



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search  
<http://ageconsearch.umn.edu>  
[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

**Rural non-farm livelihoods in transition economies:  
emerging issues and policies**

Junior Davis  
*Economist*  
*NRI, UK*

**Abstract:** *This article reviews key conceptual issues related to the development of the rural non-farm economy (RNFE) in a transition context and analyses available empirical evidence on the role of RNFE during recovery from the transition recession. Growth in the RNFE in the transition countries took place during the recession transition, which shows that it may be distress driven, but the paper explores other factors which may be driving the RNFE. It looks at the RNFE in light of the factors driving income growth and inequality, i.e. endowments and institutions. It concludes that, although not uniform across transition countries, the RNFE should be seen as a component of a growth strategy rather than as a temporary “refuge” or survival one. The patterns of growth of the RNFE will closely follow those of general economic recovery as well as the developments in the agricultural sector itself.*

**Keywords:** *Transition economies, rural livelihoods, rural non-farm economy, rural poverty, rural development.*

The author would like to thank Mr. C. Lovendal, Prof. P. Hare, Prof. M. Hebblethwaite and Dr. D. Bezemer for earlier comments on this paper.

## Introduction

There has been increasing recognition in recent years that the rural economy is not confined to the agricultural sector, but embraces all the people, economic activities, infrastructure and natural resources in rural areas (Csaki and Lerman, 2000). Equally, rural livelihoods are not limited to income derived solely from agriculture but may derive from diverse sources (see Ellis, 1998, p. 6). In this paper, we use a narrower definition of rural livelihoods by focusing on income from both farm and non-farm sources. The rural non-farm economy (RNFE) may be defined as all those activities associated with waged work or self-employment in income-generating activities (including in-kind income) that are not agricultural but located in rural areas.

Thus, rural non-farm activities might include manufacturing (i.e. agroprocessing) and be accumulative (e.g. setting-up a small business), adaptive, switching from cash crop cultivation to commodity trading (perhaps in response to drought), coping (e.g. non-agricultural wage labour or sale of household assets as an immediate response to a shock), or be a survival strategy as a response to livelihood shock. The rural non-farm economy cannot be considered homogenous; rather it is characterized by its heterogeneity, incorporating self-employment, micro-, small- or medium-sized enterprises (MSMEs) and trade activities. Our definition of the RNFE is not solely activity-based (waged work or self-employment), as it includes the rural institutional framework (roads, schools, hospitals etc.) which are an integral part of the rural economy.

The focus of this paper is on rural non-farm livelihoods in the economies in transition. The transition from a centrally planned economy to a market economy in Central and Eastern European countries (CEECs)<sup>1</sup>, Balkans<sup>2</sup>, Baltic States<sup>3</sup> and the Commonwealth of Independent States (CIS)<sup>4</sup> has been one of the most important economic issues of recent years, and has given economists a unique opportunity to study the transition process itself. It was first thought that economic transition would be completed comparatively quickly, but that has not proved to be the case, due to the time necessary for the changing of attitudes and the

---

<sup>1</sup> Czech Republic, Hungary, Poland, Slovak Republic and Slovenia.

<sup>2</sup> Albania, Bosnia and Herzegovina, Bulgaria, Croatia, FYR Macedonia, Romania, Serbia.

<sup>3</sup> Estonia, Latvia and Lithuania.

<sup>4</sup> Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, the Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.

building of new institutions. The progress of reform has varied considerably between countries with, in general, progress in the CEECs and the Baltic States being faster than that in the Balkans and the CIS (Hare, 2001). Analysis of the transition process in general and of transition in the agricultural sector has generated a large literature, but less has been specifically devoted to the wider non-farm rural economy. However, studies in this field are now being undertaken, since it is recognized that in the longer term, the development of the rural non-farm sector is a critical factor in providing rural employment and income (see Bright et al., 2000).

The purpose of this paper is to outline key emerging and conceptual issues in the development of rural non-farm economy and employment in transition economies. The paper is based on an explicit conceptual framework where the RNFE in transition economies is discussed as part of a growth strategy for the economy, and not as a “defensive” survival strategy for the rural poor.

The paper starts with an overview of the post-socialist recession and characteristics of the RNFE. The second section explores the resumption of growth at the national level and what this is likely to mean for the rural non-farm economy. The third section considers the impact of economy-wide shifts and structural change on the RNFE in transition economies, followed by discussions on the potential for growth of the RNFE, the linkages between the farm and non-farm sectors, and inter-sectoral factors.

### **Post-socialist recession and the characteristics of the RNFE**

The OECD (1996) classifies “predominantly” rural areas as those where more than 50 percent of the population live in rural communities, and “significantly” rural areas as those where between 15 and 50 percent live in rural communities. The rural non-farm economy (RNFE) is often defined as including all economic activities in rural areas except agriculture, livestock, hunting and fishing (Lanjouw and Lanjouw, 1997). That is, all activities associated with work, whether waged or self-employed, that is located in rural areas but is not in agriculture. These might include agroprocessing, the setting up of a small business or the receipt of transfer payments such as pensions, interest and dividends plus remittances from temporary or seasonal migration to urban areas (Davis and Pearce, 2000). The RNFE incorporates jobs

which range from those requiring significant access to assets, whether education or access to credit, to self-employed activities such as the roadside “hawking” of commodities which has low (or no) barriers to entry and low asset requirements (Davis and Pearce, 2000). The terminology in this paper reflects the fact that in the literature authors focus either on ‘farm’ versus ‘non-farm’ or on ‘on-farm’ versus ‘off-farm’ activities.

An increased focus on the RNFE has led to a more holistic view of rural development and reflects the reality of growing economic diversification amongst rural households. Thus, it could be argued that understanding the rural non-farm economy in context implies the use of broad methods useful in understanding rural societies in general, and the complex inter-relationship between different factors – social, cultural and economic, for example – which cause people to act as they do. The expansion of the RNFE and diversification of income are desirable policy objectives since they offer individuals and households other options to improve their livelihood security and their standard of living through accessing or developing alternative income-generating opportunities as returns to farming decline. The RNFE also includes consideration of attempts by individuals and households to find new ways to raise incomes and reduce environmental risk, which differ sharply depending on the degree of freedom of choice (to diversify or not) and the reversibility of the outcome.

There are also important spatial and locational aspects of the RNFE that should be noted. Barrett and Reardon (2000) highlight the difficulty in defining the RNFE from a spatial perspective. They note that “an activity can be ‘local’, with two sub-categories (a) at-home (or the more ambiguous term ‘on-farm’); (b) local away-from-home, with sub-categories of (i) countryside or strictly rural; (ii) nearby rural town; and (iii) intermediate city”. The authors also recognize that the distance from the home can involve migration within the country and abroad. Barrett and Reardon (2000) suggest that these distinctions are important, in particular with respect to the extent to which the household is dependent on the local economy.

The authors further highlight the complexity and often arbitrary nature of using such classifications. For example, ‘local’ is an arbitrary concept that will be situation-specific. In a transition economy context, it is worth noting that as part of the overall social objectives of socialism (namely to transcend differences between towns and the countryside) there were moves to provide industrial employment in rural areas, either by locating industrial concerns (e.g. agro-industrial complexes in Bulgaria) in rural areas, or by encouraging agricultural

cooperatives (e.g. computer cooperative “firms” in the Czech Republic) to diversify into non-agricultural activities. The former strategy was most common in Central European and Balkan countries that were basically pre-industrial, e.g. Slovakia, Bulgaria, Romania and most of the CIS. However, the development of non-agricultural businesses with agricultural co-operatives was also common there (e.g. around 88 percent of Slovak agricultural cooperatives were engaged in non-agricultural activities as compared to 78 percent in the Czech Republic and 58 percent in Poland by the 1980s; see Swain, 1999). Thus, the option of taking up rural non-farm employment during socialism existed in a way that it did not in Western Europe; it did not necessarily entail moving from the countryside to the town and is an example of what is unique in the transition economies.

Economic theory indicates that risk-neutral farmers will divide their labour supply between on-farm and non-farm employment opportunities such that the expected marginal returns to an extra hour of effort/work are equal. If farmers are risk-averse, as is the norm in transition economies, either less time will be allocated to the more risky jobs if the expected returns to each sector are the same, or alternatively the farmer will be willing to accept lower wages in the less-risky environment (Mishra and Goodwin, 1997). Non-farm labour can be used by farmers to reduce the total variance of their income, that is, the overall risk, or to increase the total returns to labour. However, this does not necessarily mean that risks associated with non-farm opportunities are lower than, independent of, or inversely related to on-farm risks; it is more the case that on-farm opportunities are often very limited (Davis and Pearce, 2000).

### ***What is the cause of rural poverty in transition economies?***

These countries are involved in the complete transformation of their economy and society from a centrally planned system to a more Western market-oriented (liberal) structure. Twelve years after the 1989 Central and Eastern European countries (CEECs) revolutions and eleven years after the first free elections (1990), these countries are finding that the opening up of their economies to world market forces has resulted in significantly higher prices, rural and urban unemployment, social strains and dislocation, factory closures and personal sacrifice. In 1989 most transition economies were in a state of economic and political crisis following the collapse of communism. The maladjustment of their economies became clear with the disintegration of the USSR in 1991, the collapse of the Council for Mutual Economic Assistance (CMEA) and central planning facade. The growth rates of their economies (which had been declining since the mid-1970s) had ground to a halt by 1989; balance of payments

difficulties had become binding constraints and shortages were still an endemic feature of these economies. Inflation has been high throughout the region since 1989. Most of these problems derive from the malfunctioning of a moribund centrally planned economic system, and the poor economic policy decisions made within it. In many Balkan (South Eastern European) and CIS countries things may well deteriorate further before significant improvements emerge.

For example, the Balkans have been affected by conflict over the past 10 years, either directly in the case of FYR Macedonia, Albania, Bosnia-Herzegovina and the ex-Federal Republic of Yugoslavia<sup>5</sup>, or indirectly as is the case for the remaining states in the region (e.g. Bulgaria, Romania, Greece, etc.). Historically the Balkans has always been amongst the least-developed regions of continental Europe. In general these economies have also lagged behind in the process of European Union (henceforth EU) integration. Only Bulgaria and Romania have had association agreements with the EU; the rest for a variety of reasons have been excluded from the process. The regional economy has been destabilized for most of the last decade (1989–1999) by the break-up of the former Yugoslav Republic and the ensuing conflicts in Bosnia-Herzegovina. The negative side-effects of the UN sanctions on Yugoslavia were particularly detrimental for some of the countries in the region (Albania, Bulgaria, Romania and the FYR Macedonia). The effects of this amounted to a strong external shock that added to an already-severe transformational recession, which in turn also deterred foreign direct investment (FDI).

