PB93-167443 USDA/FAER-247 AGRICULTURAL POLICIES AND PERFORMANCE IN CENT 01/01
RAL AND EASTERN EUROPE, 1989-92.(FOREIGN AGRICULTURAL ECONOM
IC REPT.) / N. J. COCHRANE, ET AL. ECONOMIC RESEARCH SERVICE,
WASHINGTON, DC. AGRICULTURE AND TRADE ANALYSIS DIV. FEB 93 79P

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Agricultural Policies and Performance in Central and Eastern Europe, 1989-92

(U.S.) Economic Research Service, Washington, DC

Feb 93

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1. PB93-167443

2. REPORT DATE
January 1993

3. REPORT TYPE AND DATES COVERED

4. TITLE AND SUBTITLE
Agricultural Policies and Performance in Central and Eastern Europe, 1989-92

5. FUNDING NUMBERS

6. AUTHOR(S)
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7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
Agricultural Trade Analysis Division
Economic Research Service
U.S. Department of Agriculture
1301 New York Ave., NW
Washington, DC 20005-4788

8. PERFORMING ORGANIZATION REPORT NUMBER
FAER-247

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

10. SPONSORING/MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION/AVAILABILITY STATEMENT

12b. DISTRIBUTION CODE

13. ABSTRACT *(Maximum 200 words)*

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14. SUBJECT TERMS
Central and Eastern Europe, privatization, unemployment, agricultural inputs, demonopolization

15. NUMBER OF PAGES
76

16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT
Unclass.

18. SECURITY CLASSIFICATION OF THIS PAGE
Unclass.

19. SECURITY CLASSIFICATION OF ABSTRACT
Unclass.

20. LIMITATION OF ABSTRACT

United States
Department of
Agriculture

Economic
Research
Service

Foreign
Agricultural
Economic
Report No. 247

Agricultural Policies and Performance in Central and Eastern Europe, 1989-92

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Agricultural Policies and Performance in Central and Eastern Europe, 1989-92. By Nancy J. Cochrane, Robert B. Koopman, Jason M. Lamb, Mark R. Lundell, Michele de Souza, and Danielle Sremac. Agriculture and Trade Analysis Division, Economic Research Service, U.S. Department of Agriculture. Foreign Agricultural Economic Report No. 247.

Abstract

Central and Eastern European agriculture underwent dramatic change during the last 3 years. The introduction of market pricing, open borders, and increased freedom of entry and exit for firms occurred without the institutional and legal structures necessary for a market economy. The effect of market reforms on agriculture exemplifies both the positive and negative effects of these changes. Many of the countries shifted from pre-reform tight agricultural supplies or outright shortages to post-reform surpluses. Farm financial performance has been poor, as the terms of trade have turned against agriculture. Land and asset ownership issues in the farm sector remain unresolved, leading to uncertainty for planting and production. Consumer demand for agricultural products is depressed due to the sudden rise in consumer prices, while nominal income growth has been restricted.

Keywords: Privatization, CEE, demonopolization, unemployment, agricultural inputs

Washington, DC 20005-4788 February 1993

Contents

Summary

Central and Eastern European (CEE) agriculture underwent dramatic change during the last 3 years. The introduction of market pricing, open borders, and increased freedom of entry and exit for firms occurred without the institutional and legal structures necessary for a market economy. The effect of market reforms on agriculture exemplifies both the positive and negative effects of these changes.

On the positive side, many of the CEE countries shifted from pre-reform tight agricultural supplies or outright shortages to post-reform surpluses. Food availability and diversity have increased appreciably. Food prices have risen in nominal terms, but generally have lagged behind the overall inflation rate, reducing the prices of many food items relative to other goods and services.

On the negative side, farm financial performance has been poor, as the terms of trade have turned against agriculture. Food price increases have been slower than the rate of inflation, while farm input prices equal or exceed the inflation rate. Many issues regarding land and asset ownership in the farm sector remain unresolved, leading to uncertainty for planting and production. Consumer demand for agricultural products is depressed due to the sudden rise in consumer prices, while nominal income growth has been restricted through wage/pension caps. In addition, where the farm sector previously enjoyed unlimited demand for its products, it now faces stiff competition from a wider array of consumer products.

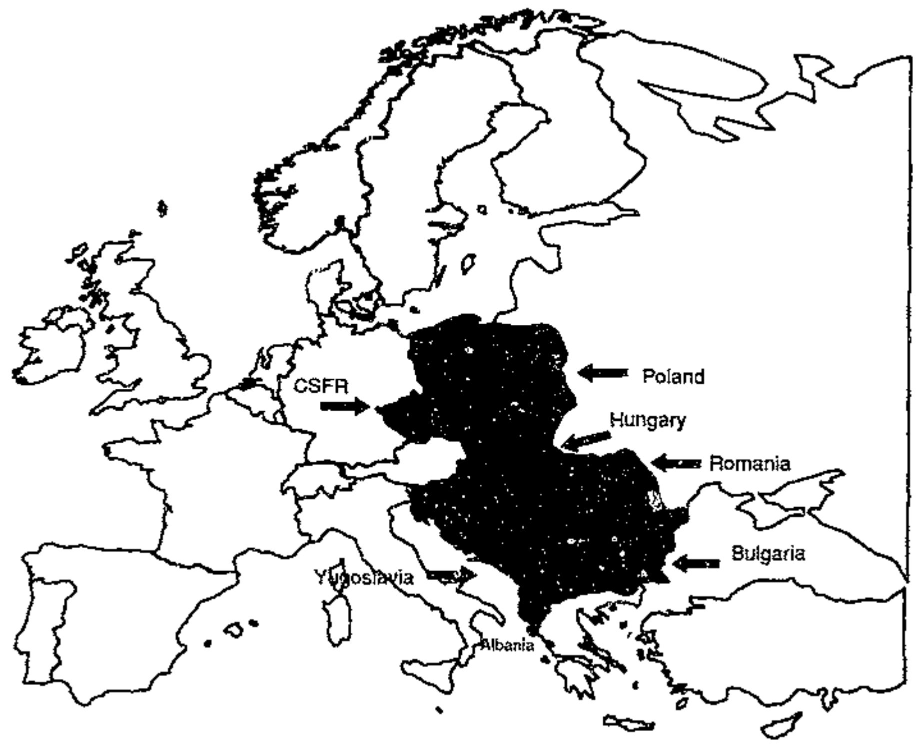
The problems faced by the CEE agricultural sector, while fully evident in 1991, did not have as large an impact on production in 1991 as might have been expected. Gross agricultural production in the region declined by 4.9 percent compared with 1990. Production levels in 1991 for most grains exceeded their 1986-90 averages, while many livestock and oilseed products fell below their 1986-90 levels. The main problem for most of the countries, however, appeared to be overproduction rather than underproduction. Declining domestic demand and disruption and stiff competition in foreign markets caused surpluses rather than shortages. These surpluses further depressed agricultural prices and exacerbated farm financial problems.

In 1992, production for most commodities was expected to fall by even more than the 1991 decline. Domestic demand should stabilize. The declines in supply were expected to tighten internal market conditions during 1992, increasing agricultural prices and improving farm financial performance.

Price fluctuations for CEE agricultural products could be wide over the next year or two. Normal fluctuations due to weather and product cycles are likely to be exacerbated by the lack of typical market institutions and rules, such as futures markets and well-established ownership and contract laws. The declines in domestic real prices of the last 2 years and the oversupply of agricultural products have prompted many CEE countries to introduce interventionist domestic and trade policies. Policies introduced have included higher tariffs, import bans, credit subsidies, and direct price supports through intervention purchasing.

This report summarizes some of the main policy and legal issues addressed by each country over the past 3 years. While progress in passing reform agendas appears rapid

at times, false starts and missteps have been common. Progress varies widely by country, but the northern countries of Poland, Hungary, and the Czech and Slovak Federal Republic (CSFR) are much further along than the southern countries of Bulgaria, Romania, and Yugoslavia. Albania, though part of the CEE region, had insufficient data to include it in this report.



Agricultural Policies and Performance in Central and Eastern Europe, 1989-92

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General Economic Situation

While major economic indicators were depressed in 1991, many Central and Eastern European (CEE) countries looked forward to better conditions in 1992. Hungary's gross domestic product (GDP) was expected to grow in 1992, leading the way for the northern CEE countries. The southern CEE countries, on the other hand, are forecast to have continued declines in output as their governments further restructure their economies. Output in 1991 declined 12.3 percent in the CEE countries, while inflation varied from 550 percent (Bulgaria) to 36 percent (Hungary). Unemployment increased in every CEE country in 1991.

During 1991, declines in GDP continued in Central and Eastern Europe, although the decline in Hungary and Poland stabilized compared with 1990 (fig. 1). Romania also experienced less of a decline in GDP in 1991 than in 1990, but this was likely the result of a stall in the economic transformation process. After implementing additional market-oriented policies, Bulgaria and the Czech and Slovak Federal Republic (CSFR) experienced declines in output during 1991. Yugoslavia's lower GDP was due mainly to the civil war that has disrupted its economy.

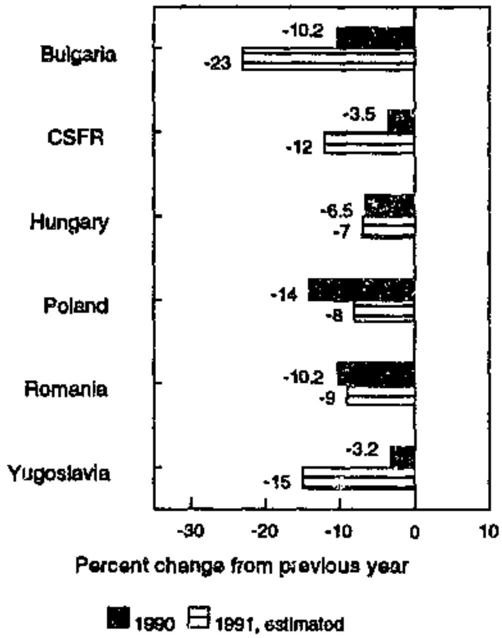
Inflation in 1991 increased in Bulgaria and Romania, as officials liberalized most prices in their economies. Inflation in Romania was expected to increase during 1992 as more price liberalization measures were pursued. High inflation in Yugoslavia during 1991 was fueled in part by the civil war in Croatia. Hungarian and Polish officials stabilized inflation during 1991, as price liberalization measures were taken mainly in 1990. The CSFR also experienced a comparatively low rate of inflation during 1991 (fig. 2). Hungary, Poland, and the CSFR were expecting lower inflation during 1992, ranging from 10 to 40 percent.

Unemployment is one of the foremost problems facing CEE governments. Providing social services for a steadily increasing unemployed population is made more difficult by shrinking budgets and increased social tensions. Unemployment, while historically low in Central and Eastern Europe's planned economies, started to increase significantly during economic restructuring. Unemployment jumped in 1991 from its low level of 1990. Only Romania reported an unemployment rate below 5 percent. Unemployment in the other five CEE countries ranged from 6.3 percent in the CSFR to 19 percent in war-torn Yugoslavia (fig. 3). The CEE service sector in the major cities has been able to absorb many into the growing number of service-related businesses, but unemployment rates outside the major cities are much higher. For example, in Budapest, the unemployment rate at the end of 1991 was only 2.6 percent, while the rate for the whole of Hungary was 8.3 percent.[1] (See endnotes, p. 43.) Unemployment in Bulgaria, the CSFR, Hungary, and Romania increased substantially in 1991 after low unemployment (1-2 percent) in 1990.

The 1991 current account deficit in Central and Eastern Europe was estimated at US$3.5 billion. Declining production and a move to hard currency trade among the Council of Mutual Economic Assistance (CMEA) countries accounted for the growing deficit, up from US$1.0 billion in 1990. The resulting hard currency deficit has in some countries curtailed ability to import needed inputs, and thus contributed to production declines. The CEE account balance was positive in recent years. Hungary and Poland had a surplus in 1990

Figure 1--CEE growth of GDP, 1990-91

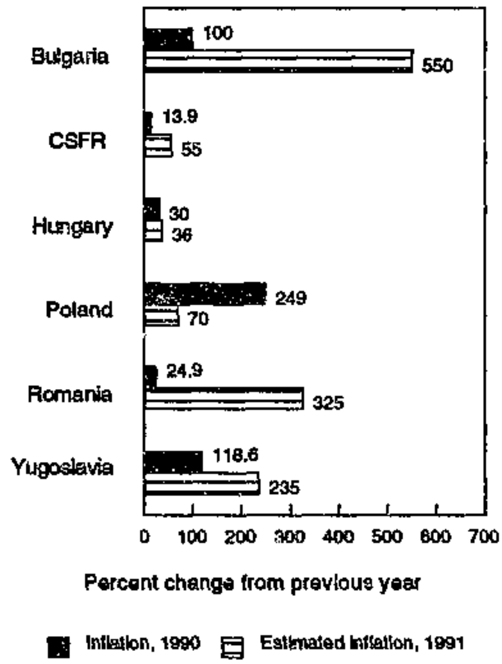
With recovery expected after 1993 for the northern CEE countries, GDP should begin to grow.



Source: World Bank, PlanEcon, Organization for Economic Cooperation and Development (OECD)

Figure 2--CEE consumer prices, 1990-91

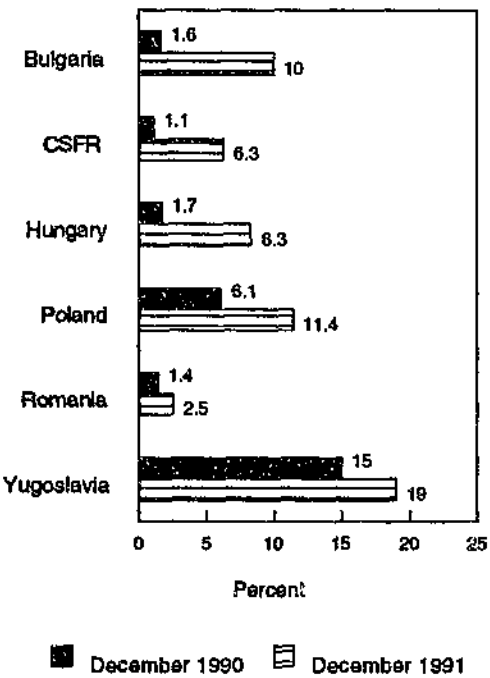
The removal of consumer subsidies has caused prices to increase substantially.



Source: World Bank, Organization for Economic Cooperation and Development, Foreign Broadcast Information Service

Figure 3--CEE unemployment, 1990-91

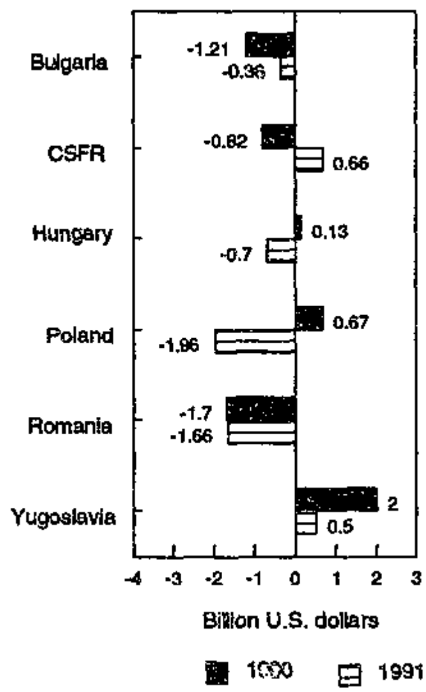
CEE unemployment will continue to worsen as reforms continue.



Source: Foreign Broadcast Information Service

Figure 4--CEE hard currency current account balance

Low hard currency reserves have constrained some CEE countries' ability to import needed inputs.



Source: PlanEcon

due to exports to developed economies (fig. 4). On the other hand, the CSFR and Romania reversed from positive to negative in 1990 as import restrictions were relaxed.

Hard currency debt has become a problem for the CEE countries. Poland's debt had grown substantially to US$45.2 billion, but in 1991 the United States forgave 70 percent of Poland's U.S. debt. The other CEE countries had hard currency debts that were severely hampering trade and reform measures. These debts continue to inhibit trade. Romania, after years of strict measures to rid itself of foreign debt, saw its debt grow from US$100 million in 1989 to US$700 million in 1990. Gross hard currency debt continued to grow in 1991 in Romania and Bulgaria, but the CSFR, Hungary, Poland, and Yugoslavia marginally decreased their gross debt.

The CEE economic outlook is mixed. With each country embracing market mechanisms at a different pace, economic recovery may begin in some while slumping in others. Inflation, while seemingly under control in Poland, the CSFR, and Hungary, is expected to continue to plague Romania, Bulgaria, and the Yugoslav republics. Unemployment is expected to rise in all the CEE countries. Currency convertibility is an agenda of all CEE governments in order to attract foreign investment and to help balance trade.

Policy Reform in Central and Eastern Europe, 1989-92

Central and Eastern Europe made the sharpest political turnaround in recent history during the latter half of 1989, ousting communist rule. Free elections in 1990 installed new governments, which produced significant economic reform legislation by the autumn of 1990. The expected economic turnaround of the CEE region has been slowed by the sluggish transition from planned to market economies, although some countries are further along than others. Thus far, market reforms include legalization of private enterprise, price liberalization, restitution of past ownership rights, and privatization and demonopolization of state-owned enterprises.

The transformation of CEE economies from centrally planned to market-based involves many steps. The first has been to lift the ban on private economic activity imposed by most CEE countries in the past. Agricultural reform here entails abolishing size limits on privately raised livestock herds, repealing the monopsonist status of state agricultural procurement agencies, liberalizing farm commodity prices, and increasing the maximum size of private farms. In other sectors of the CEE economies, legalization has allowed private enterprise to enter the areas of industrial production and consumer services. Crucial to growth in these two areas was the removal of restrictions on the number of workers who can be employed by a private business.

The second area of economic reform where CEE countries were quick to pass legislation is the deregulation of state-owned enterprises. State enterprises accounted for over 90 percent of pre-reform economic activity, and usually over two-thirds of gross agricultural output (with the exceptions of Poland and Yugoslavia). Deregulation of state enterprise activity in the CEE countries meant the abolition of central planning and its instruments: output targets, planned deliveries of outputs and inputs between firms, and the regulated allocation of enterprise revenues between wages and investment. Enterprises are now free to contract business with partners of their choice and have complete discretion in setting wage scales and making investment decisions.

The CEE countries next addressed price liberalization, allowing the forces of supply and demand to determine prices. In the past, most CEE retail prices had been frozen for years at a time, while producer prices were frequently increased to stimulate production or cover rising production costs. Subsidy levels rose and prices lost the ability to indicate relative scarcity.

The prices of many consumer goods have been introduced to the market environment in two steps. First, governments removed consumer subsidies, forcing retail prices to reflect the full amount of prices paid to producers. This is price revision. Then, after consumers adjusted to this first round of price increases, prices were allowed to find the level that cleared the market. These two stages were combined into one in Poland, known as the "big bang" policy of total price liberalization undertaken on January 1, 1990.

