Rural Non-Farm Economy Project
Central Avenue, Chatham Maritime, Kent ME4 4TB, United Kingdom
Tel: +44 (0)1634 880088; Fax: +44 (0)1634 883706 Email:j.m.downard@greenwich.ac.uk
WWW: **http://www.nri.org/rnfe/index.html**

Conceptual Issues in Analysing the Rural Non-Farm Economy in Transition Economies

Junior Davis

Natural Resources Institute Report No. 2635

August 2001

Department for International Development (DFID)/World Bank
Collaborative Program for Rural Development
CEE/CIS Rural Non-Farm Economy and Livelihoods Enhancement:
Policy Research Initiative

Acknowledgements
The author(s) gratefully acknowledge the support of the Department for International Development (DFID)/World Bank Collaborative Program for Rural Development, Project No. V0135, in preparing this paper. Any remaining errors and omissions are solely the authors' responsibility. The views in this paper are solely those of the authors and not necessarily those of the DFID or World Bank.

Conceptual Issues in Analysing the Rural Non-Farm Economy in Transition Economies

Junior Davis[1]

Introduction

There has been an increasing recognition over the past few 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 *et al*., 2000). Equally, rural livelihoods are not limited to income derived solely from agriculture but may be from diverse sources. The concept of livelihood used in this paper is that given by Ellis (1998, p. 6)

> *'A livelihood comprises incomes in cash and in kind; the social relations and institutions that facilitate or constrain individual or family standards of living; and access to social and public services that contribute to the well-being of the individual or family.'*

Rural livelihoods thus include income from both farm and non-farm sources. The rural non-farm economy (RNFE) may be defined as being all those activities associated with waged work or self-employment in income generating activities (including income in-kind) that are not agricultural but located in rural areas. Thus, rural non-farm activities might include manufacturing (i.e. agro-processing) 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 characterised by its heterogeneity, incorporating self-employment, micro and small-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 and was prepared as part of the Natural Resources Institute project entitled 'Characterisation and Analysis of the Non-Farm Rural Sector in Transition Economies' undertaken for the World Bank and Department for International Development (DFID). The transition from a centrally planned economy to a market economy in Central and Eastern European countries (CEECs)[2], Baltic States[3] and the Commonwealth of Independent States (CIS)[4] 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 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 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 recognised 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, Davis et. al., 2000).

The purpose of this paper is to outline key conceptual issues in analysing the rural non-farm economy in transition economies. This 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 latter should be mainly relevant in the short-term for most CEECs though significantly longer for the Balkans and the CIS. Farming may only change 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 proportionally more 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 supporting 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 framework within which we discuss the various more detailed issues in this paper.

The paper starts with an overview of the post-socialist recession and characteristics of the rural non-farm economy (RNFE). Section 2 explores the resumption of growth at the national level and what this is likely to mean for the rural non-farm economy. Section 3 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.

1. Post-socialist recession and the characteristics of the RNFE

The OECD (1996) classifies predominantly rural areas as those where more than 50 per cent of the population live in rural communities, and significantly rural areas as those where between 15 and 50 per cent live in rural communities. The 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 are associated with work, either waged or self-employed, that are located in rural areas but are not in agriculture. These might include agro-processing, 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 said 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 give individuals and households more options to improve their livelihood security and to improve their own living standards. Individuals and households seek new ways to raise incomes which differ sharply depending on the degree of freedom of choice (to diversify or not) and the reversibility of the outcome, and which may incur different degrees of environmental risk.

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 (page 16) 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 recognise 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 in rural areas (e.g. agro-industrial complexes in Bulgaria) or by encouraging agricultural co-operatives to diversify into non-agricultural activities (e.g. computer hardware manufacturing co-operative "firms" in the Czech Republic). 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 per cent of Slovak agricultural cooperatives were engaged in non-agricultural activities as compared to 78 per cent in the Czech Republic, and 58 per cent 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; where the location of industry in rural areas was not centrally directed.

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).

