The impact of agricultural policy reform on farming performance and competitiveness in CEE region in view of EU accession: constraints and opportunities

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The impact of agricultural policy reform on farming performance and competitiveness in CEE region in view of EU accession: constraints and opportunities

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Abstract. This analysis concentrates mainly on the three rice-producing countries of Central and Eastern European (CEE) region currently undertaking pre-accession efforts for European Union (EU) membership: Bulgaria, Hungary and Romania. The aim is to lay down the constraints to, but also the opportunities for, eastern European farmers and the benefits they may derive from ongoing reforms and the foreseeable EU integration. Rice producers in these countries share both the same destiny and needs as those of the agricultural and rural community as a whole, and they all face the consumers' growing exigencies to the same extent. Achieving international levels of agricultural productivity, quality and profitability (i.e. international competitiveness) presents a difficult challenge for them, particularly those producers whose average farm size is small. This paper intends to help those rice researchers in the Med-rice network to better understand the milieu created by ongoing reforms in agriculture and help focus their common efforts and knowledge on the emerging farming managers' needs. The latter process is said to be long and challenging but eventually worth the undertaking in some cases. For the rest, however, quitting the farming business may be inevitable.

I – The economic development gap between the cee region and the EU and its determinants

Following a sharp contraction in economic performance during the first years of transition, most CEE countries achieved an impressive turnaround in their economies starting in 1993. However, the average economic growth of the CEE region, which recently stabilized at the sub-region level at around 3.5 percent in 1997, seems to be slowing down. (See Table 1.)
The overall evolution of the region, however, masks wide differences between some of its constituent countries: in 1997, for instance, Hungary grew at 4.4 percent, while Bulgaria's and Romania's economies severely contracted (by nearly 7 percent and 6.6 percent, respectively).

1. The gap in average per capita income

EU enlargement potentially increases the number of member countries from the current 15 to a possible 26. While this will also result in a population increase of 29 percent, and at the same time GDP will rise by only 9 percent. (See Table 2.) Thus, there is much ground to cover in terms of economic development and social welfare, since the average per capita income is only 32 percent of that of the current EU-15. Hungary has one of the most successful transition economies, gaining a privileged place among the front-runners to EU accession. Its GDP per capita is ECU6 544, around 36 percent of the EU-15 average (ECU18 154 per capita). Romania and Bulgaria are much further away from Brussels in terms of both economic performance and social well-being, having a GDP per capita accounting for only 24 percent and 21 percent of the EU-15 average, respectively. The ten acceding countries are, nonetheless, expected to experience faster growth (in the range of 4 percent to 5 percent) than the EU-15 by the end of this decade, which allows for the hope that the "catching-up" process may at some time be realized. The question is when this might occur.

Figure 1. GDP real growth

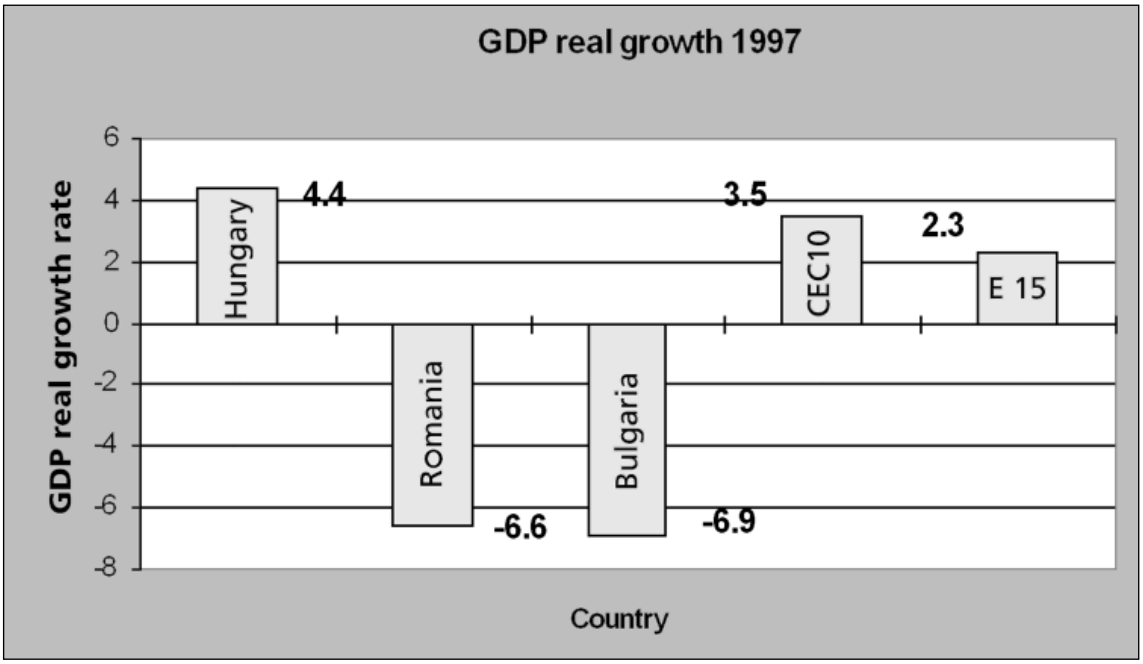
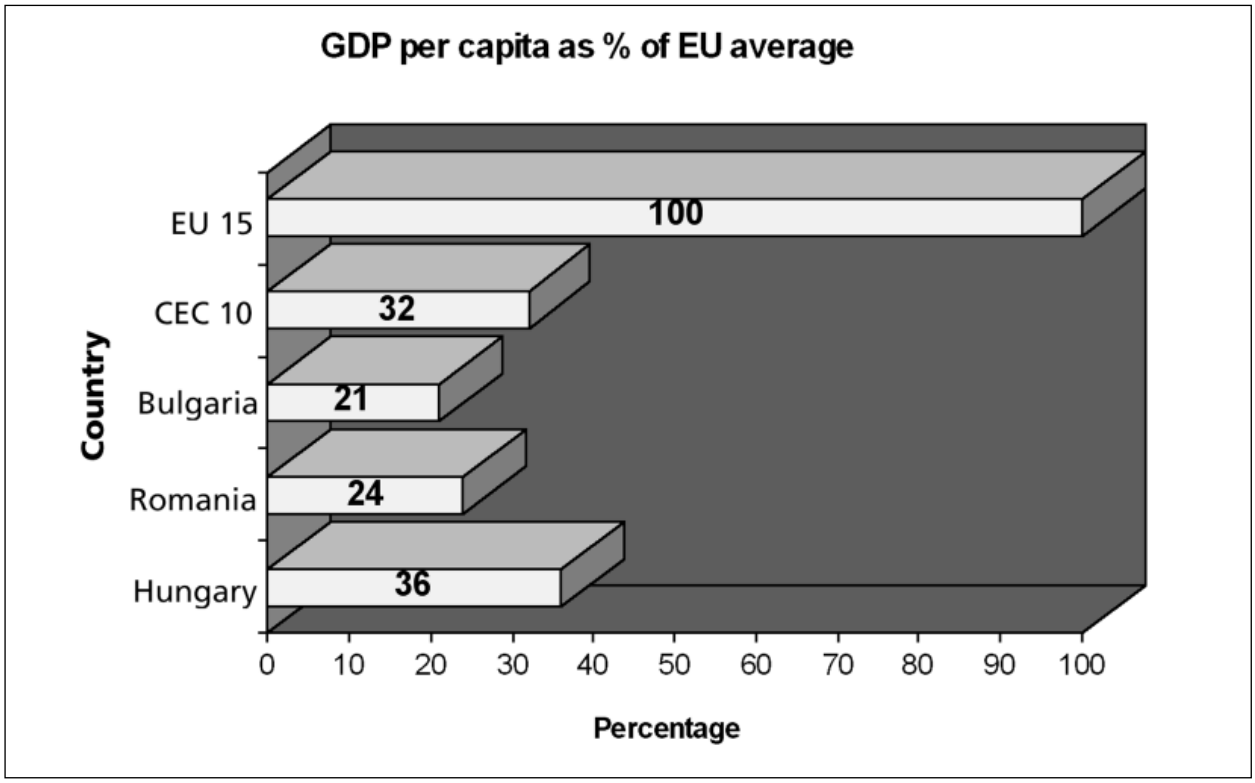


Figure 2. GDP per capita as a percentage of EU average



Many analysts believe that the CEE countries are far from the path of rapid per-capita income convergence compared to the EU average level. According to estimates derived from Luca Barbone and Juan Zalduendo's econometric growth model (from 1996), it may take between 15 years and 9 decades for convergence to realize 75 percent of the EU average level[1], depending on the country. This huge time-span for economic development convergence is attributed to the current features of transition in CEE countries: (i) low levels of investment; (ii) high rates of labour-force growth; (iii) the quality of human capital that does not correspond to the economic structure; and (iv) an economic policy and a regulatory and legal framework that are not as conducive to the efficacy of inputs in the production process as they could be.

