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**Working Paper**

## The role of agriculture for overcoming rural poverty in Romania

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# **DISCUSSION PAPER**

**Leibniz Institute of Agricultural Development  
in Central and Eastern Europe**

## **THE ROLE OF AGRICULTURE FOR OVERCOMING RURAL POVERTY IN ROMANIA**

**COSMIN SALASAN, JANA FRITZSCH**

**DISCUSSION PAPER NO. 121  
2009**



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## Abstract

Topical literature sees agriculture's ability to provide food and cash income as a major role in poverty reduction. However, it can only be a driving force for economic development for very poor countries. Economic indicators confirm that Romania is not a very poor country, although poverty has been an issue. During recent years, Romania has progressed successfully in reducing poverty. On the one hand, this can be attributed to its positive overall economic development. On the other hand, agriculture has served as a social safety net for many millions of people. Now the agricultural sector is dominated by subsistent and semi-subsistent farm households headed by persons of retirement age without formal agricultural training. Only 40% of the utilised agricultural area (UAA) is operated from commercial private and corporate farms. Thus, their creating incentives for economic growth are unlikely. While large-scale corporate farms are already integrated in agri-food chains, the upcoming group of commercial private farmers will have to show that it can compete on the agri-food market.

Although agriculture has been contributing to poverty reduction, there are good reasons to believe that future economic development will rather come from outside the agricultural sector and agriculture will continue to play the role of a social safety net.

Strengthening the Romanian agricultural sector calls for concerted policy actions that are targeted to different groups. Fostering land restitution to former owner families, developing a functioning land sales and rental market, and providing access to agricultural product markets could promote the resurgence of a highly productive group of commercial private farmers. Non-farm job creation in rural areas could provide income opportunities for an abundant agricultural labour force. Both new farmers and potential non-farm employees seem to require profession-specific advice and training to become competitive in their transition environment. The large group of pensioners could be convinced to exit the agricultural sector if they could rely on an income from social provisions that covers their daily needs.

## The role of agriculture for overcoming the rural poverty in Romania

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### LIST OF ABBREVIATIONS

AWU	Annual work units
ESU	European Size Units
EU	European Union
FAO	Food and Agriculture Organization
GDP	Gross domestic product
GVA	Gross value added
MDGs	Millennium Development Goals
n.s.	Not specified
NRDP	National Rural Development Programme
NIS	National Institute of Statistics
OECD	Organisation for Economic Co-operation and Development
PPP	Purchasing power parity
PPS	Purchasing power standards
SCARLED	Structural change in agriculture and rural livelihoods
UAA	Utilised agricultural area
UNDP	United Nations Development Programme

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## 1 INTRODUCTION

The role of agriculture in economic development and poverty reduction is a major issue in economic literature. Although it has been controversially discussed for the last 60 years, topical literature agrees that economic development can only be fostered by agricultural growth in least developed countries, while in all other countries agriculture plays an important role in reducing poverty not only in rural areas but also for the urban population.

Poverty itself has been well researched for the less and least developed countries in Africa and Asia, but it first became a research topic for Central and Eastern European countries after transition. While the role of agriculture in poor and wealthy countries is clear, its role in transition countries remains questionable. Transition countries vary with respect to wealth, infrastructure, educational level, and industrial development. While they exhibit some features of developing countries, i.e., income, they may be well developed in other characteristics, i.e., educational level. This requires analysis of the specific situation in each country. This report focuses on Romania, a country in Central and Eastern Europe that in recent years has progressed significantly in poverty reduction.

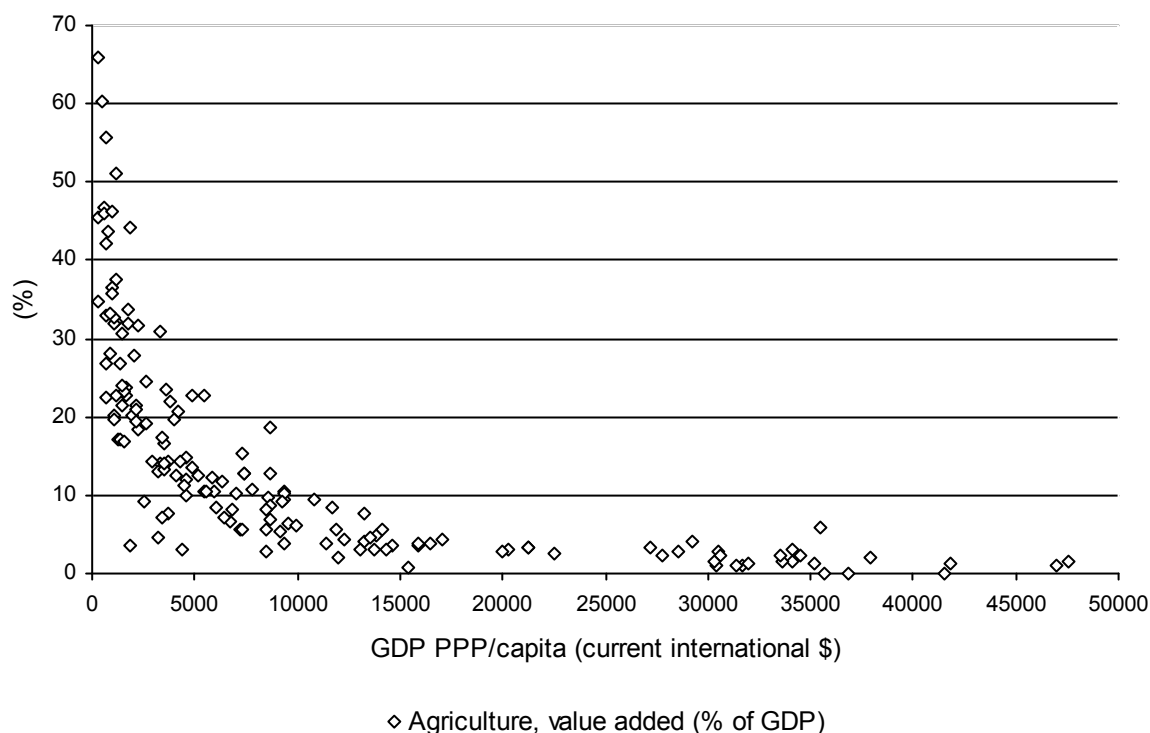
The core objective of this report is to determine the current and prospective contribution of agriculture to economic development in general and to rural poverty reduction in particular. To accomplish this, the report starts with a topical literature review in chapter 2. Chapter 3 analyses the poverty situation in Romania. Romanian economic development and the role of agriculture are described in chapter 4. Chapter 5 provides an overview of the Romanian agricultural sector before its role in fighting rural poverty is addressed in chapter 6. Chapter 7 concludes the report and gives policy recommendations.

Evidence in this report is based on literature research, international and national statistics, and the experiences of the Romanian team of experts.

## 2 ROLE OF AGRICULTURE IN ECONOMIC DEVELOPMENT AND POVERTY REDUCTION: A TOPICAL LITERATURE REVIEW

The role of agriculture in economic development and poverty reduction is a major issue in economic literature. Influential international organisations such as the FAO, The World Bank, and the OECD frequently address this topic (Anriquez and Stamoulis 2007, World Bank 2007, OECD 2006). Indeed, they agree that the significance of the agricultural sector in GDP and employment is a good indicator for economic development and wealth in such a way that the poorest countries have a high share of agriculture in GDP and employment. Empirical data from The World Bank for 2005 provide a vivid impression of this strong relationship (Figure 2.1 and Figure 2.2).

