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Rural Regional Development in Transition Economies: The Case of Romania

GERTRUD R. SCHRIEDER, JÜRGEN MUNZ & RAIMUND JEHLE

THE MAIN OBJECTIVE OF THE TRANSITION PROCESS is to restructure the centrally planned allocation of production factors into a market-orientated allocation process. The difference between the transformation process in transition countries and structural adjustment in other countries is the fundamental change of the entire system. In addition to the transformation of the economy, the political and cultural institutions must also be adapted. This implies a fundamental change of all institutions[1] (Richter & Furubotn, 1996), i.e. restructuring of property rights and distribution, political and organisational framework, and the formal and informal rules regulating the relations between citizens, organisations and the government. This complex and far-reaching political, social and economic restructuring process affects all sectors of the society.

Although the agricultural sector is still the dominant sector for income generation in rural regions, more and more attention is given to the non-farm sector and its role in rural economic development. The importance of the non-farm sector is largely due to its potential in absorbing excess labour from the agricultural sector and urban-rural migration especially in transition countries, in contributing to income growth and in promoting a more equitable distribution of income. Thus, agricultural and especially regional development policies (ADPs and RDPs) for the agricultural and the under-developed private non-farm sector[2] appear to be of utmost importance for an effective transformation into a market economy. This article presents conclusions for ADPs and particularly RDPs based on empirical research in Romania in 1997 (counties of Timis, Brasov and Dolj). We present first the conceptual framework of the analysis, and then proceed to discuss the empirical findings within the agricultural, non-farm and rural financial sectors, as well as the rural enabling environment, finishing with our conclusions.

The transition process in Romania

Empirical evidence on the sequencing of economic reforms in the transition process is summarised in Table 1. Generally, institutional reforms are seen as required at the beginning of transition. Measures to reach economic stability should start at about the same time. The timing for the introduction of financial market reforms is not as clearly pinpointed. Some authors recommend that financial market reforms start early

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on, while others see them as coming towards a later stage of transition. Following the sequencing of reforms in Table 1, a detailed structure of reforms can be set up (Pappenberger, 1994):

A1 Transformation of institutions (e.g. public administration)
A2 Other reform measures to create a legal framework
B1 Stabilisation
B2 Price liberalisation
C1 Preparation of financial market reforms
C2 Implementation of financial market reforms
C3 Institutionalisation of capital markets
D Reducing overhang of liquidity
E1 Privatisation of micro-enterprises
E2 Privatisation of banks
E3 Privatisation of small enterprises
E4 Privatisation of large enterprises
F International integration
G Trade liberalisation

The reform process in Romania is summarised according to this systematisation in Table 2. Basic reforms in the institutional environment were started early on, but broad-based implementation lagged behind. Important economic sectors appear to have been tackled only after the last election in 1996. In the area of economic stabilisation, serious efforts to reduce the budget deficit started after the intervention of the World Bank and International Monetary Fund (IMF) in 1996. Nevertheless, the government crisis at the end of 1999 caused the IMF to withhold the second credit instalment of the Stand-By Agreement (SBA), disbursement of which was scheduled for October 1999. Meanwhile the SBA has been extended until February 2001 and its disbursement is now conditioned on consolidation of the 2000 budget. The basic laws for the privatisation of land and state-owned enterprises were passed by the parliament very early, in 1990–91, though with very low upper limits. At the beginning, the state-owned enterprises were simply converted into share companies and renamed commercial companies but still owned by the government. Mass privatisation started in 1994 when vouchers were issued to the population. In the agricultural sector in particular, privatisation of state-owned enterprises is not yet completed. Similar to the privatisation issue, the basic laws to reform the financial market to a two-tier banking system were issued within the first two years of transition. Nevertheless, it took until 1998 to revise the central bank and commercial bank laws in such a way that the central bank law allows an independent monetary policy and the bank law requires insurance for depositors. Although discussion on privatising state-owned banks began in 1996, the first privatisation only took place in 1998. Large reform deficits are evident in the rural financial sector. Recently the World Bank (1998) stated that an appropriate rural financial sector to finance, e.g. agriculture was still missing. In the current government programme (Government of Romania, 1999), agriculture and rural development are stipulated as political priorities; rural finance forms part of this area.

TABLE 1

SEQUENCING RECOMMENDATIONS FOR THE ECONOMIC TRANSFORMATION PROCESS IN TRANSITION COUNTRIES

	Institutional reforms	*Price and market reforms*	*Stabilisation*	*Financial reforms*	*Privatisation*	*Trade liberalisation*	*Liberalisation of capital markets*
Dornbusch (1991)	1	4	2	5	3	4	3/4/5
Fischer & Gelb (1991)	1	2	1	4	1/3	2	5
Gelb & Gray (1991)	1	1	1	3	1/3	1	3
Hindis (1991)	1	2	1	3	1/4	2	...
Johnston (1997)	1	1/2	...	1/2	...	1/2	...
Lipton & Sachs (1990)	1	1/2	1	...	3	1/2	...
McKinnon (1991)	...	3	1	2	...	3	4
Nuti (1991)	1	1	1	...	2	3	4
Pappenberger (1994)	1	3	1/2	2/3	3/4	4/5	4
Roland (1990)	1	3	3	2/4	2	3/4	2/3/4
Rybczynski (1991)	1	...	3	1	2	...	...
Siebert (1991)	1	3	2	3	3	3	...

Notes: Only broad areas of reform are considered. 1 (5) indicates that this area should be reformed first (last). The ranking refers to the beginning of the reform, thus, different reform areas may evolve simultaneously. More than one figure implies that a clear ranking was not possible.
Source: Extension of Falk & Funke (1993, p. 188)