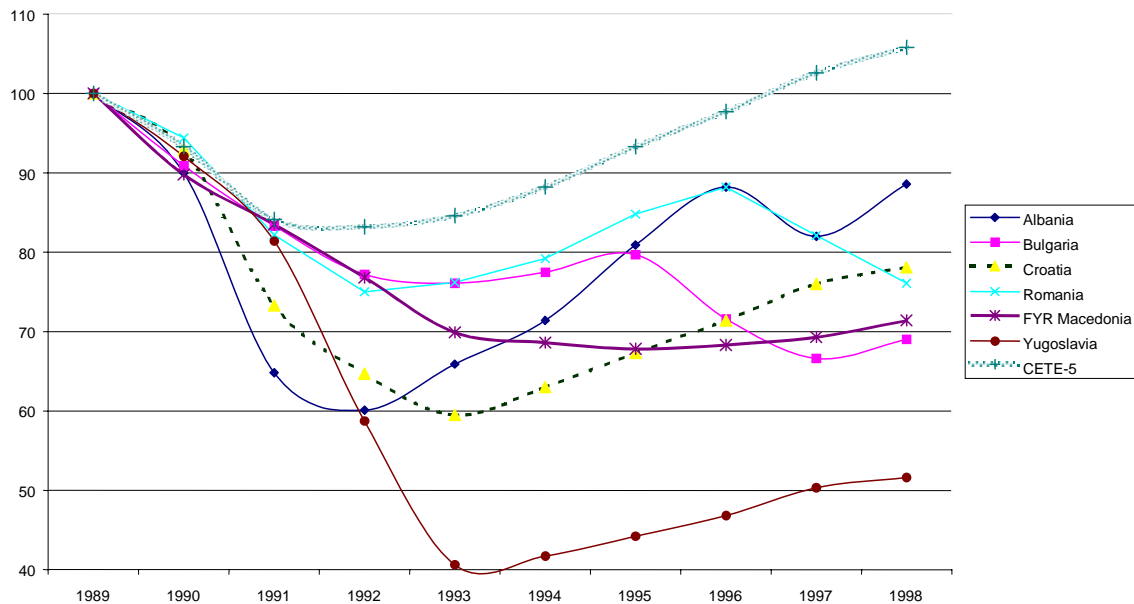
Figure 1 shows that the last decade has been one of economic decline for the Balkans with the possible exception of Croatia (which has started to show signs of sustained economic growth). This shows that the cumulative decline of GDP in the Balkan economies has been much greater than in the non-Balkan Central European Transition Economy pre-accession states (CETE-5<sup>6</sup>) and in 1998 was still below 80 percent of its pre-transition (1989) level. In the CETE-5, the depth of total output decline varied, but at its lowest point was roughly 75–85 percent of the pre-transition level. By 1998, GDP in most of these countries had regained its 1989 level; in Poland this was surpassed in 1996. Davis (1997) shows that by 1993 the CETE-5 had begun to recover and that by 1996 they had all achieved positive growth rates.

---

<sup>5</sup> As of mid-2003, the official name of the country is Serbia and Montenegro.

<sup>6</sup> CETE-5 includes the Czech Republic, Hungary, Poland, Slovakia and Slovenia.

**Figure 1**  
**GDP in the Balkan transition economies, 1989–1999 (1989=100)**



Source: OECD (1999a) *Agricultural Policies in Emerging and Transition Economies*, Volumes I and II.

The agricultural sector seems to have become a repository of much of the excess labour showing a significant increase in total sectoral employment in the Balkans over the decade (with the possible exception of Croatia) [see Table 1]. These negative economic developments have forced many people out of employment, or encouraged high rates of migration (much of it illegal). However, it should be noted that the relationship between relative employment and unemployment rates may be influenced by employment changes in other sectors. For example, the share of agricultural employment could have risen even if it fell in numeric (absolute) terms due to the collapse in much of the industrial sector between 1989 and 1994 and the resulting lay-offs. Although the data is not very reliable, widespread poverty, unemployment and social dislocation has helped encourage this process.



**Table 1**  
**Balkans in comparison with CETE-5 and the EU-15**

Country	GDP growth %		Inflation		Share of agriculture in GDP (%)		Average share of household income spent on food (%)		Unemployment (% of unemployed)		Share of agricultural sector in total employment (%)	
	1997	1998	1997	1998	1989	1997	1989	1997	1997	1998	1989	1997
Albania	-7	8	42	8.9	32	62.6	56.5	75	13.6	16.9	49	64.5
Bosnia & Herz			12.2						39	38.5		
Bulgaria	-6.9	4.3	579	1.5	11	18.8	38.1	54.3	13.7	13	18.1	23.3
Croatia	4.5	3	4	5.2	10.1	9.3	40	0	17.5	17.4	15.2	11.3
Romania	-6.5	-5.5	151	41	13.7	18.5	69.9	58.6	9	10	27.5	39.7
FYR Macedonia	0.8	1.5	4.5	-1					42			
(ex-Yugoslavia)	7.4	2.6	10.3	45.7					25.6			

Region	Average GDP growth %		Average inflation		Share of agriculture in GDP (%)		Average share of household income spent on food (%)		Unemployment (% of unemployed)		Share of agricultural sector in total employment (%)	
	1997	1998	1997	1998	1989	1997	1989	1997	1997	1998	1989	1997
Balkans	-1.3	2.3	114.7	16.9	16.7	27.3	51.1	47.0	22.9	19.2	27.5	34.7
CETE-5	4.5	3.7	11.5	9.7	9.5	4.8	24.5	16.7	10.5	10.2	14.9	6.7
EU-15	2.7	2.8	1.8	1.8	3.1	2.5	17.1	14	11.2	10.6	-	5.7

Source: OECD (1999a); UN/ECE (1999).

Note: Central European Transition Economies (CETE): Czech Republic, Hungary, Poland, Slovakia, Slovenia.

The informal, or 'shadow' economy has increased in relative importance in the transition economies of central and eastern Europe, and markedly so in the post-conflict Balkan states. While the informal economy is estimated to account for between 10 and 15 percent of recorded GDP in more 'orderly' transition economies (for example the Czech Republic and Hungary), the figure is up to 50 percent for post-conflict transition economies (Milanovic, 1998). Even before the recent Kosovo conflict, the informal economy in the Federal Republic of Yugoslavia was estimated to have risen from 32 percent of official GDP in 1991 to 54 percent in 1993 (ibid.). The informal economy provides the dynamism to the RNFE that is crucial to the transition and reconstruction process, and is an important source of both rural livelihoods (as a source of full-time or supplementary income or employment) and enterprise creation.

The impact of the transformation process on the population plays an important role in the determination of economic policy and consequently government expenditures. The introduction of stringent macroeconomic stabilization programmes which incorporated elements of: a tight incomes policy, reductions in government expenditure, trade and price liberalization policies (food prices are particularly important in this regard) have increased the social insecurity and poverty of large sections of their population. Households with children or disabled members are the most at-risk of poverty because of the low level of wages and the erosion of the value of social welfare benefits. Similarly, although the real value of pensions has been maintained in most CEECs such that they are not greatly at risk, the main exception is women who are disproportionately found on social pensions. Unemployment has increased rapidly, wages have fallen in real terms and the prices of most consumer goods have increased sharply. This has placed great pressure on the standard of living, the budget and welfare of transition economy populations. This will not only result in increased social costs, but also government budgetary costs as pressure to support the above groups' increases.

It could be argued that in these countries (particularly the Balkans and CIS), mass destitution has been avoided only through the receipt of social benefits, a return to subsistence agriculture and a reliance on increasingly-strained family support networks. Transition economy governments must look at how to reconcile the four aims of the current system: political

stability, getting people back to work, avoiding poverty and keeping public expenditure under control. With the increased use of poverty reduction strategy processes (PRSP), transition economy governments have greater ownership of their investment programmes and poverty reduction policies. PRSPs take the form of a document that is prepared by the country government and civil society, including the poor, in partnership with the World Bank and international donors – but is owned by the government.

The rural poor are to be found throughout central and eastern Europe, the Balkans and the CIS. In the Balkans and CIS, based on expenditure measures, between 25 to 33 percent of the population lives in persistent poverty, i.e. below subsistence levels for a sustained period of time. On an expenditure measure, 10 percent of the population are persistently in extreme poverty, implying malnutrition. In terms of the proportion of the population below the US\$2 a day poverty line<sup>7</sup> we find in the CIS and Balkans a difficult situation: Armenia at 34 percent, Azerbaijan 10 percent, Bulgaria 22 percent, Kazakhstan 15 percent, Moldova 38 percent, Romania 28 percent, Russia 25 percent, Turkmenistan 59 percent, Ukraine 46 percent and Uzbekistan 26 percent of their population earning US\$2 per day or less (SIDS, 2001).

In the CETE-5, the dimensions of the problem are significantly different; the proportion of the population below the US\$2 a day poverty line is as follows: Czech republic 2 percent, Estonia 5 percent, Hungary 7 percent, Poland 2 percent and Slovenia 2 percent (SIDS, 2001). These poverty problems have (with varying degrees of success) been adequately addressed in the CETE-5 through effective social policies where poverty growth rates have stabilized (Milanovic, 1998). Although the Czech and Slovak Republics, Poland, Hungary and Slovenia have the resources to begin to address poverty, it will remain a problem for several years to come as those most often found in deepest poverty belong to ethnic minority groups such as Roma (gypsies), the disabled and single parent households. These states are also much further down the road of economic reform than the Balkans and CIS, having introduced stabilization policies at least three years earlier; all the CEECs aspire to join the EU; and the results of the economic reforms pursued since 1990 in the Balkans and CIS are not yet clear and many problems still require resolution. Political considerations will be paramount in determining the future role of poverty alleviation and social policy in many transition economies.

---

<sup>7</sup> The percentage of the population living below the commonly-used US\$2 a day standard, measured in 1993 international prices and adjusted for local currency using purchasing power parities (PPPs) (SIDS, 2001, p. 26).

Unless the current international donor community's focus on poverty alleviation can significantly influence the transition economies' domestic political agendas, it will not result in the objective of poverty reduction. The recent history of transition economies demonstrates that for any genuine social transformation to take place, it must be initiated from within the society, even if this is the result of the cross-fertilization of ideas on reform that were generated from external societies. In the transition economies, a key concern will be to move the cross-fertilization of ideas and experience on poverty reduction to an internally-driven political agenda. To date there has not been a great deal of emphasis placed on this by the transition economies' governments (which have preferred to leave the development of poverty assessments to the donor community) that conceptualize poverty as primarily a problem with one main solution: the promotion of (more) economic growth.