2. Policy deficiencies: the main factors for economic underdevelopment

Some CEE countries (particularly Bulgaria and Romania) still face serious policy deficiencies. So far, these countries have been unable to adopt policies (both macro and sectoral) aimed at both enhancing the economic efficiency of production-input use and encouraging investment. In order to stimulate the investment decisions of private economic agents, price stability is a necessity. Both Bulgaria and Romania, however, have failed to implement monetary and fiscal policies conducive to this needed stability. Bulgaria has had to cope with the current level of 15 percent unemployment, while Romania has been faced with the problem of approximately 10 percent unemployment. Government policy in these three countries and in the CEE region in general has not managed to create the information and knowledge infrastructure necessary in order to enhance the quality of the national human resources. Human capital development is thus a key area in which government policy has failed. Had they invested in human capital, the number of years required to narrow the economic development gap could have been much fewer. Instead, this economic gap now may split Europe on the basis of economic rather than ideological and political differentials.

II – The main determinants of agricultural sector performance during the transition period

During the transition process, specialists started to question whether any correspondence could be observed between broad agricultural sector performance and the nature and degree of reform that has occurred since 1989. These experts determined that there is a definite relationship between post-1989 policy development and the overall performance in the agricultural sector. Besides this, two additional determinants of agricultural development are thought to be equally important: the degree of true integration into the world markets and comparative advantage[2].

Isolation from world markets is costly in terms of (i) lost potential gains from trade, (ii) the burden imposed on domestic consumers and taxpayers and (iii) prolonged inefficiency. This is true even with a high degree of internal market reform and privatization. Countries that confront this issue and restore the link between domestic prices and world prices inevitably suffer in the short term. But theory and experience suggest that long-term gains can be made if such countries can resist the temptation to shut themselves out. The agro-food trade balance of Bulgaria, Hungary and Romania could, to a great extent, indicate a significant competitiveness differential between these three countries. (See Table 3.) Hungary is enjoying a far more comfortable situation over the others, displaying a steady, positive agro-food trade balance both globally and with the EU. In contrast, by importing more and more as its exports to international and EU markets shrunk, Romania did not manage to reverse the negative trend in its balance of agro-food trade.

[1] Estimated for a large cross-section of countries, the annual average growth rate was regressed on the four growth determinants, aside from the initial GDP per capital level: the level of investment, the stock of human capital, the overall policy framework and the growth rate of the labour force.

[2] Those determinants of agricultural sector performance (degree of reform, domestic market isolation and comparative advantage) vary enormously among countries and within a country, and between regions and sub-sectors. This should been always kept in mind when examining the highly diverse agricultural sectors of transition economies.

If we look from a broader perspective at the two groups of CEE countries seeking to join the EU and consider their export-to-EU and import-from-EU shares in all CEE agro-food trade with the EU, we can easily see that the front-runners (i.e. CEE-I) and the EU have intensive agro-food trade relations. (See Table 4.) More than 80 percent of CEE agro-food exports to the EU originate from this CEE front-runner group, with more than 70 percent of CEE agro-food imports attributable to the same group of countries. (See Table 4.)

Figure 3. Net agro-food trade for 1997

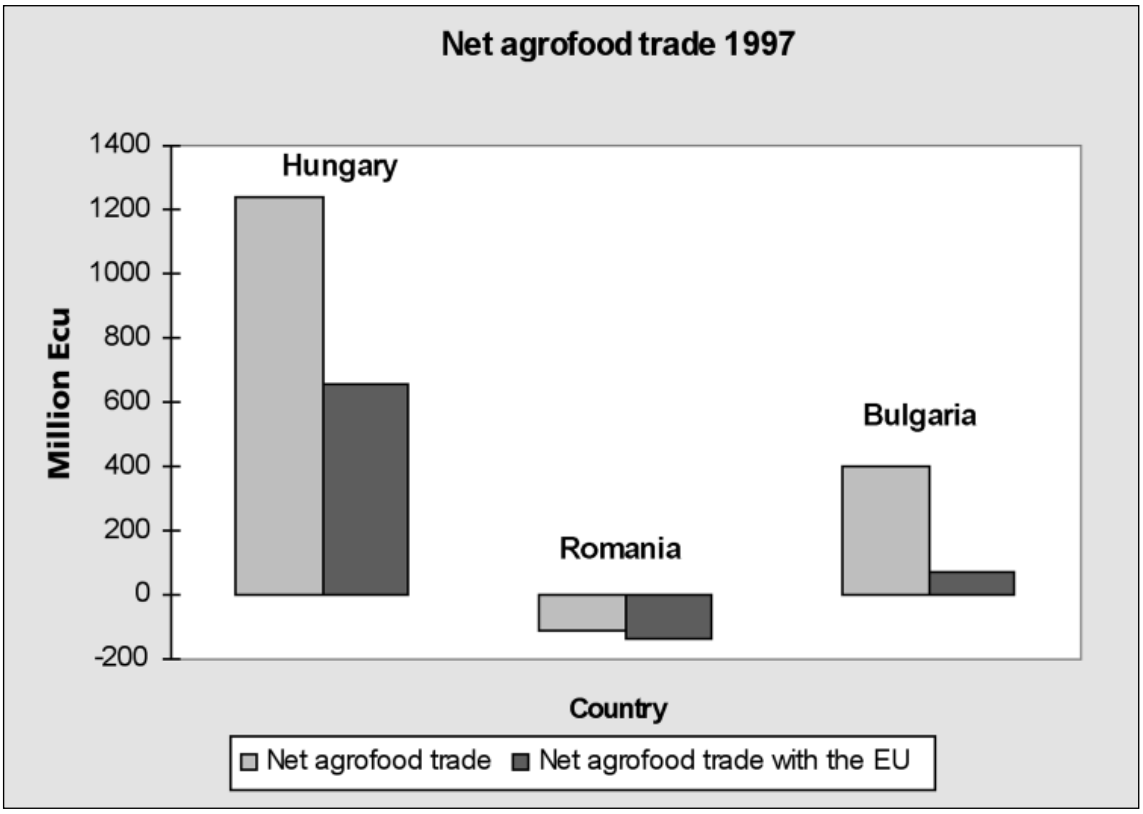
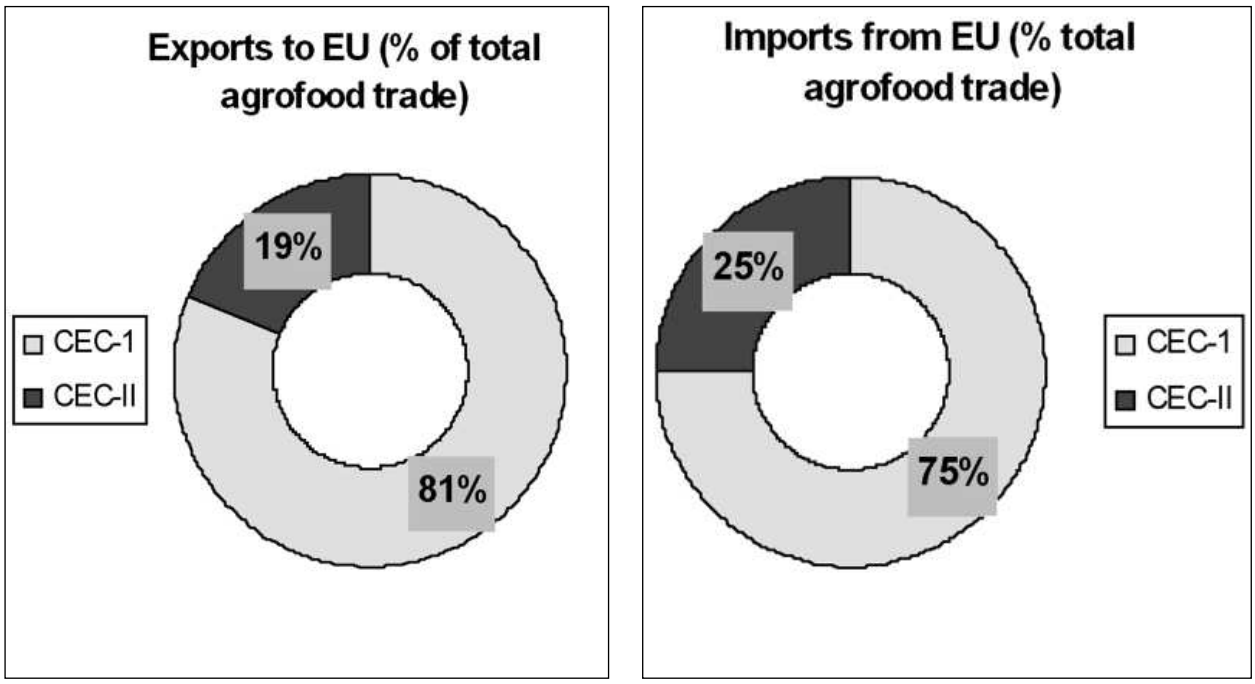