Since consumer subsidies on CEE food products in the past generally equaled 20 percent of production costs, the removal of consumer subsidies and a drop in real wages generated considerable downward pressure on consumer demand for some food products. Reduced demand should cause producers to reduce output, but a delayed response by producers initially generated gluts of meat and milk in Poland, the CSFR, and Hungary. Yugoslavia, Romania, and Bulgaria faced less excess supply, as Yugoslavia had more market-based prices for some time, and Romania and Bulgaria had supply shortages.

Agricultural producers looked to export more as CEE consumption fell. However, former Soviet markets have been weak and the Western European import market has relaxed import quotas only slightly. Consumer preference for Western products has led to an influx of Western European food products, depressing markets for domestic products even more. In addition, subsidized exports from the EC were dumped on CEE markets, further increasing imports of Western agricultural goods. Most CEE countries have therefore moved to regulate agricultural imports through licenses and quotas, and/or higher import tariffs to arrest the fall of agricultural prices. Governments have purchased agricultural output as a part of price support mechanisms to put upward pressure on producer prices.

Land restitution and changes in farm ownership have also affected agricultural production. All the CEE countries except Poland passed statutes mandating the return of agricultural land confiscated by communist governments. Restitution was not as necessary in Poland and Yugoslavia where agriculture was only partially collectivized. (However, the Polish Sejm is considering such a statute.) Usually included in the land laws mandating restitution are provisions addressing the distribution of land to those who currently work in agriculture but have no historical rights to land. National legislatures discussed the proposed land laws over many months and, in the interim, clouded tenure rights disrupted agricultural plantings in some countries. Bulgaria, Romania, the CSFR, and Hungary were expected to show smaller grain harvests in the spring of 1992 due to a reduction in sown acreage caused by uncertainty in landownership.

Most CEE countries took significant steps to promote privatization outside of agriculture in 1991. Poland and Yugoslavia made advances in privatization in 1990. The three main issues that all CEE countries must resolve are compensation for private assets confiscated under the past communist regimes, distribution or sale of small shops and businesses to a rising class of small merchants, and transformation of large, state-owned enterprises into privately and publicly owned corporations. Only Hungary and the CSFR have passed legislation to address payment of compensation to owners of nonagricultural property confiscated under the communist regime. All the CEE countries have initiated the sale and/or lease of small businesses to private individuals. All but Bulgaria have passed legislation authorizing the sale of state-owned companies to the public and to foreign investors. In addition, the CSFR and Poland have devised "mass privatization" plans that transform state-owned enterprises into joint-stock companies and then distribute shares in these companies to the public and/or to the companies' employees. CEE governments are also trying to address areas of antitrust and contract law. Legislation in these areas has focused on promoting competitive business activity.

The main obstacle to CEE market reform is the concentration of each sector's production in the hands of a few firms. Past CEE governments promoted this extreme concentration as a Marxist tenet of increasing returns to scale. Now, CEE governments are examining how best to break up these unnatural monopolies and oligopolies to promote competitive pricing behavior. The crux of the difficulty in this area has been preventing abuses of market power without complicating and discouraging the entry of firms into entirely new markets.

Demonopolization of agricultural marketing and processing has been no easier than in other sectors of the CEE economies. State procurement agencies in the past were virtual monopsonists, restricting the access of private enterprise to transportation, processing equipment, and storage facilities. In some CEE countries, national procurement monopolies have broken into regional ones; in some other countries, however, national product monopolies continue.

Bulgaria

Bulgaria has implemented many of the same market reforms of the northern CEE countries--tight monetary policies, price liberalization, trade liberalization--and has moved toward privatization and restitution to former owners. Bulgaria trails the northern CEE countries in full commitment to price liberalization, demonopolization, and privatization. The transition to a market economy has been particularly difficult for Bulgaria, which is now in an economic recession.

Price Policy

The Government introduced a series of agricultural price reforms in 1990 that created different categories for producer prices: state-fixed prices, state-set maximum prices, state-set minimum prices, and free prices. The existence of state-set minimum and maximum prices did not mean that prices fluctuated freely between the extremes. Rather, state monopolies purchased and sold agricultural products using the state-fixed prices to their advantage. Direct price controls still applied to products accounting for 70 percent of sales by yearend 1990.

True price liberalization did not occur until February 1991 when almost all restrictions on producer and consumer prices were removed (only energy products and public utility prices remain under direct control). Agricultural price liberalization did not occur as a separate agricultural policy development, but as part of a wider stabilization policy urged on the Bulgarian Government by international organizations. In an attempt to shore up falling producer prices, the Government briefly attempted to impose minimum producer prices (for pigs, poultry, calves, and milk) and some minimum export prices (calves, lambs, pigs, meat, and cheese) in July 1991, then placed ceilings on some consumer prices. The near-term success of price liberalization policies depends on how often the Government succumbs to political pressure to intervene.

Producer prices. Agricultural producer prices rose significantly in nominal terms between April 1990 and April 1991. Wheat prices increased 600 percent, maize 500 percent, cattle 330 percent, hogs 250 percent, and milk 270 percent. These increases, however, came not as a result of the February 1991 price liberalization, but because of earlier administrative price increases. Producer prices began to fall after February 1991 as a result of weak domestic and international demand.

Since then, producer prices have fallen in real terms, as input prices have risen, while procurement prices (paid by the state) have not kept pace with the cost of living. Thus, price liberalization has decreased net returns to farmers, and provided less incentive to produce. In fact, a negative supply response is already occurring, with production of many products down. Fruit production in 1991 fell 32 percent from 1990. Fall sowing of wheat, animal numbers (cattle down 8 percent, cows 3 percent, hogs 12 percent, and poultry 37 percent), milk production (down 26 percent), and egg production (down 47 percent) were all down significantly in 1991. These production declines did not result in shortages because the decline in demand was so great. Despite falling production, consumer food prices declined nearly 4 percent in April 1991 compared with March. Similar production declines in 1992, however, could lead to serious shortages.

Because of the downturn in producer prices, the Government introduced in July 1991 minimum prices for grain, pork, poultry meat, calves, and milk. However, these minimum prices remained in effect for only 17 days, replaced with a set of "projected prices" on August 5, 1991. These projected prices were widely interpreted as ceiling prices, and for most products were lower than the minimum prices set in July.

The Government set price "ceilings" mainly to stem the rise in food, particularly bread, prices. Projected producer prices were based on average costs plus a normative 20-percent profit for producers. The wheat price was based on the Government's calculations that the average cost of producing wheat was 900 lev per ton. However, wheat farmers refused to sell their wheat for 1,100 lev, so the Government introduced a bonus of 400 lev per metric ton of wheat in November (table 1).

This bonus was financed in part through a 2-percent turnover tax imposed on state processors and in part from the budget. With this bonus, the procurement agencies were able to buy enough wheat to meet the population's needs and provide bread at 3.60 lev per kilogram.

To discourage a reduction in wheat plantings and a reliance on imports, the Council of Ministers issued a decree in April 1992 that replaced these projected prices with guaranteed minimum prices for the same products. But the new prices were still well below world levels. The new wheat price works out to about $70 per ton. Many Bulgarian analysts believed that a price of 2,200 lev per ton (about $100) was necessary to induce wheat producers to plant in the fall of 1992. Processors (still state-owned) claim that, given their current cost structure, raising the price of wheat to 2,200 lev would double the retail price of bread.

Input prices. While average producer prices doubled in 1991, input prices rose 400-800 percent. Many inputs have high import content, and the removal of subsidies (direct or indirect) and devaluation of the lev have raised production costs. The agricultural input industry historically received an inadequate share of investment, even less than for farming. Plants and equipment are obsolete, resulting in high costs of production. With the dramatic changes in the economy, enterprises and entrepreneurs are demanding higher profit margins as compensation for the additional risk.

Higher input prices have reduced demand for agricultural inputs, partly as farmers reduced production and attempted to utilize purchased inputs more effectively. Input demand has also been dampened by tight credit policies affecting the entire economy. Basic interest rates in August 1991 were 52 percent.

Consumer prices. Retail price reform began in April 1990 with administrative price increases for some meats, some milk products, and a few other goods. By July 1990, more prices had been liberalized, increasing the share of goods with liberalized prices to 40-45 percent. Because of growing political instability, no further progress was made that year until the end of 1990 when the newly elected Government came to power. The new Government decided to abide by international assistance agencies' stabilization programs and, in February 1991, all prices except electricity, energy, coal for residences, and gas for home consumption were liberalized.

The Government also began monitoring the prices of 14 basic food items, including flour, bread, four types of meat, certain sausages and other processed meats, vegetable oil, and sugar. "Projected prices" were established to estimate the levels prices should reach following liberalization. Prices rose more than twofold from January to September 1991. However, by April, prices had stabilized (table 2). Overall consumer prices continued to creep up slowly, but food prices, particularly for meat, fell. The same pattern occurred in Poland and the CSFR.

While food and nonfood prices rose over 400 percent, the Government's tight income policies kept increases in nominal wages to only 78 percent. The 64-percent decline in real income in 1991 led to a drop in demand of 60 percent for meats and 30 percent for milk and milk products, which put downward pressure on prices.

Officials blamed the rapid price increases on the monopoly state enterprises, and passed measures intended to place a cap on monopoly profits. Because the worst monopoly practices were believed to be in the fuel and energy sector, the Government imposed limits on fuel price increases. The retail fuel price was to be the international dollar price multiplied by the exchange rate, plus transport, insurance, duties, excise taxes, and a commission for the trading companies. As a result of these measures, 14 percent of all consumer prices were now controlled.

The Government reduced the list of monitored foods from 14 to 5 (bread, milk, yogurt, white cheese, and fresh meat) in April 1992. The projected prices for these foods were raised, and monitoring became more strict. The National Price Commission ensures that a price higher than the projected price is a direct result of higher costs. If an enterprise cannot document that the price hikes were justified, then the excess profit is declared an illegal profit, and the enterprise must reimburse its customers or pay the excess profit plus a penalty to the Government.

The removal of these controls on retail food prices may not result in substantial increases in food prices. Food supplies, especially of monitored foods, are greatly improved over a year ago. Sporadic shortages are minor enough that they may simply be the result of bottlenecks in the distribution system, not a reflection of below-market prices. Income declines and slack consumer demand will likely continue to prevent dramatic price increases.

Subsidies and Taxes

Agricultural subsidies declined significantly in 1991. Budget support for producers was set at 91 million lev in 1991, a huge decline in nominal terms from 1990's allocation of 1.35 billion lev, and an even greater decline given inflation. This decline included the complete removal of subsidies for irrigation water, an important input to much of Bulgaria's agriculture. But pressure from agricultural lobbies resulted in an increase in budget subsidies to 900 million lev. The subsidies were to be used for three purposes: support for grain, meat, and milk in mountainous and hilly areas (330 million lev), minimum prices for grain, meat, and milk (142 million lev), and preferential interest rates for all producers (428 million lev). These subsidies, in real terms, represent a significant decline in support for farmers.

Total support to agriculture in the 1992 budget came to somewhat over 1 billion lev, including 400 million lev for bonuses on meat and milk and interest subsidies for private farmers, and 500 million lev to cover the debts of liquidated cooperative farms. The remainder covers the tax exemptions granted to private farmers under the amended Land Law (see below).

Bulgarian farms received a reduction in the profits tax to 10 percent in January 1990. The aid package to farmers, described above, exempted taxes on some services provided to farms. More important is a tax exemption for private farms for the first 5 years after their founding. Purchasers of livestock and meat processors received a reduction in their turnover tax obligations, but revenues from this reduction must be shared with farmers.

Trade Policy

Trade has played an important role in the Bulgarian economy overall and in agriculture in particular. World Bank figures indicate that total trade turnover was equivalent to more than 80 percent of 1989 GDP. Bulgaria, generally a net agricultural exporter, saw its agricultural net export earnings fall from $1.3 billion in 1980 to $0.5 billion in 1990. Agriculture's share of total exports declined from 40 percent in the 1960's to 20 percent in the late 1980's. Roughly 70 percent of Bulgaria's agricultural trade turnover was with Eastern Europe and the Soviet Union, and 20 percent with the European Community (EC). Tobacco is the leading agricultural export (32 percent of total agricultural exports). Protein feeds and raw sugar are the largest (60 percent of total) agricultural imports.

Exchange rate policies, licenses, and quotas were manipulated in 1990 to meet short-term Government objectives of reducing hard currency outflows and restricting food exports. The Government removed the

Table 1--Examples of Bulgarian producer prices

Commodity	July 1991 minimum	August 1991 projected	April 1992 minimum
		Lev per metric ton	
Wheat	1,100	1,100	1,500
Pork (live weight)	11,900	10,900	14,200
Poultry meat (live weight)	11,400	10,100	13,200
Calves (live weight)	13,260	12,750	16,600
		Lev per 1,000 liters	
Milk	2,050	2,050	2,600

Sources: Official decrees 138 and 155, Zemya, Sofia, No. 74, April 16, 1992.

Table 2--Bulgarian consumer price increases, 1991

Commodity	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
					Previous month = 100				
Total Consumer Price Index	113	205	158	103	102	107	110	105	105
Cumulative	113	232	366	377	385	411	452	475	499
Total goods	108	285	140	96	98	101	106	115	103
Cumulative	108	308	431	414	405	409	434	499	514
Bread	106	275	145	96	97	99	107	166	100
Pulses	120	142	125	98	96	94	104	104	103
Meat	102	369	116	86	95	100	107	125	106
Meat products	102	476	114	85	96	101	107	120	105
Fish	106	157	207	98	100	94	103	102	99
Vegetable oil	100	229	157	91	101	115	178	120	102
Butter	100	586	154	83	99	94	100	101	98
Eggs	128	287	113	85	88	98	98	107	140
Milk	99	386	166	99	96	102	107	112	102
Cheese	100	445	151	87	87	110	109	158	196
Kashkaval	101	408	153	86	87	115	106	104	106
Sugar	100	191	185	152	106	102	109	94	95
Fresh vegetables	140	141	129	95	94	78	79	66	93
Potatoes	110	158	144	108	110	84	62	90	109
Fresh fruit	127	122	121	96	102	111	89	99	94

Source: Statisticheski Izvestiya, 1991.

monopoly status of foreign trade organizations in 1990, allowing private companies to engage in trade. The Bulgarian Trade and Industrial Chamber had approved 2,660 registrations for private companies by November 1990 (private companies were required to register with the Government). These private firms were at a considerable disadvantage because they lacked the knowledge of trading relationships and contacts that the former trade monopolies had acquired over the years.

Prior to 1991, the Government set multiple exchange rates depending on the use. Firms were required to turn most hard currency earnings over to the Government. But as part of the February 1991 reform initiatives, a unified, floating exchange rate mechanism was established, based on interbank bids for hard currency. In this process, the lev was devalued from 2.11 lev per dollar to 22.1 lev per dollar. Under this new system, firms will retain all hard currency earnings, and a more accurate transmittal of world prices should occur.

Most nontariff trade barriers were eliminated in 1991. All quantity restrictions on imports were removed in early 1991, and import licensing restrictions were eased. The large number of export bans introduced in 1990 was reduced to 21 items (basic food items to prevent domestic shortages) in March 1991. Other export quotas in effect are due to external considerations, such as the EC meat and textile quotas. Bulgaria's current two-tier tariff structure assesses an average 6 percent for imports from less-developed countries (LDC's), and nearly 9 percent for imports from most-favored-nation (MFN) countries.

Despite the overall movement away from nontariff barriers, 1991 was characterized by a series of temporary, ad hoc licensing and quantity restrictions on certain commodities. Export taxes, ranging from 20 percent on some industrial products to 30 percent on some basic foods, were introduced in response to domestic shortages. However, in May 1991, as the domestic food supply improved, the 30-percent tax on food exports was removed. Other restrictions were introduced by July 1991, apparently on a needs basis. The licensing regime was replaced with a customs declaration system (licensing remained for tobacco and wines, and customs officials were given the responsibility to halt exports of the commodities on the minimum price list if they were being exported at prices below the minimum), and an import tax of 15 percent was imposed in addition to the tariffs (most agricultural products are exempt). However, the export of some commodities (among them, bread, coarse grain, sunflower seeds, vegetable oils, wool, flax, and hemp) was forbidden until December 1992.

Government discussion on trade policy includes the removal of all export subsidies for the formerly ruble-oriented trade. The Government also reached agreement with the former Soviet Union on a tentative list of goods, but all trade would occur enterprise to enterprise, with no set prices and a clearing mechanism in dollars at the end of the year to settle trade deficits.

While many of the changes that have been implemented are, in principle, trade-enhancing, Bulgaria's export performance continues to sag. The economic and political disruptions in the former Soviet Union and the rest of Eastern Europe have had drastic effects on Bulgaria's exports. The value of agricultural exports during the first three quarters of 1991 was $2.5 billion, down from $9.2 billion during the same period of 1990. Wheat exports declined 70 percent in volume, live lambs were down 30 percent, eggs 95 percent, tomatoes 89 percent, preserved vegetables 82 percent, and wine 49 percent. Despite the poor export performance, Bulgaria's net trade position at the end of the first quarter 1991 improved. Bulgaria had a $40-million surplus, the result of a large drop in imports.

Restitution and Privatization

Land legislation. A Law for Agricultural Land Ownership and Use was passed in February 1991, and a series of amendments were enacted in April 1992. The law deals with five main issues: agricultural land reprivatization, land settlement, transferability of property rights, ownership of other assets of collective farms, and institutions dealing with landownership. The main provision of the law is to return land to the original owners as defined by the 1946 Agrarian Reform Law, or their heirs. Landownership is limited to 20 hectares in intensive areas and 30 hectares in hilly or mountainous areas. According to the amendments, reinstatement will take place within the "real boundaries" of the original piece of land if they are still evident. Where these real boundaries no longer exist, former owners will receive plots equivalent in size and quality. Also, to prevent excessive fragmentation, the minimum plot size in future land transactions (sales or inheritances) is 0.3 hectare for fields, 0.2 hectare for meadows, and 0.1 hectare for permanent crops.

The original law prevented the development of a land market and discouraged former owners from reclaiming their land. For example, land sales were prohibited for the law's first 3 years, except for transfers to relatives, co-owners, and the state and municipalities. For transfers after that initial period, first priority was to relatives, second to tenants, third to neighboring owners, and fourth to the state and municipalities. Direct agricultural landownership by foreigners was prohibited. In addition, the original law required that any land reclaimed be used for agricultural purposes; an owner who did not want to farm had to lease the land to someone else who would. Heavy fines were imposed for failure to cultivate one's land.

Amendments passed in March 1992 removed the prohibition on land sales. The only remaining restriction is a limit of 30 owned hectares per family. The fine for failure to cultivate one's land was rescinded. The ban on foreign ownership was relaxed, such that joint ventures with less than 50-percent foreign ownership may own land.

Land is being granted to landless individuals or households, or those with small parcels of land who would like to return to agriculture. Municipal land commissions will allocate land from their acquired stocks (unclaimed land, land they purchase from people not interested in farming). Eligible people include those employed in agriculture who did not previously own land, residents in a specific area, and people with an educational background in agriculture.

Finally, the law addresses the distribution of collectively owned farm assets. Each farmer's share will be determined by the farmer's original contribution to the collective's stock of assets and labor contribution. The law sets weights on these determinants at 40 percent for assets, 40 percent for labor contributions, and 20 percent to be determined by the farm's general assembly. A collective member who leaves the farm has the right to physical assets or monetary compensation. In cases where assets are indivisible (for example a large livestock barn), the departing member receives shares.