### ***The RNFE as a source of livelihood security***

It is difficult to obtain evidence on income shares from non-farm sources for the CEECs and CIS, in part because non-farm income is not recorded in the statistics of most countries, and also because survey respondents are often unwilling to provide information on their incomes. However, there is growing evidence that rural households in the CEECs may obtain 30 to 50 percent of their income from non-farm sources (Davis and Gaburici, 1999; Greif, 1997). For example, in Poland, agriculture is the main source of income for only 29 percent of village households and 40 percent of the rural population, whereas non-agricultural income is the main source for 30 percent of village households (Christensen and Lacroix, 1997). In Ukraine, 76 percent of the income of private farmers' families is from agriculture, while 16 percent is from off-farm sources and 8 percent from business (Lerman and Csaki, 2000). Thus it is likely that the rural non-farm economy is generally larger in the CEECs and the Balkans than in the CIS, and also possible that income from the non-farm economy is underestimated. There are also important differences in terms of the structure and nature of the RNFE in CEECs and the CIS, a typology of which is presented in Table 2.

**Table 2**  
**A typology of the rural non-farm economy in transition countries**

	<b>RNFE economic base</b>	<b>Action/ response</b>
<b>CEECs</b> Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovenia and Slovakia	Dynamic Strong growth motors;market linked Access to EC PHARE and SAPARD rural development funds High levels of private investment, often well linked to urban systems, peri-urban development	Regional rural/urban planning, incl. infrastructure Public-private partnership strategy Threats to smallholders and unskilled labour Land issues and markets Understand rural labour markets
<b>Balkans</b> Albania, Bosnia and Herzegovina, Bulgaria, Croatia, FYR Macedonia, Romania and Serbia	Unexploited potential Resource base can offer motors of growth if investment in technology, infrastructure, human capital and markets	Promotional effort to spark latent potential Enhance efforts to link potential with other supply side efforts Integrated development approach
<b>CIS</b> Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan	Often resource-poor (natural, financial, human) Many CIS lack latent agricultural or natural resources, tourism Marginal agro-ecological environment, remote, risky and low productivity for agriculture. Absence of non-ag. growth motors.	Labour migration – multi locational livelihood strategies Locally dependent Local crafts – market linked External markets for service – e.g. internet-connected Requires public interventions where private financial returns may be lower than in other areas

*Source:* Adapted from Davis (2002).

Studies suggest that further structural change in farming is likely to result in the establishment of farm sizes similar to those found in Western economies. Large farms will contract, and fragmented small subsistence farms will be amalgamated into larger, more viable units. Both these developments are expected to result in the shedding of excess agricultural labour (FAO, 1999; Csaki and Lerman, 2000). The promotion of rural non-farm enterprises is seen as having the potential to absorb this excess farm labour, stimulate rural development and overcome rural poverty (Christensen and Lacroix, 1997). As to whether the donor community and national governments should still be promoting MSMEs in the transition economies remains a source of contention. There remains a relatively high failure rate for MSMEs in the CEECs and CIS (Bright et al., 2000). This suggests that entrepreneurship might not be appropriate for the poorest sections of the rural population, as they tend to face significant

access and human capital constraints. Instead MSME support would be better focused on medium-sized firms, which have already proved their viability and whose further growth could generate employment for many. Small-scale industrialization in rural areas may benefit from ‘flexible specialization’ and economies of agglomeration through clusters and networks.

Greif (1997) points out that in CEECs and CIS there is an important difference between off-farm activities of large-scale agricultural enterprises and of private family farms. Employees in large-scale agricultural enterprises may work additionally on their own enterprises, which may or may not provide services for the large-scale farm. Small-scale private farmers may engage in service work for large farms or non-farm enterprises and may also become involved in direct produce marketing or food processing. This group also includes thousands of mini-scale producers of non-agricultural origin engaged in subsistence farming. It is only the private family farm group that is directly comparable to the economic experience of either Western European part-time farms, with additional earnings, or of rural households in developing countries who combine subsistence and commercial farming with non-farm employment and migration.

In transition economies, it is not easy to decide if demand-pull or distress-push factors are at work in the move from farm to non-farm economy. For example, in lessons from Czech and Romanian RNFE case studies, Davis and Pearce (2000) suggest that entrepreneurs in these countries enter the non-farm economy mainly for demand-pull reasons. Chirca and Tesliuc (1999), on the other hand, suggest that the motivation for most rural households in Romania engaging in non-farm employment is need rather than profit – thus distress-push reasons. Religion and cultural factors may also influence involvement in the RNFE. For example, Bleahu and Janowski, (2001) in their study of non-farm activities in two Romanian communities within Dolj and Brasov counties found that ‘relational capital’, a form of social capital, was vital in developing non-farm activities. Effective social networks and high status in the community were the factors that have been most important in building successful independent non-farm activities for some households.

Similarly, ethnic and religious factors were found to be important in building relational (social) capital because they are bases for strong social networks. Villagers were found to have changed religious affiliation, in some cases, in order to tap into this potential. Working abroad, an important way out of poverty, could be facilitated through utilizing religious and

ethnic ties. In case studies conducted in Armenia and Bulgaria, households that lacked social capital were often found to be among the poorest (see Davis, 2002; Davis and Bleahu, 2002; Davis, Kopeva and Mihailov, 2002). These non-economic factors could have a significant influence on non-farm rural livelihood options, and the topic requires further investigation. Table 3 shows the main sources of off-farm and additional incomes for the CEECs.

**Table 3**  
**Main sources of off-farm and additional incomes in selected CEECs**

Country	Percentage share of farms involved				
	<i>Second jobs</i>		<i>Self-employment</i>		<i>Agricultural sector</i>
	A. Commuting	B. Constructn**	C. Business	D. Tourism	E. Processing
<b>Czech Rep.</b>	-	26	21	(3)	-
<b>Slovakia</b>	-	(25)	(25)	(3)	-
<b>Hungary</b>	< 1	30	(50)	(2)	(2–10)
<b>Slovenia</b>	14		17		(50)
<b>Poland</b>	-	38	26	(3)	7
<b>Romania</b>	-	(20)	(10)	-	(2–5)
<b>Latvia</b>	-	(20)	(10)	-	(5)

Source: Greif (1997), page 18.

Notes:

A Commuting to work places in local industries or abroad

B Work in construction

C Business (Trade)

D Rural tourism

E Processing and/or direct marketing of agricultural products

\* Figures in brackets are rough estimates: Selected items in percentage of farms involved

\*\* To a high extent these activities consist of illicit work.

**Table 4**  
**Income-generating activities associated with different income groups in Romania**

Activities tending to be associated with different wealth/well-being categories in Romania			
← <i>Very poor/poor</i>		<i>Middle-class/rich</i> →	
Rank		Rank	
1	Labouring	1	Selling/trading (food products, agricultural services)
2	Day work	2	Shop-keeping (grocers, bakery, bar-owners)
3	Farm work	3	Salaried work
4	Sell/ hawking of own-farm produce	4	Food processing
5	Handicrafts	5	More specialisation – especially in farm-based or agricultural trading activities
6	Begging	6	Small manufacturing, e.g. furniture making

Source: Davis, J. & Bleahu, A. (2002).

Table 3 highlights the fact that rural non-farm livelihoods in transition economies are derived from a wide variety of activities. Similarly, Davis and Bleahu (2002) in their study of diversification of income and non-farm employment opportunities in Romania conducted a wealth-ranking exercise that disaggregated non-farm income-generating activities (IGA) according to well-being/income group categories. Table 4 shows the main non-farm and other IGAs associated with the different income groups in Romania.

Davis and Bleahu (2002) found that most of the middle-class-to-rich group's non-farm IGAs are concentrated in direct trading (stores, public houses, soft drinks) and retail trade (bakeries, confectioners, restaurants) comprising 63 percent of all non-farm MSME activities in a related enterprise survey conducted during 2001 (see Davis and Gaburici, 2001). Most of these activities have relatively low (or often no) barriers to entry. The poor are mainly confined to low economic returns to labour jobs and unskilled non-farm IGAs such as: day work, occasional labouring, "odd-jobs" and where possible seasonal labour inputs to agriculture (e.g. harvest time) or construction schemes. However, due to lack of data it is difficult to measure the rate of growth of these activities in the rural context during transition. A large proportion of the non-farm activities in Romania are livelihood-oriented, and are neither a source of innovation nor a provider of significant economic returns as enterprises in their own right. Davis and Bleahu (2002) maintain that the main uses of non-farm income in Romania according to their relative importance are as follows:

- consumption and improvement of living standards;
- investment in non-farm business in rural areas;
- investment in up- and downstream activities; and
- investment or expansion of farm business.

In addition to these data from CEECs, a study on private farmers in Armenia (Lerman *et al.*, 2001) found that 23 percent of respondents engaged in non-agricultural business activities, with 18 percent involved in processing. Due to a lack of data it is difficult to measure the rate



of growth of these activities (Davis and Pearce, 2000). Remittances form part of rural income and are of importance in some of the transition economies – for example, the remittances from post-1991 Albanian emigrants working primarily in Greece and Italy (Pearce and Davis, 2000). By contrast, in a Ukrainian survey (Lerman and Csaki, 2000), remittances from abroad were found to be negligible. Clearly, during the early post-socialist recession period, most of the non-farm activities were lowly paid, labour intensive and or/ basically survival strategies. This remains the case for many CIS and Balkan states.

Rural non-farm livelihoods depend upon the rural population having the capacity or opportunity to take part in the RNFE, and this is difficult to assess (Pearce and Davis, 2000). Recent studies by Jehle (1998), Davis and Gaburici (1999), Breitschopf and Schreider (1999) and Horská and Spešná (2000) demonstrate the continuing lack of non-farm employment opportunities in the rural economy. However, there are opportunities in the rural areas for non-farm activity; for instance, in the Czech Republic, small farms and workshops, shops, public houses and boarding houses have allowed some in the rural population to work from home in areas that were isolated in the past (Turnock, 1998).

During the early stages of transition, households returned to rural areas and moved into the rural non-farm economy due to poverty, high unemployment in urban centres, and a lack of opportunities on-farm, sometimes as a result of drought or small landholdings. It is important for policy-makers to understand why an individual is entering the rural non-farm economy, and whether the entry is part of an upward or downward livelihood trajectory<sup>8</sup> (Swift, 1998). The key features of distress-push and demand-pull diversification are outlined in Table 5.

Reardon *et al.* (1998) suggest that when relative returns are higher to the RNFE than to farming, and returns to farming are relatively more risky, “pull” factors are at work. Conversely, when farm output is inadequate and opportunities for consumption smoothing, such as credit and crop insurance, are missing, or when input markets are absent or fail and the household needs cash to pay for farm inputs, “push” factors are at work. As evidence of

---

<sup>8</sup> When thinking about non-farm income generation, it is important to realize that different social units are constantly engaged in a dynamic process of livelihood adaptation. Take the household unit: households operating within a particular livelihood system may be on any of a number of different livelihood trajectories. These may be “downward”, in the sense that there is a process of disaccumulation of assets; “upward” in which case there will be asset accumulation; or more or less constant in the sense that the household asset base is neither expanding nor contracting. In each of these different scenarios, the role and importance of off-farm strategies takes on a different meaning.

distress-push, wages or incomes are likely to be lower in the rural non-farm economy. Davis and Pearce (2000) discuss the importance for policy-makers of making this distinction between distress-push or demand-pull since they may require different policy responses. The former may require policymakers to develop appropriate social safety net and interventionist policies to mitigate the short-run negative effects that sometimes accompany this type of diversification (for example, over-rapid urbanization placing tremendous pressure on urban centres, negative environmental impacts, etc.). Where demand-pull factors are driving the process of diversification, policy-makers might seek to provide a suitable “enabling environment” to support the development of the RNFE and sustainable rural livelihoods. However, deciding on whether demand-pull or distress-push factors are at work may not be straightforward (Davis and Pearce, 2000).