1.2 Reconciling poverty reduction strategies with economic transition

It is generally recognised that rural non-farm development has a key role to play in the reform of rural economies of the CEECs and CIS. Interest in the potential role of rural non-farm enterprises in the rural economy is in part derived from the expectation that the rapid development of township and village enterprises (TVEs) in China can be replicated in European transition economies (Stiglitz, 1999; Pearce and Davis, 2000). It also comes from donors' focus on poverty reduction, the new development paradigm of the promotion of sustainable rural livelihoods (Csaki et al., 2000) and research emphasising the importance of non-farm income to poor rural households (Greif, 1997; Chirca and Tesliuc, 1999). As to whether the international donor community is right to focus on poverty reduction in transition economies is rarely discussed. For example, in most transition economies during the central planning era, poverty did not officially exist and research into it was officially discouraged. Throughout the region, anti-poverty strategies have largely been driven by international organisations (World Bank, DFID, UNICEF, GTZ etc.). However, to promote poverty reduction in most transition economies one central difficulty remains, that where interventions have been successful they have occurred at particular historical moments and under well defined conditions. Typically this occurs where: a) the welfare of the rich and the poor are interdependent and the rich are unable to adequately insulate themselves from the living conditions of the poor; b) the poor had the means to affect the welfare of the rich through crime, insurrection and disease; and c) the state could act to reduce the risk to the welfare of the rich by addressing the needs of the poor. The process of transition, particularly the earlier years contributed greatly to social tension and income inequality (Milanovic, 1998) in many transition economies.

1.3 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 (including financial 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 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 Europe) 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 Federal Republic of Yugoslavia, or indirectly as is the case for the remaining states in the region (e.g. Bulgaria, Romania, Greece etc.). Historically the Balkans have always been amongst the least developed regions of continental Europe. In general these economies have also lagged behind in the process of EU integration. Only Bulgaria and Romania have association agreements with the EU; the rest for a variety of reasons have been excluded from the process. The regional economy has been destabilised 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: GDP in the Balkan Transition Economies, 1989-1999 (1989=100)

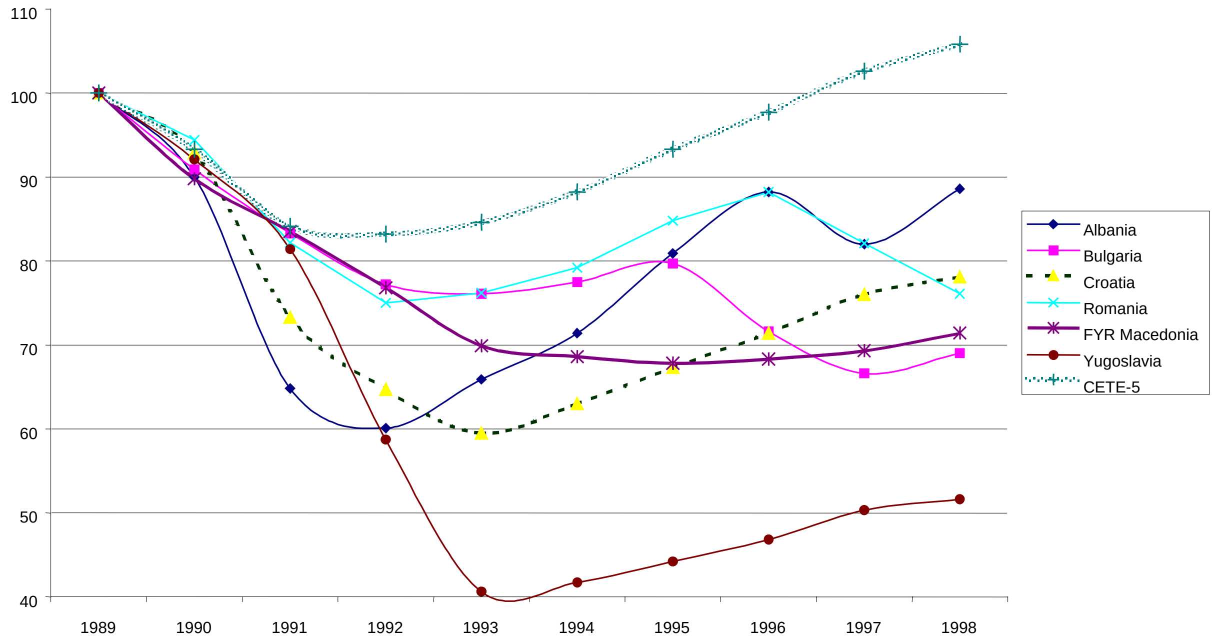


Figure 1 shows that the last decade has been one of economic decline for the Balkans with the possible exception of Croatia (which has started to show signs of sustained economic growth). This shows that the cumulative decline of GDP in the Balkan economies has been much greater than in the non-Balkan Central European Transition Economy pre-accession states (CETE-5[5]) and in 1998 was still below 80 per cent 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 per cent 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. Similarly, Table 1 shows that in terms of employment levels, employment is approximately 25 per cent below its 1989 level and constitutes a considerably larger decline, and thus much higher rate of unemployment than in the CETE-5. 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). These negative economic developments have forced many people out of employment, or encouraged high rates of migration (much of it illegal). Although the data is not very reliable, widespread poverty, unemployment and social dislocation has helped encourage this process.