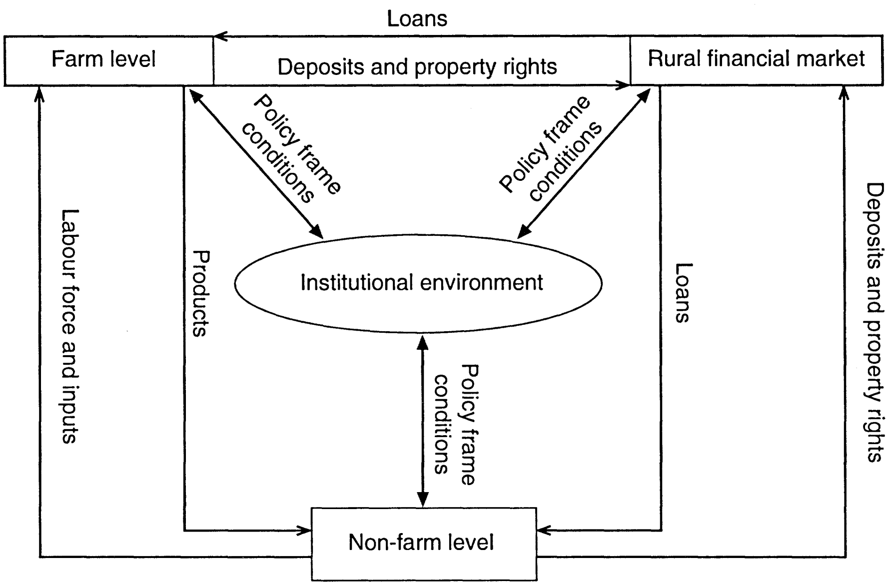
TABLE 2
THE REFORM PROCESS IN ROMANIA

Symbol	*Reform area*	*Reform process*
A1	Transformation of institutions	Since 1989, continues
A2	Other reform areas	Since 1989, continues
B1	Economic stabilisation	Agreement with IMF in 1996, budget deficit shall be limited to 2.2% of GDP, could not be satisfied, since 1998 independent central bank
B2	Price liberalisation	Gradually since 1990, agricultural producer and consumer prices were liberalised in February 1997
C1	Preparation of financial market reforms	Since 1990, transformation of mono-banks into commercial banks and law for the organisation of savings and credit cooperatives
C2	Implementation of financial market reforms	Since 1991, laws for the central bank and for the commercial banks, modified status of central bank, new commercial bank law and savings and credit cooperative law in 1998, continues
C3	Institutionalisation of capital markets	Since 1993, over-the-counter (OTC) trade possible, since 1994 stock exchange
D	Reduction of overhang of liquidity	Overhang of liquidity led at the beginning of the transition in 1991, and then in 1993 and 1997 (budget deficit largely due to election) to hyperinflation. IMF makes disbursement of loan dependent on austerity programme
E0	Privatisation of land	Since 1991, restitution was limited to 10 hectares per person, 1999 expansion of maximum area per person to 50 hectares; 1994 first lease law with an upper limit of 100 hectares per enterprise, 1997 expansion of maximum allowed land lease to 300 hectares per enterprise
E1	Privatisation of micro-enterprises	On the one hand, this area cannot be separately identified; on the other hand, the land law of 1991 allowed the foundation of several million micro and small agricultural enterprises[a]
E2	Privatisation of banks	Since 1998, state sold shares of commercial banks, continues
E3 & E4	Privatisation of small and larger enterprises	Since 1990, first privatisation law for state-owned enterprises
F	International integration	Until 1999 Romania together with Bulgaria formed part of the so-called second accession round of the EU. In the Helsinki resolution (December 1999) EU decided, however, to start accession negotiations with Romania in February 2000
G	Trade liberalisation	22 May 1996: Romania becomes a member of the WTO 1 July 1997: becomes a member of Central European Free Trade Agreement (CEFTA) Since 1997: member of the Black Sea Economic Co-operation (BSEC), bilateral trade agreements with Hungary and Moldova

Source: Systematisation follows Pappenberger (1994); World Bank (1998).
Note: [a]9.3 million hectares were distributed to 4.7 million persons.

Rural regional development

Socioeconomic systems change. These changes can be gradual or abrupt, transitional or permanent in nature. The substitution of basic social and economic principles that lead to a new socioeconomic system with different fundamental institutions and organisations is defined as transformation. In contrast, reforms are modifications to specific elements of the whole socioeconomic system. These corrections can be characterised as readjustments while the basic economic principles are maintained (Hagedorn, 1991, in Wolz *et al.*, 1997). Such corrections are pertinent for the



Note: The institutional environment is the set of fundamental political, social and legal ground rules. These establish the basis for production, exchange and distribution. Examples are rules governing elections, property rights and the right of contract. The term 'institutional arrangement' describes an arrangement between economic units that governs the ways in which these units can co-operate and/or compete. It comes very close to the popular use of the term institution (Davis & North, 1971, p. 6f).

FIGURE 1. RURAL ECONOMIC SECTORS PERTINENT FOR ECONOMIC DEVELOPMENT.

socioeconomic development of the rural regions in transition countries. Based on the OECD definition of rural regions, this article emphasises research on policies aiming at improving structural issues in the non-farm sector as well as the agricultural and rural financial sector pertinent for rural economic development.[3] Figure 1 illustrates the rural sectors we focus on in the process of rural development. It is based on the hypothesis that rural regions can be restructured effectively only if the domestic financial market provides at least basic financial services to the private agricultural and non-farm sector to enable it to acquire working capital and finance investments. In addition, the new growth theory implies that the economic development of the private sector in rural areas can be advanced if it has access to an effective institutional environment and support infrastructure, particularly knowledge markets (World Bank, 1999).

In view of the proposed rural sectors in Figure 1, the objective of this research is to provide regional decision makers with a foundation for their rural policy interventions. A better policy foundation should contribute to (1) improving the competitiveness of the rural region surveyed, (2) reducing inter-regional economic disparities in standard of living, and (3) maintaining and developing the natural resources and cultural heritage (OECD, 1993). In addition, it is crucial to identify priority areas for

TABLE 3
OVERVIEW OF THE STATUS OF RURAL REFORMS IN CEE-6, MID-1997

	Price and market liberalisation	*Land reform*	*Agroprocessing and input supply*	*Rural finance*	*Institutional framework*	*Total score*
Romania	7	7	6	6	4	6.0
Bulgaria	6	7	5	4	5	5.4
Poland	9	8	7	6	8	7.6
Slovakia	7	7	8	8	7	7.4
Czech Republic	9	8	8	8	8	8.2
Hungary	9	9	9	8	8	8.6
Average score	7.8	7.7	7.2	6.7	6.7	7.2

Note: 1 = centrally planned economy, 10 = completed market reforms.
Source: Grohs (1998).

rural development in light of the structural assistance measures by the European Union (EU) for the pre-accession countries.

