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Agricultural reforms in Central and Eastern Europe and the former Soviet Union

Status and perspectives ^{*}

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Abstract

The current status of the agricultural sector in Central and Eastern Europe and the former Soviet Union is described, in the context of reforms undertaken during the transition from a centrally planned economy to a market-based one. Sectoral performance is analyzed, focussing especially on general trends in production, and emerging trading patterns. Five critical basic elements of reform are described, and a table is presented rating each country in the study on progress in completing each type of reform. Overall conclusions are presented, indicating that in each basic element of reform, the CEE countries have achieved considerably more success than those of the CIS. The paper concludes with a discussion of prospects for development in the region. ©2000 Elsevier Science B.V. All rights reserved.

Keywords: Food and agriculture; CEE; CIS; Transition; Reform process

1. Introduction

The agrarian economies of Central and Eastern Europe (CEE) and the former Soviet Union are undergoing a systemic change and transformation. Looking back, it can be seen that the countries concerned made the right choice in setting their overall goals and policies for transition to a market economy. Under the present economic and political conditions in the region, there is no alternative to the creation of

a market economy based on private ownership. However, given the developments of the past eight years, it is clear that the initial expectations for transformation were overly optimistic and the transition process is far more complicated and complex than anyone imagined in 1990–1991 (Csaki and Lerman, 1997b). The region's agrarian economy is still struggling to adjust to economic reality.

While there is no 'blueprint' for adjusting agricultural policies to the market economy, it is possible to determine certain salient features and strategic behavior that are conducive to effective transitions based on the experiences of countries further along in the transition process. This paper provides an analysis of the status of agricultural reforms in the region, supplemented with an update of the regional agricultural situation in 1997–1998. The analyses are based on statistics processed by FAO for each of the individual

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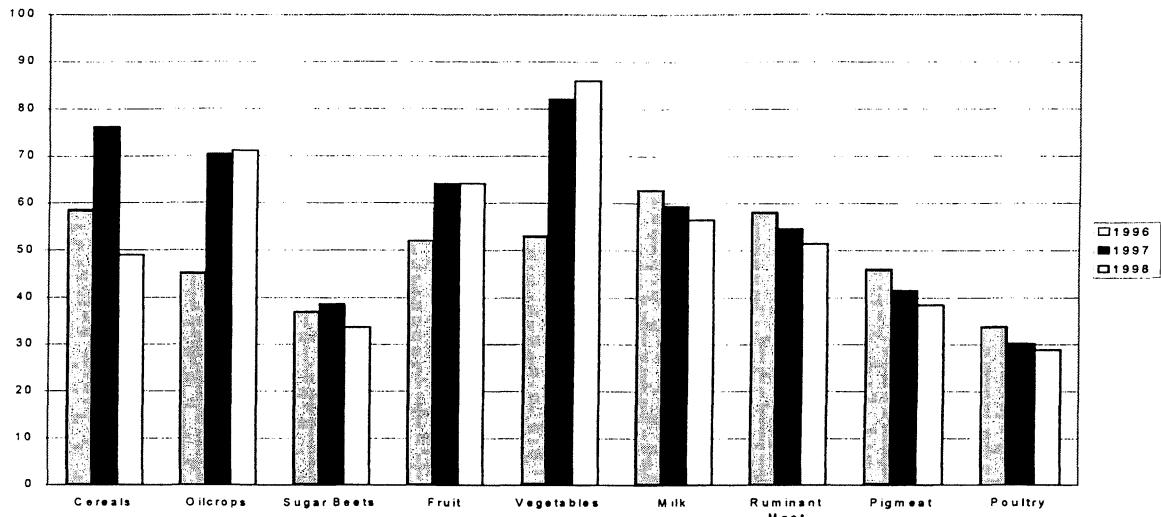


Fig. 1. CIS production as a percentage of the 1989–1991 average.

countries, and also on the results of analytical work being done with the support of the World Bank. It needs to be acknowledged, however, that there are questions of reliability and consistency between the statistical information from all countries mentioned in the report.

2. Sectoral performance in the region

The agrarian economy of the region has been characterized in the 1990s by a considerable fall in production. The years 1996, 1997, and 1998 have not resulted in a significant change in sectoral performance from earlier in the decade:

- Between 1990 and 1996, the share of GDP produced in agriculture at the regional level fell by an annual average of 7.8%. The decline of agricultural GDP was greater than in the rest of the economy and, as a result, the share of agriculture in total GDP further declined both, in the Commonwealth of Independent States (CIS) and CEE to 9.4% and 8.5%, respectively.
- The decline in agricultural production continued in 1997–1998 in most of the CIS countries. Russia, Kazakhstan, and Ukraine experienced exceptionally poor harvests in 1998. The output of all major products remained significantly below the pre-reform

levels (Fig. 1). There are, however, signs of recovery in crop production, especially for fruits and vegetables. At the same time, the outputs of all major livestock products continue to decline, indicating a deepening crisis in the livestock sector in the CIS countries.

- In contrast to the CIS, the signs of output stabilization can be observed in the CEE countries. In most cases, this stabilization occurred at 70–80% of the pre-reform levels, while in Estonia, Latvia, and Croatia, current production appears to have stabilized at 50% of pre-reform output (Fig. 2).
- The output of major crop products was close to, or somewhat below, pre-reform levels in 1997–1998 in CEE countries (Fig. 3). There is no indication of returning to pre-reform levels of output for the livestock sector, with the exception of poultry, where the output has surpassed pre-reform levels for 1997 and 1998.

There was a further decline in the contribution of the region and the two main sub-regions to world output in its main agricultural products (Fig. 4). The sharply declining shares of CIS countries in the global output of major agricultural products during the last two years reflect the increasing gap between global agricultural development and the performance of these countries (Fig. 5). The decline in the contribution shares can be observed even in the CEE countries, which indicates

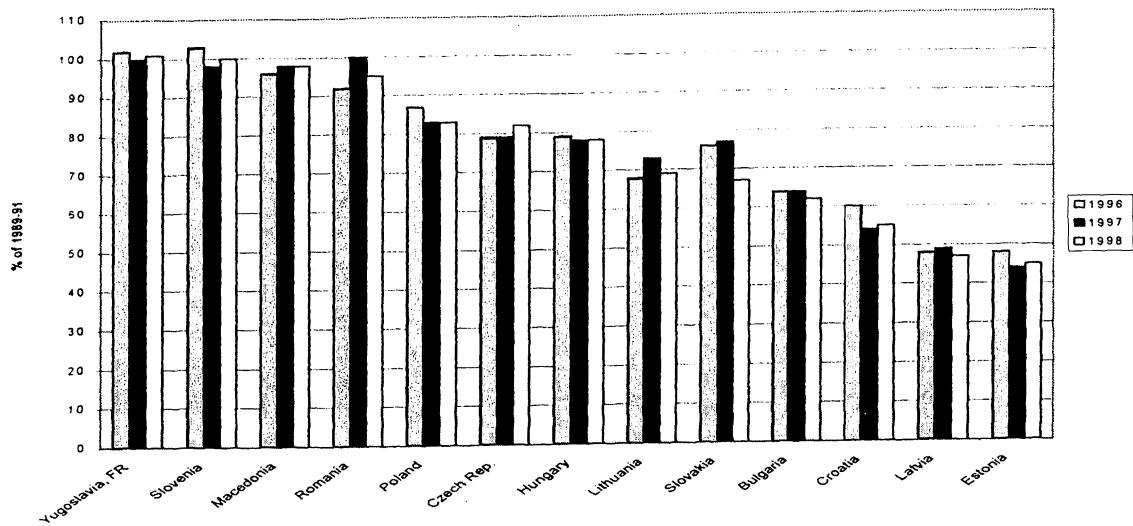


Fig. 2. CEE agricultural production indexes (1989–1991 = 100).