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 per cent of recorded GDP in more 'orderly' transition economies (for example the Czech Republic and Hungary), the figure is up to 50 per cent for post-conflict transition economies (Milanovic, 1998). Even before the Kosovo conflict, the informal economy in the Federal Republic of Yugoslavia was estimated to have risen from 32 per cent of official GDP in 1991 to 54 per cent 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 rural livelihoods (as a source of full-time or supplementary income or employment) and enterprise creation.

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 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 & H			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			
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 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 (1999) Agricultural Policies in Emerging and Transition Economies, Vols I and II; UN/ECE (1999) Economic survey of Europe 1999, No. 2.

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

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 stabilisation programmes which incorporated elements of: a tight incomes policy, reductions in government expenditure, trade and price liberalisation policies (food prices are particularly important in this regard) have increased the social insecurity and poverty of large sections of the 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 is only being avoided by 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.

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 and 33 per cent of their populations live in persistent poverty, i.e. below subsistence levels for a sustained period of time. On an expenditure measure, 10 per cent of the population are persistently in extreme poverty, implying malnutrition. These poverty problems have started to be addressed (with varying degrees of success) in some CEECs through effective social policies where poverty growth rates have stabilised (Milanovic, 1999). 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. 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 than them. Whilst all the CEECs aspire to join the EU and this has provided an important impetus to reform, the results of the economic reforms pursed since 1990 in some CEECs, the Balkans and CIS are not yet clear and many problems still require resolution. Political considerations will continue to be paramount in determining the future role of poverty alleviation and social policy in many transition economies.

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 desired 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-fertilisation of ideas on reform, which were generated from external societies. In the transition economies, a key concern will be to move the cross-fertilisation 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 conceptualise poverty as primarily a problem with one main solution; the promotion of (more) economic growth, and mainly leave the development of poverty assessments to the donor community.

1.4 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, firstly because non-farm income is not recorded in the statistics of most countries, and secondly due to the unwillingness of survey responders to provide information on their incomes. However, there is growing evidence that rural households in the CEECs may obtain 30 to 50 per cent 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 per cent of village households, whereas non-agricultural income is the main source for 30 per cent of village households (Christensen and Lacroix, 1997). In Ukraine, 76 per cent of the income of private farmers' families is from agriculture, while 16 per cent is from off-farm sources and 8 per cent from business (Lerman and Csaki, 2000). Thus it is likely that the non-farm sector is generally larger in the CEECs than CIS, and also possible that income from the non-farm sector is underestimated.

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[6]. 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, Davis 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 industrialisation in rural areas may benefit from 'flexible specialisation' and economies of agglomeration through clusters and networks.

Limited off-farm earning opportunities are given as one of the main reasons for stagnant rural incomes in Georgia (FAO, 2000b), together with the scarcity of rural credit, poor market access for domestic products, unequal access to inputs complementary to labour, and barriers to land consolidation. In countries such as Romania, where agriculture is acting as a buffer against unemployment and hidden unemployment is widespread and increasing (Davis and Pearce, 2000), development of the RNFE is vital, and the Romanian government is aware that in order to improve the motivation of people to seek rural non-farm employment, the quality of life in rural communities needs to be improved with better education and infrastructure (Turnock, 1998c).

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 sector. 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 sector 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. Table 3 shows the main sources of off-farm and additional incomes for the CEECs.

Table 2. Main sources of off-farm and additional incomes in selected CEECs

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

Source: Greif, F. (1997) *Off-farm income sources and uses in Transition Economies*, FAO/REU mimeo, 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 percent of farms involved

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

Table 2 highlights the fact that rural non-farm livelihoods in transition economies are derived from a wide variety of activities. In addition to these data from CEECs, a study on private farmers in Armenia (Lerman *et al.*, 1999) found that 23 per cent of respondents engaged in non-agricultural business activities, with 18 per cent 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 (1998b), 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 effectively closed in the past (Turnock, 1998b).