The policy areas will be grouped into the so-called five 'Is'—innovation, infrastructure, inputs, institutions and incentives—that were primarily associated with agricultural growth in the 1960s (Streeten, 1987). Tomich, Kilby & Johnston (1995) added a sixth 'I', namely initiative. Recently Hazell (1998) stressed the five 'Is' again for rural economic growth and added that, since the 1970s and 1980s, additional 'equity modifiers' have been promoted. Among other measures, the rural non-farm sector should be actively encouraged, as it benefits from powerful income and employment multiplier effects as agriculture grows. Similarly, as the non-farm sector grows, it produces multiplier effects for the agricultural sector especially in view of the disguised unemployment problem.[4]

Reform of the rural enabling environment

In neoclassical theory, economic development is a result of anonymous market forces under the condition that it is costless to transact. Only under the condition of costless bargaining will the market participants maximise aggregate income regardless of the institutional set-up. North (1994, p. 360) points out that 'when it is costly to transact, then institutions matter. And it is costly to transact'. Thus the institutional set-up or, in other words, the enabling institutional environment is crucial for rural development, particularly in transition economies (see Figure 1). Government's chief role is to ensure that potential investors meet as few barriers as possible, and that problems in marketing, distribution and production are overcome through private enterprise and investment, rather than through governmental intervention (Hare & Davis, 1997).

As in Romania, other CEE countries equally face difficulties in effectively transforming rural areas. The status regarding rural reforms in the CEE-6 is compared in Table 3. Romania occupies the second last position, just before Bulgaria.

Socioeconomic reforms and structural adjustment are pertinent for the socioeconomic transformation of the rural regions in transition countries. At the beginning of the transformation process in transition countries, economic policies were mainly focused on macroeconomic problems. The increasing income disparity between rural and urban regions and between rural regions was ignored (Bachtler, 1995, pp. 202f). Now it is becoming clear that the increasing inter-regional divergence in the transition economies is one of the major transformation problems. This is, among other reasons, why the EU formulated a framework for assistance to agriculture and rural development (the Special Accession Programme for Agriculture and Rural Development known as SAPARD) and a new instrument for regional policy (Instrument for Structural Policies for Pre-Accession known as ISPA) in view of the planned enlargement to the East. In addition, several measures in the Phare programme are targeted towards agricultural adjustment. The total financial resources of Phare (€1 billion per year), SAPARD (€500 million per year), and ISPA pre-accession instruments (€1.5 billion per year) amount to €3 billion per year from 2000 to 2006. Under SAPARD a wide range of agricultural and rural development measures are eligible to receive assistance. These include, among others (EC, 1999; Poppinga, Fink-Kessler & Luley, 1998), investments in agricultural holdings, improving the processing and marketing of agricultural and fishery products, improving and consolidating land, establishing and updating land registers, improving vocational training, and developing and improving rural infrastructure. ISPA targets two areas, the environment and the trans-European networks and their expansion to the East. ISPA can contribute up to 85% to public expenditures in these two areas.

Under SAPARD each candidate country[5] will draw up development programmes for rural areas to cover the period 2000–06. The programme proposals should set out the priority needs of the rural areas concerned and their development potential. They should establish a strategy with clear and quantifiable objectives as well as indicate the expected impact. Overall, market efficiency, quality and the creation of jobs in rural areas should be the priorities. Whether the non-farm rural sector can contribute to reducing disguised and open unemployment in rural regions of CEE countries needs to be assessed. It should be noted, however, that in the list covered by SAPARD the non-farm sector is not specifically mentioned while in the Green Paper of the EU and the Government of Romania (1998) on rural development in Romania the setting up of small and medium-size enterprises in industry, handicrafts, trade and services is made explicit as a strategic objective.

Rural development policies and strategies aim at (1) improving rural regions' competitiveness to maximise their contribution to domestic economic development; (2) implementing an acceptable and intra-regionally comparable living standard for the rural population; and (3) maintaining and developing natural resources and cultural heritage in rural regions. To attain these objectives a variety of instruments and policies are used (see Table 4). As can be seen from Table 4, traditionally agricultural policies dominated the development strategies of rural regions (OECD, 1996, p. 9).

Above it was pointed out that specific development strategies and measures exist to promote disadvantaged regions socioeconomically. However, the question has to be raised whether indigent regions deserve preferential socioeconomic strategies to reduce welfare gaps. From a neoclassical economic point of view it is questionable

TABLE 4
POSSIBLE RURAL DEVELOPMENT POLICIES

Policies to develop, structurally adjust and diversify agriculture	
Structural policies	• Measures to boost investments • Measures to promote factor mobility • Measures to support land consolidation • Measures to allocate land for alternative uses such as tourism • Measures to further market and information technology infrastructure
Income policies	• Assistance to marginal regions, e.g. through direct compensation payments
Social policies	• Special social security systems
Policies to create employment and secure intra-regionally acceptable and comparable living standards	
Economic policies	• Measures to create employment through financial aid to enterprises, e.g. loans, tax reductions • Measures to support enterprise foundation, e.g. technical aid • Measures to improve economic climate for enterprises by providing information and better access to credit and new technologies • Measures to advance service sector in order to improve overall economic setting • Measures aiming at diversifying economic activities, e.g. production in market niches, tourism
'Human capital' policies	• Vocational training in the areas of agriculture, environment, etc. • Vocational training in the use of software and information technologies
Infrastructural policies	• Measures to improve transport, electricity and sewage system • Measures to improve access to information, e.g. telecommunication system • Programmes to rehabilitate and redevelop rural communities
Policies to protect the natural resources	
Environmental policies	• Promotion of integrated and ecologically sound land use • Control of land use in protected natural areas • Promotion of the cultivation of renewable resources
Other environmental policies	• Measures to protect flora and fauna • Investment in the improvement of water quality • Advancement of environmental consciousness through information

Source: Haarbeck & Boger (1997 p. 7); Pohlan (1998, p. 24).

whether active equalisation between regions is preferable to the principle of inter-regional competition. If one assumes complete and unregulated markets, inter-regional welfare gaps would be balanced by factor movements and a subsequent adaptation of factor remuneration. Nevertheless, if the assumptions of the neoclassical model are removed, namely complete factor mobility and homogeneity, or if one includes assumptions of the New Institutional Economics (NIE), namely uncertainty, information asymmetries and risk, then inter-regional economic convergence through competition may quickly reach its limits. Under such circumstances, direct and indirect balancing mechanisms to achieve better intra-national income equity may make sense (Pohlan, 1998).[6] More important in practice is that the main objective of the EU treaty is to eliminate socioeconomic disparities between the regions EC, 1997).