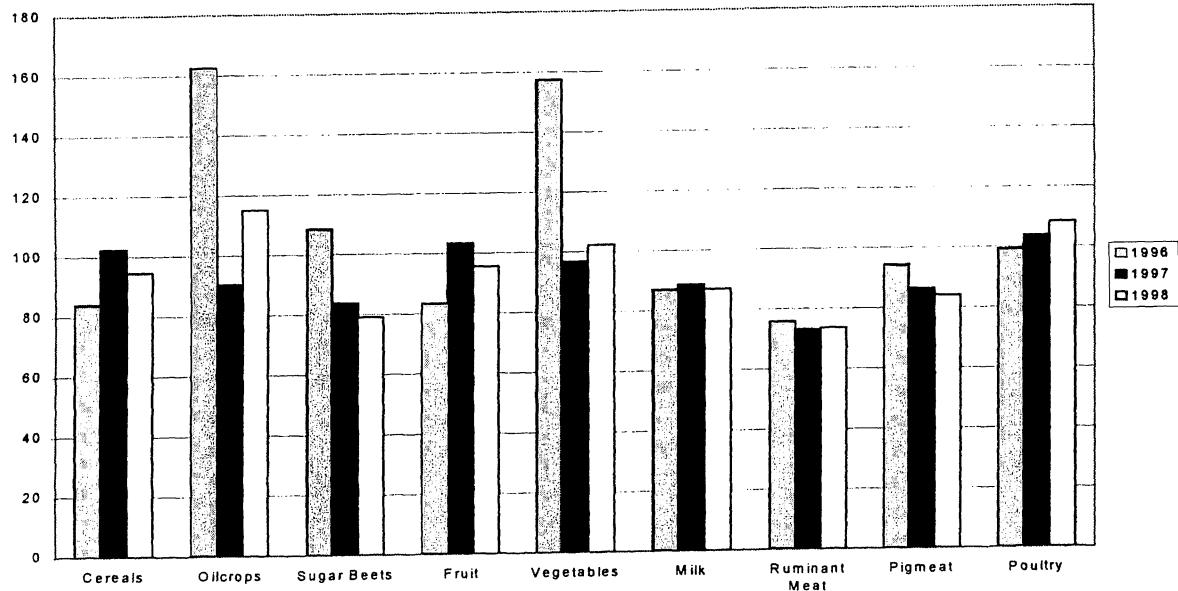


Fig. 3. CEE production as a percentage of 1989–1991 average.

that the overall performance of the CEE countries has also remained below world averages (Fig. 6).

The development in yields basically confirms the assessment provided above. In the CIS countries, there is a declining trend in major grain yields. The decline is especially significant in those countries which lag behind in agricultural reforms, namely,

Russian, Turkmenistan, Belarus, and Kazakhstan (Figs. 7 and 8). In the CEE countries, grain yields have shown an increasing trend on a five-year average in practically all countries except Bosnia and Herzegovina, even though 1998 was a difficult year for the majority of CEE countries (Figs. 9 and 10).

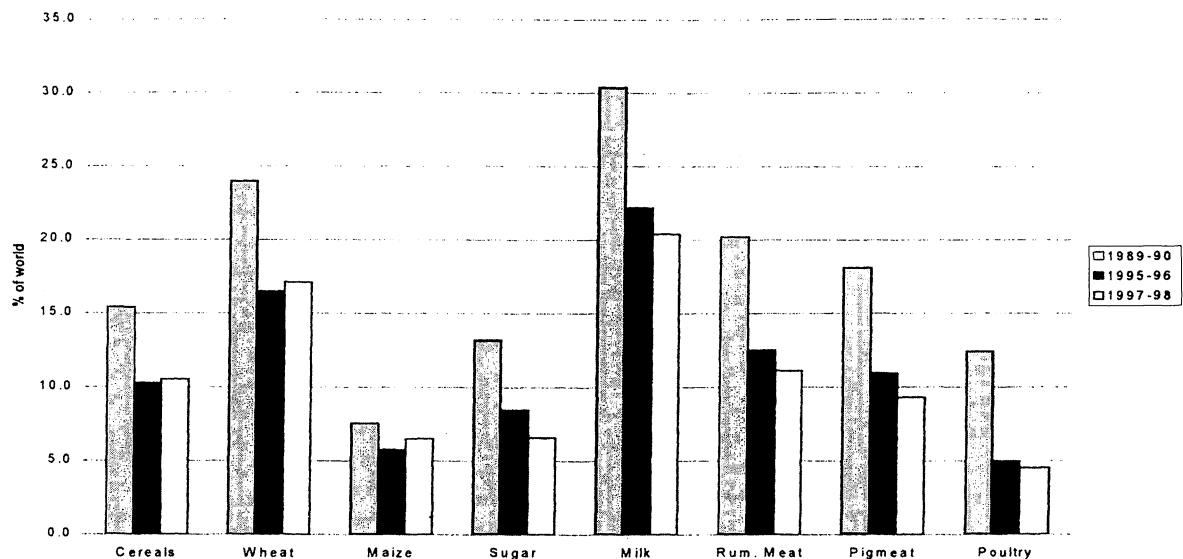


Fig. 4. Production of ECA transition countries in comparison to world production.

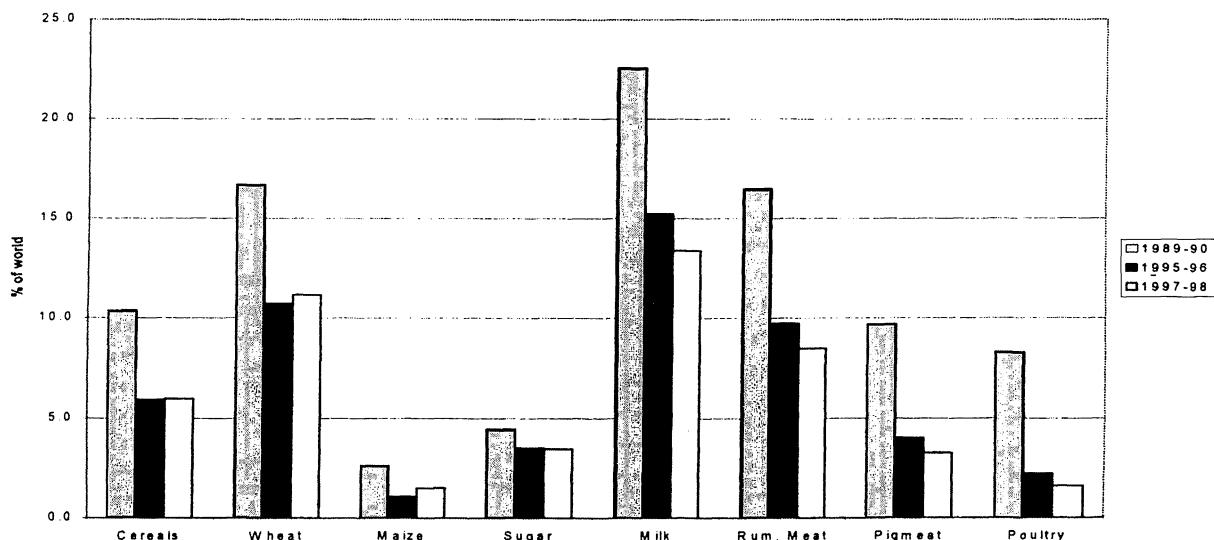


Fig. 5. Production of CIS as a percentage of world production.

Agricultural technology levels did not improve in 1997–1998 in any measurable way. For the region as a whole, the use of agricultural inputs remained, more or less, at the level of previous years, which is only about 15–20% of pre-reform levels. An upward trend can only be observed in CEE countries.

The changes in regional agricultural trade continued during 1996–1997:

- Despite the decline in production, the region's share of world trade did not shrink substantially, and, in the case of some products, there was even an unquestionable increase. This was made possible (or required) by the fall in domestic consumption and by the new situation created with the disintegration of the Soviet Union (Figs. 11–13).

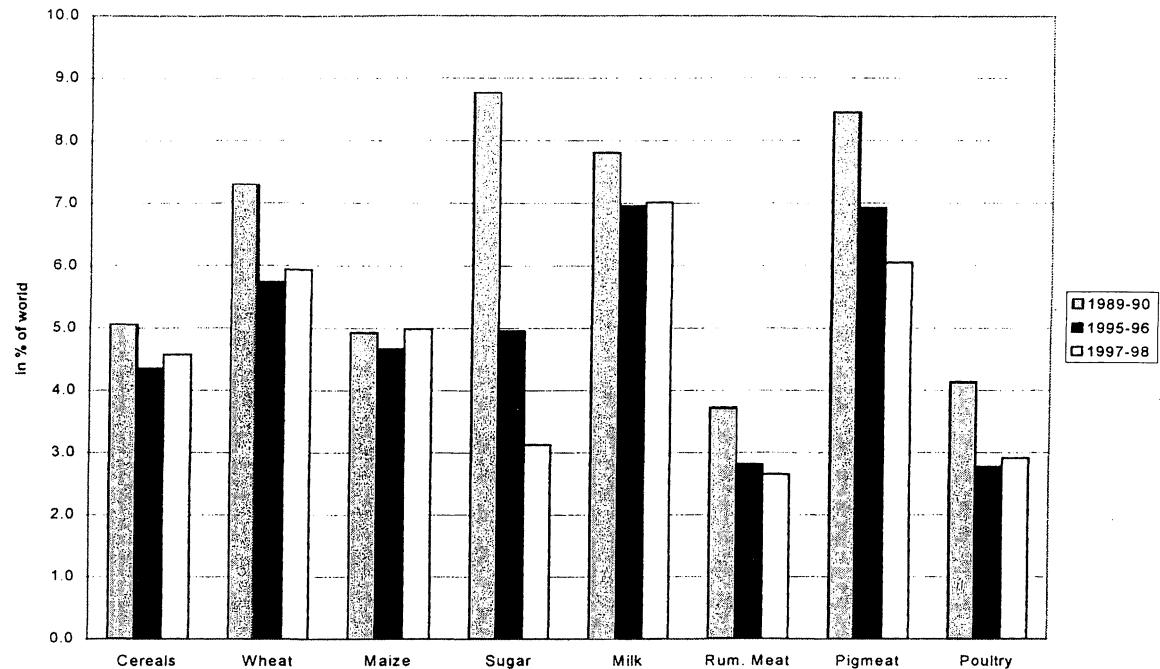


Fig. 6. Production of CEE as a percentage of world production.