As the amendments to the Land Law were passed, additional legislation called for the liquidation of all agricultural cooperatives. Under this legislation, liquidation councils have been set up in each region to manage the cooperatives until their liquidation and to supervise the distribution of assets among the members. This process was to have been completed by November 1, 1992.

Demonopolization. Demonopolization began in 1990 and accelerated in May 1991 when the Law for the Protection of Competition was passed. At the beginning of 1990, the major monopolies, known as state trusts, in the processing sector were Bulgarplodexport (fresh and processed vegetables and fruit, flowers, seeds, and imported fruit and raw materials for processing), Vinprom (wine), Bulgar Tabac (tobacco), Bulgarian Dairy Monopoly (milk and milk products), and the Rodolpo Meat Monopoly (production, processing, distribution, and export of meat products); those providing inputs and services included the Sortovi Semena i Posadachen Material (seeds and planting materials), Mechanizatsia i Technichesko Obslujvane (industrial inputs), and the Mashino-Tractor stations (mechanical services). Most agricultural state trusts were abolished in November 1990 and new regional enterprises were created to compete with one another. However, regional, rather than central, monopolies have perpetuated high-priced, low-quality inputs and services.

The May 1991 law extended the monopoly breakup across most sectors and defined monopolies as an economic agent entitled by law to exclusive rights on a particular economic activity or with sole control (either directly or indirectly) over a minimum of 35 percent of a particular market. The law provides for price controls on monopolies, and bans acquisitions or mergers resulting in a monopoly. The Government's goal was to break up all 130 targeted monopolies by yearend 1991.

Czech and Slovak Federal Republic

The Czech and Slovak Federal Republic (CSFR) started its economic reform process after Hungary and Poland, but progressed quickly in late 1990. Most producer and nearly all consumer subsidies were withdrawn, and prices began to be determined by the interaction of market supply and demand; the foundations of a functioning market economy had been laid. Privatization of small businesses has proceeded but the distribution of shares in large state-owned enterprises has been slow. The CSFR lagged Poland during 1990 and 1991 in doing away with quantitative trade restrictions and moving to a more tariff-based trade policy. But, in early 1992, this switch was made, although agricultural tariff levels have been placed at temporarily high levels.

Price Liberalization

The CSFR eliminated most subsidies and freed most prices between mid-1990 and early 1991. Three rounds of administrative price increases in 1990 withdrew consumer subsidies. Annual food subsidies of 39 billion korunas (Kcs), or roughly $1.5 billion, were completely abolished, inflating food prices 25 percent. The prices of only 12-15 percent of commodities were still controlled by January 1991. Over the first half of 1991, food prices rose 27 percent (from the base of December 1990), with most of the increase coming in January immediately after deregulation.

The price liberalization law allows the Government to set prices when necessary. Price ceilings were imposed in January 1991 on many agricultural products, including fodder grain, wheat and rye flours, potatoes, sugar, pork, eggs, poultry, and milk. Ceilings on trade margins for meat and dairy products were also set. The prices of these food products either stabilized or declined during the late spring and early summer. As a result, the Federal, Czech, and Slovak finance ministries each abolished the maximum prices for industrial wheat and corn, feed barley, flour, and dairy, meat, and poultry products. The prices of industrial wheat and corn and feed barley are now completely free of regulation, while the prices of flour, dairy, and meat and poultry products are subject to implicit ceilings limited by "economically justified costs and appropriate profit."[2]

CSFR consumer price inflation was roughly 49 percent in the first half of 1991, so relative food prices actually fell 15 percent. Food consumption was down 25 percent during 1991.[3] Real wages in the agricultural sector fell 34 percent in the first quarter of 1991, which was more than the 24-percent fall in the rest of the economy.[4] This decline in real income both in and outside of agriculture is the main factor behind the fall in food consumption.

Agricultural Policy

Farmers began to face market-determined prices for their crops in 1991, as producer subsidies declined two-thirds from the 1990 level of 22 billion Kcs ($1 billion). Roughly 30 percent (7.2 billion Kcs) of total budgetary subsidies of 24 billion Kcs were to be directed to agricultural producers in 1991. (New market regulation funds channeled additional funds to farmers.) The abolition of consumer subsidies and reduction in producer subsidies reduced producers' reliance on subsidies from 35 percent of total receipts in 1990 to 17 percent in 1991. This dependence is expected to have fallen to 13 percent in 1992.[5]

The market regulation funds are a source of budget authority for government purchase operations aimed at supporting farmgate prices. Pressure for the creation of these funds was strong in the first quarter of 1991 as the index of farmgate prices increased 0.2 percent compared with December 1990, while inflation registered 40 percent. For example, beef prices had fallen 20 percent and milk prices were down by 6 percent (all in real terms) since December 1990. Deliveries of farm products had declined by 36 percent for beef, 20 percent for pigs, 18 percent for milk, and 26 percent for eggs. Demand for farm inputs and farm machinery also declined.

From February through June 1991, Czech and Slovak market regulation funds were drawn on to buy up produce in an effort to enforce minimum producer prices. As agricultural demand contracted, the Government proposed the creation of a Federal Council of Market Regulation to oversee the Federal market regulation fund. Meanwhile, the Federal Administration of Material Reserves was allocated an additional 1 billion Kcs ($34 million) to finance agricultural purchases as high as 8.4 billion Kcs ($280 million) in 1991.[6] The 1991 purchase plans included: 1.26 million metric tons (mmt) of wheat, 0.2 mmt of rye, 234,000 mt of cattle raised for meat, 1 billion liters of milk, and "the entire surplus of butter, hard cheeses, full-fat dried milk, and other dairy products that can be stored."[6] The purchases of wheat and rye, at $135 million, were partly designated for shipment abroad, with an estimated loss to the Government of $27 million (an implicit export subsidy of 25 percent).[7] The prices the Government paid for these purchases were: $105 per mt for wheat, $100 per mt for rye, $1,000 per mt for live beef cattle, and 19 cents per liter for milk. Beef cattle and meat purchases by the Federal market regulation fund reached $97 million in 1991, and purchases of milk and dairy products exceeded $140 million. These purchases at guaranteed prices had little impact on the agricultural markets because of their small volume relative to production levels.[8]

The Federal Government approved a total of 21.6 billion Kcs in subsidies to agriculture for 1992. Five billion Kcs were to be placed in the Federal market regulation fund. Of the remaining 16.6 billion Kcs, 14.5 billion were to go into the budgets of the Czech and Slovak republics, and 2.1 billion were allotted to the Federal subsidy program for farms with unfavorable natural conditions.

Slovak Minister of Agriculture Krsek has stated that the production of milk, beef, and wheat would have to be regulated by quotas in 1992 to head off excessive surplus or shortages of these products.[9] The expected surpluses in 1992 were 850 million liters of milk, 150,000 mt of cattle, and 500,000 mt of wheat. The state-guaranteed prices for 1992 were 5.4 Kcs per liter of milk (3.6-percent fat content), 28 Kcs per kilogram of live cattle, and 3,000 Kcs per mt of wheat. These prices are approximately equal to the costs of production in 1991 for milk and cattle, with the cost of production of wheat lower than 3,000 Kcs per mt in 1991.[10]

Trade Policy

Since early 1991, CSFR imports have not generally required an import license. Some imports are subject to approval to prevent disturbance in the production process, while others require permits because they concern the defense and health-care industries. A third group of goods is subject to voluntary restrictions because trade partners impose quotas on imports of these goods to their countries. The Federal Cabinet proposed in June 1991 the following agricultural import quotas: 1,000 mt on the import of cattle, 1,500 mt on beef, and 1,500 mt on butter for 1991.

While the former state foreign trade monopoly, KOOSPOL, and its subsidiaries maintain their dominant position in the agricultural sector, other organizations in the feed, tobacco, and meat industries, as well as individual cooperatives are starting to handle their own foreign trade. One of the most important issues for CSFR agricultural producers and traders is market access to the European Community. In 1990, the EC provided favorable GSP (Generalized System of Preferences) treatment for pork and poultry. The EC signed an association agreement with the CSFR in December 1991, which offers increased access for various agricultural commodities. The EC agreement may now have to be renegotiated in light of the split of Czechoslovakia into separate nations (CSFR).

In late 1990, the Government drew up a list of commodities whose export was restricted via permits and administrative fees (taxes). These included slaughtered poultry, meat and meat products, hops, flour, cereals, milk, cheese, live cattle, hogs, and game. The administrative fee for the export permit was reduced in August 1991 from 150 percent to 20 percent of the value of the exported goods. As of May 1992, licensing and quotas applied to exports of livestock, beef, chicken, dry and condensed milk, grain, malt, hops, and sugar. At the same time, the Federal Government subsidizes cereal and beef exports with market regulation funds (as described above). The subsidy of 13 Kcs per kilogram of beef is about 15 percent of the current procurement price and is to be granted only to those enterprises that export meat. Russia, Italy, Mexico, and the Middle East are the targeted markets.[11]

The CSFR koruna was devalued by more than 40 percent between September 1990 and January 1991, and was made internally convertible as of January 1, 1991. The dollar exchange rate of the koruna has since been stable. The convertibility gave CSFR firms greater access to foreign exchange, while the devaluation reduced the sale of imports, which were further dampened by a 20-percent import surtax levied equally on all imports. This surtax was reduced to 10 percent in December 1991.

Contracting parties to the GATT (General Agreement on Tariffs and Trade) agreed to a waiver for the CSFR, allowing it to change its tariffs provisionally as of January 1, 1992. The new tariff proposals, on average, add less than 1 percent to the CSFR average import tariff of 5 percent. Increased tariff rates affect about 1,000 items out of a total of 10,000. Agricultural product tariffs are now 20-35 percent, with the exception of sugar, which has an import tariff of 60 percent.[12] In total, 8,500 tariffs are to remain unchanged, while 500 will be cut (mostly on raw materials).

Compensatory import rates (which operate like variable levies) were introduced in January 1992 on selected agricultural and food products for which the import price is below domestic costs of production. The rates are determined by the Federal Ministry of Finance and remain in effect for 1 month before readjustment. Compensatory rates are in addition to import tariffs and the 10-percent commodity surcharge. Over 100 line items have compensatory rates, including live animals, red meat, poultry, butter, starches, sunflowerseed, rapeseed, oilseeds, sugar, and wine (table 3). These rates remained stable throughout the first half of 1992.

Restitution and Privatization

Restitution of assets confiscated by the former communist government is an important issue confronting the post-communist government. The Government has passed four major privatization laws concerning assets outside of agriculture.

Table 3--CSFR compensatory import rates, January 1992

Commodity	Rate
Live animals	7-14 Kcs per kg
Red meat	3-56 Kcs per kg
Poultry	12 percent ad valorem
Butter	38-39 percent ad valorem
Starches	45-66 percent ad valorem
Rapeseed	51-61 percent ad valorem
Sunflowerseed	51-61 percent ad valorem
Sunflowerseed/rapeseed oils	9 percent ad valorem
Sugar products	67 percent ad valorem
Wines	74 percent ad valorem

The first of the privatization laws, the Restitution Law, was passed by the CSFR Federal assembly in October 1990. This law allows previous owners to reclaim roughly 70,000 small businesses, shops, and other property confiscated by the state between 1948 and 1961. Agricultural land is not included under this law. The original deadline of 6 months for the acceptance of claims has been extended until the spring of 1993 due to the complexity of the process.

The second law, the Small Privatization Bill, effective December 1, 1990, applies to those shops, services, and small businesses in the retail and service sectors not affected by the Restitution Law (that is, those created by the state). Auctions will be held for properties considered under this bill. The auction scheme allows those owners who received permission to operate state enterprises under the former government a chance, 5 days before the general auction, to purchase or lease the facility at the initial price set by the Government.

As of November 1991, 23,748 businesses in the Czech republic had been registered under the Small Privatization Act and 12,799 had actually been privatized. Almost all the businesses were sold at auction, but 1,446 were leased and 124 were returned to the original owners. The revenues from the sale of these businesses (55 percent of which were shops) amounted to almost $500 million. By September 30, 1991, the total number of registered private entrepreneurs in the Czech and Slovak republics was 1,131,000, or 5 percent of citizens over 18 years old. A recent survey indicates that another 27 percent of adults are preparing to start a business. The majority of both registered entrepreneurs and those intending to start a private business did not engage in private enterprise as their main occupation.

The third law, the Law on Extrajudicial Rehabilitation, passed in February 1991, provides the legal basis for the return of industries and larger businesses nationalized after February 25, 1948, the date of the communist takeover. Since much of Czechoslovak industry was nationalized before the takeover, this law does not cover most of the large enterprises currently owned by the state. An estimated 10 percent of state-owned property worth 300 billion Kcs ($10.7 billion) is to be returned to former owners, and an additional 15 billion Kcs ($500 million) is to be paid in compensation.

The Large Privatization Bill, the fourth and final law, aims to privatize the majority of state enterprises outside of the retail and service sectors. This bill pertains to assets nationalized before February 25, 1948, and mandates the issuing of vouchers to the public (for a registration fee of $35). Vouchers can then be exchanged for shares in the state enterprises that have been reconstituted as joint-stock companies. Registration of privatization plans, which all state-owned companies were required to draw up, concluded on January 20, 1992. The first round of bidding for shares of companies using vouchers was conducted on June 8, 1992.

The Czech Ministry for Privatization had received almost 3,600 privatization projects by December 1991. The expected offer of assets for voucher privatization is roughly 300 billion Kcs ($10 billion).[13] Foreign companies are involved in about 10 percent of the basic privatization projects registered. Roughly 1,400 privatization projects have been drafted in the Slovak republic. Of the 11 million people in the CSFR eligible to participate in the privatization process, 525,300 Czech citizens and 200,000 Slovak citizens had purchased investment vouchers by January 1992. In total, almost 500 privatization investment funds (IPF's) formed by private entities have been approved in the two republics.

At the end of January 1992, the Federal Government approved an amendment on the issue and use of investment coupons to allay the population's fears that the IPF's would not be held financially accountable to individuals placing their coupons in the IPF's hands. The decree specifies that an IPF cannot place stock orders that would give it more than a 20-percent interest in the enterprise issuing stock. An IPF founder (for example, a bank) with several funds is subject to a 40-percent limit on shares it can own of a single enterprise.

The Federal Government has also stated that it will "endeavor to keep the average value of property per one coupon book at 30,000 Kcs or more."[14] As a coupon book costs 1,000 Kcs, a coupon purchaser stands to receive a hefty return on his investment. The sluggish participation of the population in the voucher privatization is due to the lack of information on each enterprise, especially concerning its outstanding liabilities. This assurance is particularly important since many enterprises have a very low net equity as a percentage of book value. (In late December 1991, the Czech republic moved to address this problem by issuing $740 million in bonds to banks to reduce the debts of the enterprises involved in the first and second waves of privatization. Banks were also recapitalized in the amount of $250 million.)

A recent Law on Community Property has addressed residential dwellings. The law states that all land and buildings that (local) communities owned before December 31, 1949, will be returned to them. Local communities will be authorized to sell apartments into private ownership and collect the proceeds.

Land Legislation

A land law passed in December 1990 allows private ownership (excluding foreigners) of farms and homes. Other legislation clarifies land use rights. The Land Use Law guarantees agricultural cooperatives access to land, provided they pay rent or compensation to individuals who can show legal title to the land. If an agricultural cooperative and a former owner with a land claim agree to resolve the claim through devolution of land to the former owner, the agricultural cooperative may offer a piece of land other than the original plot in question. The Agricultural Cooperatives Law covers the return of land that has been improved in some way; the cooperative may lay claim to part of the land based on the improvements that the cooperative has made.

A Law on the Revision of Ownership Relation to Land and Other Agricultural Property, passed in May 1991, applies to agricultural land and property nationalized between February 25, 1948, and January 1, 1990. An estimated 3.5 million former owners or heirs have a right to claim land estimated at 2.2-3.5 million hectares.[15] Not all land held by collective and state farms (roughly 6.2 million hectares) will be returned because the maximum allowable size of a claim is 150 hectares. The portion of a claimant's land exceeding this limit will remain with the collective or state farm. Land parcels that have been built on, set aside for national defense, planted to perennial crops, or turned into mineral extraction areas, national parks, or memorials cannot be reclaimed, but previous owners will be compensated. Restitution claims for Czech land numbered 70,012 in 1991, 32,185 of which had already been settled.[16] Only 1,120 of these claims involved more than 10 hectares of land. Eighty-five percent of the claims involved less than 2 hectares.

A Transformation Law, passed in December 1991, lays down the process for transforming the unrestituted property of cooperatives (including land and productive assets) and forming new cooperatives. Each cooperative must prepare a privatization plan for its assets. If property is to be divided, the law calls for 50 percent to be distributed among the original landowners (those who contributed land to the cooperative when it was formed), 30 percent to the contributors of other property, and 20 percent to cooperative members (based on time worked at the farm).

Demonopolization and Other Privatization Legislation

The CSFR anti-monopoly statute, effective March 1, 1991, defines a firm with a 30-percent market share to be in a dominant position, making it subject to restrictions or price controls. In particular, the general price reform law enacted in January 1991 defines firms with a monopolistic or dominant position as subject to price controls. The anti-monopoly statute also offers protection to entrants seeking either to purchase inputs from, or to share distribution outlets with, vertically integrated firms. A firm considering itself at an unfair disadvantage may appeal to the relevant anti-monopoly body (the Federal, Czech, or Slovak competition office), which can issue a "cease and desist" order, enforceable by the civil courts.

Other legislation affecting the private agricultural sector includes:

- A 1989 law abolishing restrictions on the size of farm holdings.

- The Law on Private Enterprise (April 1990), which removed most of the restrictions on the formation of new private businesses, including the number of employees a business can hire, the amount of profit a business can earn, and the amount of property a privately held firm can own.

- The Bill of Fundamental Human Rights and Liberties (January 1991), which guaranteed the right to become involved in private business.

The dissolution of monopolistic state enterprises has increased the field of trading organizations from 70 in 1989 to over 170. The number of production units in construction has increased twentyfold. Concentration ratios in some sectors are still high, as the output shares of new enterprises are typically small. In addition, firms formed from dissolved monopolies do not often exhibit competitive behavior, partly because most of the monopoly breakups have taken place at the request of the monopolist's component firms. The vertical and horizontal relationships between the component firms have remained intact, and the markets they serve continue to be regionally segmented.

With price liberalization in January 1991, retail food prices jumped by 32 percent, food processors increased their prices by 20 percent, and farmgate prices increased by 0.2 percent. Product quality and assortment remained unchanged. The former state agricultural procurement agencies were broken up along crop lines and made independent of the Czech and Slovak republican agricultural ministries. Each republic has only one well-equipped agricultural marketing enterprise for each type of crop or livestock product. The large, horizontally integrated food-processing industry is being split into smaller units to be privatized.

Hungary

Hungary has decentralized its economy through many reforms over the past 25 years. Though small-scale private enterprise was allowed before the end of the Communist Party's predominance in Hungary, the major steps toward a market economy were made in the past 2½ years. Hungary chose not to adopt Poland's "big-bang" strategy, but moved gradually to reduce price regulation and to withdraw subsidies. Hungary avoided mass privatization programs and opted for enterprise privatization by purchase and compensation to former asset owners through vouchers. Although Hungary enjoys an agricultural surplus, it retains a significant degree of import protection (more than Poland but less than the CSFR). As a consequence, Hungary uses export subsidies to dispose of surplus agricultural output.