Agricultural sector reforms

Agriculture is still an important sector for economic development in most Central and Eastern European countries. On average, 22% of the labour force is employed in

TABLE 5
PRIVATE FARMS AND TOTAL ARABLE LAND DISTRIBUTION IN THE ROMANIAN SAMPLE, 1997

	Number of private farms				
Hectares	*Brasov*	*Dolj*	*Timis*	*Total*	*%*
<1	1	12	6	19	8.6
$>1 \leq 2$	7	26	2	35	15.9
$>2 \leq 4$	15	26	4	45	20.5
$>4 \leq 8$	34	8	15	57	25.9
$>8 \leq 16$	17	2	17	36	16.4
$>16 \leq 32$	3	3	14	20	9.1
>32	3	0	5	8	3.6
Total	80	77	63	220	100.0

Note: Total arable land = owned land − rented-out land + rented-in land.
Source: Heidhues *et al.* (1998; p. 11); see also Davis & Gaburici (1999, p. 851). The survey was carried out jointly by Hohenheim University, Heriot-Watt University and the Economic Forecasting Institute, Bucharest.

agriculture and agriculture contributes 7% to gross domestic product (EC, 1998). In Romania agriculture is a key economic sector accounting for about 20% of GDP, 37% of employment and 9% of exports. After the political changes from 1990, Romania pursued the privatisation of agriculture vigorously. Under the land reform process the former land of production cooperatives was fully privatised. State farms, however, were exempted from privatisation. About 86% of arable land is now privately owned by an estimated 2.8 million farming households. Four farm types coexist at present in Romania (Heidhues *et al.*, 1998; Davis & Gaburici, 1999):

(1) large-scale state farms, almost unchanged since the central planning period, averaging 3600 hectares in size. They are often operated with little concern for efficiency and are generally loss-making and heavily dependent on government subsidies;
(2) farm associations with legal status, mostly successor organisations of former production cooperatives, with on average around 435 hectares (OECD, 2000);
(3) farm associations without legal personality (family associations), with 132 hectares on average (OECD, 2000). This is a new organisational form that has developed only since 1990. Several households, normally former members of production cooperatives, join together to pool their land for joint cultivation; and
(4) small private farms, also created after the 1990 reform. The arithmetical average farm size is around 2.3 hectares. Leasing and donation of farm land can increase the operational farm size however (see Table 5).

It is particularly farm types (2), (3) and (4) that need adjustments in the agricultural policy and regional policy framework.

Individual land holdings are generally small, creating specific problems for agricultural credit delivery. In addition, land titling is progressing more slowly than expected; while 97% of the new land owners have received a provisional title, only

40% have a full legal title (Heidhues, Davis and Schrieder, 1998). Furthermore, several restrictions on land transfer remain, as sub-leasing and land leasing to foreigners are not allowed, and the lessee is obliged to undertake formal training in agriculture (OECD, 2000). Reforms in sector policies and the institutional framework in support of private agriculture have been lagging behind. In particular, the institutional and policy set-up in agricultural processing and marketing, research and extension and rural credit is still predominatly geared to state farms and medium and large-scale farm associations. Also, the government's price and subsidy policies are heavily biased against the small individual producer. Premia on outputs and subsidies on inputs often bypass the small farms. In addition, state enterprises tend to reap a disproportionate share of the subsidies by virtue of their established relationship within the state complex and the preferential treatment they enjoy as the presumed main guarantors of the government's food security policy. Banca Agricola (BA), the main supplier of agricultural finance, extends credits almost exclusively to larger-scale farms, particularly state farms. Most BA loans to agriculture used to be heavily subsidised. As a result, state farms have been the major beneficiaries of premia, input and credit subsidies, reducing the share available to the private sector. More than 70% of the credits were channeled to state entities (OECD, 2000).

The key issues of agricultural production units are low yields, low efficiency, high labour inputs, obsolete technology and small farm size in the private individual farm sector. Davis & Gaburici (1999) have discussed these issues comprehensively for the small-scale private agricultural sector in Romania. As in this analysis, Timis county was part of their survey. Nevertheless, they did not include state-owned farms and associations as is done in the evaluation of the agricultural sector in this article. For the county of Timis, the yields of the most important crops are distinguished for state farms, private associations and individual farms in three villages surveyed (see Table 6). In the counties of Dolj and Brasov, state farms were not part of the sample, thus, the overall averages in Table 6 refer only to private farm enterprises in Timis, Dolj and Brasov. The overall average yields of the individual farms in the sample are, as expected, below EU average. As can be seen from Table 6, Timis suffered from hail in 1997. Therefore the average yields of the private individual farms are somewhat below the three-county average. Nevertheless, some communities in Timis come quite close to the three-county average for all crops.

At the end of 1997 97% of the tractors and combines used were aged more than two years and 56% of the other machinery was aged more than seven years. Even in Germany the average age of tractors is more than ten years. However, the supply with spare parts in Romania is not adequate, so that most of the machines are not fully functioning. The data highlight the enormous need for replacement of equipment and, associated with it, the need for financing. The foundation of farm equipment associations could help the effective use of equipment in the private agricultural sector.

As a result of these problems, low yields and old machinery, many farm enterprises operate with low gross margins or even negative gross margins for wheat production as Davis & Gaburici (1999) showed. Nevertheless, empirical research in the county of Timis proved that gross margins can be significantly improved if access to inputs, extension services and liquidity is provided (see Table 7). The results in Table 7 were

TABLE 6

YIELDS OF IMPORTANT CROPS FOR STATE FARMS, ASSOCIATIONS AND INDIVIDUAL FARMS IN TIMIS, AND OVERALL AVERAGE, 1997 (DECITONS/HECTARE)

	Wheat	*Barley*	*Maize*	*Sunflower seed*
Timis				
State farms	30.2 (23)	30.0 (23)	42.7 (21)	16.7 (19)
Associations	20.6 (17)	21.9 (12)	45.5 (16)	13.8 (15)
Individual farms	29.6 (50)	26.5 (23)	42.4 (30)	16.4 (18)
• Dumbrovita	34.5 (19)	28.8 (10)	43.6 (10)	22.7 (3)
• Masloc[a]	20.3 (14)	25.0 (5)	29.7 (13)	14.5 (13)
• Varias	31.8 (17)	24.6 (8)	64.1 (7)	19.5 (2)
Timis, Dolj and Brasov[b]				
• Overall average	34.4 (174)	35.9 (53)	66.7 (153)	14.5 (45)
• Median	35 (174)	35 (53)	70 (153)	14 (45)
EU-15				
Average	55.2	44.7	88.8	17.8

Notes: Numbers in brackets refer to the number of farms surveyed.

[a] Losses through hail.

[b] Only private individual farms.