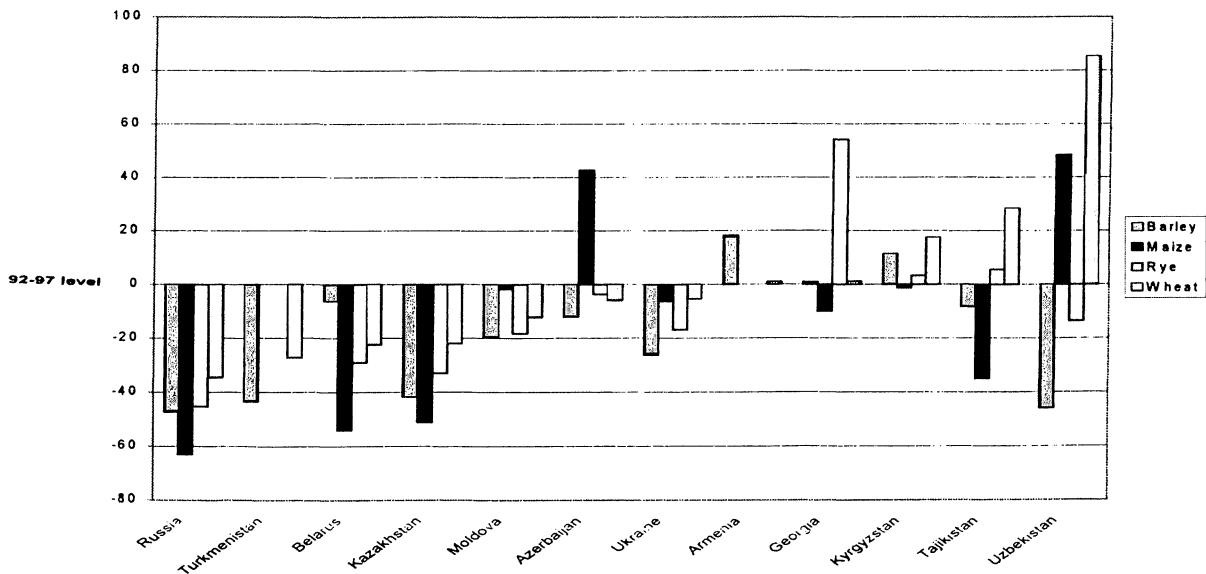


Fig. 7. CIS grain yields in 1998 compared to 1992-1997 (%).

- In some countries, there has been a considerable change in the composition of agricultural trading partners. The region's agrarian trade determined by the Council of Mutual Economic Assistance

(CMEA) and basically built on internal relations has now given way to a wide opening towards other parts of the world. Conversely, growth in most CIS countries is seriously constrained by the col-

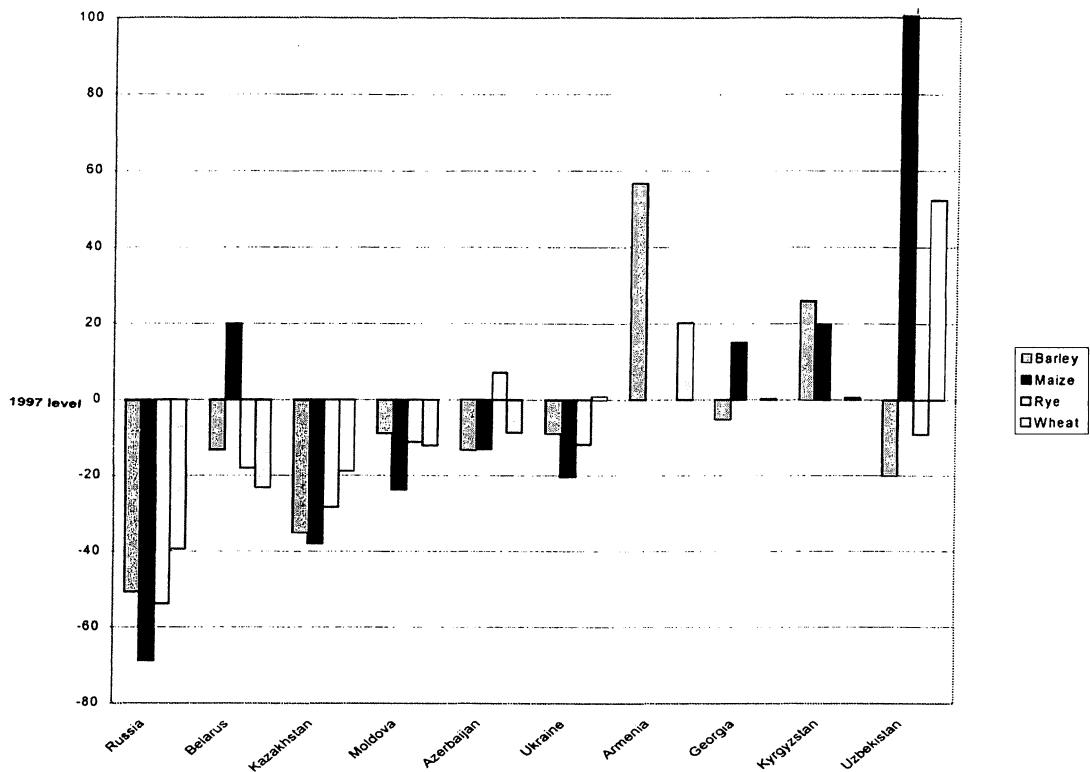


Fig. 8. CIS grain yields in 1998 compared to 1997 (%).

lapse of traditional markets and failure to develop alternatives.

- However, while the structure of the region's agricultural exports and imports has changed considerably as a result of declining consumption, the balance of agricultural trade for the region as a whole did not deteriorate. Overall, the region continues to be a net importer of agricultural products. The negative balance of the CIS countries has been reduced. In the CEE an increase in the negative agricultural trade balance can be observed (Fig. 14).
- The structure and source of imports and exports have also changed. Perhaps the most significant structural change is that the CIS countries, and Russia in particular, have become one of the world's biggest meat importing regions. In place of the massive grain imports characteristic of the Soviet period, Russia now mainly buys meat. This is quite clearly a more favorable solution from an economic viewpoint, since the large quantity of grain purchased in earlier decades by the Soviet Union was

used in animal husbandry with very low efficiency. At the same time, the CIS countries are increasingly appearing on world markets as grain exporters (Figs. 15–17).

- The role of Central and Eastern Europe in the world ruminant meat trade has diminished, while the region strengthened its position in trade in dairy products and their pork exports have recovered to pre-reform levels in 1996–1998. Additionally, in recent years, the CEE region's significance on grain markets has increased somewhat (Figs. 15–17).
- Another important change is the growth in the importance of quality processed products in the region's agrarian trade and, together with this, in the share of the developed countries, especially the European Union and the USA in the region's food imports.
- Sales within the region continue to be of great importance for practically all countries. However, the competition from outside is making it increasingly difficult to sell products at the CMEA level stan-

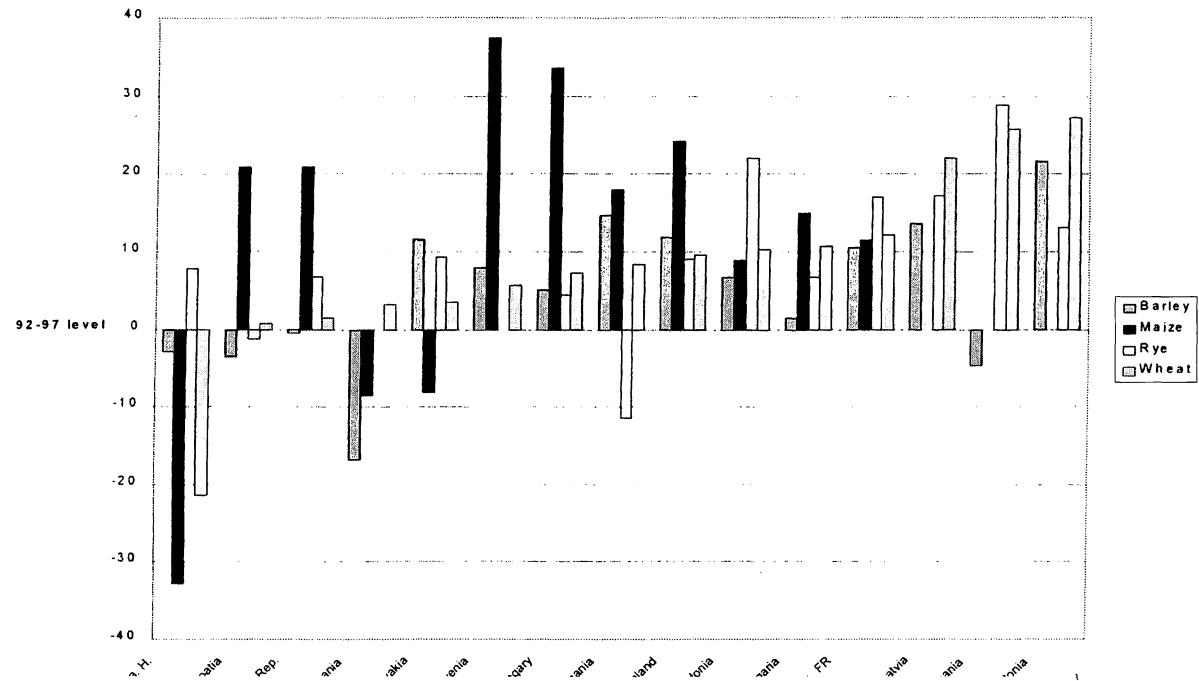


Fig. 9. CEE grain yields in 1998 compared to the 1992–1997 average (%).