Price Revision and Liberalization

Domestic budgetary and IMF (International Monetary Fund) pressure has prompted recent reforms in the price structure in Hungary. The Government had predicted a budget deficit of $250 million for 1990, but reduced its target to $156 million in December 1990 to persuade the IMF to release delayed financial aid. Subsidies to enterprises were cut from $1.09 billion to $308 million, reducing the final budget deficit to $23 million.[17]

Food, gasoline, and other prices were increased in January 1990, boosting the consumer price index by 19.5 percent. More price increases followed in February (rents for state housing, telephone charges, inner-city transportation fares, and train fares) and in June to keep Hungary's budget deficit on track with the $156 million (10 billion-forint) target. Prices for oil, beverages, and cigarettes increased by 20-30 percent on July 9, 1990, and those for energy by 30-45 percent on August 1. The Government cut foreign trade subsidies to $15 million (1 billion forint) for nonagricultural goods and $40 million (2.6 billion forint) for exports of agricultural produce. A compensation program of $37 million (2.4 billion forint) was initiated to cushion the poorest section of the Hungarian population from the price increases.

More price increases in August (meat, chicken, milk, bread, flour, and fruits rose 30-40 percent) made for a 27.1-percent increase in retail prices in the first 8 months of 1990 versus the same period in 1989. Virtually all agricultural producer prices were liberalized. To ensure that agriculture remained internationally competitive, the

Government proposed the elimination of licenses on imports of most agricultural products.[18]

When the Government tried to increase gasoline prices by 60-70 percent in October 1990, taxi drivers across the country initiated a strike, paralyzing the country for several days. In response, the Government scaled back the increases to 30 percent, tying future gasoline prices to the world market level. The National Assembly passed a price reform bill in November 1990, designed to allow all enterprises the right to set prices. However, the law requires that the Government (1) determine the sectors and methods of setting prices by the state, (2) be given prior notification of price increases by enterprises, and (3) issue rules for regulating prices normally in the "free area" in the event of significant economic policy modifications.

Hungary's 1990 inflation rate reached 30 percent. Price increases for public services in January and February 1991 ranged from 40 percent for postal and telephone services to 100 percent for drinking water rates and sewerage fees. Transportation fares were up 50-55 percent. The overall price level rose 36 percent in 1991. Income compensations over the year, through increased wages, pensions, family allowances (per child), and tax base deductions, rose approximately 20 percent. Thus, there was a 12-percent reduction in real income. For 1992, the annual inflation rate stood at 23 percent as of September. Overall inflation in Hungary was expected to reach 22-23 percent for 1992.

During 1989 and 1990, Hungary accelerated its program of price liberalization. As of early 1991, only 10 percent of prices were regulated, compared with 50 percent in 1988.[19] Subsidies on household energy were eliminated, and subsidies on other services, such as local transportation, were reduced. The Price Office was eliminated in 1990, and responsibilities for tracking and regulating prices were transferred to the Ministry of Finance.

Consumption of agricultural products dropped off with the reduction of disposable income in Hungary. The Government also phased out consumer subsidies, bringing consumption down lower than the reduction of output by producers, especially for meat and milk products. An abundant grain harvest in 1990 and 1991 led to an erosion of real farm producer prices. This placed downward pressure on agricultural income, forcing the Hungarian Ministry of Agriculture to institute an Agricultural Market Regulation program in early 1991. Statutory minimum prices were set for wheat, corn, pork, and beef. Later in 1991, a milk reduction program was instituted to compensate producers 12 cents per gallon (10,000 forint per 4,500 liters) for reduced production.

The Hungarian Parliament has not officially funded the Agricultural Market Regulation program, so government purchases of meat and dairy products have been less than originally planned by the Agricultural Market Regulation Committee. A combination of export loan guarantees (mainly for wheat) and export subsidies lessened the surplus production of agricultural commodities. Nevertheless, producers responded to lower real prices by reducing output in the second half of 1991. Milk output fell by 25-30 percent.[20]

According to Hungary's Finance Minister, Mihaly Kupa, agricultural support in 1992 would equal the 1991 level of 34 billion forint, or 25 percent of all government subsidies. Proportionally more would be made available for market intervention in agriculture in 1992 than in 1991. More than 4 billion forint ($55 million) were to be made available for market intervention, and more than 3 billion forint ($41 million) for agricultural investment and interest subsidies.[21] The lion's share of agricultural support, 26 billion forint, was to go to export subsidies.

Trade Policy

The National Assembly adopted a law in November 1990 abolishing state foreign trade monopolies. This law enables all market agents, including private individuals, to engage in foreign trade activity. Licenses are necessary for the import of foodstuffs, telecommunications equipment, medicines, and some other consumer items. Permits are necessary for the export of energy-related equipment, basic materials, and foodstuffs important for supplies. Trade liberalization has freed 90 percent of all imports from trade and exchange restrictions and exposed 70 percent of industrial production to international market competition.

The Hungarian forint is partially convertible. Corporate trade in goods and financial transactions are allowed free access to foreign exchange. On January 4, 1991, the National Bank of Hungary devalued the forint by 15 percent against convertible currencies to offset the growth in Hungary's inflation rate and to maintain the country's competitiveness in foreign markets. This move allows partial convertibility, as the official value of the forint is still fixed by the Government as opposed to being free-floating. The forint has since been further devalued, and the Government has taken additional steps toward currency convertibility, including budget deficit control and easier access to hard currency for foreigners and Hungarians alike.

General Privatization Strategy

The Hungarian Parliament approved the economywide privatization program for state-owned property in September 1990, which aims at 90 percent of the Hungarian industrial and service sectors. The idea of reprivatization was rejected in favor of compensation to former owners. Former owners have the right to make compensation claims and pre-empt property sales. Final resolution of the compensation issue was delayed because the Hungarian Supreme Court and opposition parties rejected bills favoring agricultural compensation over compensation in nonagricultural sectors.

A State Property Agency (SPA) has been created to handle the sale of state assets. The SPA is the privatization body that holds title to state-owned property and accounts for 90 percent of Hungarian capital, or \$23-\$28 billion. The SPA is authorized to execute three separate privatization programs for small, medium, and large enterprises.

• Small enterprises are being auctioned to individuals; in 90 percent of the cases, the new entrepreneur purchases a minimum 10-year leasing right to the commercial space but does not gain actual ownership.

• Medium-sized enterprises will be sold under a variant of spontaneous privatization, by which any investor can identify a target firm and make it eligible for privatization. The SPA must respond within 30 days with conditions on the bid for the firm (such as the maximum degree of foreign participation). During the next 90 days, the SPA transforms the firm into a joint-stock company, conducts an initial valuation of the firm, and solicits other bids. Then the SPA closes the bidding and concludes the sale.

• The privatization of large enterprises can be executed through various methods. First, the enterprise is transformed into a joint-stock company owned completely by the state. Then it is sold through public stock offerings, competitive bidding, to its employees, or through investor groups who manage the privatization.

Land Reform

Individual farmers in Hungary continue to hold title to roughly 2 million hectares of agricultural land used by cooperatives, so land tenure is a politically and constitutionally volatile issue. In 1990, in Hungary's first elections since the demise of communist power, the Hungarian Democratic Forum (MDF) announced its intention to restore landownership to peasants. After the elections, the MDF and the FKgP (the Independent Smallholders Party) emerged as the two strongest in the three-party government coalition. These two parties reached a compromise on the land question that separated ownership rights from land use rights. This proposal allowed most of the cooperative farms to continue operations by paying rent to the former owners. The status of the lands (3.5 million hectares) for which cooperatives had already paid compensation in the 1970's remained unclear.

Finally, in April 1991, after extensive debate in the Parliament on provisions that treat former agricultural owners and other former property owners with greater equanimity, a law was passed regarding restitution and compensation for past confiscation of rural and urban lands (those confiscated after 1949). Since this law on compensation allowed former agricultural landowners to reclaim land but limited former nonagricultural property owners to compensation through vouchers, the Hungarian Supreme Court recently ruled that it was unconstitutional.

The Hungarian National Assembly passed a revised Compensation Law in July 1991 (covering private property confiscated or damaged after June 8, 1949) which stipulates that all previous property owners shall receive compensation by voucher. The face value given to an individual's voucher depends on the value of past confiscated assets or damage, but is calculated using a regressive scale: full compensation is provided for amounts up to 200,000 forint (\$2,600). The extent of indemnification falls sharply for damages above the 200,000-forint level. For example, damages above 500,000 forint will receive indemnification of 310,000 forint (\$4,000) plus 10 percent of the damage value exceeding 500,000 forint.

The value of land confiscated in the past will be calculated on the basis of the recorded net income of the arable land, known as the Gold Crown value. The issued voucher can be used to purchase land or state property up for sale, or it can be deposited for up to 3 years in a bank and earn 75 percent of the central bank's basic interest rate. Purchased arable land must be used for agricultural production for a minimum of 5 years or be subject to seizure by the state. However, the land may be sold to others who will use it for agricultural production.

To ensure that enough land will be available for purchase by those holding vouchers, each county's National Damage Claims Settlement Office will notify individual cooperative (and state) farms within 2 months after the claim filing process ends of the total Gold Crown value of claims filed against arable land. The cooperative will then designate the arable land that entitled persons will have the right to purchase. A land bank will effect the transfer of landownership to members and employees of cooperative farms and employees of state farms. The size of the land bank will be determined by allocating land of an average value of 30 Gold Crowns ($400) to each member of a cooperative and 20 Gold Crowns ($270) to each employee of a cooperative or state farm. The Gold Crown value of the land bank thus calculated will not exceed 50 percent of the Gold Crown value of arable land owned by the cooperative or managed by the state farm.

Cooperative and State Farm Restructuring

The Hungarian Parliament adopted a new law in January 1992 that clarifies property relations in cooperatives, including cooperative farms. The law gives the cooperatives 1 year to choose between three alternative property structures: (1) a share-holding company that sells shares to outsiders (those who were not previously cooperative members), (2) division of property among its members, and (3) maintenance as a cooperative. The law established a set of regulations for each option.

Minister of Agriculture Elemer Gergatz recently announced legislation that would regulate the property status of state-owned farms. Some would be sold, some would be forced into bankruptcy and dissolved, and others (purportedly 20-25 percent) would remain partly owned by the state to be used primarily as research facilities.[22] Of almost 140 state farms, 12 are to remain wholly state-owned.

Privatization Results to Date

The State Property Agency (SPA) announced in early February 1992 that it will add 600 more state-owned companies to the list of 350 already for sale, nearing half of the 2,200 large companies owned by the state. Between 30 and 40 percent of previously state-owned assets have been privatized, with an estimated 50 percent of GNP accounted for by the private sector.[23]

The leasing of small retailing businesses from the state has been accelerated, according to the SPA, after initial doubts from potential buyers about the future level of rents to be paid to local governments. In response, the Federal Government enacted bills that placed ceilings on the level of rents, and the SPA predicted that most state-owned businesses eligible for leasing would be privatized by the end of 1992.

Poland

Poland's transition to a market economy began in August 1989, when most producer and consumer prices were freed of state control and subsidies were frozen. After 4 months of rapid inflation, a comprehensive stabilization program removed remaining subsidies and price controls, established strict monetary and fiscal controls, and liberalized trade, including internal currency convertibility. The program was successful in slowing inflation. However, the agricultural sector has suffered as producer prices have fallen beneath production costs. The Polish Government has put into place a number of programs to support agriculture, but has not been able to formulate a coherent agricultural policy.

Stabilization: The "Big Bang" of 1990

Poland's rapid inflation in 1989-90 was the result of suppressed inflation that had built up in the latter half of the 1980's as the Government yielded repeatedly to demands for wage increases despite the lack of productivity gains. At the same time, the Government maintained tight control over retail prices, resulting in an increasing number of zlotys chasing too few goods. These inflationary pressures were manifested in lengthening lines at the state food shops. Inflation was allowed to accelerate after August 1989 via a wage-indexation plan that guaranteed 100-percent compensation for food price increases and 80-percent compensation for increases in the prices of other goods. The key elements of the 1990 stabilization program were:

- A balanced budget for 1990, to be accomplished through the removal of remaining subsidies.

- Strict wage controls, with penalizing taxes imposed on firms that granted excessive wage increases.

• Internal convertibility for the zloty. (Internal convertibility means that the zloty can be freely exchanged for foreign currencies by Polish citizens within the borders of Poland. Zlotys cannot be taken out of the country or traded in international currency markets.) The exchange rate was fixed at the 1990 black market rate of 9,500 zlotys per U.S. dollar.

• Full trade liberalization. The monopoly status of the state-owned foreign trade organizations was broken, with any firm free to engage in foreign trade.

• Reform of the tax code (replacement of the old turnover taxes with a system of value-added and personal income taxes).

• Reform of the banking system, with the introduction of a commercial banking network and positive real interest rates.

• Progress toward privatization and more aggressive government action to break up the socialized meat-, dairy-, and coal-producing enterprises.

• Establishment of a social safety net to cushion the blow for those hardest hit by the changes.

Results almost 2 years later are mixed. The most successful aspect of the program has been in foreign trade as the convertible zloty has proven to be quite stable. A wide variety of imported goods became available in Polish shops following the liberalization of foreign trade. Poland, nevertheless, ended 1990 with a substantial hard currency trade surplus. However, a dramatic surge in 1991 imports resulted in a slight trade deficit. The liberalization of imports also increased the availability of agricultural inputs, providing some competition to the state-owned input suppliers.

Inflation was slowed significantly, but not halted. After an initial surge in January and February of 1990, the monthly inflation rate was down to 4 percent by April 1990. However, the monthly inflation rate has remained at 4-5 percent since, resulting in an annual rate of 60-80 percent for 1991. One reason for the continuing inflation is the lack of wage discipline. Privatization has been slow, and most of the old state-owned enterprises endure as worker-managed firms, easily susceptible to pressures for wage hikes.

The lines to Polish food shops have disappeared, and retail food prices have settled at a level where demand equals supply. Demand for basic food items has fallen as a result of falling real income and in part because of increased availability of a variety of substitutable goods.

Conditions for most Polish farmers have deteriorated significantly. Under the communist government, Poland's private farmers (who account for almost 80 percent of gross farm output) suffered from policies that discriminated against them in the allocation of investment and inputs. They also faced a monopsonistic purchasing system. However, farmers received guaranteed prices, set by the Government to ensure rural/urban income parity, and they could be sure that whatever they chose to market would be bought.

With reform, farmers faced significantly lower real producer prices and found that they no longer had a guaranteed market for their produce. A drop in consumer demand prompted the state-owned processing and distribution enterprises to reduce the prices offered to farmers, or bypass purchasing organizations altogether. Alternative marketing channels continued to be limited. The old state-owned enterprises have been broken up along regional lines into independent units, which theoretically compete with one another. The number of private middlemen and new processing enterprises has consequently increased. The private share of the market, however, is still small, and many farmers are unable to take advantage of what competition there is. Prices offered in neighboring districts vary widely, yet most farmers still do not have access to market information or the means to take their produce to the highest bidder.

Support to Producers

The Government resisted pressure to reinstate guaranteed minimum prices until 1992. Instead, a number of partial measures were taken to respond to the farmers' plight. Support for agriculture came to just 7 percent of total budget outlays in 1991, down from 19 percent of the budget in 1988.[24]

The Parliament established the Agency for Agricultural Markets (AAR) in 1990 to carry out intervention purchasing. The AAR aims to stabilize farm prices by purchasing farm goods when prices fall below a given level and releasing them when prices are higher. The intervention price is generally 10 percent below the current market price. The AAR receives a budget from the Treasury, but is supposed to be largely self-financing in the longer term. The agency seeks to export the stocks that it buys.

The AAR purchased 270,000 mt of wheat and 225,000 mt of sugar in 1990, which it exported at a loss. The AAR received a budget of $207 million in 1991 to purchase 200,000 mt of wheat, 100,000 mt of rye, 100,000 mt of pork, and 11,000 mt of butter. The wheat and pork are for export to the former Soviet republics.

In addition, the Government provided subsidized credit (at interest rates of 30 percent instead of the market rate of 70 percent) to farmers for the purchase of fertilizer, land, and breeding stock. (In the spring of 1990, the Government provided subsidies for fertilizer, but these subsidies were eliminated in 1991.) A total of 1.4 billion zlotys were allocated from the state budget for preferential credit in 1991. Of this, 850 million zlotys were targeted for purchases of fertilizers and plant protection agents. The remainder was earmarked for modernization and restructuring of agriculture, including credit for land purchases, procurement and storage of farm products, and projects related to the restructuring of the processing sector. An Office for the Restructuring of the Dairy Industry has been created in the Ministry of Agriculture and the Food Industry to provide preferential credit to support modernization, improve marketing, and promote new dairy products. The budget of this office was $85 million in 1990, but was reduced to $35 million in 1991.

The Agency for Agricultural Markets agreed in 1991 to institute guaranteed minimum prices for wheat, rye, milk, and butter, based on the following principles: (1) the price will be set to guarantee profitability of the product at average costs of production, (2) the prices will be maintained through intervention purchasing, and (3) the minimum price will not exceed the cif (cost plus insurance and freight) border price plus customs duties. The actual price levels negotiated in June 1992 with the various farmers' unions were 135,000 zlotys (approximately $100) per metric ton for wheat, and 70,000 zlotys per metric ton for rye. This system, however, does not guarantee that all farmers will receive these prices. Rather, the AAR will purchase wheat and rye only from those processors who pay the minimum price to farmers. Processors are free to pay lower prices if they believe they can sell the products on their own.

Trade Policy

A cornerstone of Poland's stabilization program was trade liberalization. Initially, almost all controls on imports were eliminated, and tariffs were set at a nominal level, generally around 5 percent. The monopoly power of the state-owned foreign trade organizations was broken, with any organization free to engage in foreign trade.

Poland's trade and exchange rate policies in 1990 were remarkably successful. The convertible zloty was relatively stable, and Poland finished 1990 with a substantial hard currency trade surplus. But problems arose in 1991. The Government was twice forced to devalue the zloty because of domestic inflation, and 1991 ended with a slight deficit in hard currency trade, apparently the result of having to pay hard currency for Soviet energy and raw materials. Moreover, the flood of imports from the West, many of them cheaper and more attractively packaged than Polish products, had an adverse impact on domestic producers. Many of these imports were dumped from EC intervention stocks at subsidized prices below Polish production costs. In addition, exports have been hurt by the collapse of Soviet markets and continuing EC barriers against Polish products.

In response to complaints from farmers about unfair competition from abroad, the Polish Government raised tariffs significantly in April 1991 and again in August. Tariffs on agricultural products now average 30 percent and range from 5 percent for breeding cattle to 30 percent for fresh pork to 40 percent for butter. The Government began to require permits for the imports of milk and dairy products in May 1992 to maintain the guaranteed minimum domestic prices and to control the quality of the imported products.