Sources: Grosskopf *et al.* (1997, p. 70); Heidhues *et al.* (1998, p. 15); Davis & Gaburici (1999, p. 860); FAO (1998).

achieved by reference farmers and experimental farms in Timis county that reach higher yields than the average private individual farms.[7] While Davis & Gaburici (1999) calculate a gross margin 2 of about $10 per hectare in Timis, this analysis showed that with improved inputs and access to finance, gross margins of $365 per hectare are possible. Similar economic effects could be achieved in livestock production where the natural yields are also on a very low level. For example, the average milk yield in Timis county is only 3300 kg per cow per year. However, with improvements in production technology 5500 kg per cow per year could be reached. Therefore the gross margin 1 per cow per year would increase from $262 to $406 (Munz, 2000).

Improvement in agricultural productivity and competitiveness will have to address the following policy issues (Grosskopf *et al.*, 1997):

(1) eliminating uncertainties in land ownership and titles and supporting the efficient functioning of a land and rental market. The planning models showed that private individual farms need to increase their cultivated land to become economically sustainable. Access to land could be counted under Hazell's (1998) incentive-I. Presently, more than 70% of the farms in the sample cultivate less than 8 hectares. Raising the limits of land restitution in Romania to the pre-war level (with a maximum of 50 hectares of arable land and 30 hectares of forest) as well as raising the rent limit to 200 hectares was a step in the right direction;

(2) improving technical, economic and organisational/management know-how through training, extension and agricultural research. This policy issue could be counted under Hazell's (1998) innovation-I. The reference farms and the experimental farms in the sample had better access to extension services which, in turn,

TABLE 7
GROSS MARGINS FOR THE MOST IMPORTANT CASH CROPS UNDER IMPROVED PRODUCTION TECHNOLOGIES AND YIELDS IN TIMIS

	Winter wheat	*Maize*	*Sunflower seed*
Present average yield (dt/ha)	*20–34*	*30–64*	*14–23*
Improved yield (dt/ha)	54	63	31
Market price ($/dt)	12.46	11.82	16.58
Revenue ($/ha)	673	745	514
Seed costs ($/ha)	43	45	29
Fertiliser costs ($/ha)	112	111	75
Plant protection costs ($/ha)	37	38	29
Machinery costs ($/ha)	91	81	83
Insurance ($/ha)	9	9	9
Estimated interest rate (9 %) ($/ha)	11	11	7
Total variable costs ($/ha)	303	295	232
Gross margin 1 ($/ha)	370	450	282
Labour costs ($/ha)	4.8	5.2	5.2
Gross margin 2 ($/ha)	365	445	277

Notes: Revenue − variable costs = gross margin 1
Gross margin 1 − labour costs = gross margin 2
Gross margin 2 + subsidies = gross margin 3
Gross margin 3 − fixed costs = surplus
Source: Grosskopf *et al.* (1997, p. 79).

had a positive effect on their production technology and access to the financial market. Establishing knowledge transfer centres, eventually integrated into the regional agricultural universities and linked with the regional extension service, could be essential in improving the average private farmers access to these services;

(3) renewal of agricultural machinery, equipment and buildings. This policy issue could be counted under Hazell's (1998) input-I. All private model farms in the planning model (between 20 and 50 hectares) had access to credit (between $288/hectare and $577/hectare). This requires an efficient rural finance system;
(4) improving the reliability and efficiency of and access to output marketing and input supply services. The planning model assumed ready access to input and output markets. It should be noted here that the rural non-farm sector also plays an important role at this level to provide employment for the growing rural labour force and in promoting a more equitable rural income distribution (Lanjouw & Lanjouw, 1997). This policy issue could be counted under Hazell's (1998) infrastructure-I; and
(5) building up and strengthening agricultural extension. This policy issue could be counted under Hazell's (1998) institution-I. Extension is often understood to entail transfer of technical knowledge only. It needs to be expanded to focus also on issues of management, organisation, marketing and finance.

Implementation of such a programme requires a proper institutional framework and environment (see Figure 1). These issues and the necessary negional development policies are further explored in the following sections.

TABLE 8
NUMBER OF PEOPLE EMPLOYED (000)

	1990	*1997*	*1997 as %* of 1990
Romania			
Total	10840.0	9022.7	83.2
Agriculture	3055.0	3322.1	108.7
Industry	4055.0	2450.0	60.4
Timis			
Agriculture	90.7	101.1	111.5
Industry	148.7	85.6	57.6
Dolj			
Agriculture	155.6	144.7	93.0
Industry	105.0	61.0	58.1
Brasov			
Agriculture	43.9	42.1	95.9
Industry	173.7	126.7	72.9

Source: National Commission for Statistics (1996, p. 141; 1998, p. 118).

The non-farm sector

Köster (1997) emphasises that the rural labour markets in transition countries are under significant stress because of

- the slow expansion of the private sector which could absorb the excess labour (from disguised unemployment in the private agricultural sector),
- the low formal qualifications and high average age of the agricultural labour force,
- the high market transaction costs for good, services and production factors, and
- the mobility constraints which are augmented by shortages on the housing market in transition economies.

The single most promising way of achieving greater inter-regional equity in transition countries is to emphasise employment creation. Especially in rural areas, disguised unemployment in the agricultural sector and open unemployment could be reduced by opportunities in the rural non-farm sector.

The level of employment in Romania went down by 25% between 1990 and 1995. At the same time, the private agricultural sector experienced growth of its labour force. The level of employment in 1997 reached 108.7% of its level in 1990 in the agricultural sector and 60.4% in the industrial sector. The indices of agricultural production show an increase of 5.6% from 1990 to 1997, while the increase of employees in the agricultural sector amounts to 8.7% in the same period (National Commission for Statistics, 1998). Thus, agricultural labour productivity decreased. The same tendency is indicated by the high percentage of people employed in the agricultural sector (37% in 1997) compared with the low contribution of agriculture (18.8%) to the GDP (EBRD, 1998). These figures show that a large proportion of the industrial labour force moved into the private agricultural sector, creating high levels of disguised unemployment, an issue still unsolved. Table 8 shows that agriculture played the role of an employment buffer, although with large regional differences.