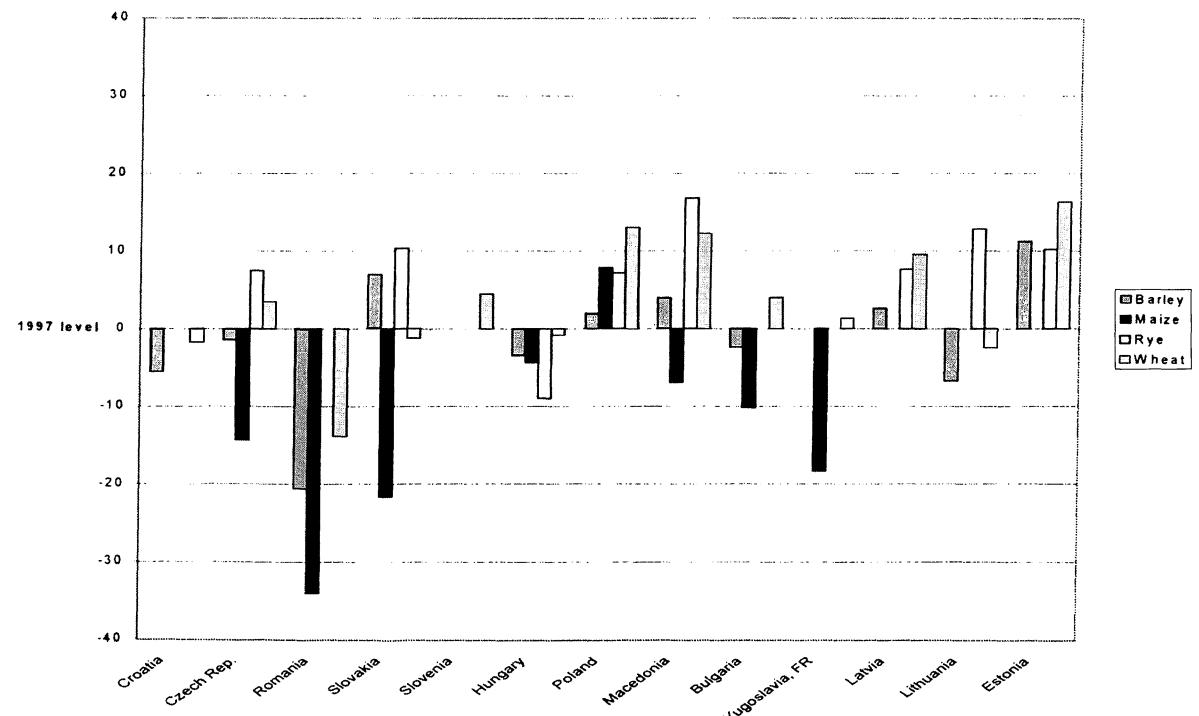


Fig. 10. CEE grain yields in 1998 as compared to 1997 (%).

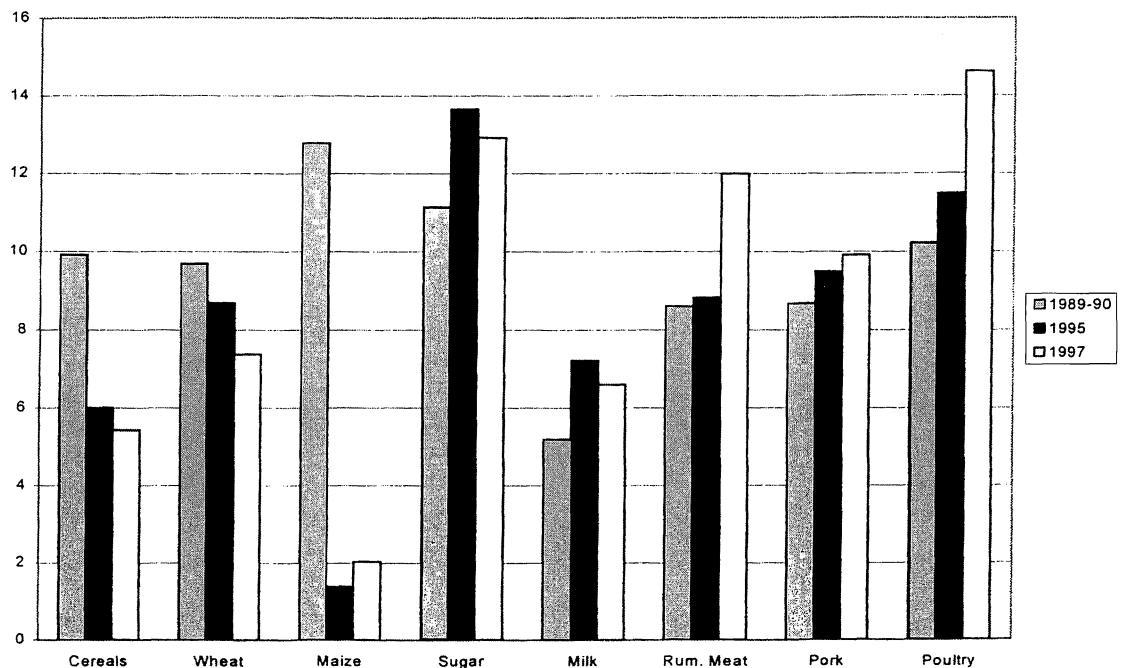


Fig. 11. CIS and CEE transition countries' agricultural trade as a percentage of world trade.

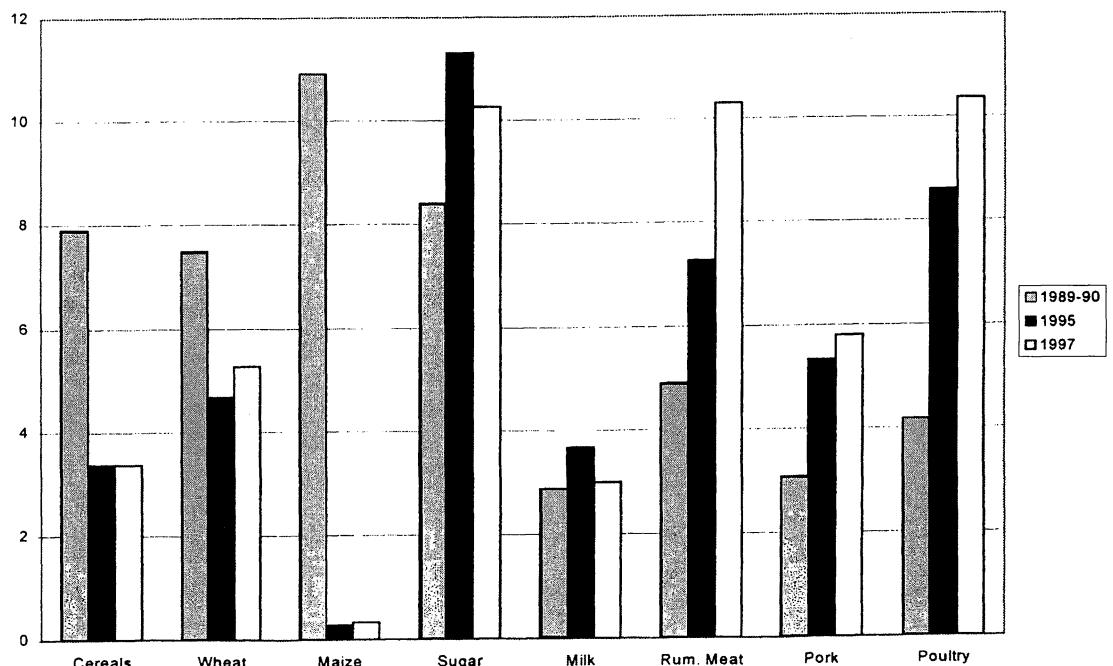


Fig. 12. CIS agricultural trade as a percentage of world trade.