Figure 2.1: Relation between income and importance of agriculture in the economy (figures from 160 countries in 2005)



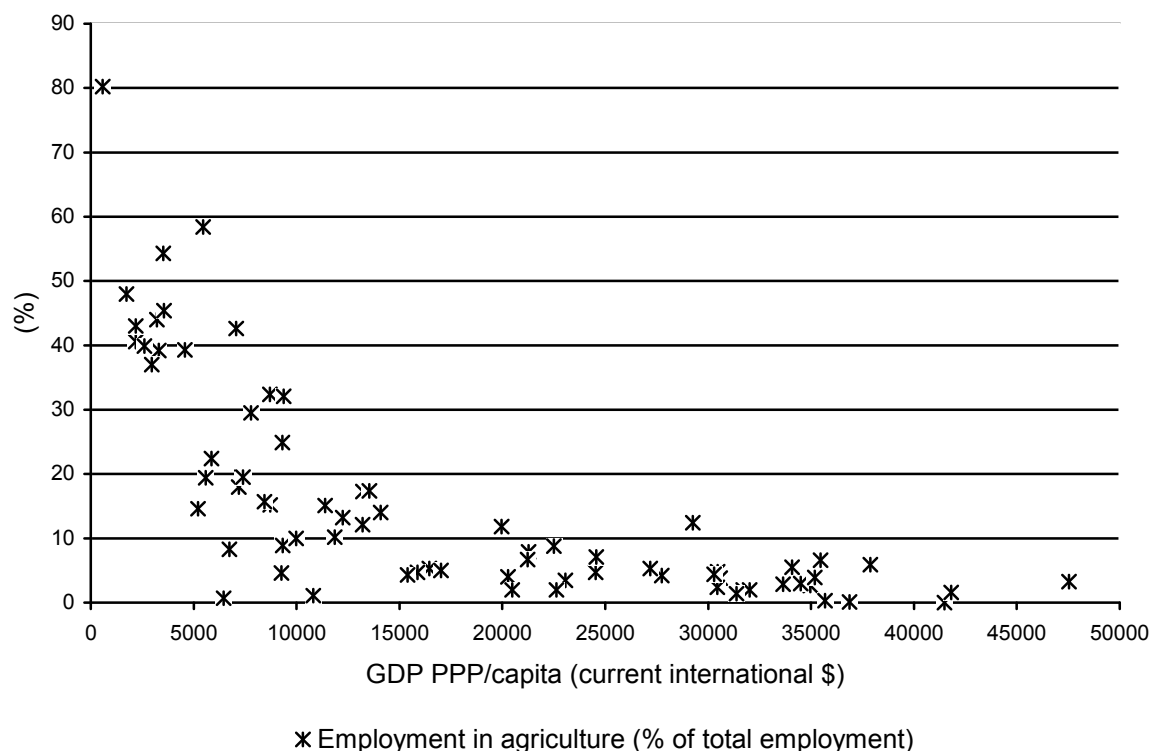
Source: WDI (2008)

Figure 2.1 shows that the importance of agriculture for GDP drops fast below 10% when GDP PPP/capita increases to more than 10,000 current international \$. But the importance of agriculture for employment decreases more slowly. Only when the GDP PPP/capita reaches more than 15,000 current international \$ can a share of agricultural employment in total employment below 10% be expected (Figure 2.2).

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Figure 2.2: Relation between income and significance of agriculture for employment (figures from 76 countries in 2005)



Source: WDI (2008)

But does this mean that agriculture is an impediment to economic development? Anriquez and Stamoulis (2007) reviewed the literature and came to the conclusion that this issue has been controversially discussed for the last 60 years. Lewis (1954) and Johnston and Mellor (1961) are among those who are convinced that dynamic agricultural growth is a precondition for economic development. Prebisch (1951), Singer (1950), Rosenstein-Rodan (1943), and also Hirschman (1958) contradicted this positive view and saw the driving forces for economic development outside of agriculture. However, recent research from Parry (1999), Ocampo and Parra (2003), and Faruqui *et al.* (2003) shows that their prerequisites cannot be generalised or confirmed by time series data. In their research, Anriquez and Stamoulis (2007) come to the conclusion that "a productivity-induced agricultural expansion can 'pull' other sectors [along] with it" (p. 25). Winters *et al.* (1998) showed by means of a computable general equilibrium model the important role of productivity growth in agriculture for economic development. The World Bank also stresses the unique role of agriculture for sustainable development in its annual World Development Report 2008. But agriculture's potential role depends on the current development status of a particular country. For agriculture-based countries, agriculture is essential for economic development but first an increase in productivity of agricultural smallholders has to take place (World Bank 2007). The more developed a country is, the less important agriculture becomes for further development. In developed countries, agriculture is strongly interconnected with up- and downstream sectors, but it is no longer "the backbone of the rural economy" (OECD 2006, p. 39).

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Still, when discussing poverty reduction one should bear in mind much more than the positive role that the agricultural sector has in promoting economic development on the national level. It is certain that technological progress in agriculture also has a positive impact on poverty reduction for the poorest of the poor (Anriquez and Stamoulis 2007, de Janvry and Sadoulet 2002). On the one hand, poorer rural households especially depend more on income from their farms (Davis *et al.* 2007). On the other hand, agriculture serves as a type of "farm-financed social welfare" (World Bank 2007, p. 3) in times of economic crisis for the urban population. In urbanised countries, agriculture could reduce rural poverty when smallholders are given the chance to participate in modern food markets. For countries that are neither agricultural-based nor urbanised, shifting to high-value agriculture, accompanied by measures that enable people to exit the agricultural sector and measures of employment creation in rural areas could address the problem of rural poverty (World Bank 2007).

While most work in the field of poverty reduction centres on less and least developed countries in Africa and Asia, two recent studies (Alam *et al.* 2005, Macours and Swinnen 2008) focus on the specifics in transition economies; they stress the important role that agricultural development still has for poverty reduction in rural areas of transition countries because it is a major source of income and employment.

Despite the overall positive assessment of agricultural growth on poverty reduction in literature, it is economic growth outside agriculture that enhances wealth in most countries. But a highly skewed income distribution may hamper poor people from profiting from economic or even agricultural growth (von Braun 2005). For Romania, the World Bank (2003) found that poorer people gained less than their wealthier counterparts from economic growth between 2000 and 2002.

Two objectives of this report will be to specify what Romania's current development level is and which role agriculture can play in poverty reduction and economic development.

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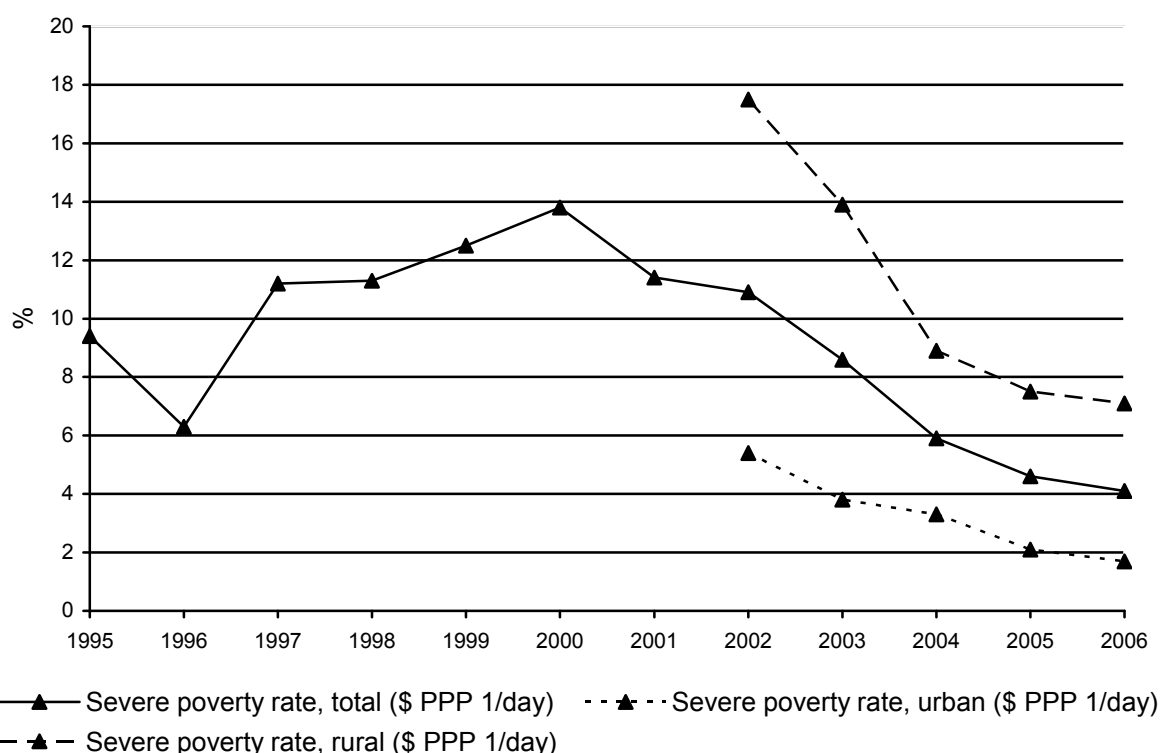
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### 3 POVERTY IN ROMANIA