Non-farm small and medium enterprises (SMEs) could contribute to rural employment because they are generally more labour-intensive than larger enterprises. Moreover, the lower labour and higher capital prices faced by SMEs correspond more closely to these inputs' true relative scarcities in rural areas. Because the relative factor proportions in SMEs are more 'appropriate', the development and start-up of SMEs, especially in rural areas, should be encouraged (Lanjouw & Lanjouw, 1997). Although it is commonly found that SMEs generate more employment per unit of capital than larger-scale enterprises, Little, Mazumdar & Page (1987) conclude that in general there is not a linear relationship linking capital per worker or capital productivity to firm size, when firm size is measured by employment. Apparently, medium-size firms (employment over 50) tend to have the highest capital productivity. In Romania SMEs are officially defined as enterprises either having between 50 and 250 employees or having an equity capital between 2.5 and 18 billion lei (EC, 1998, p. 20). The non-farm enterprises in the Brasov and Dolj sample ($n = 72$) employed mostly less than 50 persons (the average was 11) and the equity capital varied between 4.2 million and 2.8 billion lei. Thus the enterprises in the sample are classified as micro and small enterprises (MSEs)[8].

Still, when considering the potential contribution of non-farm SMEs to development it is important to ask whether or not such activity is more or less efficient in converting resources into output relative to agriculture (or urban counterpart enterprises). Commonly three measures of productivity are used, namely labour productivity, capital productivity and aggregate productivity (Lanjouw & Lanjouw, 1997). Labour productivity, which measures the value added (gross output deducting intermediate inputs, but not deducting capital and labour costs) per unit of labour input, and capital productivity, which measures the value added per unit of capital, are partial measures. By evaluating non-farm activities on the basis of one of these partial productivity measures, say capital productivity, one is implicitly treating the other input, labour, as having a zero opportunity cost. In a situation with positive wage costs but unemployment and/or disguised unemployment such as in Romania, it is preferable to assume that labour has zero opportunity costs. In the case of the Romanian sample, the microeconomic costs were \$910 in 1997 (around 6.6 million lei).[9]

The formative process of small and medium enterprises (SME) has different determinants that can be divided into economic and non-economic reasons. The most obvious economic reason is that a new enterprise will enter the market if the price for its products is expected to exceed the long-run average costs. Marginal economic theory relies primarily upon explanatory factors related to the slope and position of the demand curve for entrepreneurship, such as changes in demand for the final product, or in the relative costs of inputs. The supply curve of entrepreneurship is assumed to be invariant or, where movements do occur, an explanation is sought in NIE and other disciplines than neoclassical economics. Therefore, education is one of the key elements for SME development and entrepreneurship (Jehle, 1998). Among the non-farm enterprises interviewed in the counties of Brasov and Dolj, the education and vocational training level of the entrepreneurs lay distinctly above these counties'

TABLE 9
LEVEL OF EDUCATION IN ROMANIAN COUNTIES AND AMONG NON-FARM ENTREPRENEURS (%)

	Secondary school	*High school*	*Vocational training*	*Higher education*
Counties 1997				
Timis	40	32	10	17
Dolj	42	33	7	18
Brasov	35	25	7	33
Non-farm entrepreneurs interviewed 1997				
Timis	22	37	22	20
Dolj	5	62	19	14
Brasov	7	61	7	25

Note: Vocational training normally follows secondary school. The figures may not add up to 100 owing to rounding.
Source: National Commission for Statistics (1998, p. 764f); Breitschopf & Schrieder (1999, p. 11).

general level, as the figures in Table 9 reveal. These results clearly support the importance of education and vocational training for entrepreneurial economic activities. Compared with the national average, non-farm entrepreneurs more often have a high school qualification and quite often a university degree. The fact that the education and vocational training level of the entrepreneurs are distinctly above the counties' general level (National Commission for Statistics, 1998) emphasises the importance of human capital for entrepreneurial and economic activities. Thus for the foundation, development and promotion of non-farm SMEs in rural areas, the general and vocational education levels play an enormous role. As well as education, access to finance is an important issue for the development of non-farm SME and MSE. Table 10 illustrates the educational standards of non-farm entrepreneurs in Brasov, Dolj and Timis with and without access to credit. While in Timis more than 50% of the SMEs interviewed have access to formal loans, the share of SMEs with access is much lower in Brasov and Dolj, where only between one-fifth and one-third of all SMEs in the sample had access to formal loans. The education level of the SME managers is relatively high compared with the county overall level. Also, a slight correlation between better education and credit access can be observed (Breitschopf & Schrieder, 1999).

Obviously, SMEs do not face development obstacles only in the lack of access to education and finance. There exists a wide variety of problems in rural areas, e.g. inadequate roads, communication and market infrastructure, and widening gaps in relative prices are clearly perceived as bottlenecks. Apart from these bottlenecks, missing price information systems as well as extension and consulting services are creating impediments for potential entrepreneurs and existing SMEs. In the Romania sample, almost one-third of the entrepreneurs stated that they did not know what to think about consulting and what the term 'consulting' could mean (Jehle, 1998).

In the past it was always the large-scale urban industrial sector which was expected to be the real engine of economic growth in transition countries. There has been a move away from this view and new emphasis on more 'broad-based' qualitative

TABLE 10
EDUCATION LEVEL OF BUSINESS OWNER, WITH AND WITHOUT ACCESS TO THE FORMAL FINANCIAL SECTOR

	Without credit access constraint		*With formal credit access constraint*	
	Number	*% of SMEs*	*Number*	*% of SMEs*
Timis				
Secondary school	11	15	4	5
Vocational training	7	10	11	15
High school	13	18	12	16
Higher education	10	14	5	7
Brasov				
Secondary school	0	0	2	7
Vocational training	1	3	1	3
High school	2	7	15	55
Higher education	2	7	5	18
Dolj				
Secondary school	0	0	2	5
Vocational training	2	5	6	13
High school	9	21	18	41
Higher education	3	7	3	7

Source: Breitschopf & Schrieder (1999, p. 13).

growth, where the development of the agricultural sector in particular, and the rural economy in general, is gaining importance. Interest in the non-farm sector is part of this focus on rural development. Improvement in non-farm productivity and competitiveness will have to address the following policy issues (Breitschopf & Schrieder, 1999):

(1) renewal of production assets and supply of qualified workers. This policy issue could be counted under Hazell's (1998) input-1. Although there are strong indications that finance is not the single most limiting factor for capital accumulation, an efficient rural finance system is still important, particularly for the allocative efficiency of capital and for providing an effective payments system;
(2) building up and strengthening the quality of extension, financial and other service intermediation. This policy issue could be counted under Hazell's (1998) institution-I. Especially the aspect of appropriate information and knowledge transfer provided by institutions can positively contribute to the economic development of SMEs;
(3) improving the reliability and efficiency of and access to transport and communication infrastructure where appropriate. This policy issue could be counted under Hazell's (1998) infrastructure-I. In the empirical analysis of non-farm entrepreneurs in Romania by Breitschopf & Schrieder (1999), nevertheless, the level of infrastructure seemed to be appropriate for the entrepreneurial activities; and
(4) improving technical and management know-how through training, extension and research. This policy issue could be counted under Hazell's (1998) innovation-I.