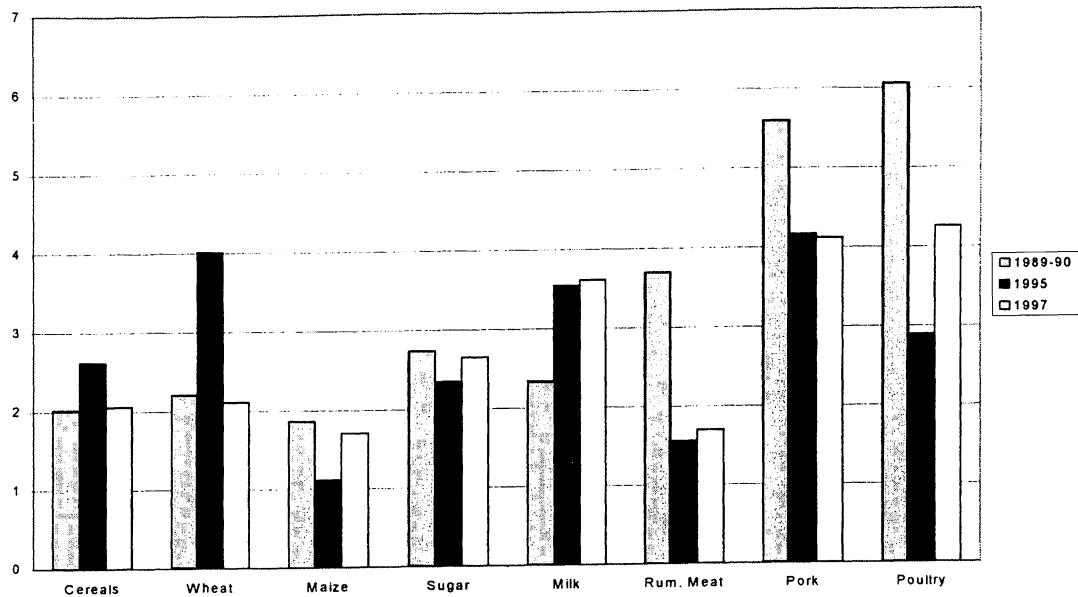


Fig. 13. CEE agricultural trade as a percentage of world trade.

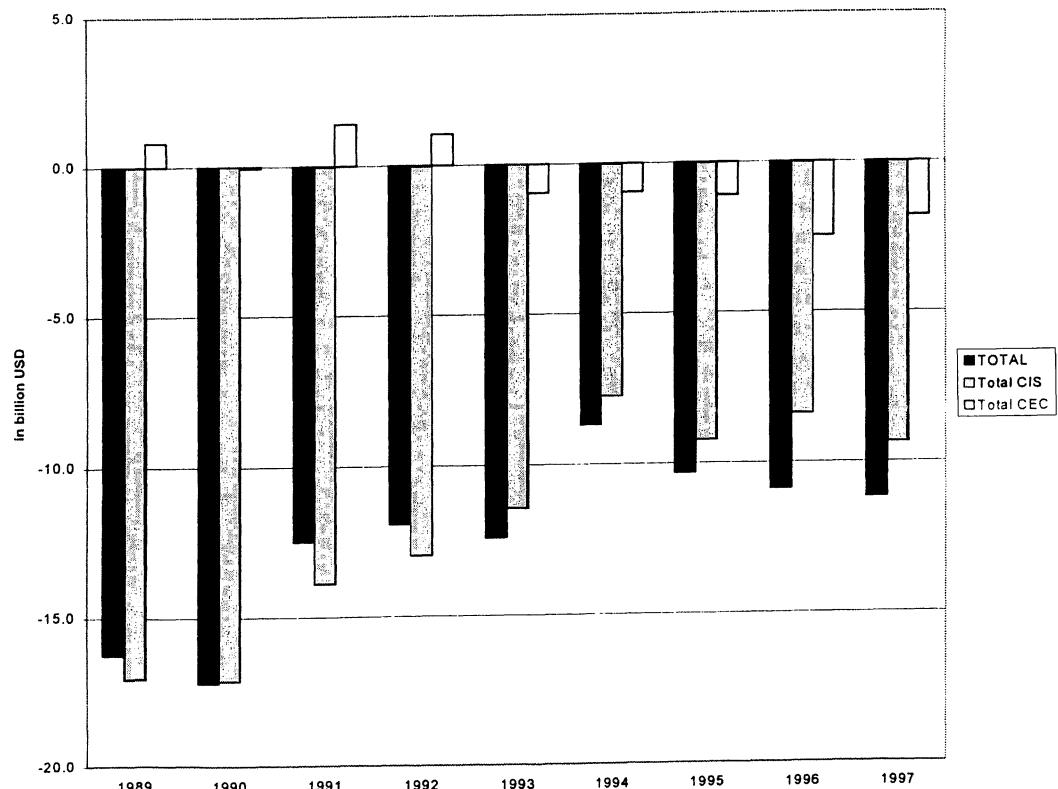


Fig. 14. Net agricultural trade, 1989–1997.

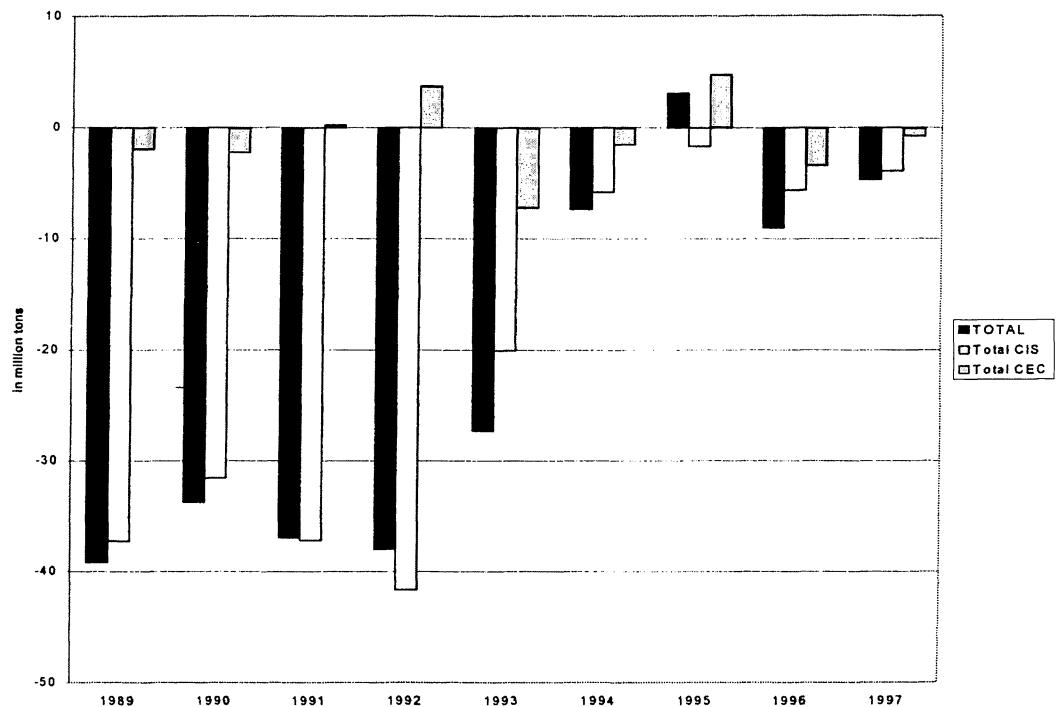


Fig. 15. Net trade in cereals, 1989–1997.