During the early stages of transition households were pushed into the rural non-farm economy due to poverty, high unemployment in urban centres, and a lack of opportunities on-farm, for example, 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, whether the entry is part of an upward or downward livelihood trajectory [7] (Swift, 1998). The key features of distress-push and demand-pull diversification are outlined below in Table 3.

Table 3. The push and pull factors of RNFE diversification

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

Source: Davis and Pearce (2000).

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 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 to make this distinction between distress-push or demand-pull since each 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 urbanisation 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).

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.

2. The resumption of economic growth and the RNFE in transition economies

2.1 Conceptual Observations

Here some observations are offered 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 USA. The share both of farmers and of the rural population involved in the RNFE is probably still below Western figures. Whereas there is evidence that of all farms, 35 per cent earn non-farm income in Romania (Davis and Gaburici, 1999), in the USA for instance, about 75 per cent of farms are small (annual gross sales less than $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 $50,000 and $250,000), large ($250,000 to $500,000) and very large (over $500,000) farms, non-agricultural income is still close to 70 per cent, 40 per cent 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 farm 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 specialisation 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 he 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 CEE is partly a question of the classification of activities, and not necessarily an increase in economic activities [see Swain, 1999].

2.2 What drives the RNFE in Transition Economies?

This is important 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 RNFE will contract as prices and incomes stabilise. There are 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, which may also facilitate the growth of the RNFE.

2.3 Demand and supply factors

If the question of what drives the RNFE from a supply and demand perspective is considered, it should be noted 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 from existing suppliers; or by
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 transition economies, 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 – just as the consumption of (home-grown) food produce such as potatoes is the only food item the consumption of which has increased during 1991-1998 in Russia; years of impoverishment for the majority of the population. This was also true of bread consumption in Bulgaria during the early years of transition (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, and 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 which characterised 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, they can compete in cost efficiency with existing 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 factor driving RNFE growth, 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) would require higher quality and greater capital investments. However, Davis and Gaburici (2001) found that when considering factors conditioning access to RNF enterprise in Romania, the demand for local services is often limited in sparsely populated rural areas and where incomes are low. Thus, for tradables, access to markets will also be crucial in driving RNFE growth.

2.4 Labour: farms versus migration

Another dimension is to consider 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.

2.5 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.

2.6 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. 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 stabilises income over time.

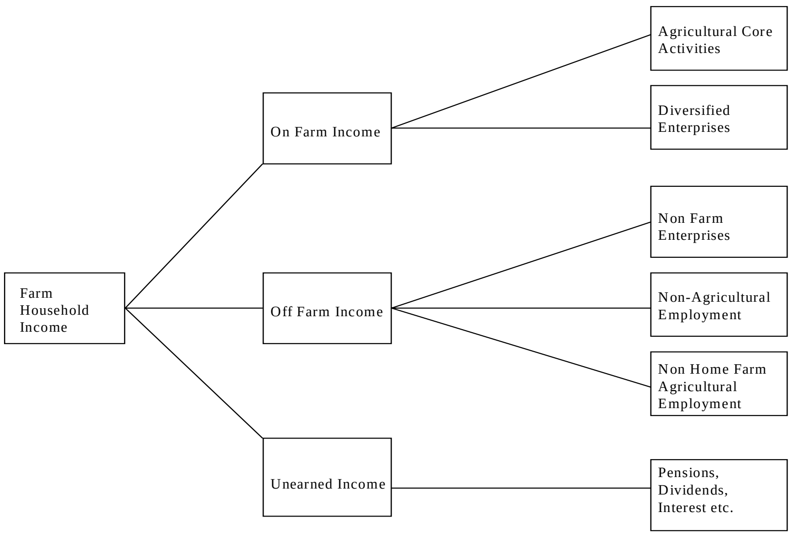
In order to achieve RNFE growth, rural areas will need to develop activities which produce rural exports and tradable goods and services, which extend beyond rural communities. In general terms competitive advantages will be found in sectors where primary non-farm activities are tied to natural resources (agriculture, forestry, mining etc.), natural resource processing, transportation and waste management (agri-food and mineral processing); and where labour is cost sensitive (i.e. able to exploit low opportunity costs of seasonal labour) or the rural population has specialised 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 these ideas are taken further by considering the scope of the RNFE for sustainable livelihoods and income provision in post-socialist transition economies.