**Table 5**  
**The push and pull factors of RNFE diversification**

<i>“Push factors”</i>	<i>“Pull factors”</i>
Population growth	Higher return on labour in the RNFE
Increasing scarcity of arable land and decreasing access to fertile land	Higher return on investments in the RNFE
Declining farm productivity	Lower risk of RNFE compared to on-farm activities
Declining returns to farming	Generation of cash in order to meet household objectives
Lack of access to farm input markets	Economic opportunities, often associated with social advantages, offered in urban centres and outside of the region or country.
Decline of the natural resource base	Appeal of urban life, in particular to younger people
Temporary events and shocks	
Absence or lack of access to rural financial markets	

*Source:* Davis and Pearce (2000), Table 1.

During the later stages of economic transition, particularly in poor rural areas, some households will make a positive choice to take advantage of opportunities in the rural non-farm economy, taking into consideration the wage differential between the on-farm and non-farm sectors and the riskiness of each type of employment. Rising incomes and opportunities on-farm should reduce the supply of non-farm labour (although this is often a dynamic process due to inter-regional migration etc). This is the subject of the next section of this paper.

## **The resumption of economic growth and the RNFE in transition economies**

### ***Conceptual observations***

Here we offer some observations on the growth of the RNFE in the transition economies in recent years. First, the rural conversion towards the RNFE is not unprecedented: it has also taken place in Western Europe and the United States. The share of both farmers and the rural population involved in the RNFE in the transition economies is probably still below Western figures. Whereas there is evidence that of all farms in Romania, 35 percent earn non-farm income (Davis and Gaburici, 1999), in the United States for instance, about 75 percent of farms are small (annual gross sales less than US\$ 50 000). In these businesses farming is a loss-making activity, and the main source of income is non-agricultural. For medium (annual gross sales between US\$ 50 000 and US\$ 250 000), large (US\$ 250 000 to US\$ 500 000) and very large (over US\$ 500 000) farms, non-agricultural income is still close to 70 per cent, 40 percent and 20 per cent, respectively (Edelman, 1997).

One possible interpretation is that the rise of the RNFE is part of the move to market, where rural economic structures are beginning to look more like those in Western countries. This assertion is also open to question. In Western countries the rise of the RNFE occurred during a period of increasing affluence and presently seems sustained by rural people's wish to live in the countryside in combination with the declining importance of agriculture. In transition countries the RNFE has grown during the post-socialist transformational recession and seems stimulated by a combination of the decline of agriculture and lower urban incomes.

A second observation is that diversification from food production into non-food production has occurred at the same time that household diversification from non-food production into food production has taken place in the region. These joint developments could also be interpreted as a general trend amongst the poorest transition countries, where the specialization of labour in the socialist system, under the pressure of increasing poverty, is being replaced by diversification as a subsistence (survival) strategy, both by urban and rural households, by farm and non-farm employees. This view would imply that the RNFE is distress-pushed.

A third observation is that the rise of the RNFE may be partly illusory for at least two reasons. An analogy may be drawn with the informal sector, which is typically large in transition

countries. There used to be a large 'grey' economy alongside the planned systems in the socialist era, and they have transformed into informal markets under the new capitalist systems. A further possibility is that the RNFE now comprises people, assets and activities that were traditionally owned or managed by socialist farms and other rural firms. These farms and firms have now collapsed or slimmed down, often confining themselves to core tasks like food production. Other activities have spun off and become RNFE production. To the extent that this mechanism is at work, the emergence of the RNFE in CEECs is a question of the classification of activities, and not necessarily an increase in economic activities (see Swain, 1999).

### ***What drives the RNFE in transition economies?***

This is an important question because knowledge of the driving factors behind RNFE implies knowledge about its behaviour in response to changes in the economic environment, whether autonomous or policy-induced. For instance, an exclusively risk-triggered growth of RNFE will contract as prices and incomes stabilize. Here we focus on four factors that may, in combination, generate growth in the RNFE: (a) shifts in supply of and demand for goods and services in the rural economy; (b) shifts in labour supply; (c) risk; and (d) seasonality of asset and labour employment. In addition, there are factors which stimulate economic growth in general and may also facilitate the growth of the RNFE.

### ***Demand and supply factors***

If we consider this question from a supply and demand perspective, we may observe that new economic activities undertaken by a household or enterprise, such as the increasing RNFE, are triggered either by:

- 1) increased or changed demand for these products and services;
- 2) decreased supply of existing suppliers; or
- 3) the ability to compete successfully with existing suppliers.

With some exceptions, an increase in local demand is unlikely to be the cause of growth in the RNFE in most countries, given the decline in purchasing power during the transition years. This decrease may, however, have shifted local demand towards cheaper goods and services.

Thus the RNFE may provide Giffen goods, i.e. goods for which consumption grows as income declines. In the Russian Federation, home-grown food produce such as potatoes was the only food item for which consumption increased during 1991–1998, years of impoverishment for the majority of the population (see also Balcombe and Davis, 1996). Demand for, and production of, RNFE products and services may have exhibited similar patterns.

Many enterprises traditionally supplying goods and services to the rural population have disappeared during the transitional recession. Swain (1999) notes that as far as non-agricultural activities in the rural areas of CEECs are concerned, the socialist inheritance was one of “opportunity, capacity, ingenuity but inadequacy”. The opportunity to fill the socialist economies’ ‘service gap’ enabled many families to develop shops, bars, hairdressing salons, nightclubs, etc. which were previously lacking – although most were too small to have a significant impact on employment. There remains a market for rural non-farm firms to fill this service gap in rural areas. Certainly, anecdotal evidence suggests that the consequence of the ‘service gap’ and other forms of shortage that characterized socialist economies required rural populations to demonstrate ingenuity and resourcefulness to cope with the lack of services by improvising solutions of their own. Thus the RNFE and the rural population may be reasonably well-placed to respond to these new market opportunities.

Given low rural reservation wages and the capital-extensive nature of most RNFE production processes, the rural population can compete in cost efficiency with existing non-rural enterprises delivering to the local market. The possibly lower quality of RNFE products is no problem if local purchasing power is low and qualitatively superior products are too expensive anyway.

In theory, there is a fourth push factor for the RNFE, namely tradable goods. The above arguments assume RNFE products are mainly sold on local markets where they can compete on cost rather than quality grounds. The production of tradable goods (including, for instance, crafts for export and tourism facilities) might require higher quality and greater capital investments, but should at least be a product or service in which the producer/ provider has a comparative advantage.

### ***Labour: Farms versus migration***

Another dimension to consider is the individual who starts RNFE activities. The growth of the RNFE may be driven by urban–rural migration, or by redundant farm labour. Probably the former mechanism is more relevant in the poorer transition countries, whereas in the more advanced countries farms are indeed providing low incomes in comparison to industry and services. The type of transformation is important because it has implications for key variables in the RNFE growth process, including human and social capital, use of capital assets and availability of credit.

### ***Risk***

Risk may have been a major factor triggering the RNFE in transition economies. While a combination of the above demand/supply conditions must still hold in order for RNFE activities to be viable, price or income shocks may have constituted an additional (or a major reason) for individuals to consider diversifying into the RNFE. Price increases (indeed hyperinflation at times), delayed payment of wages and the collapse of much of the socialist transport and outlet system (implying higher retail transaction costs) are among the real income shocks that rural people have experienced during transition. This would imply that they are willing to pay a risk premium, in which case non-farm rural production could be less productive than food production and still grow.

Thus it could be argued that the rural poor also accept – as part of a number of livelihood risk mitigation strategies which include on-farm subsistence food production – a lower return from RNFE to supplement on-farm income and to access cash. More research needs to be conducted on this issue. Davis (2002), in his study of the RNFE in Armenia, and a study in Romania (Davis and Bleahu, 2002) found anecdotal evidence of this survival/ risk mitigation strategy in some of the poorest communities in these countries.

### ***Seasonality***

Seasonal labour and asset employment of agricultural production may be another reason for the growth of the RNFE. Using idle labour or machinery and empty buildings for non-agricultural activities may supplement incomes without capital investments and at low opportunity costs. This is likely to become more important during transition. Obviously, the demands of agricultural production on labour and capital were always seasonal; however

during the communist era there was guaranteed full employment, little concern for capital efficiency and little opportunity for private enterprise. This motive would imply a strong competitive position for rural non-farm producers, since revenue and profits are practically equal (assuming there are no variable costs for operating machinery). It would restrict non-farm activities to those that are farm-asset based or capital intensive. It would also interact with the risk motive as it stabilizes income over time.

In order to achieve RNFE growth, rural areas will need to develop activities that produce rural exports, along with tradable goods and services that extend beyond rural communities. In general terms competitive advantages will be found in sectors where primary non-farm activities are tied to natural resources (agriculture, forestry, mining, etc.), natural resource processing, transportation and waste management (agrifood and mineral processing); and where labour is cost-sensitive (i.e. able to exploit low opportunity costs of seasonal labour) or where the rural population has specialized skills (e.g. arts and crafts). In the transition economies of the CIS and Balkans, rural remittances through migration, rural industry and rural tourism also have potential as rural growth engines. In the next section we take these ideas further by considering the scope of the RNFE for sustainable livelihoods and income provision in post-socialist transition economies.

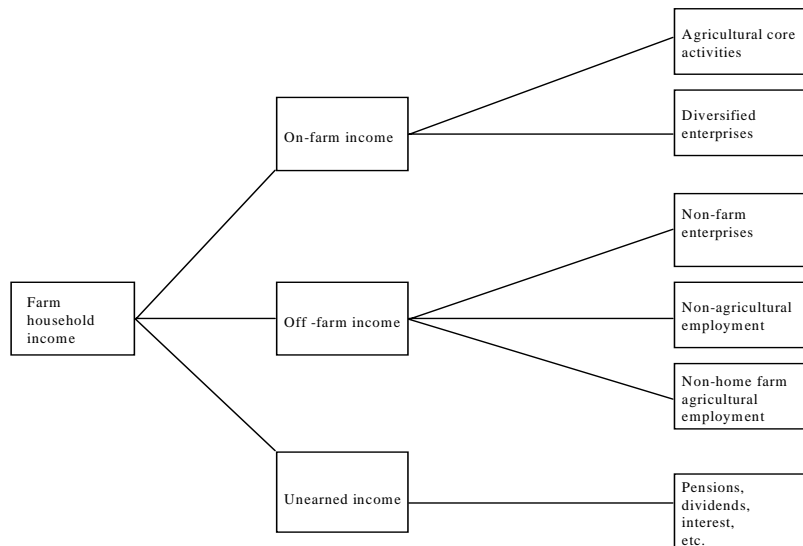
### **The scope of the RNFE for income provision**

The RNFE is seen as having a potentially positive impact on household income generation and livelihood security. Here we consider within a theoretical context the potential for further RNFE income generation in the post-socialist societies.