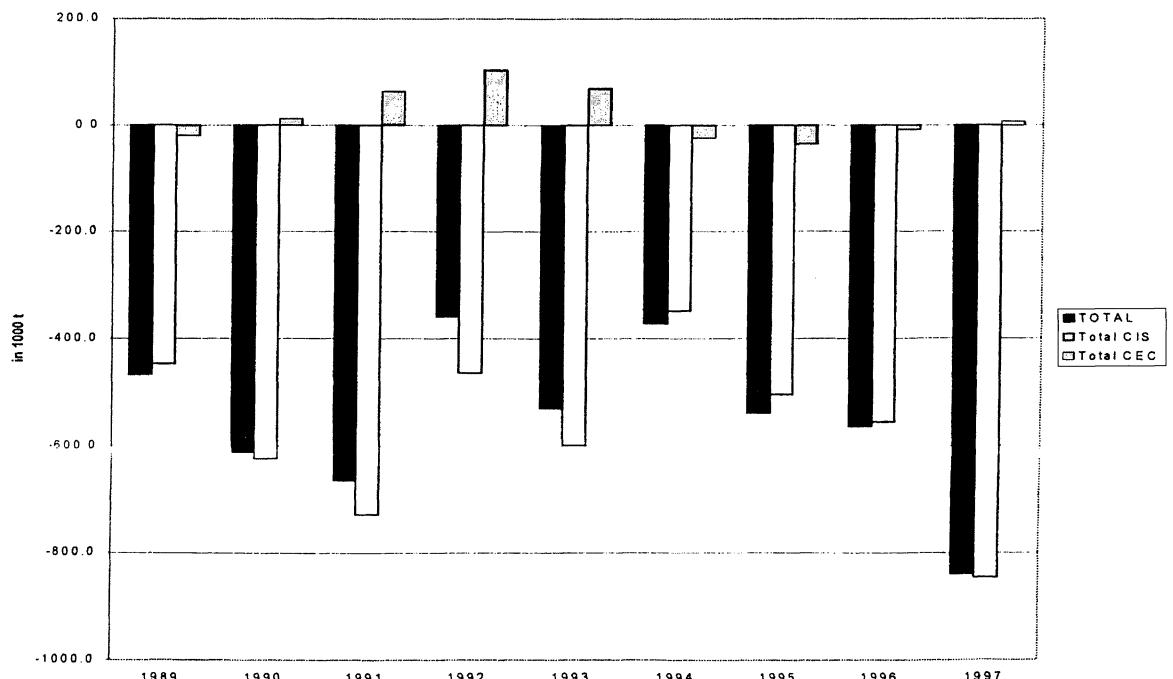


Fig. 16. Net trade in ruminant meat, 1989–1997.

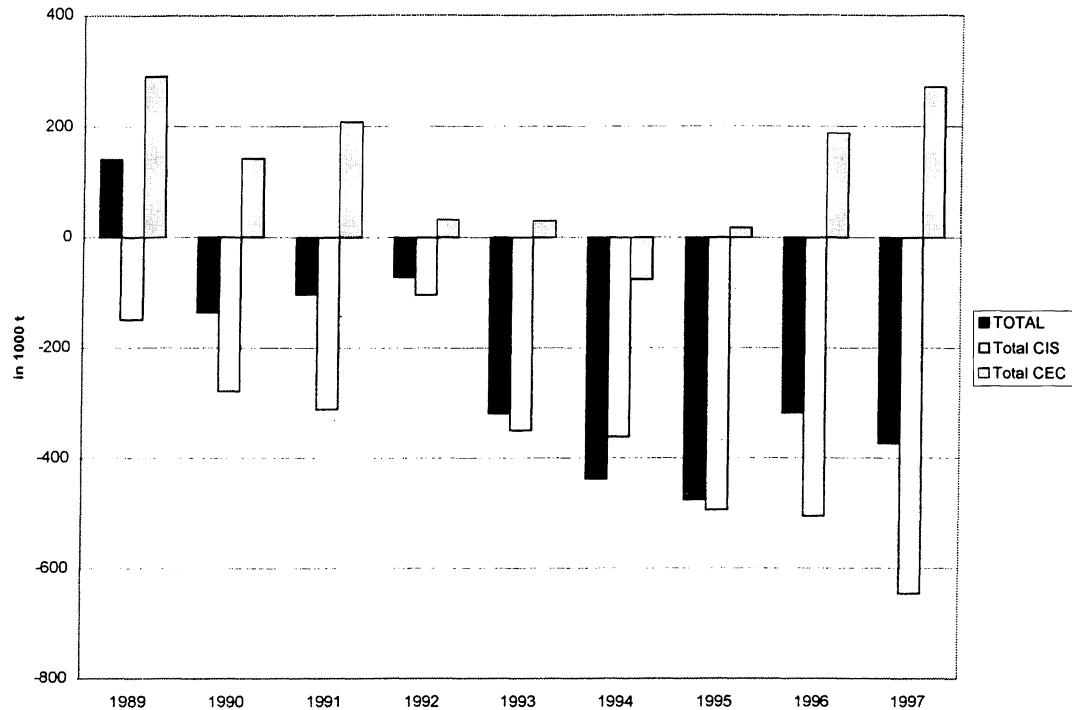


Fig. 17. Net trade in pork, 1989–1997.

dards within the region. Some of the countries of Central and Eastern Europe are having increasing success on the markets of the developed countries, but, for the majority of countries in the region, selling within the region remains practically the only possible direction for the export of their agricultural produce, often in the form of special barter deals.

On the whole, the region's agrarian trade is becoming steadily integrated into the agrarian trade of the world and the European region. This process is most advanced in the case of the countries of Central and Eastern Europe, where the CEFTA offers further possibilities for regional co-operation. In the great majority of the countries concerned, a liberal agrarian trade policy is also assisting in the integration of the countries of the region into world agrarian markets. Most of the countries in the Central and East European region are members of the WTO, or their admission is pending. The obligations accompanying the anticipated EU membership for most of these countries are also having a growing influence on their trade policy.

The agrarian trade policy of the CIS countries is changing and is a source of considerable uncertainty in the medium-term. The voices of those demanding increased protection of internal agrarian markets are becoming louder in the CIS countries, and especially in Russia. A proposal has also been elaborated for the introduction of a considerably projectionist 'Common CIS Agrarian Trade and Support Policy', similar to that of the European Union. It is not yet possible to clearly foresee the outcome of these processes, but it seems likely that the agrarian trade policy of the CIS countries will shift towards growing protectionism unless the protracted entry of Russia and Ukraine to the WTO sets limits to this unfavorable change.

3. What stage has the reform process in agriculture reached in the region?

In 1990–1991, the region set out on the path of creating market economies based on private property. In all countries the most important basic elements of the reform process have been:

- the removal of direct government intervention from agricultural markets and the creation of a market-compatible policy framework for the agrarian economy;
- the privatization of land and transformation of the inherited farming structure;
- the de-monopolization and privatization of food processing and the trade in agricultural produce and capital goods;
- the creation of a functioning rural financial system; and
- the establishment of the institutional structure and system of public administration required by market economies.

There has been little difference between one country and another in terms of what needs to be done. However, there are fairly large differences when it comes to the pace of realization and the manner of implementation. Our analysis intentionally emphasized 'on the ground' results as opposed to pure policy reforms (which are often legislated, but not implemented). The results of the analysis are summarized in Tables 1 and 2²:

Our analysis for 1998 indicates a further differentiation among CEE and CIS countries in the pace of agricultural reform:

- In the leading CEE countries, the reform process is close to completion. The possibility of EU membership has accelerated reforms in those countries that were lagging somewhat behind the leading EU accession candidates (Csaki, 1996), most notably in Lithuania and Latvia. Romania and Bulgaria, unfortunately, have shown only modest advancement. The agriculture policy agenda in the CEE is characterized by efforts to complete the transition, to cope with the increased social problems in rural areas, and to adjust to the evolving CAP. Unfortunately, the task of facilitating increased competitiveness has

often been stymied by farm lobby demands to provide immediate protection in the agricultural sector and to provide income transfers to farming populations;

- There has not been any significant progress in agricultural reform in the core countries of the CIS. In Russia, Ukraine and Kazakhstan, this standstill in the reform process has contributed to the further decline in agricultural output. Some of the smaller countries in the CIS, such as the Kyrgyz Republic, Moldova, and Azerbaijan, however, have taken significant steps in 1998 to continue reforms in the agricultural sector. In 1998, Tajikistan, Turkmenistan, Uzbekistan, and Belarus had still not started any significant reforms.

The major conclusions of the overall review are as follows:

- The reform process is considerably more complicated and complex than anyone had originally expected.
- The results of the reforms have not yet met original expectations. The relatively rapid growth of production that characterized the Chinese reforms has not occurred. Transformation of the economic structure proved to be a far more complex task. This is due, largely, to the incomplete application of the basic element of farming, the private family farm. To a large extent the inherited large-unit structure has survived the changes.
- The pace of transformation of the agrarian sector and the rural economy is lagging behind the rate of changes in the economy as a whole.
- Surprisingly, the biggest transformation has taken place in the price and market environment, while there is a substantial lag in solving the financing problems of agriculture and in the area of institutional reforms.
- There are very considerable differences in the reform performances of the individual countries. Due to the adoption of more comprehensive transition policies, the CEE countries are quite clearly far more advanced than the CIS countries.
- The transformation of agriculture is most advanced in Central Europe and, in particular, in the EU candidate countries. Even here, reform of the agrarian sector has not yet been fully accomplished. The results of our analyses agree with the EU evaluation in finding that further reforms are needed, princi-

² The description of the status of reforms for each country was compiled by the World Bank staff most familiar with that country's agricultural policies. Numerical ratings were then assigned to each of the five reform categories in accordance with the criteria listed in Table 2. These ratings were then revised in several review sessions to improve consistency of rankings. An earlier version of this analysis was presented in Csaki and Lerman, 1997b. The criteria for rating the price and trade policies were slightly modified in April 1999, however, the comparability with the 1997 results has been maintained (Csaki and Nash, 1997; Csaki and Fock, 1999).