3. 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. Now considered within a theoretical context is the potential for further RNFE income generation in the post-socialist societies of CEE and the CIS.

3.1 Household Income

Davis and Pearce (2000), assert in a review of the level of RNFE diversification, that 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 main component has been income from agricultural core activities. These may be defined as those enterprises taking place on predominantly agricultural 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 economic activities of farmers and rural dwellers, two central problems emerge: (i) recognising and ordering the multiple 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 the former is not in doubt. The latter – 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 NFR activities of farmers have emerged: (pluriactivity[8], 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 both from agricultural core activities and non-agricultural activities. Potential sources of non-agricultural 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 off-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 financial 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[9]. Moreover, there is no reason why RNFE income diversification has to include setting up new enterprises or be farm based at all – for many, other options may prove more fruitful or promising (Pearce and Davis, 2000).

3.2 Capital investment, growth and income

Growth is usually seen as resulting from increased investment in capital goods. Breitschopf and Schrieder (2000) in their study of Romania, show that the local RNFE is less capital intensive than local agricultural production. It could be argued that the low capital intensity makes the RNFE viable, hence there is little scope for efficiency and income growth through capital investments – the sector would then lose its local comparative advantage. A key growth path for the RNFE in transition countries (particularly the poorest) is then an increase in labour supply with low labour opportunity costs.

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 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 sector 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 undertake non-farm activities.

3.3 Credit

It follows that the only way the RNFE can become more capital intensive is through the development of credit markets and rural demand management. The second option, implying inter-sectoral 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 supporting rural incomes – not the other way round.

3.4 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, there are two types of growth of the RNFE in transition economies. 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. If we consider diversification towards non-farm activities of existing farms, it is important to realise 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 do 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 most individual farms are 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, 2001:6-8). 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 et al, 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 utilised instead of the (costly) use of consultants to set-up non-farm based businesses, which also face a 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.

4. The RNFE as part of a rural economic growth strategy for transition economies

Start, Johnson et. al., (2000) maintain 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 competitive 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 wealth 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 fostering growth, quite apart from the question of whether it is farm or non-farm based.

4.1 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)[10]. 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 and most notably within DFID's (1998) sustainable livelihoods approach[11] :

- Physical endowments, such as location, timber, gas, or scenic beauty
- Physical infrastructure, such as roads and telecommunications
- Human and relational 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

- 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
- 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, or 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 (1999) 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 recognised as affecting growth.

As to *formal institutions*, an important one is trade arrangements. Some economists stress that openness is important for growth, others say that production linkages are more important for growth. However, this 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 expand and the other will become proportionally less important. 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 out-sourcing of labour, which is one of the ways individual farmers diversify, in this case, may not. In Section 4.2 of the paper we refer to the findings of Reardon *et al*., 1998 regarding on-farm RNFE linkages through consumption effects (e.g higher income leads to increased demand for non-farm goods and services, as well as upstream and downstream links) which have not been addressed here. 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? Theoretically, this is ambiguous. It depends on factor endowments, the type of openness (trade flows, capital flows, or labour flows), and on complimentarity and substitutability of factors of production, and on the distribution of endowments over individuals on different income levels. Empirically, 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, 1999). 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, 2000a 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? It is difficult to draw any definite conclusions on the above at this time.

An important informal institution is a social network(s). 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 and social capital; for instance, is trust related to ethnicity? Another is to see how social capital is institutionalised 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 is 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 that 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 development. 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 section 4.2).

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 *et al.*, 1999). Whether efficiency increases 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 (Gow and Swinnen, 1999). 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.

4.2 Linkages between the farm and non-farm sectors

As already noted, the prevailing conception is that RNFE activities have close links with the agricultural sector (Heidhues *et al*, 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 sectors, these must also be viewed within the wider context of broader links. The World Bank (Csaki *et al.*, 2000) emphasises 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 (Islam, 1997).

The farm and non-farm sectors 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, such as agro-processing and distribution, that rely on farm inputs 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 sector 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).

4.3 Inter-sectoral labour and capital mobility between farm and non-farm sectors

In general, the mobility of labour between sectors has been influenced by initial conditions and choice of reform policy. In many CEECs, liberalisation policies have reduced the constraints on labour mobility, whereas in Romania the slower pace of liberalisation has inhibited labour flows (Swinnen *et al.*, 2000). 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), which 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 (Lerman, 1997).