Figure 4. Exports to EU and Imports from the EU



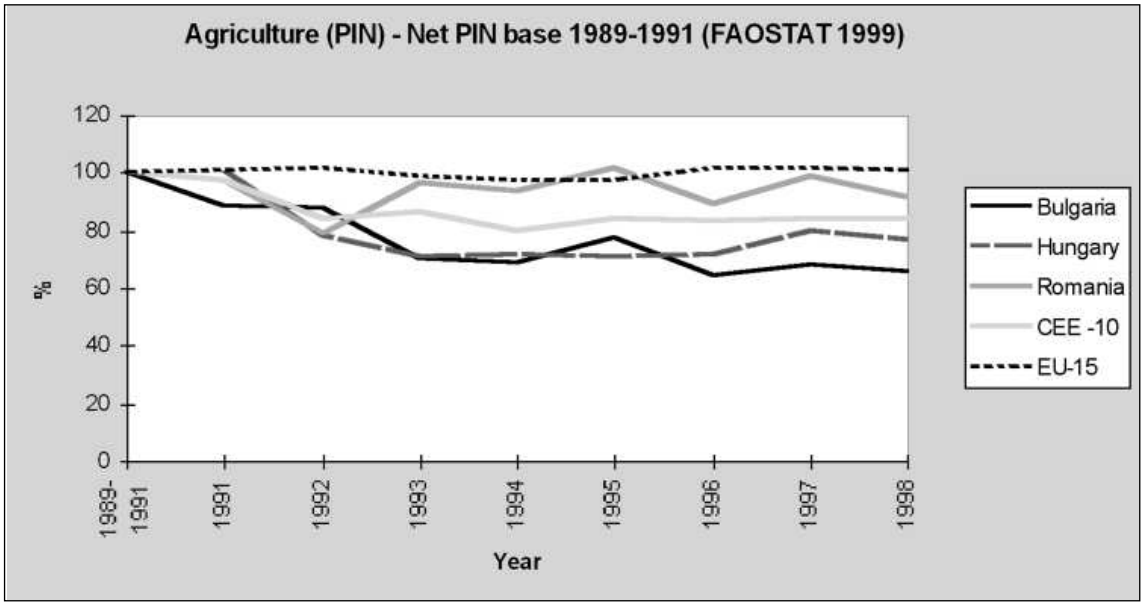
This undoubtedly indicates that the agricultural sectors of these countries are more competitive than those of the second accession group (i.e. CEE II, which includes Romania and Bulgaria included). The trade links of CEE-II with the EU are rather pale by comparison (around 17 percent of CEE exports to the EU consumers have originated from this second group in recent years). As far as imports are concerned, 25 percent of CEE agro-food imports from the EU go to the second CEE group. This emphasizes once again that the CEE-II group must struggle for increased competitiveness within its agro-food sector, not only with the EU but with the front-runner group also.

The second major determinant of agricultural sector performance is comparative advantage. By removing a system of restricted incentives, the underlying comparative advantage that exists in the sub-region may allow the exploitation of new opportunities as transition economies emerge from relative isolation into the world market. In other areas, domestic markets can be expected to shrink under the pressure of global competition. It should be remembered that, on the one hand, this is to the benefit of domestic consumers, while on the other it allows the optimal allocation of capital and human resources.

III – The importance of CEE agriculture, its overall performance and the EU: a comparative analysis

The agricultural sector is considerably more important in most CEE countries than in any of the EU-15 Member States (EU-15). On average, agriculture employs 22 percent of the workforce (as opposed to just 5.1 percent in the EU-15) and it provides 7 percent of GDP (as compared with only 1.7 percent in the EU-15). Nevertheless, this average hides huge differences among some CEE countries. In terms of area, contribution to GDP and particularly the share in total employment, Romanian and Bulgarian agriculture are key sectors for the national economy, far more important than in the EU. (See Table 5) In Romania and Bulgaria, agricultural employment has increased in relative terms to 37.3 percent and 19 percent of total employment, respectively. For both Romanian and Bulgarian consumers, food is a significant outlay accounting for about 58 percent and 54 percent of household revenues in their respective countries. Hungarian consumer spending on food (24 percent of household expenditure) is closer to the EU average of 18 percent.

Figure 5. Agricultural Output levels compared to 1989-1991 level



During the first years of transition, numerous factors (such as price liberalization, privatization, the abolition of consumer subsidies, the loss of external traditional markets, and the breakdown of irrigation systems) contributed to the sharp decline in the volume of CEE agricultural output. Input prices, such as those for energy and fertilizers, moved sharply upwards to world-market levels, while farm-gate prices rose at a much lower rate in the face of shrinking domestic and external demand.

A certain recovery in input use, which followed the stabilization of the input-output price relationship, has recently led to higher crop-output levels and a general recovery of the total agricultural output. But this current level still lags behind that of 1989. During the second half of the transition decade, Romania's agricultural output has been moving upwards and in 1998 reached slightly above 90 percent of its 1989-1991 average level. Hungary's agricultural output is still at 77 percent of its pre-transition level.

1. Land and labour-productivity differential

In CEE agriculture, both land and labour are abundant and are, therefore, cheap production factors. At the current levels of farm-gate prices and direct support, however, the extensive use of land and labour does not yield any significant net-return on invested capital. This is a direct result of the very low productivity of these factors. On average, the productivity of CEE agricultural land (measured by gross agricultural product per hectare at comparable market prices) is around half the EU average and significantly lower in Romania and Bulgaria. The largest gap, however, concerns the productivity of agricultural labour as measured by the value added at comparable market prices per full-time labour unit. In CEE agriculture, labour productivity is on average only 11 percent of that in the EU-15. In Hungary, it is almost three times higher than the CEE figure, accounting for about 30 percent of the EU-15 average level. According to the Summary Report issued by the European Commission entitled, *Agricultural Situation and Prospects in the Central and Eastern European Countries* (1998), raising labour productivity in CEE agriculture even to just half of the EU average would abolish some four million jobs in the sector across the whole subregion. The direct and indirect budgetary costs of the resulting open unemployment would be financially and socially unbearable for the transition countries, at least from a medium-term perspective.

The apparently "transitional" lack of profitability in CEE agriculture refers indeed to structural and policy obstacles that impede the reduction of agricultural employment. Alain Pouliquen writes, "This pattern is specifically protected through land and trade policy and loose regulations on quality standards." (A. Pouliquen 1998) Instead of price supports, for example, appropriate policies for rural development and/or migration to urban jobs, as well as support to education, should be thoroughly implemented. Farmers that will remain in business for the next few years will do so because they will be able to face low international prices and can be expected to be genuine competitors of EU farmers, who currently are highly protected.

2. The labour-cost differential

Agricultural labour costs are significantly lower compared with those in the EU, and at present this positively affects the competitiveness of agriculture in the CEE countries. With the growth of the economy in general, income obtained from off-farm work is also rising for the most part. This leads to the higher opportunity costs of farming labour. Returns to agricultural labour are under continuous pressure to rise in order to maintain income parity with the other growing economic sectors. Yielding to this pressure increases agricultural production costs, will reduce profit margins in the future, and at the same time will require large investments, mainly in machinery, to substitute for labour. In turn, marginal labour productivity must go up. Farmers respond to this scenario either by cultivating more land, reducing employment or intensifying their production in other ways.