The literature discusses several indicators for measuring poverty. Absolute measures use a threshold of daily disposable money and compares figures from different countries for longer time periods. Relative measures refer to countries' average incomes and show poverty in relation to a country-specific standard of living. Inequality indices like Gini coefficients show the dispersion of income among the population. Each indicator has its pros and cons (Petrovici and Gorton 2005), therefore representatives from all three groups are used to describe the phenomenon of poverty in Romania.

In September 2000 world leaders agreed upon eight Millennium Development Goals (MDGs) to be achieved by 2015. The first goal is to "eradicate extreme poverty and hunger". In 2003 the first Romanian MDGs Report substantiated this first goal for Romania by working to halve the severe poverty rate<sup>1</sup> by 2009 (Government of Romania 2003). Already by 2008, the United Nations Development Programme (UNDP) in Romania indicated a reduction of severe poverty in Romania for the last five years, from 10.5% in 2002 to 4.1% in 2006 (Figure 3.1).

Figure 3.1: Severe poverty rate in Romania



Source: UNDP Romania (2008)

<sup>1</sup> Severe poverty rate: proportion of population living from less than \$ PPP 1/day (UNDP 2008).

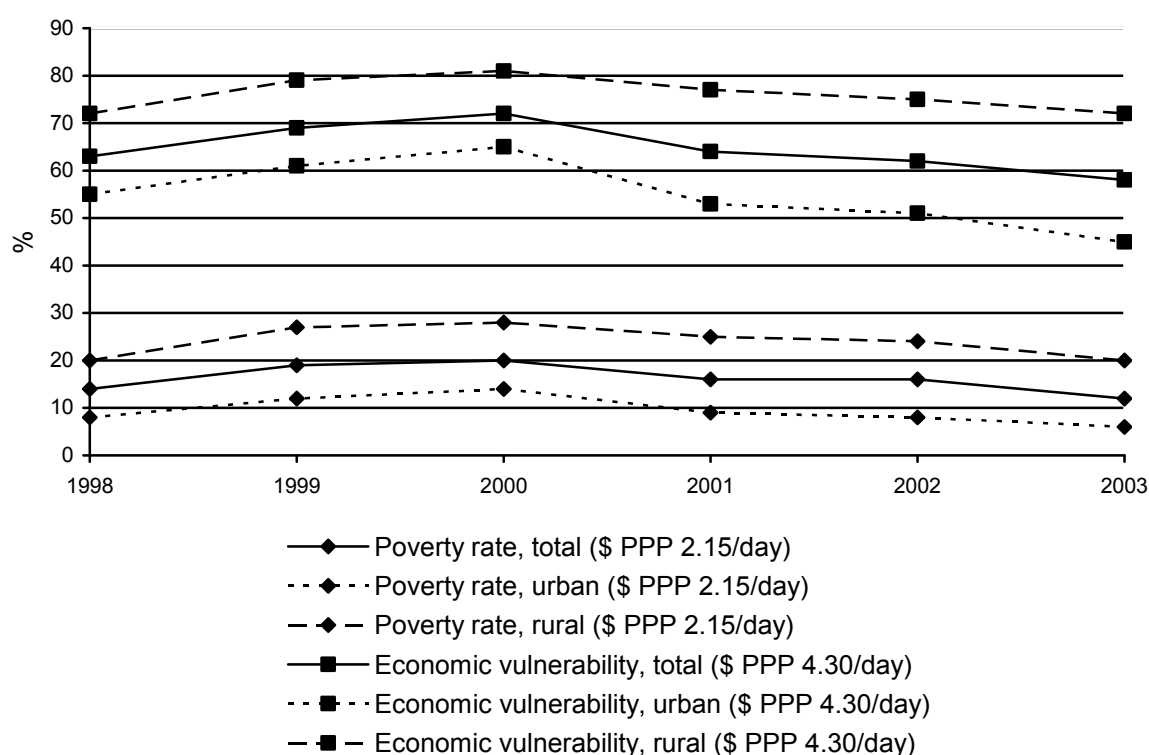
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Though in the same period, severe poverty also decreased in rural areas from 17.5% to 7.1% (Figure 3.1), the discrepancy between rural and urban regions persists.

Alam *et al.* (2005) propose using an absolute poverty line of \$ PPP 2.15 per capita and day because this would better approximate basic needs in regions where climate requires expenditures for heating and warm clothing. In addition, a second line is drawn at \$ PPP 4.30 per capita and day to signify "economic vulnerability"<sup>2</sup>. Both indicators show that Romania greatly progressed in poverty reduction during recent years (Figure 3.2) but the share of economically vulnerable people remains unsatisfactorily high and requires further action.

Figure 3.2: Poverty rate and economic vulnerability in Romania



Source: Alam *et al.* (2005)

The Gini coefficient is still low in Romania and increased only slightly, from 0.27 in 1998 to 0.29 in 2003 (Alam *et al.* 2005). These low coefficients show that although there are only small income differences in Romania, the gap between rich and poor is becoming wider.

<sup>2</sup> According to Alam *et al.* (2005), people who are not absolutely poor but could become poor in cases of economic crises are "economically vulnerable".

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This is also underpinned by the inequality of income distribution index<sup>3</sup>, which stood at 4.5 in 2000 and increased to 5.3 in 2006 (Eurostat 2008a).

As presented in Table 3.1, the at-risk-of-poverty-rate<sup>4</sup> increased by 3% before social transfers (from 21% to 24%) and by 1% after social transfers (from 17% to 18%). The situation is only marginally better for males than for females. When comparing the Romanian figures to that of the Euro area or the EU-25, the Romanian situation appears rather comparable, showing that relative to the median disposable income of the basis region, i.e., EU-25, Euro area, and Romania, respectively, poverty is no worse in Romania than in the EU-25 or the Euro area.

**Table 3.1: At-risk-of-poverty rate (%)**

	Before social transfers						After social transfers					
	Total		Male		Female		Total		Male		Female	
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
EU-25	23	26	22	25	24	27	16	16	15	15	17	17
Euro area	n.s.	24	n.s.	23	n.s.	26	n.s.	15	n.s.	14	n.s.	17
Romania	21	24	21	23	22	24	17	18	17	18	18	18

Source: Eurostat (2008b, p. 224)

These figures may be misleading because they completely neglect that Romanian living conditions are still below EU standards. Therefore, total consumption expenditures are considered to scale these figures. Data from Table 3.2 confirms that the Romanian situation appeared to be far from the European standard at the end of 2005.

**Table 3.2: Total consumption expenditure of households**

	As a proportion of GDP (%)			Per capita (PPS)		
	1995	2000	2005	1995	2000	2005
EU-27	56.8	57.6	57.0	8,300	10,900	12,700
Euro area	56.5	57.0	56.6	9,600	12,300	14,000
Romania	n.s.	69.1	68.5	n.s.	3,400	5,300

Source: Eurostat (2008b)

Moreover, at 44.2%, the share of expenditures for food and non-alcoholic beverages in Romania in 2005 was very high and greatly exceeded the average for the EU-27 (16.9%) (Eurostat 2008a).

Romania has progressed significantly in poverty reduction in recent years. However, it is questionable whether this success could be attributed to agriculture. What is certain is that poverty is still an issue for Romanian society. What role agriculture could play in reducing it further will be discussed in chapter 6.