#### ***Household income***

Davis and Pearce (2000) go on to say that in a review of the level of RNFE diversification, it is important to consider the potential sources of income available to each farm or rural household. These are shown in Figure 2. The traditional and main component has been income from agricultural core activities. These may be defined as those enterprises taking place on predominantly agricultural proprietorial units, which are based on the primary production of food or fibre.

**Figure 2**  
**Potential sources of farm household income**



In defining RNFE income, diversification and other gainful activities of farmers and rural dwellers, two central problems emerge: (i) recognizing and ordering the multifarious nature of income sources; and (ii) capturing the appropriate unit for income analysis. The question of which the appropriate unit might be for income analysis is important, and partly relates to social and cultural factors. The most obvious units would be either the ‘individual’ or the ‘household’. The definition of ‘individual’ is not in doubt. The ‘household’ is not so straightforward, since the co-resident unit is not always the only economically relevant unit in terms of production or consumption. There may be smaller units, which are relevant where there is an extended or joint family situation, or there may be larger units, where closely related households collaborate and cooperate in activities, which are economically significant. It might be argued that the most appropriate unit should be identified in the specific cultural and social context; however this presents additional empirical problems because it means that it is difficult to draw out parallels and differences between different countries, and even between different regions of the same country.



A plethora of terms to capture the RNFE activities of farmers have emerged: (pluriactivity<sup>9</sup>, diversified, multiple job-holding), leading to a series of binary classifications: between full and part-time farms, pluriactive and non-pluriactive farmers and diversified and non-diversified occupiers. However, these single dichotomies are unable to capture the absolute and relatively diverse nature of income sources.

To deal with this issue, Davis and Pearce (2000) suggest that one approach is to study the components of potential sources of income (see Figure 2). On-farm income can come from both agricultural core activities and non-farm agricultural employment. Potential sources of non-farm income can be divided into three components: income from non-agricultural employment; non-farm enterprises; and remittances. As such, one can distinguish between enterprise and income diversification. Enterprise diversification activity embraces both on- and non-farm business creation outside of agricultural cores activities. Income diversification will embrace these two components plus any movement towards non-farm employment (whether agriculturally based or not). Finally, a third source of revenue is unearned income (such as pensions, dividends and interest), which – while usually ignored – can be very substantial in certain cases, and decisions made in this sphere may have an important bearing on such crucial choices as time of retirement and intensity of farming.

Thus, potential sources of income are disparate, likely to vary substantially in importance between farmers, and exhibit wide variations in their attractiveness as sources of pecuniary gain. These variations between components of income are therefore likely to have a major effect on the decision-making of farmers and there is a need to understand the importance of each, rather than subsuming them all into binary classifications such as the part/full-time dichotomy.<sup>10</sup> Moreover, there is no reason why RNFE income diversification has to include setting up new enterprises or be farm-based at all: many other options may prove more fruitful or promising (Pearce and Davis, 2000).

---

<sup>9</sup> Pluriactivity can be defined as the phenomenon of farming in conjunction with another gainful activity, whether on- or off-farm.

<sup>10</sup> See Mishra and Goodwin (1997) who address farm income variability and how this affects the supply of off-farm labour. They also attempt to test whether spouses make joint decisions in terms of their off-farm employment activity. Of course, their paper assumes that markets function efficiently, again not always the case in rural CEEC economies. However, utilising an econometric approach, the authors found that the off-farm labour supply of farmers is positively correlated with the riskiness of farm incomes; that farmers and their spouses with more farming experience are less likely to work off-farm; and that off-farm labour supply is correlated with off-farm experience.

## ***Capital investment, growth and income***

Growth is usually seen as resulting from increased investment in capital goods, and as we shall see later may also be derived from returns to investment in human capital. Breitschopf and Schrieder (1999) in their study of Romania, show that the local RNFE is less capital intensive than local agricultural production, assuming absent credit markets and low rural incomes. It could be argued that if it is the low capital intensity that makes the RNFE viable, then there is little scope for efficiency and income growth through capital investments: the RNFE would then lose its local comparative advantage. A key growth path for the RNFE in transition countries (particularly the poorest), then, is an increase in labour supply with increased labour productivity.

Why is the local RNFE less capital intensive than local agricultural production? Given low labour reservation wages and low (or zero) land rental costs, the main cost factor in agricultural production is capital. During the transformation, farm gate output prices have often been below cost levels (the price scissors effect). Profit per labour unit is often low or negative in farming, mainly due to the costs of capital (given low output prices). One of the main reasons the rural poor move into the RNFE is because the wages available in such activities exceed their reservation wage.

As previously noted, neo-classical economic theory suggests that risk-neutral farmers will divide their labour supply between on-farm and non-farm employment opportunities such that the expected marginal returns to all activities are equal. If farmers are risk averse, as is the norm for resource-poor farmers in transition economies, either less time will be allocated to the more risky jobs if the expected returns to each activity are the same, or alternatively the farmer will be willing to accept lower wages in the less-risky environment (risk premium). For farmers to reduce the total variance of their income – that is, the overall risk – or to increase the total returns to their labour they may utilize off-farm (non-home farm) labour resources.

There are then at least three options for the rural poor in transition economies:

- 1) produce something with the same capital costs at higher output prices;

- 2) produce something with the same capital costs with lower output prices, but with higher labour productivity due to human capital; or
- 3) produce something at lower sale prices but with very low capital costs.

### ***Credit***

It could be argued that the only way the RNFE can become more capital intensive is: (i) through the development of credit markets; and (ii) rural demand management. The second option, implying urban-rural income redistribution, is problematic for reasons of political economy, given the budgetary and fiscal problems of most transition economies. Moreover, the role that the RNFE should play is to support rural incomes – not the other way round. As to the first option, it appears that credit markets are not, in fact, completely absent from the RNFE.

### ***Roles of individual and traditional farms***

Another question concerns the most successful type of RNFE expansion. Although diversity in itself is probably an asset to the rural economy, we can distinguish between two types of growth of the RNFE. These are diversification from existing farms, and non-farm- connected rural economic activities. It could be argued that in a transition economy context there is a case for promoting farm-connected diversification on co-operative and other socialist-style farms, rather than on newly-established family farms. If we consider diversification towards non-farm activities of existing farms, it is important to realize that farms in transition economies are more heterogeneous than is the case in the European Union (EU). In the transition economies, typically, food production occurs in a sector with a three-tier structure (with the exception of the Yugoslav successor states and Poland, where family farms dominate). First, there are co-operative farms and farm companies. Second, there are commercial family farms. Third, there are ‘non-commercial’ family farms (hobby farms, subsistence farms). Although such non-commercial farms/gardens also exist in the EU, they are typically much more important for food production in the transition economies.

Observing this structure, farm-based diversification may occur in two ways. First, in traditional farms both farm labour and farm assets are employed in non-agricultural activities, initiated and managed by farm management. Second, in individual farms, and particularly in many non-commercial individual farms, the labour of the owner/operator is employed in non-

agricultural activities, either because this was their preference when they started farming, or because the small land plots obtained in the restitution process does not enable a full-time on-farm income.

The first diversification strategy (which we will refer to as farm-based diversification) is probably unique to the post-socialist setting, and is an inheritance from the central planning era. The second strategy (referred to as labour-based diversification) is not unique; also in the EU most farm operators have a non-agricultural main source of income. Labour-based diversification is much more important in the transition economies because a large majority of individual farms is very small. As labour-based diversification largely relies on non-farm enterprises, its importance in sustaining rural income suggests that there is a potentially important role for rural non-farm enterprise in alleviating income problems in the region.

As to farm-based diversification, we have noted this is almost exclusively done by traditional, co-operative and corporate farming structures. There are several reasons for this. First, they have traditionally (during the socialist era and subsequently) been more involved in activities other than food and fibre production, such as processing, transport, wholesale and retail of farm produce or construction (see Swain, 1999; Davis and Pearce, 2000; Chaplin, 2000). Existing contacts and human capital thus facilitate these activities. Second, traditional farms are sufficiently large while individual farms are mainly small. Successful diversification requires the kind of investment that most small subsistence farms cannot afford, given a lack of physical assets, collateral and access to rural credit markets. In addition, larger traditional farms (and family associations) often have better access to credit (and if available subsidies) than individual farms (e.g. Csaki and Fock, 1999:36).

Initiating non-agricultural activities as farm-based developments rather than by other businesses may have several advantages. Local knowledge and skills can be utilized instead of the (costly) use of consultants and necessary long time lag in the development of human capital. Also, farm employees are being transferred from agricultural production, which is contracting, to other production, instead of the replacement of farm labour by imported labour. Farm-based diversification might thus be a more viable development option and better benefit the rural population.

## ***The RNFE as part of a rural economic growth strategy for transition economies***

Start (2001) maintains that whether RNFE growth occurs via micro-enterprise and rural product markets, or via larger enterprises and rural labour markets, pro-poor growth is still not assured. Some markets are more lucrative than others and access will be competed and hence differentiated. To some extent, those rural dwellers with access to information, capital, skills, contacts and status are likely to be at an advantage. However, in a transition economy context, it is still unclear which assets are most effective or efficient in any given situation and whether assets alone can counter market access inequalities with respect to income, wealth, ethnicity or gender. Again, this is essentially a political economy or socio-political process in which the role of institutions is paramount. The literature on regional economic growth in general and rural economic growth in particular suggests the following factors are fostering growth, quite apart from the question of whether it is based on farm or non-farm activities.

### ***Factors underlying growth and inequality***

In the various strands of growth theory, economic growth originates either with (1) endowments (or resources); or with (2) institutions, including both formal institutions (economic and other social arrangements) and informal institutions (beliefs, norms, values, habits).<sup>11</sup>

In the first perspective, prospects for progress are seen as depending on the (endogenous) amount of resources. Three groups of resources for development are identified in the literature:

- physical endowments, such as location, timber, gas, or scenic beauty;
- physical infrastructure, such as roads and telecommunications; and
- human and social capital, such as education levels, demographic structure and skills of the population, local leadership and relations with urban areas.

In the second approach, institutions consist of:

---

<sup>11</sup> Another classification is between theories that view growth as endogenous, i.e. based on capital formation in a broad sense, and those that view growth as based on trade. In the present overview, trade arrangements are classified as formal institutions.

- economic infrastructure, such as banks and credit markets, business networks or vertical chains, or the Chamber of Commerce;
- administrative infrastructure, including the quality of government and trade arrangements; and
- informal institutions.