3. Price differential

Agro-food product prices in the CEE region are generally lower than world prices and considerably cheaper than the EU-15, especially at the farm-gate stage. (See Table 6.) At the retail stage, the differences are less marked because of low efficiency and the high cost of marketing and processing. In this respect, the difference between Hungarian and EU prices is significant for maize and sugar beet

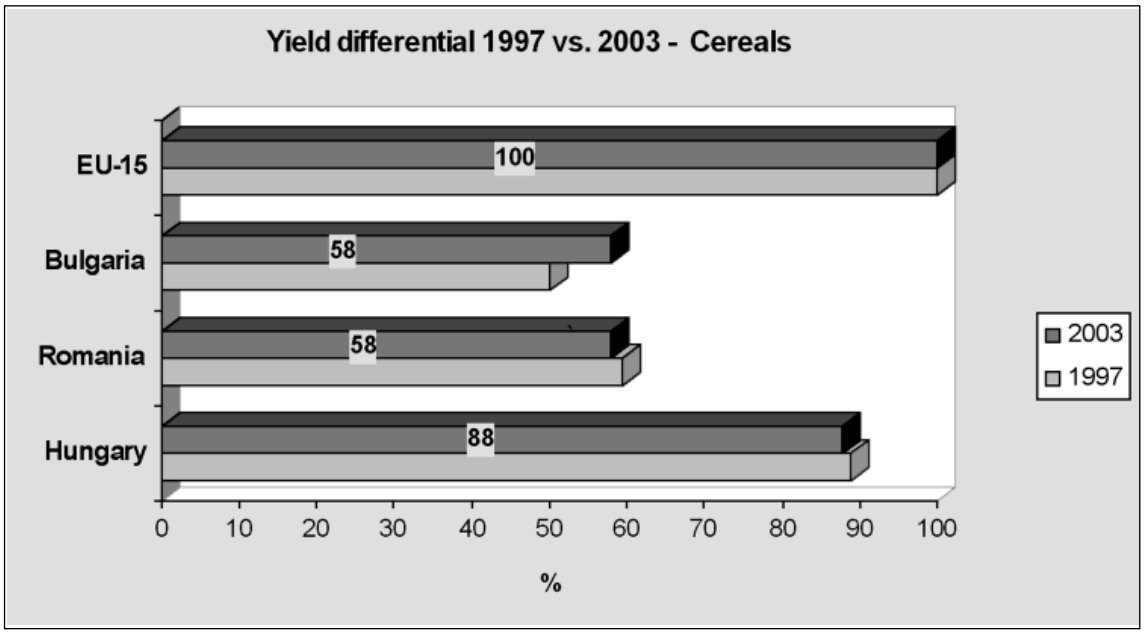
(55 percent and 54 percent, respectively for 1997). There is a general tendency for CEE farmgate prices to approach the EU price level. For example, in 1997 Romania outpaced EU wheat prices by 4 percent and EU pork prices by 11 percent, with the barley price also exceeding its EU equivalent. In Bulgaria poultry prices, for instance, have almost now been adjusted to the EU level.

A major question that arises from this price differential analysis is to what extent price gaps will still exist by the time of accession. On the one hand, various factors will cause domestic product prices in the CEE countries to rise. For example, not enough attention is being given to land prices and rents, both of which currently are not included in the calculations of production costs in these countries. As previously mentioned, with the expected growth of the economy, agricultural labour costs will follow an upward trend, putting pressure on production costs to rise as well. On the other hand, the EU-15 is in the process of cutting its support prices. Instead of seeking price alignment with the EU, therefore, the option of operating at the world market level would thus be the most efficient possibility for CEE countries toward creating an internationally competitive agricultural sector. Governments would need to remove policy-induced market distortions and adopt policies that would increase market efficiency. Because of this, the key concern of CEE governments should be the pre-accession restructuring of their agro-food sectors rather than adjustments to price changes.

4. Yield differential

Current yield levels in the CEE region are lower now than during the Communist period, and also fall short of those presently in the EU. At the CEE sub-region scale, yield levels have reached about 80 percent of the EU-15 average level. The cereal average is about three tons per hectare compared with 5.4 tons per ha in the EU. Hungary enjoys a higher cereal productivity (4.8 tons per ha), while Bulgaria lags far behind (2.7 tons in 1997). In part, yield differential may be due to the genotypes used. But the main cause is the low level of inputs used coupled with a lack of skills and knowledge on the part of farmers.

Figure 6. Yield differentials for cereals



For future agro-food sectoral development in Bulgaria, Romania and (to a lesser extent) Hungary, the rate of yield growth is of enormous relevance. It is doubtful, however, whether these countries, in the medium term, will reach yields that are as high as those in the EU, even if natural conditions potentially could allow such yields. By 2003 cereal yield projections show a slight improvement in crop productivity in Bulgaria, but in Hungary and Romania the yields will slightly decrease. In Bulgaria and Romania, it is expected to reach

around 58 percent of the EU average level. Significant productivity growth would require considerable investment in human capital, as well as new high yielding cereal varieties. Financial funds will also remain scarce for agriculture for some time to come: the farmers themselves are not able to afford modern machinery and high-yielding varieties. In addition, environmental standards will also become more stringent in the future, making it more difficult to reach yield increases similar to those achieved by EU farmers in the past.

IV – The transition-reform impacts on farming-sector competitiveness

1. Unfavorable macro-economic framework

In Hungary, a sustainable growth in GDP was reached, owing to the successful implementation of privatization and macro-economic adjustment programmes. Among the CEE countries, Hungary enjoys the highest rate of foreign direct investment (over 1 000 ECU per inhabitant). This has been a real help in modernizing production structures and improving competitiveness. Export-oriented sectors have driven the economic recovery, and the agro-food sector's role in this strategy has been crucial[3].

Romania[4] and Bulgaria have both been rather slow reformers, and the success of their reform remains influenced by the legacy of their centrally planned systems. Despite many differences, both countries share certain characteristics with respect to their recent economic and political development. In contrast to Hungary, they have both failed to match economic reforms and stabilization plans with adequate structural reform programmes. By and large, this has led to dramatic currency depreciation and escalating inflation, which drastically erodes the purchasing power of a significant segment of their respective populations. Both the Romanian and Bulgarian governments have made a series of commitments toward continued economic liberalization and the privatization of state-owned enterprises within the framework of current International Monetary Fund (IMF) and World Bank (WB) macro-economic stabilization programmes. The immediate effect of this radical economic reform in Romania was dramatic: GDP severely contracted (by 6.6 percent) and there was a three-digit inflation rate (150 percent). Compared to Hungary, foreign direct investments have been significantly lower in Bulgaria and Romania, and there are no short-term expectations for a significant reduction in their trade balances and current account deficits.

2. Very small farming structures resulting form land reform

Both the type and particular process of privatization has had a strong influence on farming structures. In Hungary, privatization and restructuring have not resulted in the break-up of agricultural units and have preserved large-size cooperative structures. In contrast, in Bulgaria and Romania, land restitution programmes have resulted in a large number of very smallholdings[5] (See Table 7). The very small size of farms in these countries prevents farmers from exploiting the advantages of both technical progress (e.g. the introduction of the new machinery and equipment) and biological progress (e.g. improvement in genetic resources), which usually leads to higher yields and an increased efficiency of inputs.

Despite the still-apparent duality of farming structures, numerous medium-sized cooperative ventures have also emerged, partly as a result of the help and encouragement of technical assistance projects, provided by international and bilateral development agencies. Numerous middle-sized farming structures and farmer and family associations have been formed in Romania, with an average size of 451 ha and 103 ha respectively, while in Bulgaria there are such structures with an average size of 637 ha.

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[3] The agro-food sector represent the only major sector for which Hungary is a net exporter, and it represents a fairly stable source of foreign exchange earnings.

[4] The Romanian economy has, however, performed substantially better during the transition with positive – and high – growth rates. Public finances are in a more favorable position, with low external debts and future prospects that are considerably better than Bulgaria's.

[5] In Bulgaria, there are 1.8 million private individual farms with an average farm size of 1.4 ha, occupying about 52 percent agricultural land. Three million individual farms having an average size of less than 3 ha occupy 67 percent of the agricultural land in Romania.

The consolidation of land into larger units is, however, taking place very slowly, and so it is likely to continue until the whole economy grows sufficiently to draw labour away from the land to other industries. Farm size remains, and is likely to remain for several years, a major impediment to the competitiveness of farms in Bulgaria, Romania and more in CEE countries as a whole.

3. Underdeveloped land market

While land redistribution to former owners progressed rapidly, it was not accompanied by a similar pace for provision in ownership deeds. Moreover, some CEE countries have imposed restrictions on ownership, reserving ownership for their own nationals. In Hungary, foreign buyers are not welcome to purchase land. An announcement by the Hungarian government stated that the country's arable land should remain under native ownership. With government assistance, special funds are to be set up to enable landowners and farmers to buy and sell land at reasonable prices. In the light of these limitations, a land market is practically missing; hence, land has little value as collateral against which banks can lend money. While the land market is fairly underdeveloped, there is an active rental market in all countries. As a result, in Romania and Bulgaria for example, production is less fragmented, contrary to the situation for land ownership. Improvements in the functioning of the land market are vital for farm sizes to adjust properly. But it may take time before the land market is functioning well enough to allow for rapid structural development.

4. Inflexible labour market

Labour and capital markets should have evolved together with the land market in allowing farming structures to move towards an optimal scale. But the agricultural labour outflow is severely constrained by the lack of alternative jobs, and it will take some time before the labour market achieves some degree of flexibility, especially in Romania and Bulgaria. It is therefore vital that alternative industries and services, some of them linked to farming, be encouraged to emerge in order to absorb the labour released by agriculture. This is especially important in those countries such as Bulgaria and Romania in which the restructuring of farms is very much needed due to prevailing small-scale operations which have proved to be economically non-viable.