<sup>3</sup> "Inequality of income distribution: The ratio of total income received by the 20% of the population with the highest income (top quintile) to that received by the 20% of the population with the lowest income (lowest quintile). Income is based on equivalised disposable income." (Eurostat 2008b, p. 534)

<sup>4</sup> "The at-risk-of-poverty rate is defined as the share of persons with an equivalised income that is below the at-risk-of-poverty threshold, set at 60% of the national median disposable income. This rate may be expressed before or after social transfers, with the difference measuring the hypothetical impact of national social transfers in reducing poverty risk. Retirement and survivor's pensions are counted as income before transfers and not as social transfers." (Eurostat 2008b, p. 220)



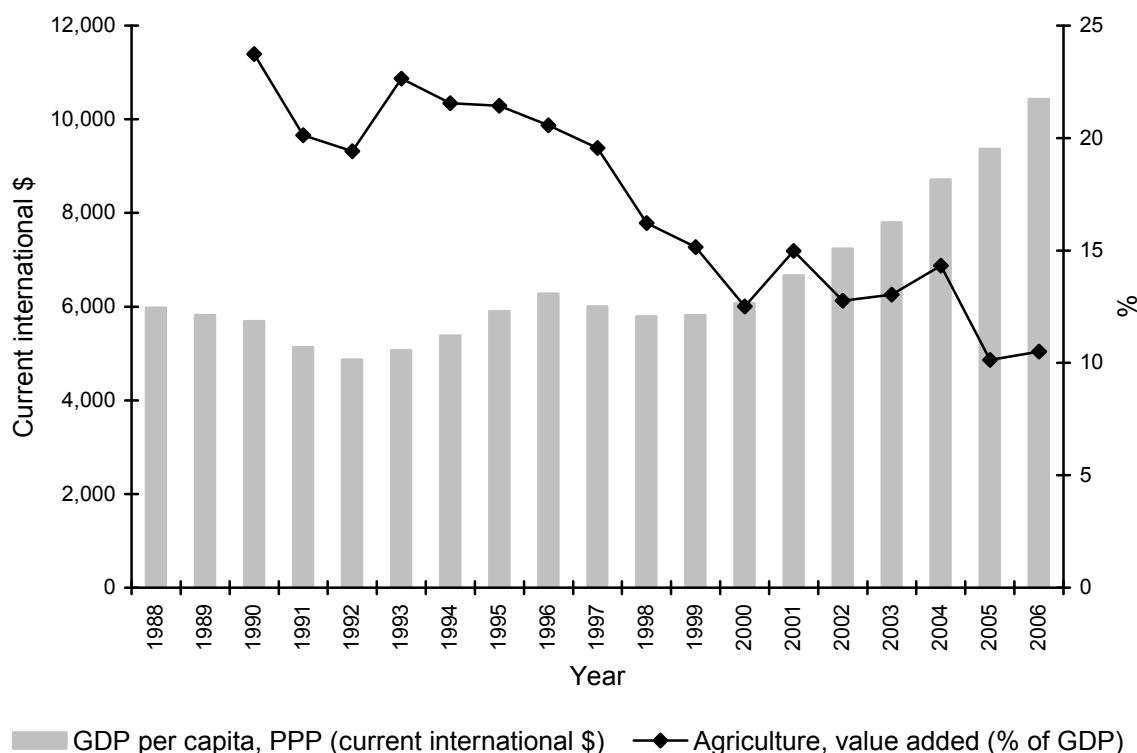
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#### 4 ECONOMIC DEVELOPMENT IN ROMANIA AND THE ROLE OF THE AGRICULTURAL SECTOR

The Romanian economy began its transition process from a quite low level of economic development (Figure 4.1). This may be a reason why it did not face such a sharp slump in economic activities like other transition countries. Nevertheless, the secondary sector and especially those industries that were oriented towards east European markets were severely affected by the loss of their input or product markets. Thus, a significant portion of the labour force was released. During the first ten years of transition, and more particularly during the middle third of this time, most governmental programmes concentrated on easing the social hardships of restructuring. The released labour force was supported by professional re-orientation and the development of entrepreneurial skills. Important resources were absorbed and consumed with no significant results since most of the unemployed faced long-term unemployment. Most of these people returned to their native homes, which in most cases were in rural areas. The already very low developed tertiary sector received very few public incentives and very low public support. During the first six years of economic transition, it was almost impractical to receive credit given the high interest rates combined with the thin capitalisation of economic activities.

Figure 4.1: Share of agriculture in GDP (%) and GDP/capita (PPP) in Romania



Source: WDI (2008)

Agriculture followed the development of the overall economy with a breakdown in the beginning of the 1990s, a recovery period in the mid-1990s, and a second slowdown in the late 1990s. Existing agricultural cooperatives were dismantled and important

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infrastructure, e.g. buildings and irrigation facilities, were abandoned. Simultaneously, the former state agricultural companies, lacking investments, went bankrupt and the privatisation process started far too late to save large former operations. Agricultural research facilities suffered from land restitution, and with no protection as public investments, most of them were liquidated. The national input market for fertilisers, seeds and planting materials, as well as for animal breeding, decreased and imports did not compensate for this. The entire situation increased the pressure on agriculture, causing a negative trade balance for agricultural products. The agricultural sector has been absorbing labour force from the secondary sector against a background of very fragmented land property. This positive migration flow caused even further fragmentation, as for many families farming, regardless of the size and technology employed, was the only available economic activity. Thus, a dominant subsistence and semi-subsistence sector emerged. The slow land restitution process, the legislative environment, the low access to credit, and the relatively sporadic political support in terms of input subsidies and production premiums not only blocked a farm consolidation process, but favoured the persistence of small and non-market-oriented farm holdings. In 2000, Romanian agriculture had its worst year, with US\$ 4,103 million in value added.

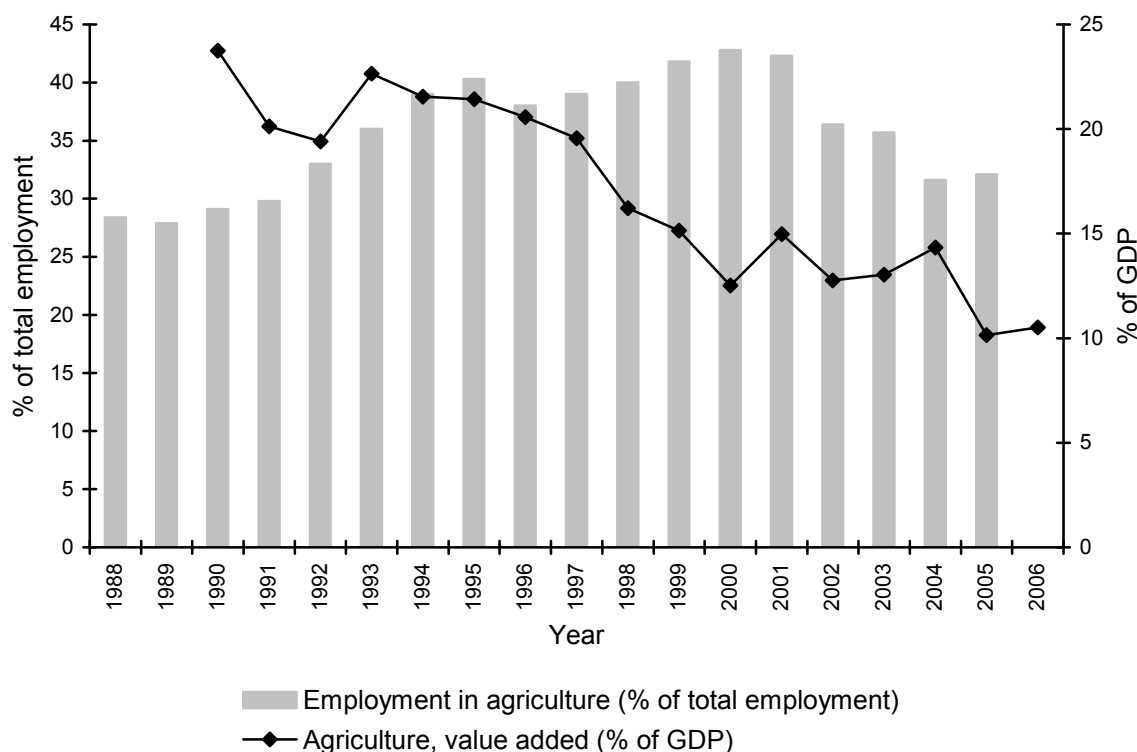
Foreign direct investments were rare and unimportant during the first ten years of transition. Beginning in 2000, when most economic activities and most land were privatised, a more relaxed policy towards foreign direct investments, a relative stabilisation of the national currency, and subsequently a more attractive financial market yielded the expected results and economic growth was more than just a statistical figure. Since then, the Romanian economy has progressed quickly, but nevertheless in 2006 only reached 38% of the EU-27 GDP/capita (own calculation with data from WDI 2008). Romanian agriculture followed this positive development trend and produced US\$ 10,917 million value added in 2006 (WDI 2008).