Table 1
Status of agricultural reforms in CEE and CIS countries in April 1999 (1997)^{a,b}

Country	Market conforming trade and price policy	Land reform	Agroprocessing and input supply	Rural finance	Public institutional framework	Total score
Hungary	9 (9)	9 (9)	10 (9)	9 (8)	8 (8)	9.0 (8.6)
Czech Republic	9 (9)	8 (8)	9 (8)	9 (8)	8 (8)	8.6 (8.2)
Slovenia	9 (8)	9 (9)	8 (8)	7 (8)	8 (9)	8.2 (8.4)
Latvia	8 (7)	9 (9)	8 (7)	8 (7)	8 (8)	8.2 (7.6)
Estonia	9 (10)	6 (6)	8 (7)	8 (7)	9 (9)	8.0 (7.8)
Poland	8 (9)	8 (8)	8 (7)	7 (6)	8 (8)	7.8 (7.6)
Lithuania	8 (7)	8 (8)	8 (7)	6 (6)	8 (7)	7.6 (7.0)
Slovak Republic	7 (7)	8 (7)	8 (8)	8 (8)	7 (7)	7.6 (7.4)
Armenia	7 (7)	8 (8)	7 (7)	7 (7)	8 (8)	7.4 (7.4)
Bulgaria	8 (6)	8 (7)	7 (5)	5 (4)	6 (5)	6.8 (5.4)
Macedonia	8 (7)	7 (7)	7 (8)	4 (4)	7 (6)	6.6 (6.4)
Croatia	6 (6)	6 (5)	7 (6)	6 (6)	8 (6)	6.6 (5.8)
Kyrgyz Republic	7 (6)	7 (6)	6 (6)	7 (6)	6 (5)	6.6 (5.8)
Albania	8 (8)	8 (8)	8 (8)	3 (3)	5 (5)	6.4 (6.4)
Moldova	8 (7)	7 (6)	7 (7)	5 (5)	5 (4)	6.4 (5.8)
Azerbaijan	7 (6)	8 (6)	5 (5)	5 (4)	5 (4)	6.0 (5.0)
Romania	6 (7)	7 (7)	6 (6)	5 (6)	5 (4)	5.8 (6.0)
Bosnia and Herz.	6 (.)	6 (.)	6 (.)	6 (.)	5 (.)	5.8 (.)
Georgia	7 (7)	6 (7)	5 (5)	6 (6)	5 (6)	5.8 (6.2)
Russia	6 (7)	5 (5)	7 (7)	5 (6)	5 (5)	5.6 (6.0)
Kazakhstan	5 (7)	5 (5)	6 (7)	6 (5)	5 (5)	5.4 (5.8)
Ukraine	6 (7)	5 (5)	6 (7)	5 (5)	4 (3)	5.2 (5.4)
Tajikistan	5 (4)	5 (2)	4 (5)	2 (3)	4 (5)	4.0 (3.8)
Turkmenistan	2 (2)	3 (2)	1 (1)	1 (1)	3 (3)	2.0 (1.8)
Uzbekistan	3 (4)	2 (1)	1 (1)	1 (1)	3 (4)	1.8 (2.2)
Belarus	2 (3)	1 (1)	2 (2)	2 (2)	1 (1)	1.6 (1.8)
Average score	6.7 (6.7)	6.5 (6.1)	6.3 (6.2)	5.5 (5.3)	5.9 (5.7)	6.2 (6.0)

^a An explanation of the numerical ratings is given in Table 2. (1=centrally planned economy, 10=completed market reforms).

^b Source: World Bank estimates.

pally in the area of the institutional system and in the financing of agriculture, but land reform, and the transformation of the inherited economic structure, is still unfinished in practically all of these countries.

- The transformation of agriculture in the CIS countries is still in its early stages. Distortions continue in the production, pricing, and marketing of 'strategic' products, and the system of institutions and instruments of the planned economy has not yet been fully dismantled.

Many valuable conclusions can be drawn from the analysis of the experiences of the countries leading in the transformation. The following can be stated:

- The general economic upswing can greatly assist the agricultural reforms. The greatest progress has been made in transformation of the sector by those

countries where the general economic recovery has also begun.

- Development in the non-agricultural segment of the rural economy is of key importance for the recovery of agriculture. In the great majority of the countries that are the most advanced in the reforms, it has been the upswing of the rural economy surrounding agriculture that has made possible a substantial reduction in the numbers of people employed in agriculture, and at the same time, an improvement in the efficiency and competitiveness of agriculture itself.
- An important factor in the successes achieved in reforms is consistency, and the combined implementation of parallel steps in areas related to the reforms.
- The greatest reform progress has been made by those countries that are reforming in very large

Table 2

Key to numerical ratings used in Table 1^a

Market conforming trade and price policy	Land reform	Privatization of agroprocessing and input supply	Rural financial systems	Public institutional framework
1–2. Direct state control of prices and markets.	1–2. System dominated by large-scale farms.	1–2. Monopolistic state owned industries.	1–2. Soviet type system, with 'Agrobank' as the sole financing channel.	1–2. Institutions of command economy.
3–4. Deregulation with indicative prices, and price controls; significant NTB on imports or exports.	3–4. Legal framework for land privatization and farm restructuring in place, implementation launched only recently	3–4. Spontaneous privatization and mass privatization in design of early implementation stage.	3–4. New banking regulations are introduced; little or no commercial banking.	3–4. Modest restructuring of government and public institutions.
5–6. Mainly liberalized markets constrained by the absence of competition and some remaining controls on trade policy.	5–6. Advanced stage of land privatization, but large-scale farm restructuring is not fully complete.	5–6. Implementation of privatization programs in progress.	5–6. Restructuring of existing banking system, emergence of commercial banks.	5–6. Partly restructured governmental and local institutions.
7–8. All command economy type interventions are removed. Market and trade policies are in compliance with WTO, however, domestic markets are not fully developed.	7–8. Most land privatized, but titling is not finished and land market not fully functioning.	7–8. Majority of industries privatized with a framework conducive for foreign direct investment.	7–8. Emergence of financial institutions serving agriculture.	7–8. Government structure has been refocused while research, extensions, and education is being reorganized.
9–10. Competitive markets with market conforming trade and agricultural policies.	9–10. Farming structure based on private ownership and active land markets.	9–10. Privatized agro-industries and input supply, with improved international competitiveness.	9–10. Efficient financial system for agriculture, agro-industries, and services.	9–10. Efficient public institutions focused on the needs of private agriculture.

^a Source: World Bank estimates

steps, despite the great difficulties that these efforts are causing in the short-term. In most cases, the appeals for a gradual approach appear to be a sign of the lack of will; this is especially the case in the CIS countries.

In all countries, the process of agricultural reforms has been strongly influenced by day-to-day politics. Very often, politics has been, and still is, determining the pace and extent of reforms, at the expense of economic rationality. In general, there is a lack of carefully considered, long-term strategies, and an objective and realistic evaluation of the economic consequences of the different possible solutions. As a result, the negative economic consequences of the transformation are greater than the unavoidable minimum, even in the most advanced countries (Csaki, 1995).

The situation in the different main areas of transformation covered in our analysis has been summarized in the following.

3.1. Creation of a market conforming trade and price policy environment

Practically all countries (with the exception of a few CIS countries) have taken major steps in this direction.

- In Central and Eastern Europe, the macro-economic environment for agriculture that is characteristic of market economies has been developed. The prices and the system of regulations are open, more or less, to world market influences. Support for agriculture and protection of internal markets has become stronger than in the first half of the 1990s. However, the level of indirect and direct supports for agriculture remains below the average for the European Union. Frequent changes made in the system of regulations represents a problem. It remains to be seen what strategy the countries preparing for EU membership will opt for to introduce the EU's common agricultural policy. It is a positive trend

that methods directly serving efficiency and competitiveness are increasingly coming to the fore in the system of agricultural supports.

- State intervention remains strong in the CIS countries, in both, the price formation and trade policy. In these countries, despite the frequently proclaimed direct support for agriculture, the agrarian sector suffers serious losses due to the price policy and trade restrictions (especially export controls and taxes) separating it from world markets. Calculations show that the balance of the different interventions is negative for agriculture. It would appear that governments are trying to make agriculture continue to bear the burden of providing cheap food for the urban population. The growing intervention of regional authorities in the functioning of the agricultural sector is a relatively new phenomenon. This can be observed particularly in Russia and Ukraine.

3.2. Privatization of land, reorganization of the large farm units

Land reform and land ownership continues to be the subject of heated debates in practically all countries of the region.