5. Insufficient turnover in rural capital markets

Thought to be a consequence of the lack of affordable credit, CEE agricultural production has dropped significantly (by 40 percent) compared to the level registered at the end of the Communist era. Newly created economic circumstances have imposed on farmers what they consider to be unduly high interest rates, often beyond 60 percent. High transaction costs[6] make borrowing by a small farmer very expensive, pushing the total cost of the loan beyond the limit of what the farmer can reasonably afford to pay. The amount of savings in rural areas is insignificant because of the small income generally earned by farmers. The low internal rate of return of farming-business plans generally makes it difficult for agriculture to compete for credit with other sectors of the economy. Bank staff generally lack the expertise to assess the feasibility of farming-business plans, which are particularly difficult to appraise when product prices (both for inputs and outputs) are fairly uncertain.

This situation is exacerbated by the impossibility of using owned land as collateral, either because a large share of it is leased or because it simply lacks a market value. To facilitate the farmers' access to credit, some countries (supported by the WB and other financial donors) have introduced schemes for credit guarantees. To overcome the problem of rural credit availability, Hungary has established credit-guarantee funds, which seem to have had a good impact on farming-structure adjustment, to a certain extent at least. Nevertheless, until a free market for land and product-price stability are both established, the lack of capital will remain a significant impediment to agricultural development.

[6] Transaction costs are those costs that arise due to coordinating the interactions of human beings. They can be observed within various processes of economic and political decision-making: the firm, the market and political levels. At the farm level, transaction costs are those related to controlling the work of labour and to the setting-up of contracts, i.e. seaching for partners and controlling and enforcing the contracts. Transaction costs gain in importance relative to those of production. It is obvious that transaction costs related to labour hardly pertain to the family farm because it does not employ hired labour at all, or only to a small extent.

6. Inefficient agricultural input and output markets

Monopolistic structures in both upstream (input and service providers) and downstream (traders, processors[7] and distributors) markets are often in place, hindering farm competitiveness and the structural adjustment process to a great degree. It is clear that in Romania low yields are also the result of low inputs which are expensive for the private farmers.

At present, the low price obtained for primary agricultural products is probably the main brake on making farms more competitive. The high fragmentation of agricultural structures tends to decrease market transparency and increase marketing costs. Smallholdings (but also large units) must face the high transaction costs associated with the contracts for buying services and inputs, as well as the selling of their produce. Food processors lack the necessary equipment to prepare and package products, which then fail to meet Western standards of health and hygiene. Romania, for example, has only three food processors licensed to supply to EU markets. A significant number of food processors work well below capacity, unable to receive the necessary investment to meet the requirements of the harmonized laws on product quality and standardization, as well as phyto-sanitary and sanitary regulations within the EU. To attain effective negotiating power, small farms have to cooperate in marketing their produce in order to gain better prices. Moreover, as the processing industry modernizes itself, such farms will require incentives to improve product quality and supply stability. In turn, investment should be attracted with the prospect of greater productivity and thus improved profits. The only key role the state can play is in supporting farmers' market-oriented organizations for buying and selling (farmer-supply and marketing cooperatives), chambers of agriculture, wholesale markets and retail points, and in encouraging mergers. The government should support and speed up the restructuring and modernization of the food processing industry.

7. Embryonic market-information systems

Only recently have market-information systems been developed so that policy makers, farmers, processors and traders can identify prices and trends in commodity supply and demand. Until these systems become effective, the comparative advantage that some CEE countries possess for the production of certain crops that require a significant amount of hand labour, such as oilseeds, vegetables and soft fruits, cannot be utilized to the greatest possible extent.

8. Poor rural and transport infrastructure

Under-investment in transport infrastructure, especially in rural areas, is one of the legacies of the previous Communist system. Irrigation and drainage systems are inoperable due to several years of poor maintenance. This situation, coupled with changes in land ownership and the break up of large production units, demonstrates how a lack of proper infrastructure is limiting farming activity to a considerable extent. Among countries in the sub-region, underdeveloped transport infrastructure acts as an artificial barrier to trade. The EU Commission recognizes that infrastructure, including border-crossing facilities, has a crucial role for these countries to be able to take full advantage of the forthcoming enlargement. (EU DGVI 1998).

9. Market-distorting and cost-ineffective agriculture support policy

Generally speaking, agricultural policies in the CEE region have not been stable, as frequent changes in instruments, commodities and activities have occurred. Support for agriculture has been provided in multiple ways, including intervention prices, border tariffs and restrictions on exports.

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7 The privatization of the processing industry is well advanced but differs between countries, as well as between sectors. By the end of 1998, 85 percent of the food industry was planned to be privatized in Bulgaria, while Romania intended to have privatization totally completed by that time (Agra Europe March, 1998). For them, it was difficult to find suitable investors. The privatization of the food processing industry is most advanced in Hungary, but the country is experiencing problems similar to Romania's and Bulgaria's (i.e. excess capacities and privatizing the primary processing of agricultural products, such as mills, slaughterhouses and dairies). In general, sectors producing high-value finished products (such as vegetable oil, confectionery, tobacco and beer) were privatized quickly, often with foreign and multilateral participation. Other product areas, such as meat and dairy products, have proved more difficult to privatize (OECD 1998).

The degree and type of support and protection given by individual governments to the agricultural sector varies to a large degree. For example, support measures such as subsidized credit and production subsidies – and more recently in Romania, vouchers – have been extensively applied in Bulgaria and Romania, while export subsidies have been barely used, if at all, among CEE countries (with the exception of Hungary).

Until quite recently, food security and the protection of consumers were primary concerns for the Romanian and Bulgarian governments, as the state maintained a large degree of control over prices in the food sector. In the downstream sector, still largely state-controlled, farm-gate prices were kept low. In both countries, price controls were abolished in the course of 1997. Hungary also applied domestic floor prices for some commodities, but these were generally much lower then those in the EU; for example, the wheat floor-price was 58 percent (141 ECU/t) of that of the EU, the milk floor-price was 73 percent (210 ECU/t) of the EU price and the beef floor-price was 58 percent (1630 ECU/t) of the EU price.

Most CEE agriculture was quite heavily supported in the pre-transition era. Just before the transition to a market economy, the CEE's Producer Subsidy Equivalent (PSE) was estimated to be around 28 percent; this is still much lower than in the EU (49 percent). During the economic shock-therapy period for agriculture, government support declined five-fold in real terms (from +28 to – 18 percent) in only two years (1991 and 1992). Thus, the issue is not how high the PSE is, but this sharp percentage change, which caused farmers to demand increased protection. During the next two years, government support-policy changed drastically and the PSEs followed a sharp increase of between 13 percent and 15 percent. The difficulties of the first years were marked for CEE farmers. As a result, their attitude towards a market economy changed from an initially favourable position to a consequent adverse one; their despair was exacerbated by the sudden opening of borders to all kinds of commodities, mostly heavily subsidized by wealthier governments. In this respect, however, there was no government support for CEE farmers at all.

10. Lack of managerial, economic and technical knowledge

Failures in the farming business are most likely to occur because of a lack of the managerial, technical and business knowledge necessary for carrying out profitable activity in market conditions and for increasing exposures to international competition.

11. Ineffective research and extension services

A lack in the generation of new knowledge, methods and materials through research, coupled with the ineffective delivery of technical knowledge and business advice to farmers through extension, are serious barriers to progress in CEE countries. The research and extension sectors have a major role to play in ensuring that the appropriate technologies are known and disseminated to farmers.

The approaches adopted by CEE countries regarding the organization and funding of extension services vary, but there are two main tendencies:

- ❏ Through a government organization within the Ministry of Agriculture entirely-funded by the state. Bulgaria and Romania are in the very early stages of developing extension services, despite (or perhaps because of) substantial technical assistance from the EU, the United States and other donors. In both countries, advice to farmers is provided by fully funded government organizations.

- ❏ Through private consultants. Hungarian Government[8] policy is not to provide consultancy services to farmers, but to encourage them to use private advisory services instead. The government provides a subsidy for advice in the form of funding training and information sources. There are a number of publicly funded, professional knowledge centers that co-ordinate advice and provide technical support to private advisors.

[8] Hungary recently established a «National Body for Extension Coordination», which includes farmers and makes recommendations to the Ministry of Agriculture.

