic activities took place. The European Agreements requirements from the White Book for the internal market, the structured dialogue and the benefits generated by the implementation of PHARE Programme led to the cease of certain economic activities and to the development of those bringing advantages. The regional evolution of agricultural specialization, starting from 2004, influenced the overall trend illustrated by the ten economic activities included in the research. In the regions with agricultural
potential, agriculture has not shown a significant development, whereas in Bucharest - Ilfov, known as a region with tradition in financial and services activities, agriculture had a great development, influencing specialization at national level. The statement is supported by this evolution of specialization that conducted to the development of the agricultural activities in regions without tradition, causing the almost linear evolution of the concentration of the agricultural activities.

During the period 2000-2007, important events occurred on the route to accession, such as the beginning of the negotiations with the European Union and the temporary closing of the Agriculture chapter. Meantime, the specialization of the Romanian agriculture evolved in one direction. The increase recorded until 2000 was followed by a decrease which lasted until 2007, at the level of the eight regions. All transformations imposed to the Romanian Agriculture brought major changes in the share agriculture holds in the regional economy. The specialization of agriculture, as an economic activity, evolved especially in some certain regions. There are no tendencies of agriculture concentration in the regions with an agricultural potential. However, the evolution of Fishing and fishery displays a tendency of concentration, due to its dependency on natural potential, which is localized in certain geographic areas.

In 2007, when the current programming period began, a new strategic orientation in the rural development emerged. 2007 was also the year of Romania’s accession to the European Union, which marked the beginning of the CAP implementation, including the assimilation of a new mechanism to finance agriculture and rural development, regulated through the National Rural Development Programme (NRDP). In this context, the evolution of regional specialization was slowed down. An explanation for this fact consists in the major transformations occurred immediately after 1990 and also after 2007, when Romania had a stable economy from a structural and geographical distribution of the economic activities perspective. The administrative and financial efforts lead to an obvious specialization and concentration of agriculture at regional level, especially for regions with high agricultural potential. As for the relevance of the conducted research, it must be mentioned that the available data cover a period until the year 2009. Therefore, a part of the effects induced by the accession to the European Union could not revealed, as it takes more than two years to experiment the impacts.
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