- In the countries of Central and Eastern Europe, the privatization of land based on some form of compensation is largely approaching completion. The new farm structure is characterized by a varied mix of small and large units. The remaining pieces of the state owned units from the socialist period are also increasingly undergoing change and adapting to market economy conditions. The legal settlement of land ownership relations is not yet completed, and the land register and the emergence of a market for land are still in the initial stages. In a few countries, a heated debate is being conducted on the ownership of land by companies and foreign nationals.
- While land has formally passed into private ownership in the decisive part of the CIS countries (Russia, Ukraine, Belarus), the large-scale farming sector remains practically untouched. The co-operatives and state farms have been transformed into share companies (Brooks and Lerman, 1994; Csaki and Lerman, 1996, 1997a). However, in practice, there has been no change in the real questions

of substance. These large units continue to be controlled by a central management structure and operate with low efficiency and face increasing financial problems. The role of independent private farming is marginal, not least of all because of the deterrent effect of the undeveloped market relations. There has been remarkable progress in Moldova and Azerbaijan in 1998 in the transformation of the Kolkhoz system (Csaki et al., 1998). Radical land reforms have been carried out in only a few countries of the former Soviet Union, as a consequence of their special political and economic situations. This is the case for Armenia and Georgia where independent private farming now dominates. Here, the distribution of land carried out on the basis of family size resulted in very small farm sizes and this has gone together with a steep decline in agricultural production for the market. Conversely, in some CIS countries (Uzbekistan and Tajikistan) private ownership of land is prohibited by the constitution and the lease hold arrangements are an added uncertainty.

3.3. Privatization of the food industry and of trade in agricultural produce and capital goods for agriculture

Formally, substantial progress has been made. However, the food industry, which is technologically backward and incapable of quality production, is one of the biggest obstacles to the further development of agriculture in the region.

- In Central and Eastern Europe, with the exception of the Baltic states, privatization of the agricultural environment has been carried out in keeping with the principles of privatization in general, and for the most part is nearing completion. A lag can be observed in Romania, Bulgaria and the countries of ex-Yugoslavia. A special case is Hungary, which, as a result of the liberal privatization process, now has perhaps the most developed food industry of the region, due also in considerable part to substantial foreign investment.
- The CIS countries opted for what, on the whole, is a less effective solution for privatization of the food industry and agricultural capital goods and commodity purchasing. In the course of privatization, unlike the other areas of the economy, priority was

given to agricultural producers, giving them majority ownership of these branches, on special terms or entirely free of charge. Contrary to expectations, this solution did not result in new, well capitalized owners and more favorable conditions for agricultural producers. In fact, the technological decline of the food industry accelerated and, because of the complicated ownership structure, it became extremely difficult to involve foreign capital. Further steps and the renewed settlement of ownership are required to set the food industry on its feet. Instruments for this could be new liquidation procedures and support for new investments. Unfortunately, the widespread bureaucracy and corruption in the CIS countries seriously obstruct both, the further transformation and the establishment of new plants and small businesses.

3.4. *Agrarian financing*

This is one of the most critical areas for the agrarian sector in the region.

- In the CEE countries, after intensive preparations and a lengthy transitional period, the financing of agriculture has improved considerably since 1994, although the new private institutions are managerially weak and financially vulnerable. This is the result, partly of the reforms implemented in the banking system, and partly of the credits extended by the gradually recovering food industry and the agrarian trade and capital goods supply. Finally, the creation of an agriculture-oriented rural banking system has also been progressing, resulting in the establishment and increasingly active operation of agricultural credit co-operatives and financial institutes specializing in rural areas.
- In the great majority of CIS countries, there is practically no functioning rural financial system similar to that in developed countries. The inherited banking system continues to provide financing for large plants using the accustomed methods of the earlier period (state credit, financing the supply of produce for state stocks), but there are practically no provisions at all for the financing of the private sector. The beginnings of a system of agricultural credit co-operatives have appeared in the countries most advanced in the transformation of agricul-

ture, namely Armenia, Georgia and, recently, also Moldova, and the credits extended by the processing industry are also growing.

3.5. *Institutional reforms*

Transformation of the institutional structure is proceeding more slowly than practically all other areas of reform throughout the region.

- Institutional reforms have accelerated in CEE since 1995, stimulated by the challenges of EU accession. Despite these tangible developments, the institutional system of agriculture requires substantial further transformation in these countries. In addition to the modernization and reform of state administration, further qualitative development is required in practically all areas of the institutional systems for market agriculture, including consulting, training, and research (see also European Commission, 1997).
- Apart from minor changes, the institutional system of the former centrally planned economy continues to operate in the CIS countries and continues to act as a serious curb on the transformation of the sector. Due to the general economic recession, there are fundamental disorders in the operation of the institutional system and the underpaid and unmotivated state bureaucrats strive to supplement their incomes through corruption. Training and research centers are suffering from severe financial problems and in some countries they receive no financial support from the government budget.

4. The prospects for development in the region

Three factors will directly determine the long-term course of agricultural production in this region, namely: (1) the investments and current assets available; (2) the rate of technological renewal, together with the pace of introduction of new advances in biology and higher-yield crop and livestock strains; and (3) changes in organization and the human environment of production. However, the trends in these three factors will depend, above all, on the further fate of the reforms, the results achieved in the transformation of agriculture, and on the general development of the economy of the countries concerned and, as a func-

tion of this, on the internal demand for agricultural produce.

In many CEE countries, the process of sector transformation will probably be completed within the next four or five years. This, in itself, will improve the conditions for directly determining agricultural production and, together with the anticipated acceleration of general economic development, could lead to the stabilization of food production, more efficient production, and a greater upswing driven by potential comparative advantages. Although the effect of EU accession cannot be clearly quantified, it will probably give further stimulus for the growth of production in the countries concerned.

It is far more difficult to predict changes in the CIS countries. It seems probable that further difficult years lie ahead for the sector in this region, compounded by the struggle between conservative and progressive forces. The reforms will probably continue to advance only slowly. However, it is not likely that the decline in production will continue. The results of 1996–1998 and the forecasts for 1999 indicate that the fall in the region's agricultural output has reached its lowest point. In the short-term, the most likely course is moderate growth alternating with stagnation. Substantial growth in production can only be expected if substantive progress is made in the reforms that directly determine the factors of production. This will probably happen only in the medium-term.

Many studies have forecast development in the region for the medium term (5–10 years) as a subset of global projections.³ These calculations, and our analysis of the progress of sectoral reforms, suggest the following:

- In the CEE countries, development can be expected to follow a production course close to or higher than the world average. For a few products this trend could be even more favorable.
- In the CIS countries, the probable course of development will be more modest, and probably below the world average. Naturally, in this group of countries there will be exceptionally large differences between the individual countries. Trends at region level will obviously be determined by the results in

Russia and Ukraine where, in our judgement, the conditions for a bigger upswing will probably not be created until the final stage of the forecast period in the best of cases.

- In general, crop production will begin to expand sooner than animal husbandry. In some countries, especially Ukraine and Kazakhstan, the ecological and technical potential is there for a quick recovery in the crop sector, mainly in grain production. Such a quick recovery, however, assumes the immediate implementation of appropriate sector reforms, which in our view do not appear very likely.
- In Central and Eastern Europe, animal husbandry will probably continue to stagnate while in the CIS countries it is highly likely that the decline will continue for most of the period under analysis.
- The increase in quality demands will probably outpace reconstruction of the food industry. In general, it can be said that the backward food industry could restrict the growth of produce output for a relatively long time to come.
- The difficulties of the transformation and the problems of the food industry will probably strengthen the protectionist trends in the CIS countries. However, it is to be hoped that consumer interests will prevent any serious restriction of imports.

In the case of *grains*, a performance around the level of full self-sufficiency can be expected, with a small volume of exports likely in better years and smaller net imports when weather conditions have been unfavorable. Only minor shortfalls are likely for *wheat*, while there will probably be a few million tons of surplus *maize*, mainly from the output of the Central European countries. The region will probably remain a moderate importer of *sugar*, with the CEE probably regularly producing a small surplus and the CIS countries a deficit of 2–3 million tons a year. There will be a constant surplus on the *milk* market in the Central European countries but substantial net imports can be expected for the CIS countries. In the case of *beef* and *mutton*, both CEE and the CIS will probably remain net importers with the volume of imports likely to stabilize around 1.5 million tons a year. The *pork* surplus of the CEE countries seems set to increase, while the CIS countries will probably still be in a moderate import position in 2010. In the field of *poultry*, the trends will be similar to that for pork: a growing surplus in the CEE countries and a long-term, al-

³ See (Agriculture Canada, 1996; European Commission, 1997; FAO, 1997; FAPRI, 1997), Nurul (1995), (OECD, 1997; USDA, 1994).

though diminishing, demand on the markets of the CIS countries.

Considering the main products, the prospects for the region as a whole are that the net imports will fall slightly even if the forecast moderate general growth of agriculture is realized. However, the region as a whole will continue to be a net food importer. It would appear that exploitation of the very considerable natural resources of the region will remain in the more distant future and that, up to the year 2010, the region will not become a substantial source for satisfying the growing global food demand. Naturally, because of differences in the production levels of the individual countries and in the pace of reforms, differences within the region will grow.

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