Do *local physical resources* co-determine growth prospects? There has been very little research conducted in the transition economies examining the relationship between factor endowments and production patterns. Another physical endowment is location. Distance in time, but also ‘cultural distance’ to economic centres (e.g. towns and markets) may co-determine growth prospects in a locality. While economic geography may explain little about the *international* structure of production, it is important for understanding the *regional* structure of production in the transition economies. On *physical infrastructure*, road density is often cited as one of the determinants of household-level prospects for escaping rural poverty. Reardon *et al.*, (1998) notes that in sub-Saharan Africa and Latin America, there is often better access to household utility services (electricity, water, sewerage and telephone services) in urban rather than rural households. In addition, human capital parameters, such as education, skills and age, have long been recognized as affecting growth.

As to *formal institutions*, trade arrangements are important. Some economists stress that openness is vital for growth, others argue that production linkages, implying a barrier to entry, are more important for growth. However, these may also be reconciled. A trading sector may function as the engine of local growth, via production linkages to non-trading sectors. But if the linkages are primarily through labour and capital markets, then one sector will dominate but others will decline. In transition economies, one implication for the RNFE may be that ‘genuine’ farm-based diversification, i.e. economic activities undertaken by traditional farms, will help the local economy. The outsourcing of labour, which is one of the ways individual farmers diversify, in this case may not help it. Another alternative for trade-led growth is import substitution (IS).

Does openness, apart from influencing growth, also affect inequality, and by, implication, would the transition affect rural/urban inequality? In theoretical terms, this is ambiguous. It

depends on factor endowments, the type of openness (trade flows, capital flows, or labour flows), on complementarity and substitutability of factors of production and on the distribution of endowments over individuals on different income levels. In empirical terms, the openness-inequality connection (researched in various regression analyses) indeed has impacts in both directions in different countries. There is empirical evidence that labour mobility can be a factor in decreasing inequality and thus rural poverty (see OECD, 1999a). Labour mobility is capable of generating income level equalization across regions in the presence of knowledge spillovers, while restrictions on labour flows tend to make individual region/country per capita income more divergent.

Another important formal institution is the quality of government, expressed, for instance, by levels of corruption, government stability, policy volatility (mostly measured as monetary impulses) the annual number of coups and revolutions, or, sometimes, the level of democracy. (See Moers (2000) for an overview of the literature and an empirical analysis in transition countries.) In this area, a key question would be: Is there a rural–urban difference in corruption levels, bureaucratic quality or the nature of civic society that can help explain differences in economic activities?

An important informal institution is the social network. Social capital (e.g. networks, norms, trust) can co-ordinate action and is an asset in economic growth. One application of this idea would be to investigate a possible link between population characteristics that are linked to social capital; for instance, is trust related to ethnicity? Another is to see how social capital is institutionalized in economic structures. Does it pay for poor households to actively participate in local associations? At low incomes, the returns to social capital may be higher than returns to human capital. At higher incomes, the reverse may be true. The effect may be observable at the group, but not at the individual, level.

It could be argued that the formation of social capital, such as the functioning of associations or stratification of society into ethnic groups or familial clans, is different in rural areas as compared to urban areas. Qualitative survey data could identify different types of social capital. Linked to quantitative data (e.g. household income or firm revenues), the importance of social capital can be compared to those of other factors (e.g. human capital).

In the context of regional development, another application of the network idea would be to consider production and consumption linkages. The rural economy is here viewed as a network, where the links between firms, and between firms and households, are important determinants of economic developments. One example is rural growth linkages theory, where endogenous rural growth is seen as being driven by increasing productivity in one sector. Through higher incomes and consumption linkages, this creates spillover effects leading to the diversification of the local economy. Alternatively, economists often focus on the growth of production linkages between the farm and non-farm sector. Farms are then seen as growth-facilitating agricultural clusters; it would be interesting to see if there are RNFE growth clusters in a local economy (see following section).

In CEECs, the links between farms and the downstream processing and trade firms are traditionally quite strong, but it is unclear when these connections now lead to exploitation (as described above) or can function as growth-facilitating clusters. Since 1994 agricultural productivity has improved in most transition economies. There are prospects for a continuation of this trend, depending in each country on a set of sector-specific factors (Sarris, Doucha and Matijs, 1999). Whether increases in efficiency may facilitate rural development through growth spillovers depends on two factors. First, increased productivity may or may not translate into higher profits. If local output markets are imperfect (e.g. not competitive, or operating under defective contract enforcement institutions), farm profit may be skimmed by downstream industry, typically in situations of monopsony or hold-up (Gow and Swinnen, 1998). Second, if farm productivity does translate into farm profit, the impact for the local economy is determined by multiplier effects controlled by (i) the elasticity of locally produced consumer goods; and (ii) substitution opportunities between locally-produced and other consumer goods.

### ***Linkages between the farm and non-farm economy***

As already noted, the prevailing conception is that RNFE activities have close links with the agricultural sector. (Heidhues, Davis and Schrieder (1998) and Davis and Gaburici (1999) provide evidence of this in Romania.) Although this section focuses on the linkages between the farm and rural non-farm economy, these must also be viewed within the wider context of broader links. The World Bank (Csaki and Lerman, 2000) emphasizes the links between the rural sector and all other sectors of the economy – not only those between the rural sector and the agricultural sector. They argue for a cross-sectoral context to rural development due to



“the ‘connectedness’ of rural residents to many economic sectors, only one of which is agriculture”. For example, rural industry has strong links with the urban sector, both due to the market provided by the urban area and due to the links between industries, which may be either competitive or complementary: rural industries may provide components for urban industries, or may assemble or finish their products.

The farm and non-farm economy may be directly linked via production activities, or indirectly linked through incomes or by investment (Reardon et al., 1998). Production linkages may be either upstream or downstream: upstream linkages occur either when the farming sector grows and induces growth upstream in the supply of inputs and services, or when growth of local manufacturing and services reduces the price and increases the availability of inputs upstream. Downstream linkages take place when activities that rely on farm inputs, such as agroprocessing and distribution, are increased and thus increase the demand for farm products. Income linkages occur when income earned in one sector is spent on the outputs of the other, and investment linkages take place when profits from one sector are invested in the other.

All these linkages are of importance in the development of non-farm enterprises in transition economies. However, linkages may not be positive and constraints on the farm sector affect the non-farm economy and vice versa. On production linkages, for example, constraints downstream in the RNFE may raise processing and distribution costs and so inhibit farm sector development, or upstream RNFE constraints may raise input and services costs (Reardon et al., 1998). Increased opportunities for rural non-farm employment would absorb the excess labour found in agriculture and tend to result in increased labour productivity (Christensen and Lacroix, 1997).

### ***Inter-sectoral labour AND capital mobility between farm and non-farm economy***

In general, the mobility of labour between sectors has been influenced by initial conditions and choice of reform policy. In many CEECs, liberalization policies have reduced the constraints on labour mobility, whereas in Romania the slower pace of liberalization has inhibited labour flows (Macours and Swinnen, 1999). As already noted, agriculture provided a buffer against unemployment in many countries, such as Romania and Ukraine. Farm restructuring also affected labour mobility, and CEECs such as Romania, which experienced a shift to private farming, preserved more labour in agriculture than those (such as the Czech

Republic, Slovakia and Hungary) that retained large-scale farms (Macours and Swinnen, 1998). In general, CIS countries have not yet restructured farming to any extent, with the exception of Armenia and Georgia (Heinegg and Swinnen, 2002; Lerman, 1997).

In their analysis of patterns of reform, Macours and Swinnen (1999) suggest that labour mobility in transition economies should be improved as liberalization weakens the link between specific jobs and social security benefits. However, in some countries, food security issues may reduce labour mobility out of agriculture, since households may prefer to stay within the agricultural sector if there is no efficient social security system. Thus, labour above the efficient level may remain in agriculture and adversely affect agricultural labour productivity. Evidence on the efficiency of different farming structures in the transition economies is not yet conclusive: Lerman and Csaki (2000) find no evidence that the productivity on the new private farms in Ukraine is higher than that on other farms. A study by Hughes (2000) found that family crop farms in Hungary and Bulgaria had higher productivity than corporate farms, although the result did not hold in the Czech Republic.

Education is a further important factor affecting labour mobility, and increasing levels of education are likely to lower labour mobility costs, as are higher levels of physical infrastructure development. Whilst these factors are likely to be particularly important in countries with a low population density (Macours and Swinnen, 1999), it is important not to overstate their significance in a transition economy context. Although education is an often-cited issue in reports identifying factors that enhance or constrain an individual's capacity to engage in non-farm activities and/or migrate, the educational legacy of the socialist era was relatively high levels of educational attainment among CEECs (with the possible exceptions of Stalinist Romania and uncollectivized Poland) as compared to the EU (see Swain, 1999).

The adoption of RNFE opportunities may be affected by the ability of farm labour to move to the non-farm economy and the costs of moving (Davis and Pearce, 2000). Economic growth in many CEECs since 1994 has led to increased demand for labour (EBRD, 1999), but often this has been met by labour from the non-agricultural sectors in the economy. Davis and Pearce (2000) argue that the lack of movement from the agricultural sector results from differences between the requirements of the new labour markets and the attributes of agricultural labour, with agricultural labour generally disadvantaged by lower levels of education (Davis and Gaburici, 1999). For example, those with secondary education mainly

undertake rural–urban migration and non-farm MSME start-up, and the percentage of the rural population with secondary education is lower than that for the population as a whole (Davis and Gaburici, 1999). However, levels of education are just one factor affecting inter-sectoral movements of labour. Poor infrastructure (such as roads, transport and telecommunications), housing problems and, in some cases, government-imposed costs or administrative restrictions (OECD, 1999a) are also implicated.

As has been noted, linkages between farming and the rural non-farm economy influence the availability of capital, with profits made in one sector being available for investment in the other, and income made in one sector being spent in the other (Reardon *et al.*, 1998). However, the lack of an efficient land market may inhibit both the release of capital from farming, if land cannot easily be bought or sold, and the availability of credit, if land cannot be used as collateral. Distortions in the capital markets caused by government intervention in interest rates and credit guarantees affect the mobility of capital and the development of an efficient capital market. It is believed that capital constraints limit the development of individual farming in some countries, and hence the restructuring of farms and associated effects on labour mobility (Macours and Swinnen, 1999).

To summarize this section, constraints on the mobility of labour and capital between the farm and non-farm economy, along with human capital and physical infrastructure constraints reduce rural labour productivity and thus keep rural incomes low. Some of the most important determinants of the development of the RNFE and hence of rural livelihoods are: an integrated regional approach; the level of education; rural infrastructure; access to credit; and an efficient land market. Many of these determinants are influenced by reform progress in the general economy and in the agricultural sector. Thus, an analysis of the non-farm economy cannot be isolated from that of the agricultural sector, nor indeed from that of the other sectors in the economy.