Financial sector reforms

Lack of liquidity and poor management qualifications are among the main constraints on the restructuring of enterprises. Only an efficient financial market can overcome this bottleneck. To meet the tasks faced by the financial sector during the process of transformation is challenging, and its extent became clear only during the course of transition. First, it is crucial to build the required institutions, the legal and regulatory framework that is needed to guarantee an independent, reliable and competitive financial sector. Some countries, such as Hungary and the Baltic States, are on the right path. Other countries, particularly the countries that emerged from the former Soviet Union (FSU), as well as Bulgaria, and up to recently Romania, still have a financial sector with strong government intervention. Their financial sectors lack independent and transparent banking supervision, face restricted competitiveness and enjoy subsidisation (EBRD, 1997). Second, economic stability is pertinent for a well-functioning financial sector. A distinctive feature of the transition countries is that economic stability and the efficiency of the domestic financial sector are interdependent. On the one hand, it is difficult for financial organisations to mobilise savings and offer long-term credit lines when inflation is high. On the other hand, a financial system that is misused to transfer government-mandated subsidies to loss-making state-owned enterprises aggravates instability (Heidhues, Davis & Schrieder, 1998). Third, human capital formation is crucial to create an efficient financial sector. The implementation of the new 'rules of the game' requires training in banking, information technology, legal aspects and business administration. The necessary institution building and human capital formation are a challenging task for the transition countries. The extent and duration of this task were often underestimated at the beginning of the transformation process. Fourth, the development and consolidation of the privatisation of assets are needed to facilitate financial intermediation. This aspect was tackled at the beginning of the transformation process by all countries, although the intensity and consequences of privatisation varied. In particular, access to long-term loans depends on the availability of marketable private assets and collateral owing to information asymmetries ((Schröder & Pieper, 1996; Hoff & Stiglitz, 1990).

While the weaknesses of the financial market in Romania and other transition countries are well recognised, many policy decisions have not been made. In this respect Romania lags well behind other CEE countries, as Table 11 indicates (Schröder & Pieper, 1996). In Romania, although the number of banks increased seven-fold from 1991 to 1998, five primarily state-owned banks dominated the banking sector. These were Bancorex, Banca Romana Dezvoltare (BRD), Banca Comerciala Romana (BCR), Banca Agricola and the savings bank (CEC: Casa de Economii si Consemnatiuni). The first four of these owned 62% of the banking assets, the savings bank 9.8%. They accounted for 56% of the equity capital and 72% of the deposits by the end of 1998 (Gaburici, 1999). In 1999 a total of 45 banks accounted for 3636 branches, of which 1576 branches could be called rural (43%). The House of Credit Co-operatives (CreditCoop) comprised 787 savings and credit co-operatives, 71% of them located in rural regions. Almost 15% of the bank branches belong to Banca Agricola and BCR. The privately owned BankCoop had 270 branches in

TABLE 11

A COMPARISON OF THE BANKING SYSTEMS OF THE CEE-6

	Bulgaria	*Romania*	*Poland*	*Slovakia*	*Czech Republic*	*Hungary*
Dissolution of the monobanking system	yes	yes	yes	yes	yes	yes
Independence of the Central Bank	+	±	+	+ +	+ +	+
Monetary policy	–	–	±	±	±	+ +
Inherited debt solution	–	–	+	–	–	+
Privatisation of state-owned banks	±	–	±	–	–	±
Implementation of international accounting standards	no	no	no	no	no	no
Savings security fund	–	–	+	–	+	+
Banking supervision and prudential rules	–	±	–	–	±	+

Notes: + positive development; + + extremely positive development; – unsatisfactory development; – – poor development; ± unsatisfactory development with positive aspects in individual sectors.
Source: Adapated from Schröder & Pieper (1996, p. 111).

March 1997 (Heidhues, Davis & Schrieder, 1998, p. 362), which would be equivalent to 7.5% of the total bank branches (Table 12). On average, there are 0.79 bank and credit cooperative branches available per rural community (comprising more than one village) in Romania. In the three counties surveyed there are, however, large differences in this figure. While Timis comes close to the national average, Brasov and Dolj have 1.3 and 1.4 banking branches per community respectively. Rural financial intermediation in Romania is dominated by a few banking organisations. These are Banca Agricola, BankCoop, BankPost, CEC, Banca Romana Dezvoltare (BRD), Banca Comerciala Romana (BCR), Banca Internationala Religiilor (BIR), Banca Ion Tiriac (BIT) and the savings and cooperatives of CreditCoop. In 1998 a little over 90% of all loans disbursed in the counties surveyed were consumption loans; just 8.6% went to private enterprises. BRD alone provides 24% of all private enterprise sector loans. BankCoop and Banca Agricola administer another 32%, Bank Post and BIR 24%. These five banks thus provide 80% of all loans that are directed towards private enterprises with legal personality.

From the above it becomes clear that neither in Romania nor in the other CEE-6 countries are rural financial markets capable of satisfying rural enterprises' finance demand appropriately. High transaction costs (TCs) associated with the structure of the financial market and the institutional environment impede effective servicing of the rural economy.

TABLE 12

ROMANIAN BANK BRANCHES, DECEMBER 1998

	Total	*Rural*
Commercial banks	3636	1576
• Banca Comerciala Romana (BCR)	233	6
• Banca Agricola (BA)	314	63
Savings and Credit Co-operatives (CreditCoop)	787	561

Source: Gaburici (1999).

TABLE 13
OVERVIEW OF ECONOMIC DATA FOR ROMANIA

	1993	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*
Change in GDP (%)	1.5	3.9	7.1	3.9	− 6.6	− 5.5	− 4.0	− 1.5
Industrial index, annual change	101.3	103.3	109.4	109.9	94.1	83.0		
Agricultural index, annual change	110.2	100.2	104.5	101.3	103.1	92.4		
Inflation (%)	295.5	61.7	27.8	56.9	151.4	45.0	55.0	
Exchange rate (Lei/US$)	1,276	1,767	2,578	4,035	8,023	11,040	13,262	15,500
Budget (% of GDP)	− 1.8	− 4.0	− 2.7	− 4.9	− 3.6	− 4.1	− 2.7	− 2.5
Trade balance (US$ billion)	− 1.13	− 0.48	− 1.60	− 2.49	− 1.97	− 2.60	− 1.70	− 1.2
Current account (US$ billion)	− 1.24	− 0.52	− 1.73	− 2.61	− 2.34	− 3.40	− 1.9	− 2.0
Unemployment (%, end of year)	10.4	10.9	9.5	6.6	8.8	9.2	12.0	12.0

Note: The figures for 1999 and 2000 are based on Deutsche Bank forecasts (1999; p. 43).
Source: EBRD (1998, p. 224); Deutsche Bank (1997, p. 3; 1999, p. 43).