The importance of the agricultural sector declined the more the overall economy grew (Figure 4.1). According to Figure 2.1, this is concordant with expected development patterns. But comparing the importance of agriculture for employment (Figure 4.2) with expectations from Figure 2.2, it becomes obvious that Romanian agriculture employs significantly more labour than its economic development suggests. Even when keeping in mind that the share of agriculture in employment decreases slower than the share of agriculture in GDP when an economy starts to grow (Anriquez and Stamoulis 2007), the ratio between the shares of agriculture in total employment and in GDP was, with 3.2 in 2005, still very high. This high percentage of labour force that resides in agriculture indicates that agriculture served and still serves as a social buffer.

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Figure 4.2: Share of agriculture in total employment and GDP (%) in Romania



Source: WDI (2008)

Data show that economic development and poverty reduction are strongly correlated in Romania. However, agriculture and the overall economy show the same development pattern and it seems difficult to attribute the country's success in poverty reduction to one of the two. Here, a deeper insight into the Romanian agricultural sector may help to answer the question whether it could be a driving force for poverty reduction and development.

## 5 STRUCTURE OF ROMANIAN AGRICULTURE AND ITS POSITION IN THE RURAL ECONOMY

At the beginning of transition, Romanian agriculture was dominated by large-scale corporate farms. The land reform that was carried out after World War II restricted the amount of privately used land to 5 ha per family (DG Agri 2002)<sup>5</sup>, thereby destroying the social group of private farmers. After the breakdown of the socialist regime, land restitution took place but was characterised by a number of political shortcomings. The legislative framework of land restitution over a fifteen year period comprises a number of laws. The first, Law 18/1991, stipulated that each former owner can reclaim their property up to 10 ha. This was the first step of fragmentation, especially for former properties which were hardly consolidated over the first half of the 20th century. Land restitution took place on an archaic model, splitting the property between the legally-entitled successors. The same law defined that the co-owners, the neighbours, and the state have to be consulted prior to any sale of land property. A State Domain Agency should administer these processes, but it was founded years later, thus delaying the emergence of a liberalised functioning land market. Law 169/1997 completed and amended the land restitution process and Law 1/2000 lifted the upper limit, allowing restitutions up to 50 ha. This caused further problems in the restitution process as the local administration in charge faced severe legal, technical, and administrative difficulties. In fact, the new law practically restarted the land restitution process. Only Law 247/2005 re-established full owner rights over the land property, including agricultural land and forestry properties.

This half-hearted and still incomplete process caused the agricultural sector in 2005 to be characterised by a dual structure, with numerous smallest-scaled farms that own only a small share of land on the one hand, and few large-scale farms that have nearly one-fifth of the utilised agricultural area (UAA<sup>6</sup>) available (Figure 5.1) on the other.

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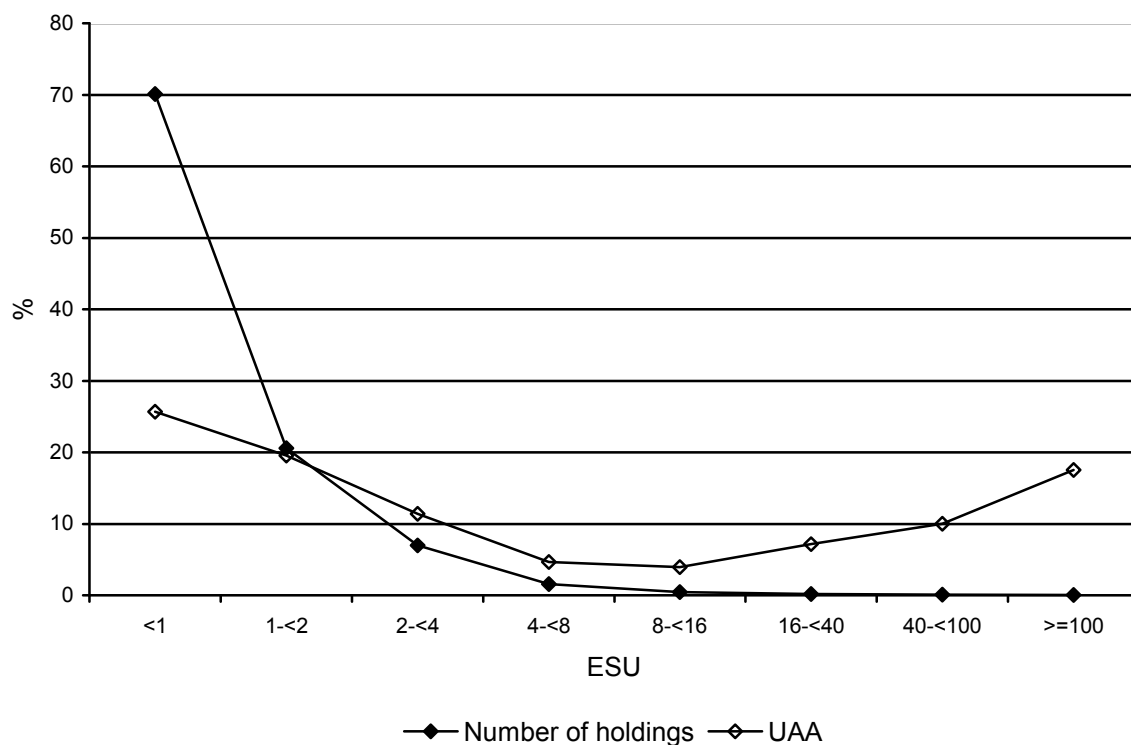
<sup>5</sup> In fact, only 0.15 ha were left for private use.

<sup>6</sup> Utilised agricultural area (UAA): Utilised agricultural area (UAA) is the area utilised for farming, i.e., arable land, permanent pasture, permanent crops, and kitchen gardens (Eurostat 2008b, p. 524).

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Figure 5.1: Percentages of number of agricultural holdings and utilised agricultural area (UAA) in farm size categories (ESU7) in Romania in 2005



Source: Own calculation with data from Eurostat (2008c)

In absolute figures, 3 million farms are smaller than 1 ha and 1,940 farms are larger than 100 ha (Eurostat 2008c).<sup>8</sup> These figures give a vivid picture of an agriculture that is dominated by subsistence and semi-subsistence farm households. These households are not considered to be drivers in economic development but to be safety nets in times of economic crises and in pensions age. This is also underpinned from migration statistics that show that younger people leave rural areas whereas older people go back.