Extension specialists should always be in contact with researchers and be closer to the farmer in order to facilitate the permanent assessment of their needs. Tight cooperation with academia is necessary, not only to increase farmers' awareness of the need for improvements in quality and efficiency, but also for their role in maintaining bio-diversity and the protection of the landscape. While there have been genuine efforts in terms of both restructuring extension systems and improving cooperation among relevant sectors in information and knowledge generation, many CEE governments have failed to adequately address the issue of who exactly should be the clients of the advisory services. Should the government support only economically efficient farmers? Should they support subsistence holdings? Or, should they endeavour to support both? The latter approach is the least feasible, demanding huge amounts of national, human and financial resources. The longer such questions remain unresolved, the longer it will take for the farmers to become more competitive.

Conclusions

The development of more market-oriented farming structures is seen as a prerequisite for an overall increase in agricultural performance and competitiveness. This applies not only to the expansion of farm size and yields, but also to the identification of not-yet-discovered niche markets and complementary off-farming income sources. One area that CEE farmers have the potential to exploit is "eco-friendly" production. Due to the greatly reduced level of agrochemicals used since 1989, much of their production is at present nearly "organic". If formal certification schemes are established quickly – and this is already happening in some countries – then there is a significant opportunity for some producers to meet the increasing demand for "organic" produce: a demand that is not currently being met by Western farmers. In addition, with relatively low labour costs in CEE countries, farmers have the opportunity to become competitive with their counterparts in the EU, if not internationally. Farmers should also be encouraged to apply integrated crop management techniques and retain the bio-diversity that is an unplanned but welcome benefit resulting from the decline in agrochemical usage.

It is generally believed that there is no intrinsic reason CEE farmers should not become competitive with the EU why within two decades from now; though huge structural changes to improve market efficiency still need to be carried out. Those countries that have retained relatively large farms (e.g. Hungary) have a significant advantage compared with those where the majority of land is managed in very small units (e.g. Bulgaria, Romania).

However, when looking carefully at those emerging farming structures in CEE countries that are too small to be economically viable, our reasoning (specifically using value added as a measure of productivity *stricto senso*) could definitely be too narrow if not inadequate. The Russian economist A.V. Chayanov made one of the best analyses of the peasant economy, stressing the point that in a family farm you cannot create activity as business firms create routine activity. Profit is not the main goal. There is no maximization of profits. Unlike commercial farms, especially in those with hired labour, family farms "produce" market-added value only as an attachment to some outstanding traditional values. The protection of the environment, as well as the preservation of bio-diversity, are benefits not included in the economic added value. It is, therefore, difficult to measure these particular aspects of the added value "produced" by a peasant economy. Therefore, agricultural policy is, and has become, more complex when taking into account these particular family-farm traits with their new values and goals.

It seems unlikely that any CEE government will find significantly more money to support their agricultural sector in the foreseeable future. Rapid improvements in farm competitiveness because of government intervention, therefore, seem unlikely. Specialists believe that a relatively cheap "transitional" solution to mitigating the rising unemployment in Bulgaria and Romania may lie in devoting some agricultural land to subsistence farming, despite its gradual exclusion from agricultural markets. Such an unconventional policy also deserves consideration in Hungary, though to a smaller extent for those subsistence holdings co-existing with the minority that is already integrated into modern agro-food channels.

In the past, the EU Phare Programme has provided a great deal of help to the CEE sub-region. For the future, the EU has also pledged substantial financial assistance (e.g., the Sapard [9] programme). If Sapard-related programmes, such as those targeted at the diversification of the rural economy and the creation of alternative jobs, are implemented effectively by individual CEE countries, this would certainly accelerate changes in rural areas. Nevertheless, it is believed that the impact of EU Sapard assistance on farm competitiveness is unlikely to be felt so soon.

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[9] Sapard stands for the Structural Adjustment Programme for Agriculture and Rural Development.

TABLES

Table 1. Macroeconomic indicator

	Gross Domestic Product (GDP)		GDP per capita		Inflation		Unemployment	
	Real growth		ECU PPP	% of EU average	% change CPI		% labour force	
	1996	1997	1996	1996	1996	1997	1996	1997
Bulgaria	- 10.1	- 6.9	3 927	21	310.8	578.6	14.0	15.0
Hungary	1.3	4.4	6 544	36	23.6	18.3	9.9	8.7
Romania	4.1	-6.6	4 324	24	38.8	154.8	6.3	10.0
CEC-10	4.3	3.5	5 818	32	-	-	-	-
E-15	1.4	2.3	18 154	100	2.1	1.9	10.9	10.7

Source: Summary Report EC DG VI, June 1998

Table 2. Impact of successive enlargements of the EC/EU

	Increase in area (%)	Increase in population (%)	Increase in GDP* (%)	Change in per capita GDP (%)	Average per capita GDP EC-6 = 100
From EC-6 to EC-9	+ 31	+ 32	+ 29	- 3	97
From EC-9 to EC-12	+ 48	+ 22	+ 15	- 6	91
From EC-12 to EU-15**	+ 43	+ 11	+ 8	- 3	89
From EU-15 to EC-26	+ 34	+ 29	+ 9	- 16	75

* In purchasing power parities
** Includes the effect of German re-unification
Source: Commission, “Agenda 2000”, Vol. II, Table 1

Table 3. Agro-food trade net balance 1997

1997	Agro-food trade		Net agro-food trade Million ECU	Net agro-food trade with the EU Million ECU
	% of total exports	% of total imports		
Bulgaria	18.8	8.0	404	71
Hungary	17.5	5.1	1243	658
Romania	8.8	7.6	-108	-134
E-15	7.4	9.6	-	-

Source: Summary Report EC DG VI, June 1998

Table 4. Share in agro-food trade

Exports to EU (% in CEE total agro-food trade)					
	1993	1994	1995	1996	1997
CEC-I	84	84	83	82	81
CEC-II	16	16	17	18	19
Imports from EU (% CEE total agro-food trade)					
	1993	1994	1995	1996	1997
CEC-I	73	74	73	75	75
CEC-II	30	26	27	25	25

*CEC-I: Poland, Hungary, Czech Republic, Slovenia, Estonia
**CEC-II: Romania, Bulgaria, Slovakia, Lithuania, Latvia
Source: EC Summary Report

Table 5. Importance of CEE agriculture in the national economy

	Agriculture area	Agricultural production*	Agricultural employment	Food expenditure
1997	% of total area	% of GDP	% of total employment	% of household income
Bulgaria	55.5	12.8	23.4	54
Hungary	66.5	5.8	8.2	24
Romania	62.0	19.0	37.3	58
E-15	41.8	1.7	5.1	18

*Gross Agricultural Product
Source: Summary Report EC DG VI, June 1998

Table 6. Producer prices for selected crop and animal products (1997)

Producer prices for selected animal products 1997

	Wheat		Maize		Barley		Sunflower		Sugar beet	
	ECU/t	% EU	ECU/t	% EU	ECU/t	% EU	ECU/t	% EU	ECU/t	% EU
Hungary	98	78	73	55	95	80	197	97	27	54
Romania	130	104	103	77	91	77	-	-	-	-
Bulgaria	108	86	87	65	-	-	152	75	-	-
EU-15	126	-	134	-	119	-	202	-	50	-

Producer prices for selected animal products 1997

	Milk		Butter		Beef		Pig meat		Poultry	
	ECU/t	% EU	ECU/t	% EU	ECU/t	% EU	ECU/t	% EU	ECU/t	% EU
Hungary	214	72			1 427	54	1 383	83	1 042	81
Romania	275	93					1 850	111	1 155	90
Bulgaria	177	59	1 681	46	1 680	63	1 354	81	1 276	99
EU-15	297		2 091		2 662		1 672		1 290	