Privatization

In July 1990, the Polish Parliament passed a Privatization Law, which spelled out the steps by which state-owned enterprises would pass to private ownership. This law established a Ministry of Ownership Transformation (MOT) to oversee the conversion of state property to private ownership. Enterprises selected by this new ministry will be converted to joint-stock companies, and their shares will then be sold. Other enterprises will be auctioned off or sold directly to individual buyers. Coupons toward shares in state enterprises will be distributed to the population. Workers will be able to buy up to 20 percent of the shares of their enterprise at half price.

The Government aims to privatize 80 percent of its primarily state-run economy by 1996. However, the downturn in Polish economic performance and low level of domestic savings, as well as inadequate financing and banking institutions, are some of the difficulties confronting Polish privatization. The program for privatization forecast the sale of 30-40 large enterprises in 1992. Another 400-600 small- and medium-size state enterprises were to be privatized by lease or transformation into joint-stock companies. The expected revenues from privatization are estimated at $600-$900 million.

During 1991, the MOT tried a new approach in selling off state assets by advertising in the national and international business press. Some of the results were:

• 51 percent of the Polam-Pila light bulb production company has been sold to Philips.

• 80 percent of the Fampa paper machinery producer was sold to U.S. Beloit Company, the world leader in paper machinery.

• The Polish Government offered a substantial minority interest in the cosmetics company Pollena-Bydgoszcz, S.A., and up to 80 percent of shares in POL-BAF, S.A., a starch and potato granulate manufacturer near Lodz.

These actions, a significant departure from Polish practice, are an attempt to reduce Western concerns over bureaucratic delays in Polish investment.

In July 1991, the MOT chose 400 enterprises of good financial standing for the Program of General Privatization. The selected plants were transformed in August 1991 into joint-stock companies of the State Treasury. Stocks are distributed as follows: 60 percent to citizens through brokerages of specially appointed institutions called national assets boards, 10 percent to plant employees, and 30 percent to the state. These enterprises represent a large portion of industrial assets, accounting for approximately 25 percent of state industrial production, and employing about 12 percent of all workers.

Land Reform

In theory, state farms are to be privatized in the same way as other enterprises. The desperate financial condition of most state farms has discouraged potential buyers. The Agricultural Property Agency, established in 1991, has taken over the administration of Poland's state farms. This agency will manage the state farms until their eventual privatization, with the aim of protecting the value of their assets. The agency first plans to sell off state farm apartments at a discount to their current residents, with the discount directly related to length of service. The agency ultimately hopes to sell or lease the state farmland to private farmers.

In the communist era, private farms controlled 75 percent of Polish farmland. The 50-hectare ceiling on the size of an individual plot was abolished in 1990. However, the general recession in agriculture has dampened the expansion of private farms, whose average size was about 6 hectares in 1990. A new trend in land tenure is the lease, rather than purchase, of farmland.[25] By leasing land, rural property owners who do not know how to profitably farm the land under current depressed economic conditions do not have to sell the asset they consider their main source of long-term economic security. Commercial-oriented private farms have been under the greatest financial pressure from lower real farmgate prices and higher real interest rates on commercial bank loans, which these specialized private producers used for investments and working capital more than small family farms.

Restitution to Former Owners

An increasingly strong lobby of former landowners in Poland became highly vocal in 1991 in attempts to reclaim everything from drugstores and small machine shops to forests, farmland, homes, and factories. Former property owners claim 1 million hectares of land and more than 2,000 factories (roughly 6 percent of Polish industry), property worth an estimated $9.9-$17.4 billion. The Government has argued that restitution in kind would bankrupt the state and disrupt the sale of thousands of deteriorating factories to new Polish and foreign owners who know how to make a profit.

The Polish Ministry of Ownership Transformation agreed that restitution should take the form of privatization vouchers not bearing interest in cases where full restitution was not possible. Property would also be returned to Polish emigrés under the condition that they return to the country and take up Polish citizenship. A 1991 draft law emphasized compensation in the form of vouchers and further limited the scope of restitution in kind. Under this draft law, owners would be given 1 year to stake their claims; the Sejm would then allocate a lump sum for compensation from the proceeds of enterprise sales under the privatization program. The value of the nationalized assets being claimed would be determined one by one and compared with one another according to a uniform system of points. The value of each point would be determined as a fraction of the lump sum allocated by the Sejm. Thus, it may be possible that the compensation could be far lower than the actual value of the nationalized properties.

The draft restitution law also states that restitution in kind would be limited to country estates, pharmacies nationalized in 1951, smaller enterprises nationalized in 1958, and any other property that was confiscated in violation of laws existing at the time. Property would be returned in kind only if it had been left unused by the state or it could be separated from state enterprises without harming their ongoing business activities. The return of property currently owned by cooperatives would require their approval. Former owners would have to pay for having their property appraised and separated from state enterprises, as well as assume all debts, obligations, and improvements made by the state. Those who chose vouchers could also exchange them for shares in state-owned farmland.

The Government's draft restitution law limits the number of claims for restitution in kind to avoid a slowdown in its program of mass privatization. Even if the bill had been approved immediately, former owners would not have received their first vouchers until 1993, about the same time that Polish citizens will receive their mutual fund shares as part of the Government's general privatization program.

Progress

The Government's 1991 definition of "private" has shifted 5.7 percent of industry activity from state to private hands. Over 1.4 million firms were privately managed by the end of 1991. Employment at these firms amounted to 2.6 million. Commercial, restaurant, and service enterprises accounted for 90 percent of the increase in the number of private firms. Private industrial enterprises accounted for less than 25 percent of private companies.

More change has occurred in agricultural input supply, processing, and retailing than has occurred in land-ownership. The State Anti-Monopoly Office has broken up large monopolies into smaller independent enterprises, though these smaller firms often act as regional monopolists. The possibility of importing agricultural inputs at zero or low tariff rates has put pressure on domestic suppliers' margins and further eroded monopoly positions. In the input supply sector, over 80 percent of the enterprises are now private.[26] The Agency of Agricultural Property intends to privatize one-third of the 450 state food-processing enterprises through sale of shares (the capital method) and the other two-thirds through sale, lease, or transformation into shareholding companies (the liquidation method).[27]

Altogether, 320 enterprises (state farms and state agricultural-processing and input-supply enterprises) were privatized by the end of 1991. This number represents 25 percent of the 1,258 state enterprises privatized by yearend 1991.[28] Roughly 30 percent of the 320 state agricultural enterprises were primary agricultural enterprises: state farms, plant-breeding stations, and livestock-breeding centers. In the retailing sector, 23,000 grocery stores had been privatized by the end of 1990, which represented 20 percent of the shops formerly belonging to the socialized sector.[29] By April 1992, an additional 69 enterprises in the extended agricultural economy had entered into the privatization process.

Romania

Romania, while lagging behind its CEE neighbors, has pursued price reform, trade liberalization, privatization and property restitution to former owners, and tight monetary policies (with the aid of the IMF).

Price Policy

Prices for agricultural output produced on personal plots were decontrolled in February 1990. Deteriorating food supplies in the state distribution network and a widening state deficit forced a major price reform on October 18, 1990. The government resolution allowed private enterprises and those operating with state capital to set prices for goods and services on the basis of demand and supply. In the case of products and services temporarily subsidized by the state, prices would be set by the Government on the basis of proposals made by the Ministry of Finance.

In explaining why a shock therapy approach was adopted by the Romanian Government, ex-Prime Minister Petre Roman was quite explicit: "Public revenues in 1990 were 20 percent lower than expenditures: in order to balance the national budget, there was no other alternative to the revision and deregulation of prices."[30] Moreover, the Governor General of the Bank of Romania reported that Romania's 1990 deficit in hard currency alone was roughly $1.2 billion. Imports worth $2.4 billion were consumed in the first 8 months of 1990, and hard currency reserves were exhausted. Faced with this predicament, Romania turned to the IMF for a credit of over $1 billion. The shortage of hard currency has curtailed the import flow, which still remains higher than the flow of hard currency exports, further exacerbating the hard currency trade deficit and shortage.

Prices of all but essential goods and services--staple foods, residential energy, and communications--were raised or freed in November 1990. Prices were deregulated for goods supplied by three or more competing producers, and prices of other goods were raised to cover production costs plus a reasonable profit. This first phase of price reform excluded most agricultural commodities and food products.

To establish a social safety net, the October price reform resolution stipulated that the prices for electricity, thermal energy, rents for dwellings, heating and cooking fuel, transportation fares, and some staple foods were to remain unchanged. The retail price increases of some other goods were indexed to the average rise in wages. Rises in the prices of staple foods and other basic goods and services were compensated by fixed monthly payments made to individuals through the enterprises where they work. Student scholarships, food allowances, and pensions increased as well. The monthly compensation received by all employees was 750 leu, equal to 25 percent of the average Romanian income of 3,000 leu ($100) per month. Pensioners received an extra 400 leu per month (their pensions ranged from 1,500-2,000 leu per month). These payments began as of mid-November 1990.

Ex-Prime Minister Roman defended the price reform in a speech on November 5, 1990, underscoring that price liberalization affected only 20-25 percent of the country's products, in which case the government compensation scheme "prevented the living standard from worsening." Indeed, if the price increases (100-120 percent) in November were limited to 25 percent of retail goods (measured by their income shares rather than sheer number), then the 25-percent increase in salaries effected through compensation payments may have come close to maintaining the living standard. (The Romanian National Statistics Board announced in January 1992 that the retail price index, with October 1990 as the base period, rose 23.4 percent in November 1990.)

A second round of price increases and further deregulation in April-August 1991 included most basic food products. The prices of eggs, breads, and meats rose 100-120 percent, the maximum allowable increase. Food prices as a whole rose 104.6 percent, while the prices of nonfood products and services rose 46.7 percent and 41 percent, respectively. The overall increase in the consumer price index for April alone was 26.5 percent.

The price resolutions kept the retail prices of energy, fuel, and dwelling rents unchanged in the medium term. Official prices for basic foods and certain industrial products and services could not be raised above ceilings set by the Government. However, in May 1992, subsidies on 16 basic goods were cut by 25 percent. A second round of subsidy cuts, effective September 1, 1992, fully liberalized the prices of meat, sugar, edible oil, and cotton.

The Government continues to make compensation payments to maintain the standard of living. Similarly, salaries and pensions are correlated (adjusted) monthly to the price index. In January 1992, incomes were adjusted by 11 percent. Minimum wages in the state sector were raised by 15 percent following the September round of subsidy cuts, and the Government is expected to begin cash handouts. In addition, a recent government directive put forth an 18-percent value-added tax, effective January 1, 1993, to replace the current tax on goods in circulation.

Agricultural Policy

Prices paid by the state for agricultural products in 1990 rose 40 percent, while input prices remained at previous levels. Floor prices in 1991 were considerably above 1990 levels, especially for sunflower and soybean producers. The Government more than tripled the price of fertilizer on November 1, 1990, after years of steadily declining fertilizer output.

Also in 1990, the Government abolished laws requiring producers to sell all their agricultural commodities to the state. Private households and cooperatives were free to offer their products on open markets at prices determined by supply and demand. Consequently, significantly larger quantities of farm products (fruit, vegetables, live animals, cheese, and other livestock products) in 1990 moved through the decontrolled open markets at higher (than state) prices. Fresh meat could not be sold on the open markets due to sanitary controls. Private holdings of wheat, corn, and other storable products increased with the abolition of obligatory sales. The Government has estimated private sector grain holdings at 47 percent of total grain stocks, including 80 percent of all corn.

Farmers' freedom to sell their products through both private and public channels was expected to put more food on the market. But, the prices offered by the state procurement agencies were not high enough to compensate farmers for the rising input prices, and private channels were not sufficiently prepared to process food from raw materials to a marketable product. As a result, farmers sold very little of their output to state processors, instead choosing to store production in storage bins. Food shortages, due to breakdowns in marketing, have been common, and the Government has appealed to the EC and the United States for food aid.

Agricultural Trade

Agricultural imports in 1990 jumped severalfold while exports dropped to all-time lows. The dramatic turnaround of Romanian agricultural trade was caused by the Government's ban on all food and agricultural exports and the allocation of hard currency reserves for food and feed grain imports. (Romania imported 500,000 mt of soybeans and an additional 430,000 mt of soybean meal, well above the low levels authorized in previous years. Imports of feed grains jumped to nearly 1.1 mmt.) The changes in trade policy were designed to provide increased domestic food supplies for the population, which had suffered from both shortages and poor quality in recent years.

To stem the export of wheat in 1992, the Government imposed stiff fines on anyone selling wheat or wheat products outside of official channels. With the drought situation exacerbating already declining grain production, Romania expects to import an estimated 1-1.5 mmt of wheat to meet 1992/93 needs.

Export bans and quotas. The Government in early 1991 announced measures aimed at liberalizing foreign trade. The first and most important measure provided that export licenses be granted automatically for most products, with others requiring prior approval for export or subject to export quotas. Certain commodities remained under export ban in 1992 to avoid further shortages. Export quota regulations were modified further in 1992 to accommodate dynamic changes in the food situation in Romania.

The export quotas as of January 1991 were (in metric tons): live sheep (20,000), live cattle (40,000), pork (80,000), canned ham (3,000), canned meat (4,000), sausages (2,500), edible variety meats (3,000), tomato juice and paste (100), and canned vegetables and fruit (1,000).

At the same time, agricultural imports have been liberalized. The Ministry of Finance and Trade retains the option of introducing temporary import surcharges in case imports threaten to disrupt domestic production or upset the balance of payments. Imports continued to be hampered in 1991/92 by limited access to foreign credit and low hard currency reserves. The Ministry of Finance and Trade in January 1992 imposed new duties for the import of food and agricultural products (table 4). Import duties were waived during 1992 for powdered milk, potatoes, onions, olives, lemons, grapefruit, wheat and grains, corn, rice, soybeans, edible oils, canned fish, sugar, cocoa, baby foods, flour-based products, starch, malt, and yeast to avoid domestic shortages. The products in table 4 had general tariff changes, as well as special tariff rates for 1992.

Exchange Rate Devaluation and Convertibility

The convertibility of the leu was introduced in hard-currency sales at auctions organized by the Romanian National Bank in 1991. Economic agents and Romanian citizens are eligible to buy and sell at these auctions. After a series of devaluations, the Government finally abolished the artificial official exchange rate for the leu to attain internal convertibility. The leu/dollar exchange rate as of April 1992 was about 200 leu per dollar.

Romanian private and public exporters were permitted to keep 100 percent of export revenue in hard currency beginning in June 1992. To de-dollarize the economy, all transactions in dollars within the domestic economy have been banned.[31] Control of the exchange rate will remain with the National Bank in order to support the leu.

Land Legislation

Privatization efforts in Romania have concentrated on the agricultural sector. In February 1990, Decree 42 authorized cooperative and state farms to allocate up to 0.5 hectare of arable land to each working member. In hilly and mountainous areas, cooperatives can apportion even larger areas of arable land, pastures, vineyards, and orchards provided that the members receiving the land do not hire outside labor. As a result, the private sector share of arable area increased from 12 percent in 1989 to 28 percent in 1990.

A February 1991, Land Reform Law established private ownership of agricultural land. The right to receive land

Table 4--Romanian import duties, January 1992

Commodity	1991	New (1/93)	1992 only
		Percent	
Beef (chilled/frozen)	8	20	5
Pork (chilled/frozen)	8	20	5
Mutton (chilled/frozen)	8	20	20
Goat meat (chilled/frozen)	8	20	20
Poultry meat (chilled/frozen)	20	25	10
Fish (frozen)	28	20	10
Milk and sour cream	25	25	10
Garlic	15	25	5
Green beans	21	20	5
Oranges	31	20	20
Flour (wheat and corn)	20	25	10
Soybean oil	10	25	10
Olive oil	15	25	15
Sausage and meat products	15	25	15
Chocolate	25	20	20

is recognized for all cooperative farm members who contributed land to a cooperative, their heirs, and current cooperative members who previously owned no land. The extent of their land claim will be determined by the availability in the local land reserve. Local land commissions in mountainous regions are instructed to try to return specific property formerly owned. Commissions in flat regions will decide which land can be assigned to former owners, but the returned land does not have to be the formerly owned land.

The limit on initial land allocations is 10 hectares per family. Persons residing in rural communities (but not working in agriculture) can receive up to 0.5 hectare. All Romanian citizens may now have title to, sell, buy, will, and inherit land, but there are still restrictions on the amount of land that can be owned. For example, no family may purchase more than 100 hectares of arable land. Foreign citizens cannot own land, but can inherit it. Upon inheriting it, they must sell it or return it to the state within 1 year. A 10-year resale ban applies to individuals who previously owned no land but have been assigned land as a result of the legislation.

Almost 70 percent of previously state-owned land has been distributed to private parties. No clear title has been issued, so farmers are reluctant to farm any land while there is still a chance that ownership may change. This reluctance has decreased production and, thus, the food supply for an already needy population. Lack of funds, inexperience, and fragmentation of land have posed problems for many new private farmers. Many small farmers have been forced to regroup into cooperative arrangements to facilitate resource mobilization and management.

New Ventures and Privatization

Outside of agriculture, the privatization effort has focused largely on permitting the establishment of new small businesses. A February 1990 law authorized the creation of personal businesses, family firms, and small private companies employing 20 or fewer persons. These enterprises are free to hire labor and negotiate wages, subject to the same social security contributions as state enterprises. They are allowed to rent space and equipment, borrow from banks, and market their output in the domestic market at freely determined prices or export directly or through foreign trade organizations. In November 1990, the Parliament passed the Commercial Societies Law, which extended broad freedom to form and operate private corporations, partnerships, and other share companies. Over 70,000 private businesses had emerged by the end of 1990, mostly service-sector firms employing fewer than 10 workers.

A law mandating the reorganization of larger state enterprises became effective in September 1990. State enterprises have reorganized themselves as joint-stock companies, but the Government still owns all the shares. Another law, passed in August 1991, transferred all state property into commercial companies, held in five Private Ownership Funds, which hold 30 percent of the capital of the commercial enterprises aside for Romanians over 18 years of age. These citizens will be issued vouchers that can be used to acquire shares in enterprises at their book value. The remaining shares are to be sold on the market, with 10 percent reserved for purchase by enterprise employees on preferential terms. Any revenue raised through privatization will not be passed to the state budget, but held in escrow in a trust account.[32]

Yugoslavia

The Yugoslav civil war that developed in the summer of 1991 has handicapped economic and agricultural policies initiated in 1990. Inter-republic transportation, trade, and production have been seriously hampered. Banks and other institutions have been taken over by individual republics. Imports and exports are carefully monitored by governing bodies of individual republics due to military conflicts. Yugoslavia, currently made up of Serbia and Montenegro, is experiencing economic turmoil--including rationing of goods and high inflation--due to the trade sanctions imposed by the United States and European Community at the end of 1991. Considerable privatization of industries and expansion of small businesses continue in Slovenia and other areas not affected by the civil war.

1990 Stabilization Program

A stabilization program in December 1989, intended to control hyperinflation and backed by the IMF, proposed the following:[33]

- Tight monetary and fiscal policies with comprehensive measures to restructure and privatize the banking system and enterprises. Limits were placed on the issuance of new credit, reserve requirements were increased, and all banks were required to apply for relicensing.

- A freeze on wages. Firms that had underpaid their workers in November 1989 were allowed to grant increases to compensate them. However, other firms that granted wage hikes had to account for those overpayments in future payments or be charged penalties.