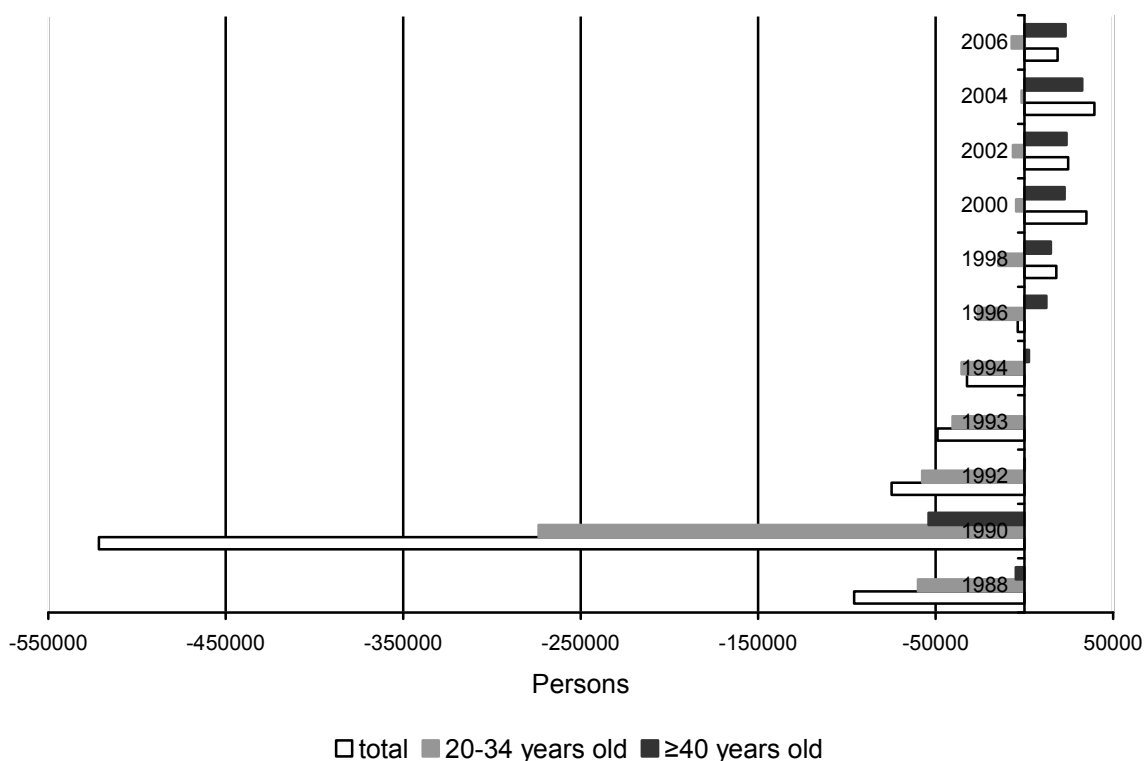
<sup>7</sup> European size unit (ESU): ESU is a measure for economic size of farms in the EU. One ESU equals 1,200 Euro standard gross margins (FADN 2008, p. 5).

<sup>8</sup> Statistically, any person owing land is considered a farmer in Romania. Thus, over 4 million people are counted as farmers while it can be estimated that less than half were doing agricultural work and the others possessing the land only, being too old or living too far away to cultivate it.

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Figure 5.2: Net migration to rural areas in Romania 1988-2006



Note: Net migration=number of persons migrating to rural areas - number of persons leaving rural areas

Sources: NIS (1994), NIS (1997), NIS (2001), NIS (2007)

Total net migration to rural areas was negative prior to 1996; since then it has been positive. For people older than 40, a positive net migration to rural areas started in 1992 and continues, while people from 20 to 34 years old continue to leave rural areas (Figure 5.2). This unusual migration scheme is explained by the collapse of industry, which ignited the migration flow from urban to rural areas. These immigrants can be split into two major categories: active population and pensioners. Pensioners receive only small pensions. Thus, when they have relatives or properties in rural areas, they are attracted by the lower living costs and the opportunity to produce their own food. In the case of the active population, urban unemployment and the incapacity to pay for rent and public services in urban areas fosters immigration to rural areas. Although economic options in rural areas are limited, people may still provide sufficiently for their families. The young and well educated prefer to emigrate due to poor infrastructure and services and limited career opportunities in rural areas.

Notwithstanding the decreasing importance of agriculture in the national economy (chapter 4), it nevertheless remains a major economic activity in many rural regions, with an increasing importance the less economically diversified a region is. Three regions were selected within the SCARLED project as being representative of the different development situations in Romania. Dolj County is less developed and in 2005 had only 76% of the Romanian per capita GDP. Bihor County represents an average development level with 102% of national GDP/capita, while Timis County represents the more developed regions with 138% of national GDP/capita (Eurostat 2008d). In Dolj County, agriculture contributed

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13% to gross value added (GVA) in 2005, but accounted for 49% of employment. In Timis County, the share of agriculture in GVA was 9% and employment was 21%. Bihor County ranges between these two extremes with a share of agriculture of 11% in GVA and 30% in employment (own calculation with data from Eurostat 2008e).

Most of country's agricultural work is done by family labour (Figure 5.3). In 2005, only 9% of the labour force measured in AWU<sup>9</sup> was not family labour; in the same year, small-scale farms (up to 5 ha) accounted for four-fifths of the total agricultural labour force and three-quarters of the family labour force. Considering the number of employed people, the picture becomes even more pronounced. From 8.5 million people employed in Romanian agriculture in 2005, 7.6 million worked in farms smaller than 5 ha, from which only 16,000 people were non-family. The high ratio of employed people in relation to an AWU of 3.3 for all Romanian agriculture, and of 3.6 for farms smaller than 5 ha, indicates that agriculture employs many people for social and not for economic reasons, absorbing the labour that became abundant in the industrial and service sectors during transition. Nevertheless, time series show that labour input has been declining since 2000. In total, 3.6 million AWU were employed in agriculture in 2000, of which 3.4 million were non-salaried. Within seven years, these figures were reduced to 2.2 million AWU, of which 2 million were non-salaried (NIS 2009). Were this more than a statistical effect, it would show that with economic growth, people leave the agricultural sector. Whether this indicates a consolidation of the agricultural sector remains questionable.

For landless or underemployed people seeking additional income, large-scale holdings are important. Nearly 49,000 persons of the non-family labour force were employed in farms larger than 100 ha in 2005. The ratio of employed persons in relation to AWU was 0.9, indicating that large-scale farms do not employ labour for social reasons (own calculations with data from Eurostat 2008f).

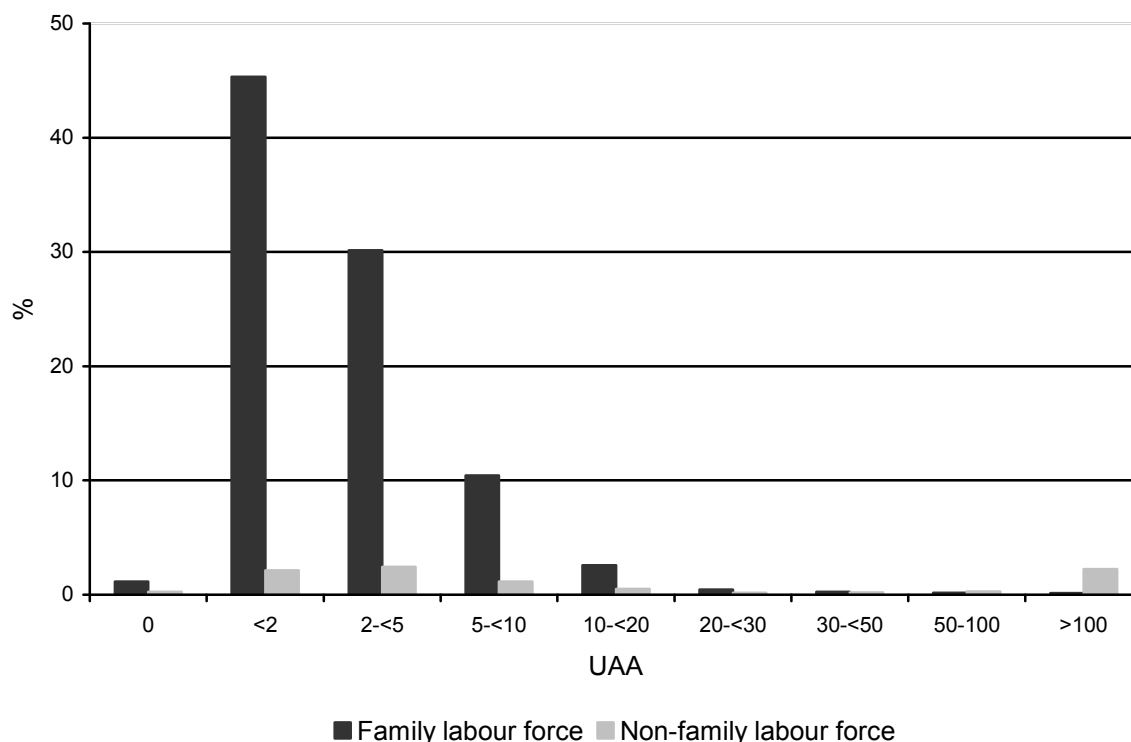
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<sup>9</sup> Annual work unit (AWU): "One annual work unit corresponds to the work performed by one person who is occupied on an agricultural holding on a full-time basis. Full-time means the minimum hours required by the national provisions governing contracts of employment. If these do not indicate the number of hours, then 1,800 hours are taken to be the minimum (225 working days of eight hours each)," (Eurostat 2008b, p. 524). In Romania, 1 AWU equals 1,960 hours (245 working days of eight hours each, NIS 2009).