Source: Summary Report EC DG VI, June 1998

Table 7. The current CE farm structure according to land use

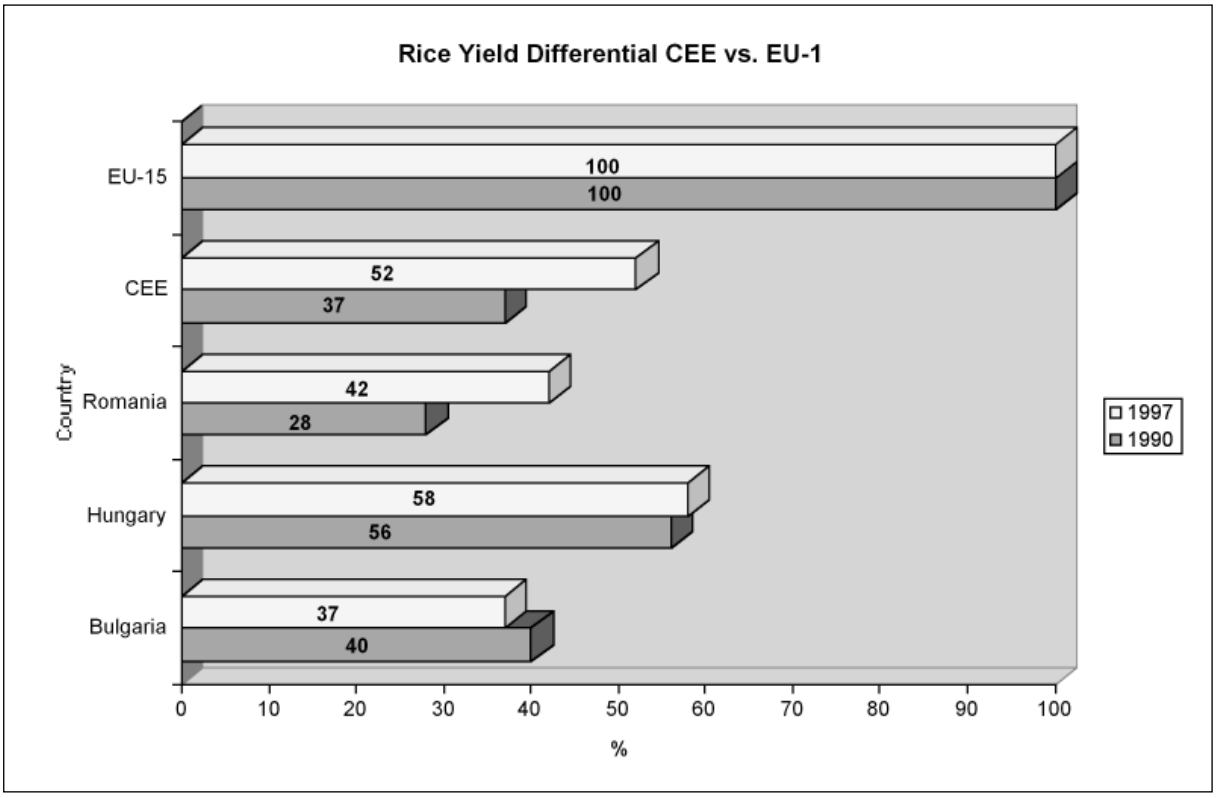
	Census	Share in total agricultural area (%)				Average size (ha)			
	Year	Private/ individual farms*	Private producer cooperatives/ associations	Other corporate farms*	State-held and controlled farms**	Private/ individual farms	Private producer cooperatives/ associations	Other corporate farms**	State-held and controlled farms
Bulgaria	1995/1996	52	42		6	1.4	637		735
Hungary	May 1996	54	28	14	4	3.0	833	204	7 779
Romania	1997	67	12	37	21	2.7	451		3 657

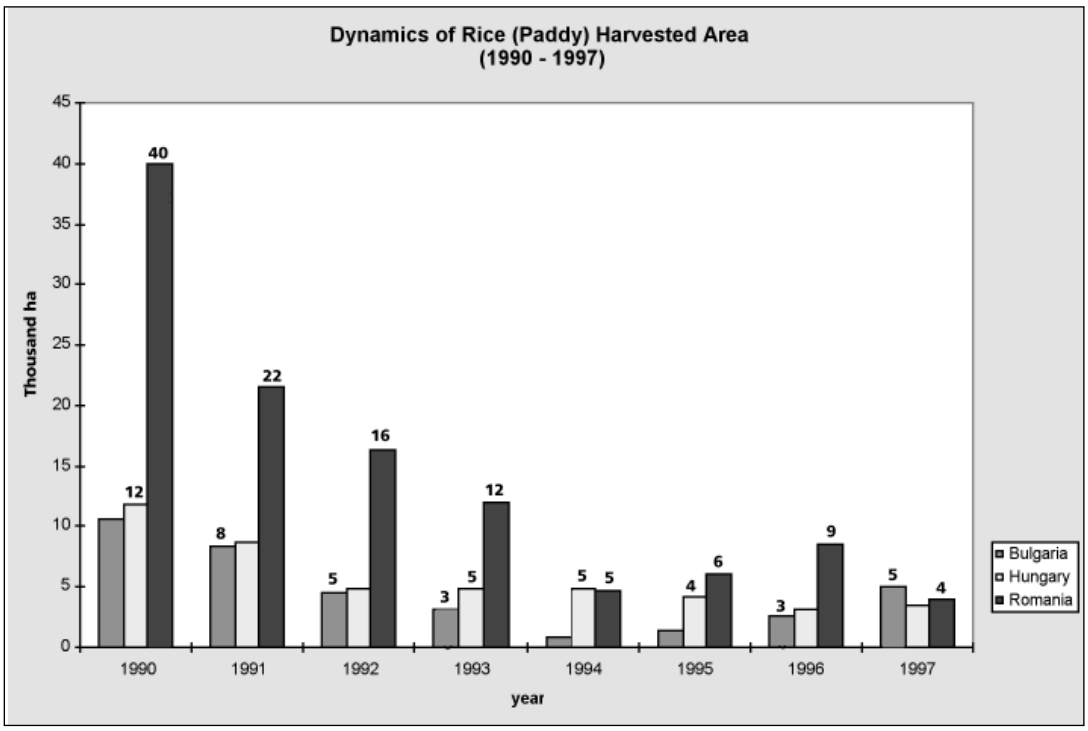
*including individual part-time farms
**joint stock, limited liability companies and other business entities
Source: EC country reports