Thus policy reforms and financial innovations are needed at different levels of the financial sector. At the macroeconomic level the promotion of economic stability and confidence in a reliable and efficient financial sector is essential. In this context the establishment of an independent Central Bank which promotes a monetary policy that is conducive to economic stability is of the utmost importance. Confidence in the financial sector can be promoted if trade and bankruptcy laws, as well as regulations on financial discipline, are enacted. In 1999 Romania encountered a considerable inflation and banking crisis. The banking crisis was based on two bankruptcies in mid-1999, Albina Bank and Credit Bank. BankCoop has displayed financial problems since May 1999; apparently the accumulated losses exceed the capital base. Bank-Coop and Dacia Felix Bank are both under judicial investigation presently. Bancorex and Banca Agricola apparently have problems too. The banking crisis falls at a time of economic instability. The inflation target for 1999 was around 30% but the actual inflation rate was 55%. Moreover, the GDP trend is still negative (see Table 13).

Financial innovations are needed at the financial sector level in order to improve financial intermediation and integration, and subsequently widen the client coverage. Sector innovations aim to establish a reliable, legally binding and regulatory frame-work for the financial sector. This comprises the implementation of laws and regulations which govern capital structure, risk management and the valuation of assets for balance sheet purposes.

Changes in the organisational structure and management of financial intermediaries can be defined as organisational financial innovations. Giassemi (1997) finds it imperative to restructure banks and/or their management to reduce market entry barriers. It is more than possible, however, that the rural market will not immediately profit from a restructured and thus more efficient banking sector. Instead, restructured financial intermediaries will first try to meet the unsaturated credit demand of the industrial and service sectors in the urban areas before moving into the rural areas.

Within the financial organisations, product innovations are important to satisfy the real financial service demand of the rural clientele. Only if access to credit-financed investment capital is improved can the development process and economic growth accelerate. Thus it is crucial to improve the supply of medium and long-term loans. Presently, the traditional forms of credit collateral are charged with various kinds of restrictions and are thus avoided by the financial intermediaries in most transition countries. Innovative loan collateral alternatives must therefore be sought. In Croatia and Poland, stocks and production assets are used as loan collateral by means of innovative leasing contracts (World Bank, 1996).

Conclusions

In summary, there exist growth-impeding factors in the agricultural, the non-farm and the financial sectors as well as the rural enabling environment in transition economies. The main obstacles in the agricultural sector are a lack of efficiency, often outdated technological equipment and lack of access to credit and extension services. The latter two are major impediments to non-agricultural rural enterprises. In the rural financial sector the relatively high transaction and risk costs involved in the supply of financial services to small-scale agriculture interfere with the willingness of intermediaries to serve the potential clientele. Consequently, structural reforms are needed at several levels.

- Creation of an effective rural financial market. This must include capacity-building measures at the client level through, for example, courses in financial management, as well as the adoption of innovations at the intermediary level.
- Implementation of a competent rural extension system for agricultural and non-agricultural enterprises.
- Improvement of the educational and professional training system in the areas of enterprise management (agricultural and non-agricultural enterprises). Recently the World Bank implemented a National Training Board (NTB) to co-ordinate the setting up of a reformed education system.
- Structural adjustment of the overall enabling environment (input and output markets) to promote the creation and maintenance of competitive rural enterprises in all sectors, and finally
- Promotion of the non-farm sector to absorb the rural labour force and to improve the income distribution.

These recommendations could not be implemented as single measures. It is important to incorporate them in a rural policy framework. This insists that the measures should distinguish between agriculture-oriented and non-agriculture-oriented ones. However, it has to be noted that a precondition for the implementation of a rural policy is organisation of the necessary administration. The main issue in this context is decentralisation of responsibilities to the regional and local level. This ought to include the reform of tax revenue distribution to the different administration levels as well.

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[1] The new institutional economics (NIE) defines an 'institution' as a commonly accepted set of formal and informal rules and norms that determine the coordination among individuals and structure their incentives towards a joint goal. Examples of institutions are markets, property rights, land, tree and animal tenure systems, and other systems of exchange that are determined by implicit contracts, rules or social norms.

[2] The non-farm sector includes all economic activities in rural areas except agriculture, livestock, fishing and hunting. Since it is defined negatively as non-agriculture, it is not in any sense a homogeneous sector (Lanjouw & Lanjouw, 1997).

[3] OECD (1993, p. 10) states that (1) rural regions comprise the people, the land and other resources of the environment and the communities outside the immediate economic influence of larger urban centres and (2) the rural region is not limited to a specific type of land use, a certain stage of economic development or economic sector. A community is classified as rural if the population density per square kilometre is less than 150 persons. Rural is often also defined to include localities of 5000 or fewer inhabitants (Lanjouw & Lanjouw, 1997).

[4] Owing to a lack of data, a shortcoming of this article is the neglect of farm women's contribution to the farm household economy.

[5] The countries concerned are Bulgaria, Czech Republic, Estonia, Hungary, Lithuania, Latvia, Poland, Romania, Slovakia and Slovenia. The income level of these countries averages about 40% of the EU15 average.

[6] Equity is a normative concept: what is equitable depends on a nation's sense of right and wrong. Most concepts of equity allow for some degree of inequality in the distribution of income (Gillis *et al.*, 1996, p. 76).

[7] The gross margins, assuming access to credit and extension services, are presented for Timis county only because of the ready availability of data from reference farmers and experimental farms, the latter operated by the Agricultural University of the Banat/Timisoara.

[8] Data on the equity capital situation of the 52 MSEs in Timis were not available. The equity structure of MSEs in the non-farm sector there may be slightly better than in Brasov and Dolj.

[9] Until December 1999 the minimum salary was 450 000 lei per month (5.4 million lei per year). It has now been increased to 700 000 lei per month, i.e., to more than eight million lei per year.

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