In their analysis of patterns of reform, Macours and Swinnen (1999) suggest that labour mobility in transition economies should be improved as liberalisation 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: Csaki and Lerman (1997) 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. Although these factors are likely to be especially 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 factor, the capacity to engage in non-farm activities and migrate that was inherited from the socialist era was relatively high levels of educational attainment (with the possible exceptions of Stalinist Romania and uncollectivised Poland) among CEECs as compared to the EU. Swain (1999) in his study of the post-socialist rural economy of Central Europe argues that the types of skills required for professional, managerial and white-collar jobs, and the ability to decide to become an entrepreneur' (essentially self-employed) were widespread during the socialist era. Swain (1999) maintains that in the socialist CEECs the requisite human capacities in terms of skills, experience and education that can respond and adjust to changing circumstances comprised over a third of the surveyed rural population employed outside of agriculture during the 1980s.

The adoption of RNFE opportunities may be affected by the ability of farm labour to move to the non-farm sector 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 telecoms), 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 sector 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 (Swinnen *et al.*, 2000).

To summarise this section, constraints on the mobility of labour and capital between the farm and non-farm sectors, and on human capital and physical infrastructure, 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.

5. 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.

5.1 Developing countries

Rural households in developing countries typically obtain 30-45 per cent of their total rural income from non-farm sources. The average figures differ by region and range from 29 per cent in south Asia to 45 per cent in Eastern and Southern Africa (Reardon *et al.*, 1998). The nature of the links between the farm and non-farm sectors 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:

- The higher income level of 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:

- The level of education;
- Quality of and access to infrastructure;
- Quality, objectives and organisation 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 which 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 this 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 sectors (Reardon *et al*., 2000). Many of these policies are also applicable to development of the rural non-farm economy in transition economies. Hazell (1998) states that one reason why the RNFE should be actively encouraged is because, 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.

5.2 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 in the regional economy is for specialisation to decrease and diversification to increase, but some EU regions were able to increase specialisation – 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 just including agriculture, agro-food 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 for 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 feminisation. 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 *et al*. (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.

Conclusions

This paper began 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. Macroeconomic factors 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 Romania, Armenia, and Georgia 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. 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 commercialisation 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-medium term the growth of the rural non-farm private sector will exacerbate current economy-wide trends of higher income dispersion than that in the former state sector. Therefore many of the low-paid 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 intervention. This paper concludes 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, there will remain groups which descend further into poverty. Therefore the national governments and 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 of resumed economic growth solving the problem of mass poverty. Nonetheless, 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) export-oriented and service sector growth, which does not fully displace backward domestic producers.

The main lessons from research to date suggest that the factors essential for growth of the RNFE in transition economies are: improvements in levels of education; in rural physical infrastructure; in access to capital and credit; in the land market; and in the business environment for MSMEs. The involvement of local actors is important, and the heterogeneity of the RNFE must be recognised, 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, which needs to be addressed so that appropriate rural policies can be developed.

References

Balcombe, K.G. and 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 Agricultural Economics, vol. 15. (1). pp. 47-60, (1996), Elsevier Publishers.*

Bleahu, A., and Janowski, M (2001) Factors affecting Household-level involvement in Rural Non-Farm Economic Activities in two communities in Dolj and Brasov *judete*, Romania (unpublished mimeo).

Breitschopf B and Schreider G (1999*) Rural development in transition economies – the cases of two counties in Romania.* Paper presented at the 48th International Atlantic Economic Conference 7-10 October, Montreal.

Brydon and Bollman (2000) Rural employment in industrialised countries *Agricultural Economics* 22 pp 185-197

Chaplin H (2000) Untitled. In press IDARA Working Paper No. 2.London: Imperial College at Wye.

Chirca C and Tesliuc E (eds) (1999) *From Rural Poverty to Rural Development*, World Bank and National Commission for Statistic, Romania.

Christensen G and Lacroix R (1997) *Competitiveness and Employment: A Framework for Rural Development in Poland* World Bank Discussion Paper No. 383, Washington DC, World Bank.

Commander S and Tolstopiatenko (1997) Unemployment, restructuring and the pace of transition. In Zecchini S (ed) *Lessons from the Economic Transition: Central and Eastern Europe in the 1990s* Dordrecht/Boston/London, Kluwer Academic Publishers.

Csaki C and Fock A (1999) The Agrarian Economies of Central and Eastern Europe and the Commonwealth of Independent States: an Update on Status and Progress - 1998 ECSSD Environmentally and Socially Sustainable Development. Working Paper no. 13. Washington DC, World Bank.