### **Lessons for RNFE from developing and developed countries**

Experience in both developing and developed countries can help inform policy for the RNFE in transition economies.

## ***Developing countries***

Rural households in developing countries typically obtain 30–45 percent of their total rural income from off-farm sources. The average figures differ by region and range from 29 percent in South Asia to 45 percent in Eastern and Southern Africa (Reardon *et al.*, 1998).

The nature of the links between the farm and non-farm economy and the performance of agriculture influence the growth of the RNFE. With increasing diversification, the links to agriculture tend to decrease. In many developing countries, the seasonal character of the RNFE is inclined to decrease with increased diversification and to show a trend towards more constancy (Barrett and Reardon, 2000). There often exists a positive correlation of RNFE activities with:

- higher income level for rural families;
- higher potential for diversification of income sources (RNFE); and
- higher productivity in agricultural activities.

However, the interdependence between cause and effect is complex and has to be analysed case by case before patterns and clusters can be discerned (Davis and Pearce, 2000). Recent RNFE research (e.g. Breitschopf and Schreider, 1999; Davis and Pearce, 2000) has also shown a positive correlation between a higher diversification of non-farm activities and income and:

- level of education;
- quality of and access to infrastructure;
- quality, objectives and organization of services;
- opportunities created through local, regional and national government policies; and
- access to credit and financial services.

Direct entry barriers to activities with high returns to labour in developing countries are licence fees, the purchase or rental of equipment and skill acquisition (Reardon *et al.*, 1998). As a result, although low-asset households may spend much time in off-farm activities, these will only be low wage. In contrast, high-asset households may be able to earn higher returns (Reardon *et al.*, 1998).

Bleahu and Janowski (2001) point to the effect of religion and a variety of cultural factors on involvement in the Romanian RNFE. For example, there may be activities that are seen as desirable for certain ethnic groups or classes; and in many developing economies, gender influences the roles taken in the community.

Studies on the RNFE in developing countries suggest that it can be promoted through increasing the asset holdings of the poor in the rural community, both in terms of education and infrastructure; removing land market constraints; improving access to credit for non-farm activities; and disassociating the inequality problems of the farm and non-farm economy (Reardon *et al.*, 2000). Many of these policies are also applicable to development of the rural non-farm economy in transition economies. According to Hazell (1998), one reason the RNFE should be actively encouraged is that when agriculture grows, the RNFE benefits from powerful income and employment multipliers. In many developing countries, discrimination against small rural non-farm firms constrains the effects of these multipliers.

### ***Developed countries***

Analysis of the rural regions of the EU can point to issues of importance for the transition economies. There is a great diversity among rural regions in the EU and both endogenous and exogenous factors affect rural employment growth, where endogenous factors are local impulses and local resources and exogenous factors are those which externally determine the transplantation of employment into the region (von Meyer *et al.*, 1999). As agriculture contracts, the tendency is for specialization to decrease and diversification to increase, but some EU regions were able to increase specialization – for example, by focusing on tourism or on speciality agricultural products. Therefore, policies need to be in line with the individual strengths and weaknesses of a region, and research is essential to reveal these (von Meyer *et al.*, 1999). A multi-sectoral approach must be taken to rural employment creation, rather than one including just agriculture, agrifood and tourism, and local and regional actors and agencies should be involved (Christensen and Lacroix, 1997; von Meyer *et al.*, 1999).

Other policy lessons from the EU for improving rural employment opportunities are that infrastructure should be improved to make rural areas attractive to business and for living; governments should try to improve the general conditions in rural areas and not target particular enterprises; and resources should be directed to regions with potential for growth due to their location, comparative advantage or other reason, but which suffer from poor physical infrastructure, a poorly-trained labour force or lack of processing and marketing facilities (Christensen and Lacroix, 1997).

Brydon and Bollman (2000) found that in many OECD countries the fall in agricultural labour has been compensated by increased employment in services – particularly in tourism and recreation and, in some cases, manufacturing. There is also an increase in opportunities due to digital communications, but little evidence to date on the uptake of these new technologies by rural actors. Changes in the rural labour market are related to changes in the urban labour market, such as the shift to part-time and casual work, and feminization. However, there can be a large variation in economic performance among rural areas and the authors recommend a cross-disciplinary approach to further research.

Woldehanna, Lansink and Peerlings (2000) used a double hurdle model to investigate off-farm work decisions on Dutch cash crop farms and suggest that rationing and unexpected transaction costs, such as search and information costs, inhibit farm households from participating in off-farm activities. Family size and level of education are positively related to the desire to participate in off-farm labour. From their study, they conclude that policies such as agricultural subsidies and quotas which reduce price variability and therefore income risk may have a negative effect on off-farm activities, whereas policies which support education may increase off-farm participation, especially by women.

Evidence from OECD countries suggests that labour market measures that involve counselling and job search assistance are generally effective for most groups in society, whereas the effects of training programmes are less certain (OECD, 1998). However, most measures are not able to help large numbers of unemployed, and effective targeting is therefore needed (OECD, 1998).

Hence, research in developed countries stresses the importance for a cross-disciplinary, multi-sectoral approach to the development of the RNFE, with emphasis on good infrastructure and

education. Local actors should be involved, and the rural economy should be considered to be heterogeneous – there is great variety among regions.

With regard to the EU and the SAPARD<sup>12</sup> programme, in its 2002 assessment of enlargement and the agricultural sector, the European Commission highlighted two issues: the unfavourable farm structure in the candidate countries and the post-accession risk of growing rural unemployment and poverty.<sup>13</sup> In Bulgaria, SAPARD has identified four priority areas: economic diversification; investments in agricultural holdings; and improvements in the processing and marketing of agricultural products. The former two (economic diversification and infrastructural improvement) are also a priority in Slovenia.<sup>14</sup>

## Conclusions

We began this paper by arguing that the RNFE in transition economies should be discussed as part of a growth strategy for the economy and not as a defensive survival strategy. The latter should be mainly relevant in the short-term for most CEECs, though for a significantly longer period in the Balkans and the CIS. Farming may change only slowly, but it will change as many young and better-educated people move out of agriculture to seek higher incomes elsewhere. Rural areas will be left with many older people, but gradually there will be consolidation of farms into larger, more viable units (depending on the nature of the land market and agricultural marketing infrastructure), with more mechanization and fewer full-time farmers. Hence we envisage jobs that support this process: repairing machines, developing and maintaining rural roads and other infrastructure, local food processing (e.g., cheese-making, wine production and the like), providing rural services (accounting, banking, distribution, teaching, etc.). But there will most likely be substantial net flows of people from the countryside to the towns. This is the conceptual framework within which we discussed rural non-farm livelihoods in transition economies.

---

<sup>12</sup> A special fund of 520 million Euro per annum over the period 2000–2006 was agreed upon at the Berlin Council for special assistance between all the CEEC applicant countries for agricultural and rural development (SAPARD).

<sup>13</sup> Enlargement and agriculture: Successfully integrating the new Member States into the CAP. Commission of the European Communities, 30 January 2002.

<sup>14</sup> Press release Rural development programmes for Poland, Hungary, Bulgaria, the Czech Republic, Latvia and Slovenia endorsed. Commission of the European Communities, 14 September 2000. DN: IP/00/10009.

Macroeconomic factors also have a major effect on the RNFE, as they affect general employment opportunities and the institutional framework within which the RNFE functions – in particular, the education system; financial institutions and credit market; factors which influence the development of MSMEs; and the land market and farm structure. Reforms within the agriculture sector also have a major impact on the RNFE due to the linkages between the two sectors, both of a positive and negative nature. In general terms, growth in the farming sector has a positive influence on the RNFE and vice versa, but it is vital that the RNFE is expanded in order to improve rural livelihoods in the long run when the farming sector is expected to contract.

Investigations of the current RNFE situation in the CETE-5, Balkans and the CIS are likely to provide very different pictures of types of employment/income activities undertaken, distribution of time and income between activities, motivations, barriers and prospects. These differences need to be interpreted in the context of the respective current stage of reform and economic development reached in both the rural sector and economy wide. The differences in activities and context will also imply different potential growth patterns. For example, in Romania particularly and Armenia to some extent, current RNFE development potential is less constrained by the business environment and more constrained by farm structure and the influence this has on the commercialization of agriculture.

With the resumption of economic growth, as incomes rise, there will be a need to allow for a shift in patterns of demand towards industry and then services. This does not mean that agriculture declines as the economy grows, but that the share of agricultural output in total output will decline. So growth in agricultural output will be slower than growth in other sectors, once the economy resumes economic growth at the national level. Since agricultural productivity starts at a very low level, it can be expected to rise, probably faster than in some other sectors, so constant or slowly-rising output (in agriculture) will continue to be accompanied by major job losses. In the short to medium term the growth of the rural non-farm private sector will exacerbate current economy-wide trends of higher income dispersion than in the former state sector. Therefore many of the low-paid workers in the new non-farm MSMEs are paid or earn less than state employees (when they are paid). A dualistic economic structure is developing where good jobs in the new RNFE private sector require better-educated, skilled and younger people than most former state employees, which displaces



backward industries and agriculture. The long-term unemployed throughout the region are becoming a large reserve of less-employable labour.

There remains a question as to whether the RNFE should be left to itself – with national governments and their agencies merely ensuring that the institutional and other reforms continue to progress – or whether it requires positive support/intervention. We would argue that the latter would be helpful, possibly even essential, but intervention needs to be informed by a clear conception of what the rural sector is likely to look like 10 to 20 years into the future. Experience from less developed countries suggests that broad-based economic growth can – under the right conditions – reduce the overall poverty level. However, even with growth, groups will remain that descend further into poverty.

National governments and the donor community need to identify clear additional interventions that are demonstrably beneficial alongside general economic policies. In many transition economies, particularly in the CIS, the simple combination of markets and a minimalist state is not enough to engender both economic growth and poverty reduction. In many CIS countries (for example Moldova, Central Asia, Armenia and Georgia) there remains limited evidence that resumed economic growth solves the problem of mass poverty. We maintain that the RNFE in transition economies should be viewed as an integral part of a growth strategy for the economy and not as a defensive survival strategy. Economic growth in the CETE-5 has achieved some welfare and poverty improvements by: (i) adopting a more gradualist approach to economic reform and institutional change; and (ii) promoting export-oriented and service sector growth, which does not fully displace backward domestic producers.

The involvement of local actors is important. The heterogeneity of the RNFE must be recognized, with policies adjusted accordingly. However, there is a lack of data and information on the RNFE, diversification, part-time farming and non-farm income in the transition economies. This needs to be addressed so that appropriate rural policies can be developed.