- The removal of nearly all price controls. Only energy and other public utility prices were to remain under Government control.[34]

- A fixed exchange rate and full dinar convertibility, and a significant removal of import controls.[35]

The program appeared to be a success for the first 6 months of 1990. Inflation dropped from 2,700 percent in 1989 to a monthly rate of zero by April 1990. Renewed confidence in the dinar brought about a surge in private sector growth. The convertibility of the dinar, initiated in December 1989, caused a rapid increase in foreign exchange reserves to $10 billion, as citizens exchanged much of their private foreign currency for dinars. By the second half of 1990, inflation began to rise again. Successive devaluations of the dinar also contributed to inflationary pressures. Three major obstacles stalled the reform program in the second half of 1990 and caused the economy to stagnate: (1) inter-regional political instability that prevented the creation of a comprehensive economic policy, (2) a severe late summer drought that caused Yugoslav net agricultural output to fall by 10 percent, and (3) high oil prices due to the Gulf crisis.

Breakdown in Political Consensus

The individual republics had begun to deviate from the Federal reform program policy of zero wage growth by April 1990. This lack of stable political consensus proved to be a major impediment to anti-inflationary policy. Wages increased 45 percent during the first 6 months of 1990, although they were supposed to be frozen. Increased political pressure led the Federal Government to relax the July 1990 monetary and fiscal policies, causing even more rapid wage and price increases. As republics increasingly ignored the anti-inflationary guidelines, prices rose further. The cumulative inflation rate for 1990 reached 118.6 percent.

The National Bank of Yugoslavia (NBY) excluded the republic of Slovenia from the credit, monetary, and foreign exchange system in June 1991. The NBY prohibited foreign business transactions in all Slovenian banks in October 1991 in response to Slovenia's declaration of independence and blockade of Federal military installations. As a result, Slovenia had almost no share of the use of the foreign currency reserves of the NBY by year's end.[36]

The Yugoslav dinar ceased to be used as legal tender in Croatia and Slovenia after December 1991. The exchange rate of the Croatian dinar, Yugoslav dinar, and the Slovenian tolar were 1:1:1 in early 1992. After the introduction of these new currencies by the republics of Slovenia and Croatia, a new Yugoslav dinar was issued.[37]

As the civil war in Yugoslavia threatened to spill over from Croatia into Bosnia-Herzegovina, the Federal Government lost control over fiscal and monetary policies between republics. Trade had drastically decreased, internal payment transfers between republics were almost stopped, and the monetary system began to crumble at an accelerated rate. Interest rates were over 100 percent by the end of 1991, while stagnating Federal revenues forced the Government to cut its 1991 budget by 60 percent. Banks restricted withdrawals of hard currency from private accounts in 1991. Republics have since taken almost complete control of the banking system. The inflation rate at the end of 1991 had reached a rate of 235 percent, and is expected to have reached 2,500 percent in 1992.

Trade Policy

The civil war has caused serious problems with inter-republic transportation. The continuing war and disruption of transport links in the republic of Croatia have led Slovene companies to reroute trade with Serbia and Macedonia via Hungary. In response, customs duties were imposed on goods transported from the republic of Slovenia via foreign states to other republics of Yugoslavia.[38]

Federal control of trade policies has deteriorated as Yugoslavia has continued to disintegrate into independent states. A severe currency shortage in all six former Yugoslav republics is the most important barrier to imports, resulting in an increased use of barter arrangements.

Agricultural Policy

The civil war in Yugoslavia has had a major impact on agricultural policy. Despite an excellent 1991 crop, the civil war, introduction of new currencies, and political separation movements have disrupted the normal trade flow of grain between republics. Trade between Serbia, the main agricultural republic, and the two secessionist republics of Slovenia and Croatia has almost stopped. However, both Slovenia and Croatia bought significant amounts of wheat from Serbia until December 1991. To prevent the uncontrolled sale of food products (including wheat, wheat flour, and corn) for Yugoslav dinars, which Croatia and Slovenia did not return to the National Bank of Yugoslavia after the introduction of their own currencies, Serbia adopted regulations in December 1991 that prohibit exports of major agricultural products without special permission. These regulations were aimed at ensuring sufficient food supplies for Serbia's domestic consumption, but affected Serbian exports to the three other Yugoslav republics: Bosnia and Herzegovina, Macedonia, and Montenegro. As a result, these republics, which normally obtain their food supplies from Serbia, suffered food shortages. Due to Bosnia-Herzegovina's proximity to Serbia and the war-torn regions in Croatia, as well as its mountainous terrain and numerous rivers, transportation has been exceptionally difficult when roads or bridges were blocked. In addition, in October 1991, the Federal Ministry of Agriculture closed all Slovenian border-crossings to the transport of livestock, meat and animal byproducts, and plants. Other restrictions were imposed, aimed at preventing all imports, exports, and transit consignments subject to veterinary control.[39]

Progress Toward Economic Reform in CEE Countries

Country	Price Liberalization	Agricultural Subsidies	Trade Policy	Privatization	Land Reform
Bulgaria	All prices (except for energy/utilities) freed in February 1991. Some food staples (bread, milk, etc.) still monitored via projected prices.	Support in 1992 (1 billion lev) includes milk and meat bonuses, debt repayment for liquidated cooperative farms, and tax exemptions for private farmers.	Quantity restrictions on imports removed in 1991; export quotas and taxes prevent domestic shortages.	Law for the Protection of Competition (May 1991) provides for price controls on monopolies and bans mergers resulting in a monopoly.	Law for Agricultural Land Ownership and Use (Feb. 1991) returns land to original owners, limits ownership to 30 hectares with minimum plot sizes to prevent fragmentation.
CSFR	Food subsidies removed in 1990; some commodities (flour, dairy, meat, and poultry) controlled via ceilings in early 1991, but now free.	Federal market regulation funds used to purchase surpluses to enforce minimum producer prices; other subsidies for farms with unfavorable conditions.	Compensatory import rates (Jan. 1992) on products imported below domestic cost of production; export fees reduced from 150 to 20 percent in August 1991.	Restitution laws (Oct.-Feb. 1991) provide for return of small businesses and distribution of industry shares; Law on Private Enterprise (April 1990) removed restrictions on business formation.	A May 1991 law restores nationalized land (up to 150 hectares) to private owners; a Transformation Law (Dec. 1991) privatizes (divides) cooperative property. Feb. 1992 law lifts 150-hectare limit.
Hungary	A price reform bill (Nov. 1990) allows enterprises to set prices. The Price Office was eliminated in 1990, with only 10 percent of prices regulated as of early 1991.	1992 support mainly for export subsidies, market intervention, investment and interest subsidies.	A Nov. 1990 law abolished foreign trade monopolies. 90 percent of all imports freed from trade and exchange restrictions.	A State Property Agency is privatizing small and large enterprises through auction, bidding, and public stock offerings.	Compensation Law (July 1991) restores land to previous owners through vouchers. County-level settlement offices mediate between cooperative (state) farms and claimants.
Poland	Price controls have been virtually eliminated. (A 1989 wage-indexation plan guaranteed 100-percent compensation for food price increases.)	Agency for Agricultural Markets set minimum producer prices for wheat, rye, milk, and butter through intervention purchasing. Additional credit for fertilizer, land purchases, and restructuring of the processing sector.	Tariffs on agricultural products raised in August 1991, ranging from 5-40 percent. Dairy imports require permits (May 1992).	Ministry of Ownership has targeted enterprises for conversion to joint-stock; stock of large plants divided among citizens, employees, and the state.	Agricultural Property Agency (1991) manages state farms to protect assets until privatization; leasing is favored to allow private farmers to adjust to production constraints.
Romania	Laws excluding private sale of agricultural goods abolished in 1990. Prices of all but essential goods/services freed Nov. 1990. Salaries adjusted to price index.	Subsidy cuts (Sept. 1991) freed prices of meat, sugar, edible oil, and cotton. Floor prices established in 1990 rose further in 1991.	Most export licenses automatic (early 1991). Export quotas in effect thru 1992 to avoid domestic food shortages. Competitive imports subject to duties Jan. 1992.	Commercial Societies Law (Nov. 1990) allows private corporations. All state property transferred to Private Ownership Funds: 30 percent granted to citizens; the rest sold.	Decree 42 (Nov. 1990) authorizes state farms allocate land to working members. Land Reform Law (Feb. 1991) limits purchase and resale. 70% of state-owned land now private.

Note: Yugoslavia's reforms interrupted by regional disputes.

Central and Eastern European Trade Highlights and Developments

Central and Eastern European (CEE) trade patterns, trade regulations, and terms of trade changed significantly during 1991 and will continue this transformation over the next few years. The two most important factors affecting CEE trade are the move to trade among former Council of Mutual Economic Assistance (CMEA) countries (Mongolia, Bulgaria, CSFR, German Democratic Republic, Hungary, Poland, Romania, former Soviet Union) at world market prices in convertible currencies and the European Community (EC) association agreements with Hungary, Poland, and the Czech and Slovak Federal Republic (CSFR). So far, the reform process has reduced CEE demand for agricultural products and made more of these products available for export.

Shifting Trade Patterns

During the last years of communist rule, the CEE countries in aggregate were a net importer of agricultural products. Most CEE agricultural trade was conducted with CMEA countries and other centrally planned economies (CPE's), and in an inconvertible currency, the transferable ruble. However, the northern CEE countries--Poland, the CSFR, and Hungary--had begun orienting their agricultural trade to hard currency markets by the mid-1980's. More than 60 percent of these three countries' agricultural exports went to non-CMEA countries in 1985. Even larger shares of their livestock, meat, and dairy exports went to non-CMEA countries for hard currency. Dependence on the CMEA market for other commodity exports was higher: more than 75 percent of Hungary's total exports of grain, oilseeds, fruits, vegetables, and wine went to the CMEA in 1985. Only 30 percent of the northern tier's agricultural imports came from the CMEA and other CPE's in 1985 (although the CMEA's share of Czechoslovakia's agricultural imports was over 60 percent).

Some members of the CMEA, chiefly Hungary and Poland, were dissatisfied with the terms of trade with the Soviet Union and the growing surpluses in transferable rubles during the late 1980's, which prompted the marketing of goods outside the CMEA and CPE group. The share of CEE agricultural trade taking place with the CMEA and socialist group fell further with the loosening of bilateral trade agreements with the (former) U.S.S.R. Only 17 percent of the northern tier countries' agricultural exports went to the CMEA and socialist group in 1990. Likewise, only 24 percent of the northern tier's agricultural imports came from the CMEA and socialist group. This move away from the CMEA market accelerated in 1991 as hard currency shortages in the former Soviet Union drastically cut imports of all product types, especially livestock products.

The 1990 drought forced CEE countries to import grains, oilseeds, livestock, and other products to meet domestic demand. Furthermore, with the official collapse of communist systems by late 1989 (except in Bulgaria and Albania), Western countries were willing to grant aid and loans to purchase the needed imports. The increase in agricultural import levels from Western countries contributed to the dissolution of the CMEA trading framework and the beginning of hard currency-based trade among the former CMEA countries on January 1, 1991.

CEE terms of trade eroded as prices of Soviet oil and gas increased during the Gulf crisis, world prices for CEE agricultural products were depressed, and the Soviet market, though now operating on a hard currency basis, was weak. An excellent harvest in 1991 coupled with declining demand in most CEE countries due to inflation and reduced real income created surplus stocks of many agricultural commodities. Some countries with large surpluses (mainly the northern tier countries) introduced government buy-up and export subsidy operations. Meanwhile, severe economic circumstances in the former Soviet Union in late 1991 left its republics unable to buy excess CEE agricultural production. Barter agreements aimed at helping the Soviets to import food were signed by some CEE countries and a triangular aid program involving the former Soviet Union, the EC, and the CEE countries was developed.

Barter agreements between the CEE countries and the former Soviet Union were the most popular means of exporting CEE surplus agricultural commodities in exchange for the import of Soviet oil and gas needed to keep the industrial and processing sectors of the CEE economies running. Much of the agricultural trade between CEE countries and the former Soviet Union was conducted through barter agreements during 1991 and the beginning of 1992. Barter trade, though seemingly primitive, helped bolster an otherwise desperate trading relationship in 1991.

The triangular trade agreement provided 500 million ECU (which the EC provided in loan guarantees) to the former Soviet Union (then transferred to Russia) for the import of agricultural goods. Up to a quarter of these funds can be spent on agricultural imports from CEE and Baltic countries (Estonia, Latvia, and Lithuania). Any quantity of agricultural products purchased from Poland, Hungary, and the CSFR in this manner was counted against these three countries' import quotas to the EC (if the product was subject to the variable levy and quota mechanism). As of April 1992, roughly 40 million ECU of these loans had been spent on agricultural products (200,000 mt of soft wheat and 50,000 mt of barley from the CSFR, 5,700 mt of sunflowerseed oil from Hungary, 3,000 mt of Polish barley, 45,000 mt of Polish wheat flour, and 18,700 mt of Polish milk powder).

The triangular trade agreement could set back CEE exporters as they strive to orient themselves to established market economies. CEE meat exporters are likely to remain dependent on an underdeveloped Russian market, which will in turn retard the development of CEE marketing channels in the more stable West European markets. In addition, CEE exporters will be subject to the terms of the triangular transactions as negotiated by the EC and Russia.

EC Association Agreements

The shift of trade patterns from CMEA to Western markets also prompted agreements between the EC and Hungary, Poland, and the CSFR. These agreements, effective March 1, 1992, call for quota and tariff reductions on a wide range of agricultural commodities, as well as free trade of some noncompetitive agricultural products. For agricultural goods whose import into the EC is regulated by a variable levy and quota mechanism, the accords call for a 60-percent reduction of tariffs and levies (20 percent a year for 3 years) and a 50-percent increase in the quantities allowed access (10 percent a year over base year levels for 5 years). In addition, the agreements contain a safeguard clause allowing for consultations between the parties "in the event of serious disturbance of the market on either side following application of the concessions in the agreement, leading to appropriate arrangements of trade protection measures."[40] For agricultural products whose import into the EC faces only a tariff, the reduction in the tariff rate negotiated varies from country to country and product to product. The average reduction in agricultural tariff rates is 5-10 percentage points.

The most noticeable conflict during the negotiation of agricultural concessions arose over the question of meat imports to the EC from the three CEE countries. A measure allowing an increase in CEE quotas by 500 mt of beef and 900 mt of lamb each year troubled farmers, still adjusting to the surge in meat supplies from eastern Germany. The meat issue was resolved when EC meat producers gained assurances of strict control of CEE meat imports through the safeguard clause. The final EC agreement allows the three CEE's quota for meat exports to the EC to increase by 10 percent a year for 5 years.

These accords symbolize a commitment by the EC to help develop and integrate the CSFR, Hungary, and Poland into the EC, though not necessarily via full membership. Furthermore, the association agreements allow for an increase of agricultural exports to the EC of roughly 7 percent over 5 years. Finally, the accords also serve as a model for the association agreements to be negotiated with Bulgaria, the Baltics, and Romania.

Table 5 contains the major agricultural commodities and their quota amounts in year 1 (1992) of the association agreements and in year 5 (1996). The list covers roughly half of the value of CEE exports to the EC. The U.S. Department of Agriculture has calculated that the gains from expanded trade in live animals, meat and dairy products, and grains for Poland, Hungary, and the CSFR would be $689 million over the 5-year implementation period of the association agreements. This amounts to $176 million for Hungary, $96 million for Poland, and $30 million for the CSFR for exports of meat and dairy products and grains. The remaining $387 million will be available to be shared among the three countries for the export of live beef cattle to the EC. Live beef cattle quotas have been set for the three countries together, so the allocation of the gains from these increased quotas cannot be made individually.

U.S. Trade with CEE Countries

The value of U.S. agricultural exports to CEE countries dropped in 1991 due to the CEE's lack of hard currency needed to buy U.S. agricultural products and, more important, the CEE surplus of agricultural products from lower domestic demand and bumper grain harvests. U.S. agricultural exports of $225.3 million in 1991 were well below the 1990 level of $536.2 million (table 6).

Table 5--Effect of the association agreements on CEE exports to the EC

Commodity/country	Year 1	Year 5	Net change
		Metric tons	
Beef:			
CSFR	3,000	4,000	1,000
Hungary	5,000	6,600	1,600
Poland	4,000	5,600	1,600
Total	12,000	16,200	4,200
Domestic swine (live and meat):			
CSFR	4,700	6,400	1,700
Hungary	22,000	30,000	8,000
Poland	8,000	11,200	3,200
Total	34,700	47,600	12,900
Common wheat:			
Hungary	170,000	232,000	62,000
Butter:			
CSFR	1,000	1,400	400
Poland	1,000	1,400	400
Total	2,000	2,800	800

Table 6--U.S. agricultural exports to Central and Eastern Europe, 1991

Commodity	Bulgaria	CSFR	Hungary	Poland	Romania	Yugoslavia	Total
				1,000 dollars			
Animals/animal products	174	1,357	3,335	9,292	10,920	11,434	36,512
Meats/meat products	0	0	20	3,612	0	309	3,941
Beef	0	0	0	27	0	83	110
Pork	0	0	0	2,007	0	10	2,017
Poultry/poultry products	0	0	2,505	915	41	3,041	6,502
Dairy products	174	6	0	3,507	10,873	1,389	15,949
Hides and skins	0	933	469	627	0	6,514	8,543
Grains and preparations	33,107	1,593	863	12,000	20,287	3,608	71,458
Wheat	0	0	0	2,956	0	5	2,961
Rice	4	1,498	832	4,047	0	159	6,540
Feed grains and products	33,043	0	0	4,277	20,273	3,058	60,651
Corn	33,043	0	0	4,259	20,258	3,058	60,618
Grain sorghum	0	0	0	0	0	0	0
Oilseeds and products	115	346	139	331	27,899	12,634	41,464
Soybean meal	0	0	0	0	0	0	0
Soybeans	0	0	0	0	27,899	12,634	40,533
Tobacco	0	909	0	3,010	0	737	4,656
Cotton (except linters)	0	15,300	0	8,648	4,135	2,718	30,801
Other	1,328	1,156	9,136	6,000	10,792	12,025	40,437
Total	34,724	20,661	13,473	39,281	74,033	43,156	225,328

Source: U.S. Department of Commerce.

The level of U.S. agricultural exports has been bolstered by food aid granted to the CEE area, especially to Romania. Agricultural exports to Romania ($74 million), while down from $220 million in 1990, were still higher than in previous years. Albania's worsening food conditions led to a surge in U.S. agricultural exports to Albania from $1.2 million in 1990 to $9.1 million in 1991. U.S. exports to Bulgaria rose in 1991 to $34.7 million from $8.0 million in 1990. CEE markets should stabilize and diminish the need for food aid.

U.S. agricultural imports from CEE countries remained fairly constant throughout 1990-91. The United States imported slightly more fruit juices, sugar, and tobacco during 1991 than in 1990, while importing less animal products, fertilizer, and farm equipment. U.S. agricultural imports from CEE countries totaled $309.1 million in 1991 (table 7), down slightly from the 1990 level of $333.8 million.