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Figure 5.3: Annual work units (AWU) by size of farms (UAA) in Romania in 2005



Source: Own calculation with data from Eurostat (2008f)

The age structure in Romanian agriculture brings up two issues. Firstly, most of UAA (54.6%) is operated by farm holders older than 54, and 31% by persons older than 65, while only 17.2% of UAA is managed by persons 44 years old or younger (Eurostat 2008f). Thus, innovation in promising technologies and farm enlargements are hardly to be expected and a change of generations seems overdue. Secondly, the age structure indicates that elderly people, after retiring or losing their employment, begin agricultural work. Since it can be assumed that they do not undertake such a difficult pursuit as agriculture voluntarily, it can be concluded that there are social reasons for this phenomenon. Most pensioners have small pensions, or even no pensions at all, but they have a small agricultural property which can provide significantly for their subsistence needs. Indeed, ownership of this land seems to work as a type of insurance. The employment structure supports this conclusion. While for non-agricultural occupations the share of employed persons decreases sharply for people older than 54, it remains high for agricultural activities (Table 5.1). Again, an impact of regional wealth can be observed. In wealthier regions like the West, which includes the comparably rich Timis County, the share of employment in agriculture decreases more for elderly people. On the other hand, in the South-western Oltenia region, which includes the relatively poor Dolj County, the share of employment in agriculture increases for those older than 54. The average wealthy North-western region, which includes Bihor County, is situated between these two extremes.



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**Table 5.1: Employment structure (% of employed persons) by selected occupation and age group in 2006**

	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	Older than 64 years
<b>Romania</b>						
Total	8.6	27.3	26.0	23.1	10.2	4.9
of which:						
Agriculture, hunting, and forestry	3.1	6.1	5.5	5.6	5.6	4.7
Industry	2.0	6.6	7.9	6.8	1.2	0.0
Other	3.6	14.6	12.6	10.7	3.3	0.2
<b>South-West Oltenia including Dolj County</b>						
Total	7.0	24.5	24.6	22.2	13.0	8.7
of which:						
Agriculture, hunting, and forestry	4.4	8.8	7.5	7.8	9.3	8.5
Industry	0.7	4.8	7.2	6.1	1.3	0.0
Other	1.9	10.9	10.0	8.4	2.4	0.2
<b>North-West including Bihor County</b>						
Total	8.7	27.6	26.5	23.1	9.7	4.4
of which:						
Agriculture, hunting, and forestry	2.7	5.5	5.1	6.0	5.8	4.3
Industry	2.5	7.6	8.9	6.9	1.3	0.0
Other	3.5	14.5	12.5	10.3	2.6	0.1
<b>West including Timis County</b>						
Total	8.4	27.8	27.9	25.0	9.0	1.9
of which:						
Agriculture, hunting, and forestry	1.8	3.3	3.5	4.5	3.9	1.8
Industry	3.2	10.2	10.8	8.7	0.3	0.0
Other	3.4	14.4	13.6	11.9	4.8	0.1

Source: NIS (2007, p. 188-195)

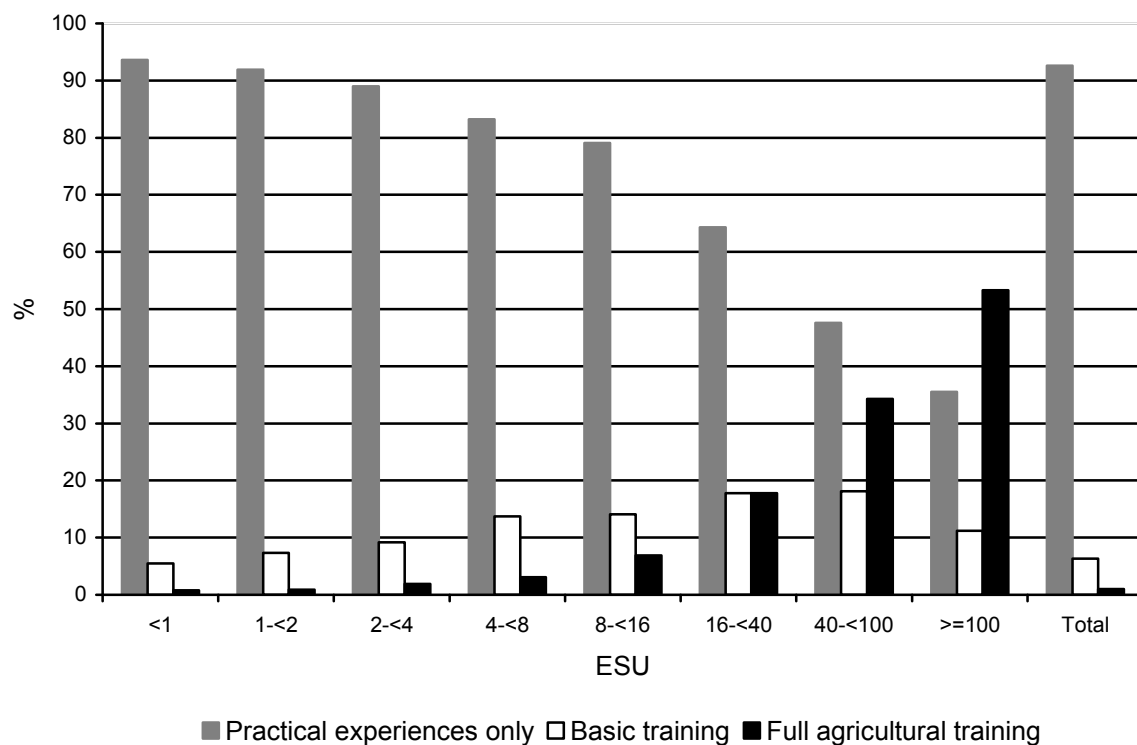
More than 90% of farms are managed by people without any formal agricultural training (Figure 5.4). Even relatively large farms, i.e., farms of 8 to 16 ESU (9,600 to 19,200 Euro standard gross margin) are 80% headed by managers with only practical experiences in farming but no formal agricultural training. Only one percent of farm managers, i.e., 44,500 persons, have received full agricultural training<sup>10</sup>.

<sup>10</sup> Full agricultural training is any training course continuing for the equivalent of at least two years of full-time training. A completed agricultural apprenticeship is regarded as basic training (Council Regulation (EC) 1444/2002).

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Figure 5.4: Agricultural training of farm managers (% of holdings) in farm size categories (ESU) in Romania in 2005



Source: Own calculation with data from Eurostat (2009)

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### 6 AGRICULTURE'S ROLE IN FIGHTING RURAL POVERTY AND IN DRIVING ECONOMIC DEVELOPMENT

Agriculture is important for poverty reduction in both the rural and urban population. The poorer a household is, the more important income from agriculture becomes. Since the majority of farms are subsistent or semi-subsistent, it is not primarily the monetary income that contributes most to household income, but rather the in-kind income from agriculture, i.e., the opportunity to cover a family's food demand from individual household production. Thus, more than half of the household income for the poorest families is in-kind income from agriculture, while this figure is less than 5% for the richest households (Table 6.1).