Csaki C and Lerman Z (2000a) *Structural change in the farming sectors in central and eastern Europe*. World Bank Technical Paper No. 465, Washington DC, World Bank.

Csaki C and Lerman Z (2000b) Agricultural transition revisited: issues of land reform and farm restructuring in East Central Europe and the Former USSR Washington DC, World Bank.

Davis JR and Gaburici A (1999) The economic activity of private farms in Romania during transition *Europe-Asia Studies* Vol. 51 No. 5 pp 843-869.

Davis, JR and Pearce, D (2000). The Non-Agricultural Rural Sector in Central and Eastern Europe, forthcoming in *Lerman, Z and Csaki, C. (2001) 'The Challenge of Rural Development in the EU Accession Process' World Bank Technical Publication.*

Davis JR and 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.

Efstratoglou-Todoulo (1990) Pluriactivity in different socio-economic contexts: a test of the push-pull hypothesis in Greek farming. *Journal of Rural Studies* Vol. 6 No. 4 pp 407-413.

Ellis F (1998) *Rural Livelihood Diversification: Framework and Categories*. Unpublished paper prepared for the Natural Resources Institute, Chatham, UK.

Greif F (1997) Off-farm income sources and uses in transition economies. Unpublished mimeo. Federal Institute of Agricultural Economics, Vienna and FAO/REU, Rome.

Hare, P. G. (2001) Institutional Change and economic performance in the transition Economies (unpublished mimeo, May 2001).

Hazell P (1998) Agricultural Growth, Poverty and the Environment: Introduction, *Agricultural Economics* Special Issue, Vol.19, Nos. 1, 2 pp ix-xii

Heidhues F, Davis JR and Schrieder G (1998) Agricultural Transformation and implications for designing rural financial policies in Romania. *European Review of Agricultural Economics* Vol. 25 No.3 pp 351-372.

Horská H and Spešná D (2000) *The Socioeconomic Standing of Rural Women,* The Research Institute of Agricultural Economy (VUZE), Prague, Czech Republic.

Hughes G (2000) Total Productivity of Emergent Farm Structures in Central and Eastern Europe. In Tangermann S and Banse M (eds*) Central and Eastern European Agriculture in an Expanding European Union* Wallingford, Oxon, 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 38th Congress of the European Regional Science Association 28 Aug – 1 Sept, Vienna.

Lanjouw JO and 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. 10-16 August, Sacramento, USA.

Lerman Z (1997) Experience with land reform and farm restructuring in the Former Soviet Union. In Swinnen J, Buckwell A and Mathijs E (eds) *Agricultural Privatisation, Land Reform and Farm Restructuring in Central and Eastern Europe* Aldershot, UK, Ashgate.

Lerman Z and Csaki C (2000) *Ukraine: Review of Farm Restructuring Experiences* World bank Technical Paper No. 459 Washington DC World Bank.

Lerman Z, Lundell M, Mirzakhanian A, Psatrian P, Kakosian A.(1999), *Armenia's private agriculture:*

MacKinnon N, Brydon J, Bell C, Fuller AM and Spearman M (1991) Pluriactivity, Structural Change and Farm Household Vulnerability in Western Europe *Sociologia Ruralis* Vol. 31 No. 1 pp 58-71.

Macours K and Swinnen J (1998) *Agricultural labour adjustments during transition in Central and Eastern Europe* Policy Research Group Dept. of Agricultural Economics, Katholieke Universiteit Leuven, Belgium.

Macours K and 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 Dept of Agricultural and Environmental Economics, Katholieke Universiteit Leuven.

Milanovic, M., (1998) Income, Inequality, and Poverty during the Transition from Planned to Market Economy, World Bank Regional and Sectoral Studies, 1998.

Mishra AK and Goodwin BK (1997) Farm income variability and the supply of off-farm labour *American Journal of Agricultural Economics* Vol. 79, pp 880-887.

Moers, L. (2000) Empirical research on growth with institutional measures in transition economies: An overview. Unpublished mimeo.

OECD (1999a) *Agricultural Policies in Emerging and Transition Economies 1999* Paris, France Organisation for Economic Co-operation and Development

OECD (1999b) *Agricultural Finance and Credit Infrastructure in Transition Economies*. Proceedings of OECD Expert Meeting, Moscow, Feb. 1999 Paris, France Organisation for Economic Co-operation and Development

Pearce D and Davis J (2000) The Role of the Non-Farm Rural Sector in the Reconstruction of the Balkans. Special edition of *MOST-MOCT: Economic Policy in Transition Economies,* August 2000.