## References

- Balcombe, K.G. & Davis, J.R.** 1996. An application of cointegration theory in the estimation of the almost ideal demand system for food consumption in Bulgaria. *The International Association of Agricultural Economists (IAAE) Journal of Agri. Econ.*, 15(1): 47–60.
- Barrett, C. & Reardon, T.** 2000. *Asset, activity and income diversification among African agriculturists: Some practical issues* (available at World Bank ARD website).
- Bleahu, A. & Janowski, M.** 2001. *Factors affecting household-level involvement in rural non-farm economic activities in two communities in Dolj and Brasov judete, Romania*. NRI RNFE report no. 2725 (available at <http://www.nri.org/rnfe/index.html>).
- Breitschopf, B. & Schreider, G.** 1999. *Rural development in transition economies – the cases of two counties in Romania*. Paper presented at the 48<sup>th</sup> International Atlantic Economic Conference, Montreal, 7–10 October.
- Bright, H., Davis, J., Janowski, M., Low, A. & Pearce, D.** 2000. *Rural non-farm livelihoods in Central and Eastern Europe and Central Asia and the reform process: A literature review*. NRI RNFE report no. 2633 (available at <http://www.nri.org/rnfe/index.html>).
- Bryden, J. & Bollman R.** 2000. Rural employment in industrialised countries. *Agri. Econ.*, 22(2): 185–197.
- Chaplin, H.** 2000. *Agricultural diversification: A review of methodological approaches and empirical evidence*. IDARA working paper no. 2/2. London, Imperial College at Wye.
- Chirca, C. & Tesliuc, E, eds.** 1999. *From rural poverty to rural development..* Bucharest, Romania, World Bank and National Commission for Statistics.
- Christensen, G. & Lacroix, R.** 1997. *Competitiveness and employment: A framework for rural development in Poland*. World Bank discussion paper no. 383. Washington, DC, World Bank.
- Commission of the European Communities.** 2000. *Rural development programmes for Poland, Hungary, Bulgaria, the Czech Republic, Latvia and Slovenia endorsed*. Press release, 14 September. Brussels, DN: IP/00/1009 (available at <http://europa.eu.int/comm/enlargement/docs/news.htm>).
- Commission of the European Communities.** 2002. *Enlargement and agriculture: Successfully integrating the new Member States into the CAP*. Issues paper, 30 January. Brussels, SEC(2002) 95 final (available at <http://europa.eu.int/comm/enlargement/docs/index.htm>).
- Csaki, C. & Fock, A.** 1999. *The agrarian economies of Central and Eastern Europe and the Commonwealth of Independent States: An update on status and progress, 1998*. Environmentally and socially sustainable development working paper no. 13. Washington, DC, World Bank.

- Csaki, C. & Lerman, Z.** 2000. *Agricultural transition revisited: Issues of land reform and farm restructuring in East Central Europe and the former USSR*. Washington, DC, World Bank.
- Davis, J.** 1997. Agricultural reform during transition: A synopsis of recent developments and future prospects. *MOCT-MOST: Econ. Policy in Transitional Economics*, 7(4): 55–79.
- Davis, J.** 2002. *Constraints and potential to the development of rural non-farm activities in Armenia*. Joint Endeavour of the European Commission and UN-FAO/SEUR GCP/ INT/ 758/ EC-ARM. (unpublished mimeo)
- Davis, J. & Bleahu, A.** 2002. *Diversification of income and employment opportunities: RNFE feasibility study in selected areas in Romania*. UN-FAO/SEUR. (unpublished mimeo)
- Davis, J. & Gaburici, A.** 1999. The economic activity of private farms in Romania during transition. *Europe-Asia Studies*, 51(5): 843–869.
- Davis, J. & Gaburici, A.** 2001. *Non-farm employment in small-scale enterprises in Romania: Policy & development issues*. NRI RNFE report no. 2637 (at <http://www.nri.org/rnfe/index.html>).
- Davis, J., Kopeva, D. & Mihailov, D.** 2002. *Diversification of income and employment opportunities: RNFE feasibility study in selected areas in Bulgaria*. UN-FAO/SEUR. (unpublished mimeo)
- Davis, J. & Pearce, D.** 2000. *The rural non-farm economy in Central and Eastern Europe*. Discussion paper no. 2000/04. Chatham, UK, Natural Resources Institute.
- EBRD.** 1999/ 2000. *Transition report update 2000*. London, European Bank for Reconstruction and Development.
- Edelman, M.** 1997. *The adequacy of rural capital markets: Public purpose and policy options*. Economics Staff Paper number 292. Ames (Iowa), Iowa State University.
- Ellis, F.** 1998. *Rural livelihood diversification: Framework and categories*. Chatham, UK, Natural Resources Institute. (unpublished mimeo)
- Gow, H. & J. Swinnen** 1998. Up- and downstream restructuring, foreign direct investment, and hold-up problems in agricultural transition. *European Review of Agri. Econ.*, 25(3): 331–350.
- Greif, F.** 1997. *Off-farm income sources and uses in transition economies*. Vienna, Federal Institute of Agricultural Economics and Rome, FAO/REU. (unpublished mimeo)
- Hare, P.G.** 2001. *Institutional change and economic performance in the transition economies*. (unpublished mimeo)
- Hazell, P.** 1998. Agricultural growth, poverty and the environment: Introduction. *Agri. Econ.*, 19(1, 2): ix–xii (Special Issue).

- Heidhues, F., Davis, J. & Schrieder, G.** 1998. Agricultural transformation and implications for designing rural financial policies in Romania. *European Review of Agri. Econ.* 25(3): 351–372.
- Heinegg, A. & Swinnen, J.** 2002. On the political economy of land reforms in the former Soviet Union. *Journal of Int. Development*, 14( 7): 1019–1031.
- Horská, H. & Spešná, D.** 2000. *The socioeconomic standing of rural women*. Prague, Research Institute of Agricultural Economy (VUZE).
- Hughes, G.** 2000. Total productivity of emergent farm structures in Central and Eastern Europe. In S. Tangermann & M. Banse, eds. *Central and Eastern European agriculture in an expanding European Union*. Wallingford, UK, CABI Publishing.
- Jehle, R.** 1998. *Bottlenecks of SME in services and craft enterprises and their elimination in rural areas of the Czech Republic. A trial to use traditional regional economic measures*. Paper presented to the 38<sup>th</sup> Congress of the European Regional Science Association, Vienna, 28 August–1 September.
- Lanjouw, J. & Lanjouw, P.** 1997. *The rural non-farm sector: An update*. Paper presented at the XXIII International Conference of Agricultural Economists (IAAE) on food security, diversification and resource management: Refocusing the role of agriculture. Sacramento, USA, 10–16 August.
- Lerman, Z.** 1997. Experience with land reform and farm restructuring in the former Soviet Union. In J. Swinnen, A. Buckwell & E. Mathijs, eds. *Agricultural privatisation, land reform and farm restructuring in Central and Eastern Europe*. Aldershot, UK, Ashgate.
- Lerman, Z. & Csaki, C.** 2000. *Ukraine: Review of farm restructuring experiences*. World Bank technical paper no. 459. Washington, DC, World Bank.
- Lerman, Z., Lundell, M., Mirzakhani, A., Psatrian, P. & Kakosian, A.** 2001. *Armenia's private agriculture*. Lanham, MD (USA), Lexington Books.
- Macours, K. & Swinnen, J.** 1998. *Agricultural labour adjustments during transition in Central and Eastern Europe*. Leuven, Belgium, Department of Agricultural Economics, Katholieke Universiteit Leuven.
- Macours, K. & Swinnen, J.** 1999. *Patterns of agrarian transition: A comparison of output and labour productivity changes in Central and Eastern Europe*. FSU and East Asia Policy Research Group working paper no. 19. Leuven, Belgium, Department of Agricultural Economics, Katholieke Universiteit Leuven.
- Milanovic, M.** 1998. *Income, inequality and poverty during the transition from planned to market economy*. Washington, DC, World Bank Regional and Sectoral Studies.
- Mishra, A.K. & Goodwin, B.K.** 1997. Farm income variability and the supply of off-farm labour. *American Journal of Agri. Econ.*, 79(3): 880–887.

- Moers, L.** 2000. *Empirical research on growth with institutional measures in transition economies: An overview*. (unpublished mimeo)
- OECD.** 1996. *Better policies for rural development*. Paris, Organisation for Economic Co-operation and Development.
- OECD.** 1998. *Labour market and social policy in Bulgaria*. Paper presented at a seminar held in Sofia, Bulgaria on 5 March 1998. CCNM/DEELSA(98)64. Paris.
- OECD.** 1999a. *Agricultural policies in emerging and transition economies 1999*. Vols. I and II. Paris.
- OECD.** 1999b. *Agricultural finance and credit infrastructure in transition economies*. Proceedings of OECD expert meeting in Moscow, February. Paris.
- Pearce, D. & Davis, J.** 2000. The role of the non-farm rural sector in the reconstruction of the Balkans. *MOCT-MOST: Econ. Policy in Transition Economics*, 10(2): 207–228.
- Reardon, T., Stamoulis, K., Cruz, M, Balisacan, A., Berdegue, J. & Banks, B.** 1998. Rural non-farm income in developing countries. In FAO, *The state of food and agriculture 1998: Part III*. Rome, Food and Agriculture Organization of the United Nations (available at <http://www.fao.org/docrep/w9500e/9500e02.htm>).
- Reardon, T., Taylor, J.E., Stamoulis, K, Lanjouw, P. & Balisacan, A.** 2000. Effects of non-farm employment on rural income inequality in developing countries: An investment perspective. *Journal of Agri. Econ.*, 51(2): 266–288.
- Sarris, A, Doucha, T. & Matijs, E.** 1999. Agricultural restructuring in Central and Eastern Europe: Implications for competitiveness and rural development. *European Review of Agri. Econ*, 26:305–329.
- SIDS.** 2001. *Statistics on International Development, 2000/2001*. UK Department for International Development.
- Start, D.** 2001. The rise and fall of the rural non-farm economy: Poverty impacts and policy options. *Dev. Policy Review*, 19(4): 491–505.
- Swain, N.** 1999. Rural development and social change in the post-socialist Central European countryside. *Zemedelska Ekonomika*, 45(2): 79–84.
- Swift, J.** 1998. *Factors influencing the dynamics of livelihood diversification and rural non-farm employment in time and space*. (unpublished mimeo)
- Turnock, D.** 1998. Introduction. In D. Turnock, ed. *Privatization in rural Eastern Europe*. Cheltenham, UK, Edward Elgar.
- UN/ECE** 1999. *Economic survey of Europe 1999, No. 2*. UN Economic Commission for Europe, Economic Analysis Division, Geneva.
- von Meyer, H., Terluin I.J., Post, J.H. & van Haeperen, B., eds.** 1999. *Rural employment dynamics in the EU: Key findings for policy consideration emerging from the RUREMPLO project*. The Hague, Agricultural Economics Research Institute (LEI).

**Woldehanna, T., Lansink, A.O. & Peerlings, J.** 2000. Off-farm work decisions on Dutch cash crop farms and the 1992 and Agenda CAP reforms. *Agri. Econ.* 22(2): 163–171.