Long-term export opportunities exist for U.S. agricultural inputs, machinery, and processing facilities, as well as soybeans and meal, cotton, tobacco, rice, certain specialty foods (nonindigenous fruits and fruit products, nuts), and consumer-ready foods. In addition, U.S. expertise in financing, farm management, and food processing is needed in the CEE countries. More short-term food aid may be needed in Albania, Romania, and some of the former Yugoslav republics.

U.S. Trade Policy Toward CEE Countries

Trade relations between the United States and most CEE countries are governed by the provisions of Title IV of the 1974 Trade Act. Title IV requires that a listed country have satisfactory emigration practices, as stipulated by the Jackson-Vanik amendment, in order to receive U.S. export credits and credit for investment guarantees. In addition, the country must enter into a commercial agreement with the United States before it may receive MFN (most-favored-nation) tariff treatment. The only CEE countries that receive unconditional U.S. MFN tariff status are Poland, Hungary, the CSFR, and Yugoslavia. Exports from Bulgaria benefit from conditional MFN status, while Romanian exports are subject to non-MFN status (table 8).

CEE Status in the GATT

MFN status is generally applied to the seven nontariff trade barrier agreements negotiated during the Tokyo Round of the General Agreement on Tariffs and Trade (GATT) negotiations. These include agreements on aircraft, anti-dumping, customs violation, government procurement, import licensing, standards, and subsidies. The MFN principle requires participant countries to apply nondiscriminatory provisions of trade. GATT members, including the United States, accord unconditional MFN treatment to most other GATT members. The United States, however, confers annually renewable MFN treatment to a limited number of countries conditional on their compliance with the terms of Title IV of the Trade Act of 1974.

Bulgaria. Bulgaria has had GATT observer status, and applied for full GATT membership in 1987. This request was actualized in 1990 following the collapse of the country's communist government. Bulgaria has asked for a standard GATT protocol with a schedule of tariff-based concessions.

CSFR. Both the United States and Czechoslovakia were founding GATT members but suspended their mutual MFN and GATT relations following the 1951 Trade Agreements Extension Act. Czechoslovakia was treated as a sleeping partner by all parties to GATT before the overthrow of communism. The United States and the CSFR are seeking to restore normal GATT relations.

The CSFR introduced higher tariffs on many agricultural products in January 1992 after it obtained a blanket GATT waiver that permits it to raise tariffs on previously bound items. The CSFR indicated that it would provide compensation for the higher tariffs under GATT Article 28 negotiations.

Poland. When Poland acceded to the GATT in 1967, it did not have a tariff schedule and relied instead on central planning to regulate imports. The GATT members agreed to accept an import growth commitment (not less than 7 percent per year) from Poland in lieu of the tariff concessions normally afforded countries joining the GATT. Poland did not meet its import commitment requirement in the late 1980's, so it introduced a standard tariff-based schedule in 1990-91. Renegotiation of Poland's GATT status terms began in late 1991.

Romania. Upon joining the GATT in 1971, Romania made a commitment to increase imports from member countries at a rate no less than its overall import-growth rate. Romania did not fulfill this commitment during most of the 1980's. A GATT working party was established in November 1991 to renegotiate Romania's accession terms.

Table 7--U.S. agricultural imports from Central and Eastern Europe, 1991

Commodity	Bulgaria	CSFR	Hungary	Poland	Romania	Yugoslavia	Total
				1,000 dollars			
Animals/animal products	3,919	1,980	55,898	46,565	183	23,832	132,377
Meats/meat products	0	1,187	38,823	32,924	183	22,959	96,076
Pork	0	1,187	33,696	32,924	183	22,067	90,057
Poultry/poultry products	0	0	3,654	738	0	0	4,392
Dairy products	3,919	691	13,244	12,290	0	835	30,979
Grains and preparations	0	2,714	1,282	3,542	0	3,009	10,547
Feeds and fodder	0	2,710	358	0	0	2,738	5,806
Fruits and fruit juices	7	2,922	29,366	10,077	0	11,252	53,624
Vegetables and preparations	37	6,534	4,870	3,002	0	2,339	16,782
Hops	0	6,525	0	551	0	808	7,884
Sugar	0	45	1,501	10,685	0	1,996	14,227
Tobacco	16,726	0	22	286	0	43,169	60,203
Beverages (except fruit juice)	1,405	2,263	2,853	256	1,391	3,578	11,746
Oilseeds and products	0	0	0	50	0	4	54
Other	2,237	267	3,142	1,314	230	2,326	9,516
Total	24,331	16,725	98,934	75,777	1,804	91,505	309,076

Source: U.S. Department of Commerce.

Table 8--Status of CEE/U.S. agreements

Country	MFN status	GSP[1] beneficiary	Additional agreements
Bulgaria	Conditional	Yes	U.S./Bulgarian Trade Agreement in effect; bilateral investment treaty in negotiation.
CSFR	Unconditional, April 1992	Yes	Bilateral trade agreement, April 1990. Bilateral investment treaty, October 1991.
Hungary	Unconditional, April 1992	Yes	Business and Economics Relations treaty negotiated.
Poland	Unconditional	Yes	U.S./Polish Business and Economic treaty ratified.
Romania	No	No	Jackson-Vanik waiver signed. Trade agreement and bilateral investment treaty negotiated.
Yugoslavia	Unconditional	No	Suspended from GSP in December 1991.

[1] Generalized System of Preferences.

Hungary. Hungary has been a GATT member since 1973. Unlike Poland and Romania, Hungary was not asked to undertake an import growth commitment since the GATT parties did not consider Hungary's nontariff barriers to be restrictive. In other areas, such as selective safeguard mechanisms and periodic GATT review requirements, Hungary's terms of accession were like those of Poland and Romania. Hungary has recently requested to renegotiate its GATT accession terms along market-economy lines.

U.S. Food Aid to CEE Countries

Albania and Romania are likely to be the largest recipients of U.S. food aid based on FY 1992 requests. Albania's desperate food situation and Romania's restructuring problems should hold production in 1992 at or below the low levels of 1991.

Bulgaria. During FY 1991, Bulgaria received a grant of 100,000 mt of corn from the United States under Section 416(b) of the Agriculture Act of 1949, and an additional 200,000 mt of corn under the Food For Progress program.

Poland. Poland received $97 million in U.S. food aid in FY 1990. This assistance generated local currency through the sale of the donated commodities. These funds have been used to develop Polish agriculture as well as to provide support for humanitarian initiatives and rural development. In addition to USDA programs, the Volunteers for Overseas Cooperative Assistance, also known as Farmers to Farmers, has been placing American farmers and agricultural experts in Polish cooperatives to assist in privatization, management, and agribusiness. In support of this program, the Land o' Lakes cooperative and the Agricultural Cooperative Development International are supplying technical assistance.

Under Section 416(b), Poland received $50 million worth of corn (403,225 mt). Under the Food For Progress program, Poland received $30 million worth of commodities, including 5,624 mt of pork bellies ($10 million) and 73,155 mt of soybean meal ($20 million). Poland was offered a low-interest loan statute (PL 480-I) concession sale of $5 million, which it used to buy 13,600 bales of cotton. Poland was also offered $5 million worth of rice and $25 million of wheat, which it used to buy 12,600 mt of rice ($3.4 million) and 52,500 mt of wheat ($6.4 million).

The American Aid to Poland Act authorized the annual (FY 1988-92) donation of 8,000 mt of uncommitted Commodity Credit Corporation (CCC) stocks of butter to Poland under Section 416(b) of the Agriculture Act of 1949. However, the 8,000 mt of butter were not delivered in 1991 as the Polish Government expressed inability to handle the import. During FY 1992, Poland took delivery of 16,000 mt of butter to use up its allocations for both FY 1991 and FY 1992.

Romania. The United States provided $71 million worth of food assistance to Romania in FY 1990 and approximately $40 million in FY 1991. Romania, also under Section 416(b), was granted $42 million of aid, which it used to buy 315,000 mt of corn and 7,500 mt of butter. Under PL 480-I, Romania was given access to $20 million of concessional corn sales, which it used to buy 165,000 mt of corn. Romania has received 500,000 mt of milling-quality wheat ($50 million) in 1992 and cotton worth $9 million under PL 480-I. The Romanian Government has also requested 1.8 mmt of feed wheat from 416(b) stockpiles for FY 1993 to help alleviate the effects of the drought.

USDA Export Programs

USDA offers several programs intended to help build potential U.S. agricultural markets in CEE countries. These programs include credit guarantees, Export Enhancement Program (EEP) initiatives, and targeted promotional assistance.

Export Credit Guarantee Programs. The Foreign Agricultural Service (FAS) operates two export credit guarantee programs on behalf of the Commodity Credit Corporation (CCC). These programs are designed to encourage the private banking system to extend credit for agricultural exports. Under these CCC programs, GSM-102 and GSM-103, the U.S. Government agrees to pay U.S. exporters--banks or other financial institutions--in case a foreign buyer's bank is unable to pay. CCC credit has long been available to Yugoslavia and Hungary, and has recently been offered to Bulgaria, the CSFR, and Romania. Poland has been in arrears since 1981 and is therefore ineligible.

Export Enhancement Program. USDA's EEP enables U.S. exporters to meet current world prices for targeted commodities in various areas, including CEE countries.

Table 9--U.S. agricultural trade with Central and Eastern Europe

Year	Bulgaria	CSFR	Hungary	Poland	Romania	Yugoslavia	CEE total
				Million U.S. dollars			
Agricultural exports:[1]							
1971-75	8.04	61.26	25.80	220.36	84.36	90.34	642.2
1976-80	28.24	142.92	44.96	435.74	162.78	132.62	1,192.7
1981-85	22.98	12.84	39.27	136.30	57.35	109.42	417.8
1986	51.30	20.90	27.00	33.10	115.50	124.00	432.7
1987	46.70	16.30	19.20	103.30	98.80	116.30	435.7
1988	96.20	15.40	4.80	135.80	103.90	107.90	539.8
1989	129.60	16.80	5.60	58.20	60.70	55.80	401.2
Agricultural imports:							
1971-75	3.00	1.72	8.04	81.58	7.88	43.14	145.9
1976-80	19.90	6.72	28.96	148.78	26.46	85.22	318.1
1981-85	23.52	10.20	42.42	96.92	19.02	64.64	258.5
1986	22.10	14.30	61.90	132.20	12.40	66.60	310.0
1987	24.00	13.20	67.80	141.10	19.40	68.80	334.8
1988	23.90	7.30	62.50	146.20	12.80	63.00	316.4
1989	23.00	7.80	75.80	127.80	9.70	75.60	320.9

[1] Data from before 1984 include estimated transshipments through Belgium, Canada, the Federal Republic of Germany, and the Netherlands. Transshipments are no longer calculated because of their decline in value and the difficulty in obtaining data.

This program, started in 1987, is designed to discourage noncompetitive practices. The EEP helps U.S. exporters meet world prices by making bonuses available to them. Poland and Yugoslavia have benefited in recent years from commodities made available under the EEP.

Market Promotion Program. The MPP helps U.S. exporters disadvantaged by unfair practices to finance promotional activities for agricultural products using surplus stocks or funds from the CCC. USDA has approved MPP programs to promote a wide variety of commodities throughout CEE countries. Activities financed by the programs include market research, practical demonstrations for food professionals, and point-of-sale contact with consumers.

Commodity Market Highlights

Demand for all meats in CEE countries dropped in 1991 due to high prices and reduced purchasing power owing to lower real wages. Cattle numbers for 1991 decreased throughout all the CEE countries. Beef production also declined, though demand fell proportionately. Likewise, falling poultry numbers were accompanied by reduced demand. The decrease in demand for pork was less significant. CEE oilseed demand in 1991 also showed a considerable downward shift. Following a milk glut in 1989 and 1990, 1991 brought moderate milk shortages. Demand for grains (including wheat) dropped off in most CEE countries, as livestock production declined. Roughly 65 percent of all grain is used for animal feed in the CEE region: 38 percent of total wheat consumption, 92 percent of total corn consumption, and 76 percent of total barley consumption.

Other significant commodity market highlights include:

- Bulgaria has reported significant declines in the production of fruits and vegetables, as well as all meats.

- Grain production in Poland in 1992/93 is expected to decrease, and the country may need to import a significant amount of grain in these years.

- The Polish Government withdrew subsidies for oilmeals, increasing the price for oilseeds used as feed by farmers.

Grains

The CEE countries produced 102.9 mmt of grains (5.9 percent of world grain production) in 1991, a 12-percent increase over 1990, a year plagued by drought. Favorable weather more than offset the effect of declining input use on yields. Grain consumption fell for the third consecutive year in 1991 to 96.9 mmt, such that the CEE region became a net grain exporter for the first time since 1984. The decrease in consumption resulted from higher prices, which cut human consumption, and a decrease in animal numbers.

Grain production was expected to decrease in 1992 by 5-10 percent in the CEE region. However, due to the severe drought (which affected Poland, Hungary, the CSFR, and Romania in particular), 1992/93 grain production forecasts were lower than initial estimates. Fall plantings were down as suppliers responded to falling real producer prices. Uncertainty over landownership rights has also caused a decrease in area planted, especially in Bulgaria and Romania, where cooperative farms are being liquidated and a large amount of land is passing into private hands.

Grain Surpluses Characterized 1991; Record High Exports Resulted

The increase in grain production to 102.9 mmt in 1991 was the result of higher yields and an increase in the area harvested. Coarse grain production increased significantly as corn yields returned to their normal levels following the 1990 drought, and corn output increased from 19.4 mmt in 1990 to 33.7 mmt in 1991. Wheat production fell slightly to 38.1 mmt, following a record output of 41.0 mmt in 1990. Smaller and late winter plantings, as well as less intensive use of inputs, reduced yields in many countries.

However, grain production varied considerably across countries. Yugoslavia, Bulgaria, and Hungary, hardest hit by the 1990 drought, increased output in 1991. Poland's output dropped slightly despite a larger area planted. Romania's grain production decline in 1991 was the result of unseasonable rains that delayed winter grain harvesting, input shortages, and confusion over landownership rights.

Price liberalization measures in 1990 and 1991 had a profound impact on both human and feed consumption of grains. Total grain consumption decreased 2.1 percent to 97.6 mmt in 1990 and declined further to 96.9 mmt in 1991. Human consumption of grain fell more than animal consumption of feed in the past 2 years. However, this decline probably does not mean that people are eating less bread, but that they are wasting less. Bread was so cheap in the past that it was more economical to feed bread to livestock than to buy feed. Grain consumption was expected to decline further in 1992 as the reduction in animal numbers will hold down feed demand.

After an unusually large volume of imports in 1990, the region became a significant net exporter in 1991. Exports of grains in 1991 from Central and Eastern Europe more than doubled from the level of 1990 exports, while imports of grains fell to a near-record low. Wheat imports fell from 1.6 mmt in 1990 to 1.2 mmt in 1991, while wheat exports increased from 1.9 mmt in 1990 to 3.4 mmt in 1991. Coarse grain exports also increased tenfold in 1991 over 1990 export levels due to an improved corn crop after the drought of 1990. Imports of coarse grains declined as corn imports dropped 75 percent to 0.9 mmt in 1991. Barley imports declined 70 percent while barley exports increased from 1989 and 1990 levels. However, trade varied across the region. Hungary exported 2.5 mmt in 1990/91, while Romania imported about 1 mmt.

Significant declines in grain production were expected in 1992. Area sown was lower throughout the CEE region. Yields were expected to decline due to reduced input use. Drought in Poland and Hungary was expected to reduce the harvest still further. Consequently, grain exports were expected to decline in 1992. Imports were forecast to remain stable, as production declines were not expected to be great enough to force grain imports.

Oilseeds

Sunflowerseed is the most important oilseed produced in Central and Eastern Europe, accounting for almost 50 percent of total oilseed output, followed by rapeseed (38 percent) and soybeans (8 percent). Oilseed production began a downward trend after 1986 and declined in 1991 and 1992. Relatively expensive or scarce inputs, drought, and unattractive farmgate prices have reduced production, especially in Romania, where changes in landownership have constrained production. CEE demand has also fallen as a result of rising prices and declining livestock inventories. Oilseed production and use in 1992 were expected to decline further due to continued decline in livestock numbers and the increased availability and lower prices of other feeds, notably corn.

Overall Drop in Oilseed Production

Oilseed production fell precipitously in 1990 and 1991 (20 percent since 1989) due to skyrocketing input prices that outpaced farmgate prices. The decline was expected to continue into 1992 as consumer demand for meat fell in response to increasing prices, and livestock producers cut back on stocks and feed (oilseeds).

Sunflower production has declined less than that of other oilseeds since 1989. Production in 1991 surpassed 1990 production by almost 100,000 mt, but only because the 1990 crop was severely affected by drought. Hungary, the CEE's largest sunflower producer, increased production in 1991 by 4 percent over 1990 production, mainly due to increased yield and area planted. The increased production in Hungary was enough to offset modest declines in Romania and Yugoslavia. Sunflower production in Bulgaria and the CSFR increased as well. Production of sunflowerseed was expected to decline slightly in 1992. Production and consumption of sunflowerseed oil have been relatively unchanged.

The largest producer of rapeseed is Poland, which produces 64 percent of CEE rapeseed. Poland's rapeseed production declined in 1991 due to unattractive farmgate prices relative to wheat. Poland's production in 1992 was expected to fall further to 850,000 mt as a result of a decrease in the area planted to rapeseed and reduced input use. The CSFR, producing 30 percent of CEE rapeseed, has seen an increase in production.

The two significant soybean producers are Yugoslavia and Romania. Romania, formerly producing half the CEE region's soybean output, saw a drastic decline in output in 1990 and 1991. With the shift in landownership, the new private farmers have been uninterested in soybeans. Moreover, Romania's soil and climate are only marginally suitable for soybeans and, with the lowest yields in the region, Romania's comparative advantage probably does not lie in soybean production. Yugoslavia experienced an increase in yield and production during 1991 to regain some of its loss in production in 1990. Soybean plantings in 1992 could well have been severely disrupted by the civil war.

General Decline in Demand for Oilseed Products

Both human consumption and feed use of oilseed products have declined since 1989, but the more notable decline has been in demand for meal (feed). Vegetable oil consumption declined sharply in Poland between 1989 and 1991 as a result of price liberalization, but consumption did not change much in the other countries. In fact, vegetable oil consumption has risen in Romania since the revolution. Significant declines in vegetable oil consumption were unlikely in 1992. Rising prices of butter have encouraged consumption of lower priced margarine and oils.

Demand for oilmeals has declined in recent years due to rising prices and falling livestock numbers. This response has been most pronounced in Poland, where demand for feed concentrates fell to an all-time low in 1989/90, as imports fell to 484,000 mt. Farmers began substituting grain, potatoes, and even skim milk as feed. Demand in Poland strengthened in 1990/91, the result of higher grain prices. But oilmeal consumption in the other CEE countries continued to fall, and probably fell further in 1992.

Imports and Exports of Oilseeds in Central and Eastern Europe

The CEE countries have traditionally been net importers of oilseeds and oilmeals. Net imports of oilmeals were slightly over 3 mmt per year in the 1980's. Net imports of oilseeds have traditionally been smaller as a result of insufficient crushing capacity in the region. In fact, lack of crushing capacity has forced Poland to export significant volumes of rapeseed while importing large amounts of soymeal. Regional trade in oils has been balanced by the net export of sunflowerseed oil.