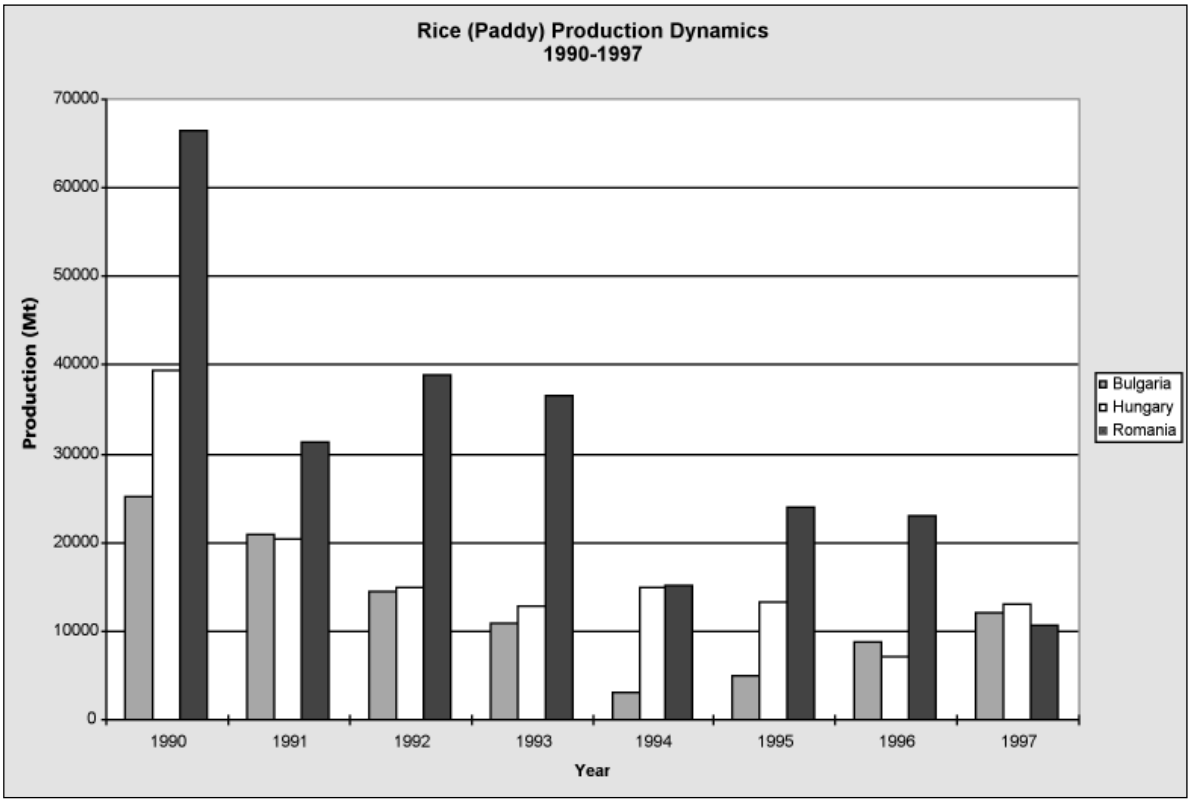
Table 8. Percentage PSE CEC-EU

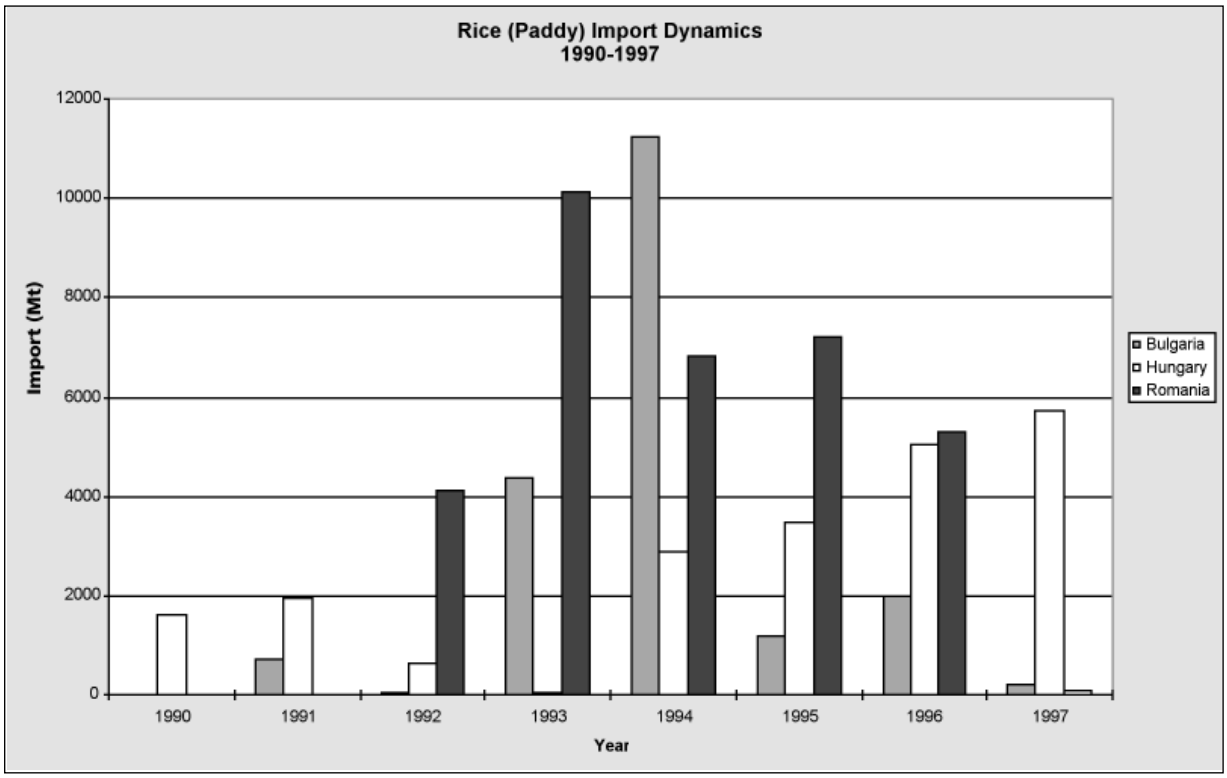
	1989	1990	1991	1992	1993	1994	1995	1996	1997e
Bulgaria	...	...	...	...	...	...	...	...	...
Hungary	31	27	15	20	24	31	21	15	16
Romania	...	...	...	...	...	...	...	...	...
EU-12/15	40	47	47	47	49	48	49	43	42

Source: OECD 1998; Romania and Bulgaria not available. EU-15 from 1995.1997estimated




Dynamics of Rice (Paddy) Harvested Area
(1990 - 1997)
Thousand ha
45
40
35
30
25
20
15
10
5
0
40
12
22
8
16
5
12
3
5
5
5
6
4
9
3
5
4
1990
1991
1992
1993
1994
1995
1996
1997
year
Bulgaria
Hungary
Romania


Rice (Paddy) Production Dynamics
1990-1997
Production (Mt)
70000
60000
50000
40000
30000
20000
10000
0
1990
1991
1992
1993
1994
1995
1996
1997
Year
Bulgaria
Hungary
Romania


Rice (Paddy) Import Dynamics
1990-1997
Import (Mt)
12000
10000
8000
6000
4000
2000
0
1990
1991
1992
1993
1994
1995
1996
1997
Year
Bulgaria
Hungary
Romania

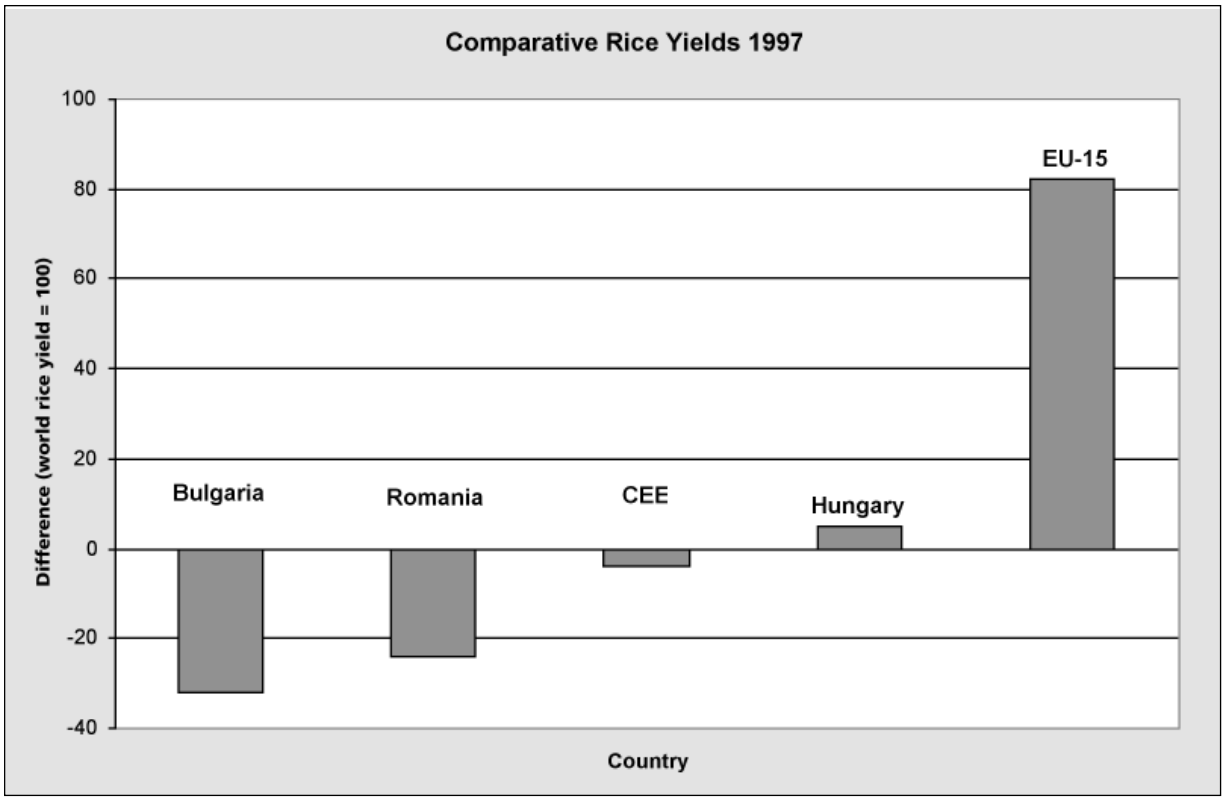

Comparative Rice Yields 1997
Difference (world rice yield = 100)
100
80
60
40
20
0
-20
-40
Bulgaria
Romania
CEE
Hungary
EU-15
Country

Table 9. Rice production situation in CEE countries vs. world 1997

1997	Area ('000 ha)	Production ('000 Mt)	Yields (kg/ha)	Imports ('000 Mt)	Exports ('000 Mt)	Supply/Cap/Yr (Kg)-milled equivalent
Bulgaria	5.0	12.0	24 000	0.20	0.1	3.5
Hungary	3.5	13.0	37 142	5.70	0.0	5.1
Romania	3.9	10.0	26 766	0.01	0.0	3.1
CEE*	16.4	54.6	33 193	11.00**	0.6***	
EU-15	424.2	2731.2	64 381	144.20	118.4	4.6
World	151761.6	580201.5	38 230	1208.10	973.0	58.7

World=100

1997	Area (% of world level)	Production (% of world level)	Yields (% of world level)	Imports (% of world level)	Exports (% of world level)	Supply/Cap/Yr (Kg)-milled equivalent (% of world level)
EU-15	0.300	0.600	182	12.00	13.00	7.8
CEE	0.010	0.010	96	0.90	0.07	0.0
Bulgaria	0.003	0.002	68	0.02	0.02	6.0
Hungary	0.002	0.002	105	0.50	0.00	8.7
Romania	0.003	0.002	76	0.01	0.00	5.2

* CEE not included Russian Federation and Ukraine
** CEE 11 importing countries : Albania, Bulgaria, Hungary, Croatia, Czech Republic, Poland, Romania, Yugoslavia, Slovenia, Slovakia, Yugoslav SFR
*** CEE Bulgaria, Macedonia, Czech Republic, Romania and Slovakia.