Reardon T, Stamoulis K, Cruz M-E, Balisacan A, Berdegue J and Banks B (1998) Rural Non-Farm Income in Developing Countries. *The state of food and agriculture 1998: Part III* Rome, Food and Agricultural Organisation of the United Nations. Internet address: *http://www.fao.org/docrep/w9500e/9500e02.htm*

Reardon T, Taylor JE, Stamoulis K, Lanjouw P and Balisacan A (2000) Effects of non-farm employment on rural income inequality in developing countries: an investment perspective *Journal of Agricultural Economics* Vol. 51 No.2 pp

Sarris AH and Gavrilescu D (1997) Restructuring of farms and agricultural systems in Romania. In Swinnen J, Buckwell A and Mathijs E (eds) *Agricultural Privatisation,* *Land Reform and Farm Restructuring in Central and Eastern Europe* Aldershot, UK, Ashgate.

Start, D., Johnston, C., and Farrington, J. (2000) RNFE policy and poverty alleviation: concepts and issues, unpublished mimeo.

Swain, N. (1999) Rural development and social change in the post socialist central European countryside, *Zemedelska Ekonomika,* 45, 1999 (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 Turnock D (ed) *Privatization in Rural Eastern Europe* Cheltenham, UK, Edward Elgar.

UN/ECE (1999) Economic survey of Europe 1999, No. 2.

Von Meyer H, Terluin IJ, Post JH and van Haeperen B (eds) (2000) *Rural employment dynamics in the EU: Key findings for policy consideration emerging from the RUREMPLO* project Agricultural Economics Research Institute (LEI), The Hague, Netherlands.

Woldehanna T, Lansink A.O and Peerlings J (2000) Off-farm work decisions on Dutch cash crop farms and the 1992 and Agenda CAP reforms *Agricultural Economics* 22 pp 163-171.

---

[1] The author is a Senior Economist at the Natural Resources Institute, UK. The author thanks Dr. Dirk Bezemer and Prof. Paul G. Hare for helpful comments on an earlier draft of this paper.

[2] Albania, Bosnia and Herzegovina, Bulgaria, Czech Republic, FYR Macedonia, Hungary, Poland, Romania, Slovak Republic and Slovenia.

[3] Estonia, Latvia and Lithuania

[4] Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.

[5] CETE-5 includes the Czech Republic, Hungary, Poland, Slovakia and Slovenia.

[6] Although it should be noted that there is much variation in farm size e.g. between UK and France, and even within France itself.

[7] When thinking about non-farm income generation, it is important to realise that different social units are constantly engaged in a dynamic process of livelihood adaptation. Taking the unit of the household: 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.

[8] Pluriactivity can be defined as the phenomenon of farming in conjunction with another gainful activity, whether on- or off-farm.

[9] 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.

[10] 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.

[11] The sustainable livelihoods (SL) framework also illustrates how, in different contexts, sustainable livelihoods are achieved through access to a range of livelihood resources (natural, economic, human and social capitals) which are combined in the pursuit of different livelihood strategies (agricultural intensification or extensification, livelihood diversification and migration). The transforming structures and processes (which encompass the institutional environment) impact upon livelihoods in two main ways. They are critical in determining both who gains access to which type of asset and what the effective value of the asset is. They also help define which livelihood strategies or activities are open and attractive (in conjunction with a household's assets status). In addition, markets and legal restrictions also affect the convertibility of an asset, for example human capital into physical capital). The role of the government in rural areas, through structures and policies, is of direct relevance to the emergence of a healthy rural non-farm economy. The provision of public services (such as health and education) in rural communities determines to some extent the viability of rural communities, and directly affects the growth of the RNFE.

Natural
Resources
Institute

FS 54723
ISO 9001

THE QUEEN'S
ANNIVERSARY PRIZES
2000 & 2002

Enterprise Trade and Finance Group
Natural Resources Institute
University of Greenwich at Medway
Central Avenue
Chatham Maritime
Kent ME4 4TB
Unted Kingdom

Tel: +44 (0)1634 883199
Fax: +44 (0)1634 883706
Email: nri@greenwich.ac.uk
http://www.nri.org/rnfe/index.html