Table 6.1: Composition of household income (%) by deciles in Romania in 2006

	Decile 1	Decile 2	...	Decile 9	Decile 10
Monetary income	44.5	58.9	...	88.8	92.1
of which:					
Salaries	3.8	14.3	...	67.1	71.1
Agricultural income	9.2	7.9	...	1.6	3.2
Income from social provisions	25.0	27.6	...	14.0	6.9
Equivalent value of consumption of agricultural products from own resources	54.3	39.6	...	7.1	4.1

Source: NIS (2007, p. 238-239)

Inter-regional migration is still positive for rural areas. Mainly elderly and unemployed people return to rural regions and start agricultural work. Table 6.2 shows that in-kind agricultural income is important for pensioners and unemployed people and that the importance of agricultural income increases when the region is less developed. However, trends show that the importance of agricultural income is declining for non-farming households (NIS 2007, p. 236-237).

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Table 6.2: Composition of household income (%) by main household categories in Romania and selected regions in 2006

	Employees	Farmers	Unemployed	Pensioners
<b>Romania</b>				
Monetary income	88.0	56.0	79.3	74.5
of which:				
Gross salaries and other salary rights	78.4	7.2	28.8	20.6
Agricultural income	0.6	27.3	2.6	3.4
Equivalent value of consumption of agricultural products from own resources	8.3	42.8	17.4	21.9
<b>South-West Oltenia including Dolj County</b>				
Monetary income	89.5	54.6	73.7	69.7
of which:				
Gross salaries and other salary rights	81.0	4.4	22.8	18.8
Agricultural income	0.3	28.0	4.3	5.6
Equivalent value of consumption of agricultural products from own resources	8.7	44.2	23.8	28.7
<b>North-West including Bihor County</b>				
Monetary income	85.8	58.0	69.7	74.0
of which:				
Gross salaries and other salary rights	76.5	7.1	33.5	23.3
Agricultural income	0.6	27.9	5.9	3.3
Equivalent value of consumption of agricultural products from own resources	10.3	41.1	26.4	23.0
<b>West including Timis County</b>				
Monetary income	85.4	63.1	75.3	75.8
of which:				
Gross salaries and other salary rights	75.8	8.1	32.1	22.3
Agricultural income	0.9	39.1	0.9	2.6
Equivalent value of consumption of agricultural products from own resources	8.8	35.8	19.5	21.2

Source: NIS (2007, p. 266-271)

Both tables show a vivid picture of the safety net function that Romanian agriculture plays for many millions of people. Along with findings from chapter 5, this supports the analysis done in the Romanian National Rural Development Programme (NRDP 2008), which states that "Many ... rural communities make a small contribution to economic growth but preserve the social fabric and the traditional way of life," (p. 10).

Whereas agriculture is important for poverty reduction, no evidence could be found that agriculture was a driving force for Romania's economic development in recent years. This is

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not necessarily bad, because according to the World Bank (2007), Romania belongs to the group of countries for which agriculture is no longer expected to be a driving force for economic development (p. 4), and "addressing income disparities ... requires a comprehensive approach that pursues multiple pathways out of poverty - shifting to highvalue agriculture, decentralizing nonfarm economic activity to rural areas, and providing assistance to help move people out of agriculture," (p. 2). Currently, the unfavourable farm and age structure in Romanian agriculture prevents innovation and farm enlargements for most households. Lacking alternative income sources in rural areas and pensions that do not cover daily living expenditures prevent people from exiting agriculture. Nevertheless, NRDP (2008) expects that important structural changes will occur in the rural economy, given that "Major development opportunities can arise from restructuring the agriculture and from revitalizing the rural economy ... The restructuring of agriculture will have a tremendous impact on the wider rural economy, as farming continues to be the most important activity in rural areas, and an essential source of income for rural households," (p. 10). Despite this optimistic statement, it should be kept in mind that as long as the majority of farms are social safety nets, they cannot be the drivers for development. Thus, the question remains: Who could be?

Commercial private farmers<sup>11</sup> and large-scale corporate farms are the two other groups of agricultural producers. Two thousand holdings are larger than 100 ESU and operate nearly one-fifth of UAA (Eurostat 2008c, Figure 5.1). These holdings could play an important role in the agricultural sector as suppliers of high value inputs for a competitive agri-food industry. Indeed, they are already integrated in internationalised food-chains and are able to undertake large-scale modernisations. Since they do not employ more labour force than necessary for running a business, they do not contribute remarkably to employment in rural areas, but increase competition pressure for upcoming commercial private farmers in the same region. Like in most Central and Eastern European transition countries, this latter group is undersized, with only 28,000 holdings operating one-fifth of UAA (Eurostat 2008c, Figure 5.1). Nevertheless, it could be the backbone of the rural economy given the opportunity to grow and modernise; they produce a wide range of varieties supplying local and regional markets, as well as niche markets for specialities and fancy food. It can be expected that competition from corporate farms will affect them less as a group due to the small number of corporate farms, but competition within the group of upcoming commercial private farmers will be hard for credit, land, and product markets. Whether a prospering group of private farmers can be brought back to life under these conditions remains open.

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<sup>11</sup> The distinction between subsistent and semi-subsistent farms, commercial private farms, and corporate farms is arbitrary and country-specific. In this report, farms up to 8 ESU are considered to be subsistent and semi-subsistent following the definition in NRDP (2008). Holdings larger than 100 ESU are called corporate farms. Farm between 8 and 100 ESU are termed commercial private farms.

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### 7 CONCLUSIONS

Topical literature sees agriculture as playing a major role in poverty reduction by providing food and cash income, but only for very poor countries can it be a driving force for economic development. Economic indicators confirm that Romania does not belong to any group of very poor countries, although poverty has been an issue. During recent years, Romania progressed successfully in reducing poverty. On the one hand, this can be attributed to the positive overall economic development. On the other hand, agriculture has served as a social safety net for many millions of people. The agricultural sector is currently dominated by subsistent and semi-subsistent farm households headed by persons of pension age without any formal agricultural training. This calls for structural changes since no innovation or initiatives for farm enlargements can be expected from these farm households. Thus, if small-scale farmers were to abandon farming activities and offer their land to those farmers who are willing to modernise and to grow, the necessary restructuring in the agricultural sector would be fostered. Unfortunately, this is only a theoretical possibility. The pension level is so low that agricultural activity on any scale is not an option, but a must for most people, keeping them trapped in the sector. This situation is not expected to change rapidly. Thus, small-scale farming is likely to persist as an instrument for poverty reduction in rural areas.

The few existing large-scale corporate farms are integrated in food-chains but do not contribute remarkably to employment in rural areas and will not be the backbone of the rural economy due to their small number. The upcoming group of commercial private farmers is still undersized in Romania and will face hard competition for credit, land, and market access. If they were to produce a wide range of products supplying local and regional markets, as well as niche markets for specialities and fancy foods, they could support economic development in rural areas. But large-scale corporate farms and commercial private farmers comprise only 40% of Romanian UAA. Thus, although agriculture has been contributing to poverty reduction, there are good reasons to believe that future economic development will rather come from outside the agricultural sector, and agriculture will continue to play the role of a social safety net.

Strengthening the Romanian agricultural sector requires concerted policy actions that are finely targeted for different groups. Fostering the restitution of land to former owner families, developing functioning land sales and rental markets, and providing access to agricultural product markets could promote the resurgence of a highly productive group of commercial private farmers. Non-farm job creation in rural areas could provide income opportunities for an abundant agricultural labour force. Both new farmers and potential non-farm employees seem to require profession-specific advice and training to become competitive in their transition environment. The large group of pensioners could be convinced to exit the agricultural sector if they could rely on income from social provisions that would cover their daily needs.

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