A decline in imports of oilseeds and meal has been most pronounced in Poland, where oilmeal imports fell from 1.5 mmt in 1988/89 to 726,000 mt in 1991/92. Declines have been smaller in other countries. The removal of feed subsidies in Poland led to sharply higher prices, and Poland's private farmers may have been quicker to react than the socialized farms in the other countries. Although net imports of meal have declined, imports of oilseeds have been rising, due to large soybean imports by Romania and reduced rapeseed exports by Poland.

Beef and Veal

The cattle sector has perhaps been the hardest hit by CEE economic reform. Because most of the cattle herd in Central and Eastern Europe is dual-purpose beef and dairy cattle, beef output is tremendously affected by policy changes in the dairy sector. The sharply higher prices for both meat and milk resulting from price liberalization measures led to a decrease in demand and consumption of both commodities. Falling consumer demand has put downward pressure on the producer price of milk. In response to low milk prices, cattle inventories have been cut. Because of the increased slaughter, production of beef and veal has declined only slightly so far, but the cattle herd has been cut back enough to tighten beef supplies in 1992.

Total Beef and Veal Production Declines

Production of beef and veal in 1991 declined 14 percent from 1990. Less high-quality protein feed lowered carcass weight of slaughtered cattle, contributing to the decline in beef output. The declines in beef production came mostly from Poland and the CSFR, the largest CEE beef and veal producers. Polish beef production declined more than 13 percent in 1991 from 1990. CSFR beef and veal production declined 14 percent in 1991 from a lower base than Poland's. Beef and veal production in Bulgaria, Hungary, Romania, and Yugoslavia remained virtually unchanged in 1991 from the previous year.

Beef Consumption Slumps in Central and Eastern Europe

Beef consumption has been on a downward trend, although total CEE consumption was higher in 1991 than in 1989 due to a surge in Romanian beef consumption following the revolution. Romanian beef consumption rose from 115,000 mt in 1989 to 430,000 mt in 1990 as supplies intended for export were diverted to the domestic market. Beef consumption in Romania dropped to 295,000 mt in 1991 after price liberalization measures took effect. Total CEE consumption of beef in 1991 fell 12 percent from 1990's level. Consumers vastly prefer pork to beef, and consumer response to rising prices has been far more pronounced for beef than for pork. However, large imports of inexpensive EC beef helped hold down Polish beef prices, which slowed the fall in consumption to just 3 percent.

Beef consumption was projected to fall 8 percent in 1992. Most of the decline was expected in Poland, where reduced cattle inventories and higher tariffs on beef imports put significant upward pressure on beef prices.

Decrease in Exports and Imports

The CEE region was a net importer of 69,000 mt of beef in 1991, down from 169,000 mt in 1990. The two countries accounting for the reduced imports were Romania and Yugoslavia. Exports of beef dropped 25 percent from 1990, and 54 percent from 1989. Polish exports declined because of tighter domestic supplies, while Yugoslavia's exports were affected by the EC ban on veal imports resulting from the civil war. Beef imports were expected to decline in 1992 because of lower CEE demand from higher prices.

Cattle exports from the CEE countries are far more significant than beef exports. The largest exporter of live cattle is Poland, which exported 700,000 head in 1991. All the remaining countries except Bulgaria have recently exported 100,000-200,000 head a year, mostly to the EC. Exports from Poland, Hungary, and the CSFR are regulated by EC association agreements (effective March 1, 1992), which restrict cattle exports to 425,000 head in a given year, with preferential tariffs given to the following quantities: 217,800 head in 1992, 237,600 head in 1993, 257,400 head in 1994, 277,200 head in 1995, and 297,000 head in 1996. In addition, triangular trade agreements between the EC, the former Soviet Union, and Hungary, Poland, and the CSFR may lead to some increase in meat exports to the former Soviet Union.

Pork

Pork production, consumption, and trade declined in response to CEE price liberalization. Higher retail pork prices, reduced domestic consumption, and declining demand on international markets have resulted in a second year of reduced slaughter and pork production. In addition, rising high-protein feed prices have prompted substitution of grains for feed, lowering carcass weights of slaughtered pigs.

Pork Production Continues Downward Trend

The CEE countries are experiencing widely fluctuating hog production cycles. Hog producers are able to respond rapidly to changing prices, so markets have swung from distress slaughtering and oversupply to tight supplies and rising prices. Production declined just 1 percent in 1991, following a 2-percent decline in 1990. However, some CEE countries experienced greater declines, 5 percent in the CSFR and 8 percent in Hungary. Hog inventories have declined steadily in these countries since 1990, as live hog prices failed to keep up with escalating feed prices. Poland, however, enjoyed a quite favorable price ratio between grain and hogs, which encouraged expansion of hog inventories in 1991. Slaughtering increased 12 percent as a result.

Romania is another exception to the production trend. Hog farms during the final years of Ceaucescu suffered feed shortages but were forbidden to cut back inventories. The result was the slaughter of seriously underweight hogs. Improved feed supplies after the revolution allowed producers to raise their hogs to a more appropriate slaughter weight.

Little net change in pork production was expected in 1992. Production was projected to increase further in Poland while decreasing in most of the other CEE countries, especially in Bulgaria where hog inventories in October 1991 were down 12 percent from a year earlier. Most of this reduction (15 percent) took place on the large state-owned hog complexes, while private sector inventories fell by only 4 percent.

The outlook beyond 1992 is equally mixed. The increased supplies on the Polish market will likely result in reduced profitability for Polish hog producers, leading to a cutback in inventories in late 1992. On the other hand, the large 1991 cutbacks by Hungary and the CSFR are leading to tighter supplies and could strengthen prices and provide an incentive to rebuild inventories. Hog inventories may rebound in Bulgaria as its private sector becomes dominant.

Pork Consumption Affected by Inflation

Higher pork prices led to decreased CEE consumption. In Poland, however, consumption increased due to consumer preference for pork and lower beef supplies. Retail pork prices in Poland rose 31 percent in 1991, making it attractive in an economy where inflation was 70 percent. CEE consumption was expected to stabilize in 1992, except in Romania, which is experiencing a worsening recession, and in Yugoslavia, where the economy has virtually collapsed and supplies have been disrupted by the civil war.

Imports Expected To Decline, Exports Rise in 1992

Pork exports declined from 453,000 mt in 1989 to 316,000 mt in 1991. Most of this decline is attributable to the halting of pork exports by Romania after its revolution. Instead, Romania began to import pork. The largest exporter of both pork and live hogs in 1990 and 1991 was Hungary. Hungary's pork exports reached about 200,000 mt of pork in both 1990 and 1991, partially offset by a decrease in live hog exports. This shift from the export of live hogs to exports of pork was probably the result of the introduction of export subsidies for pork during the summer of 1991. Hungary will face difficulties maintaining this level of exports because it depends on markets of the former Soviet Union and other East European countries.

Total CEE exports of live hogs increased in 1991 as the CSFR and Poland began to export hogs for the first time, reflecting the buildup of surpluses in their domestic markets. However, the CSFR hog exports were subsidized. Poland is expected to increase hog exports in 1992, most of which will go to the former Soviet republics.

Poultry

The CEE poultry industry continued to be plagued by the high cost and scarcity of protein feed. Poultry production costs (especially of protein feed and energy) in Hungary increased by more than the average rate of inflation. As a result, poultry output fell in all CEE countries. Declines were greatest in Hungary, where producers cut back in response to the loss of the Soviet export market, and in Romania and Bulgaria, which suffered serious shortages of protein feed. Poultry numbers in Bulgaria fell by almost 50 percent in 1991, and just as in the case for pork, most of the decline was on the state-owned poultry complexes.

Poultry consumption continued its downward trend in 1991. Declines in most CEE countries were not that great, although consumption fell by close to half in Bulgaria. Health and agricultural authorities in some countries, notably the CSFR, are attempting to shift consumption from pork to poultry because of the relatively high fat content of pork. Consumers, however, still prefer pork, and pork prices have risen at a slower rate than poultry prices.

CEE countries in the past were all net exporters of poultry. The largest exporters prior to 1990 were Hungary and Romania. Romania halted all exports after the revolution and began importing 30,000-40,000 mt per year. Hungary's exports have fallen in recent years as a result of difficulties with former Soviet markets. Hungarian exports to the EC increased, but not enough to offset the fall in exports to the CMEA countries. Imports have risen since 1989. Poland has imported small amounts of poultry from Hungary and the United States. Romania has been importing more poultry because of domestic production shortfalls.

Eggs

Egg production, consumption, and trade have also been affected by high-priced or scarce protein feed, but to a lesser degree than poultry was affected. Egg production in 1991 was down slightly from 1990 levels, as was egg consumption. Production may rebound in coming years if more protein feed is made available at competitive prices. A feed composition consisting of more high-protein feed could increase the number of eggs per layer from current low levels. Yugoslav layers are the least productive at 125 eggs per layer per year, while state farms in Romania posted 205 eggs per layer per year in 1990 when protein feed was readily available. Exports of eggs from the CEE countries have dropped in recent years while imports have risen.

Dairy

Dairy output declined in all CEE countries in 1991. The drop in cattle numbers was compounded by the shortage of high-quality protein feed, which reduced milk yields. Likewise, butter and cheese production in most CEE countries decreased, except in Romania where butter production increased by 24 percent. Stabilizing prices and negligible change in the size of animal herds was expected to halt the decline in dairy production during 1992. Milk production may have declined further in 1992, but was expected to be offset by an increase in the production of butter and cheese.

Mixed Consumer Response

Consumer responses to higher dairy prices were varied. Most consumers substituted lower priced milks and cheeses for higher priced dairy products, especially for high-fat milk. Much more low-fat milk was consumed during 1991. CEE consumption of cheese decreased 9 percent during 1991. An export ban in Romania boosted consumption of dairy products due to greater availability and pent-up consumer demand. Polish consumption of cheese remained low from the sharp decline experienced in 1990. CEE consumption of butter decreased by 12 percent.

Exports and Imports Slump

Exports of dairy products declined during 1991 due to lower cattle numbers, reduced production, and relatively stable consumption. In addition, imports of dairy products declined as a result of low hard currency reserves and lack of available dairy products from potential barter partners. While most CEE countries would like to promote dairy exports (except Romania with its food export ban), a low supply of good-quality dairy products precludes exports in most CEE countries. Cheese and nonfat dry milk seem to be the best commodities for export. Imports of butter in Poland have resulted from the unwillingness of farmers to stock summer surpluses for winter supplies. High interest rates have encouraged production of fresh, nonstorable products; thus, Poland is expected to import butter to cover the winter deficit.

Sugar

CEE conditions may not be the most amenable for the production of sugarbeets. Privatization could reduce beet production as private farmers choose to produce more profitable crops. Government policy, however, has focused on achieving sugar self-sufficiency through incentives for beet farmers and producers. Such intervention amid the current movement toward free markets is due both to the political nature of sugar itself and to the prospect of integration with the EC (in the case of Poland, Hungary, and the CSFR).

Production

The cost of beet production with its high import/input content and labor intensity has increased with the rising costs of labor and inputs (fertilizer, irrigation water, insecticides). The hard currency shortage has made inputs scarce and beets a less economically viable crop for the CEE countries.

The 1991/92 harvest in Poland was estimated at 1.7 mmt, 24 percent lower than the previous year's bumper crop. Due to low producer prices, Polish beet output is forecast to drop by 3-4 percent in 1992/93 with 350,000 hectares planted for 1992 projected to yield an estimated 1.5 mmt. The 1991/92 crop for Hungary was estimated at 550,000 mt, the highest yield in the past 15 years. The 145,000 hectares planted in 1991, well above 1990 levels, was due to a 20- to 30-percent price increase that year.

Romanian 1992/93 beet production is forecast at 400,000 mt, a 20-percent increase from last year's poor crop. This increase is attributed to the 24-percent expansion in planted area to 222,000 hectares, producer incentives, and good climatic conditions, which offset input shortages. Land reform, to have been completed in 1992, was not implemented in time for the 1992 spring planting. To increase private farmer incentives to grow sugarbeets, the Government of Romania adopted a payment-in-kind policy in 1989/90. Farmers now receive 45 kilograms of sugar per ton of beets delivered (versus previous 10 kg per ton), as well as 100 percent of beet pulp after processing. This change put 45 percent of total sugar production in farmers' hands, boosting sugar production 62.8 percent from the previous year.

Consumption

Sugar consumption in most CEE countries has continued to decline in response to price increases and falling real income. However, the decline is less drastic than in the previou: 3 years as sugar prices have been slower to rise relative to other products. Polish consumption fell 5 percent in 1991/92 due to higher prices, but is expected to recover slightly in 1992/93. Sugar continues to be rationed in Romania, and per capita consumption is expected to increase to 32 kilograms in 1992/93, up 33 percent from 1991/92.

Trade

The collapse of the Soviet economy and consequent decline in oil/sugar trade between the former Soviet Union and Cuba have led to a diversion of Cuban sugar from former CMEA countries and a reduction of CEE sugar imports. Raw sugar had been imported from Cuba, refined, and re-exported by CEE countries as a source of hard currency earnings. With dissolution of the CMEA, CEE countries have curtailed imports due to falling demand and a shortage of hard currency.

Cuban insistence on payment in hard currency has forced both Bulgaria, a net sugar importer, and Romania to look for alternative sources of sugar. Romania banned exports of sugar through 1992 and now imports refined sugar due to high costs of processing. Romania will require imports of 200,000 mt to meet domestic needs in 1992/93. Although Cuba continues to be the primary source of sugar for Romania, Brazil now provides increasing amounts of sugar at less than $300 per ton.

The Polish Government has stabilized sugar prices since 1990 with intervention purchasing through the Agricultural Market Agency. The agency provided export subsidies for 500,000 mt of sugar in 1990/91, and for 140,000 mt in 1992. Low 1990/91 world prices required a costly 900,000 zloty-per-ton subsidy for Polish sugar to be competitive. It is unlikely such support will continue.

In an effort to block imports of cheap EC sugar, the Polish Government raised tariffs in 1991 to 40 percent. The CSFR has introduced compensatory import rates on 100 food/agricultural items (including sugar at 67 percent) for which the import price is below the cost of production.

Cotton

CEE cotton is grown chiefly in Albania and Bulgaria, with a small amount grown in Yugoslavia. Production of cotton in 1991 increased slightly to 21,000 bales, mainly due to the increase in area planted. However, both

Yugoslav and Bulgarian farmers were reluctant to farm land due to unclear title rights and shifting country borders.

The CEE region produces little cotton, so importing the necessary cotton is crucial. Total imports declined in 1990 to 341,000 bales from the 1989 level of 540,000 bales due to the shortage of hard currency. Poland, as a major textile exporter, faces a difficult situation due to the diminished demand from former Soviet markets and the need to carry out all transactions using hard currency Therefore, imports of cotton to Poland in 1990 and 1991 were half the level of cotton imports in 1989. The other CEE countries also decreased the amount of cotton they imported, reducing cotton use from 558,000 bales in 1989 to 314,000 bales in 1991.

The fall in Poland's cotton imports can be explained by the increasing cost of credit needed to buy foreign cotton. In addition, the Government's new marketing program eliminated all processing and import/export subsidies, which caused the price of cotton goods to increase sharply and therefore dampened demand. Cheaper textiles from Thailand have replaced Poland's cotton textile products in many markets.

U.S. cotton exports to Central and Eastern Europe have the potential to increase. The United States is offering $10 million in PL 480 cotton to each CEE country except Yugoslavia, and therefore will almost surely increase its exports. Production of cotton in Bulgaria, Albania, and Yugoslavia remained constant during 1991, but may increase in 1992/93 if conflicts in the area can be resolved. Total CEE consumption of cotton may dip further if the textile industry cannot find markets for its products.

Tobacco

CEE tobacco production increased in 1991 as a result of a larger harvested area, but production was still well below historical levels. Resolution of landownership issues may give a boost to production, especially in Bulgaria where conditions are favorable for tobacco production.

Tobacco production in 1990 declined, especially in Romania where production fell 48.3 percent from 24,500 mt to 12,700 mt (dry weight). Production in Bulgaria and Yugoslavia, the largest CEE tobacco producers, also dropped. Production fell in Bulgaria from 68,300 mt in 1989 to 61,000 mt in 1990. Yugoslav tobacco production fell from 57,000 mt in 1989 to 42,000 mt in 1990. Hungary, a small producer of tobacco, increased its production 10.7 percent to 12,200 mt in 1990. The two major factors contributing to the decline in tobacco production were the drought conditions that plagued the southern CEE countries of Bulgaria, Romania, and Yugoslavia and a drop in the area harvested in all CEE countries. Tobacco production in Bulgaria suffered when ethnic Turks fled the southern tobacco-growing area in 1989 because of ethnic persecution. These Turks are the main harvesters and the most knowledgeable in tobacco processing.

Consumption of tobacco in 1990 was down in Bulgaria and Romania, but increased in Hungary, Poland, and Yugoslavia. The change in consumption was most pronounced in Romania, where consumption fell 38.2 percent to 19,900 mt. Consumption in 1991 remained relatively unchanged from 1990.

Central and Eastern Europe became a larger net importer of tobacco during 1990. Total imports for 1990 increased in Poland, Hungary, and Yugoslavia and decreased slightly in Bulgaria and Romania. Total tobacco exports for the CEE region declined due to the decrease in production. As production rebounds, Central and Eastern Europe will export slightly more tobacco products.

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Appendix Tables

Appendix table 1--Rates of exchange for U.S. dollar against CEE currencies

Country	January 1990	March 1992
Bulgaria (Lev)	2.02	18.59
Czechoslovakia (Koruna)[1]	16.29	29.03
Hungary (Forint)	62.36	79.23
Poland (Zloty)[2]	9,500.00	13,400.00
Romania (Leu)[3]	14.33	198.10
Yugoslavia (Dinar)	4.86	140.30

Source: PlanEcon Report, "East European Currency Exchange Rates," Numbers 16-17, April 28, 1992.

[1] Commercial rate.

[2] Official rate.

[3] Official rate was abolished in Romania on November 8, 1991; the leu is now convertible.

Appendix table 2--Producer subsidy equivalents (PSE) for agricultural products in Central and Eastern Europe

Country	1983	1984	1985	1986	1987	1988	1989
			Average level of PSE (percent)[1]				
Czechoslovakia	12	-3	1	4	13	4	20
Hungary	NA	NA	-7	10	19	5	-3
Poland	27	24	34	36	18	9	-36
Yugoslavia	47	35	41	51	38	13	NA

NA = Not available.

[1] PSE is defined as the gap between the domestic producer price and the world price, plus sector-specific subsidies and taxes (per unit of output), taken as a percentage of the domestic producer price.

Appendix table 3--Consumer subsidy equivalents (CSE) for agricultural products in Central and Eastern Europe

Country	1983	1984	1985	1986	1987	1988	1989
			Average level of CSE (percent)[1]				
Czechoslovakia	-9	5	-2	-7	-19	-23	-16
Hungary	NA	NA	6	-3	-12	-3	-1
Poland	-2	7	-1	12	51	48	NA
Yugoslavia	-39	-26	-38	-54	-65	-18	NA

NA = Not available.

[1] CSE is defined as the gap between the world and the domestic consumer retail price, adjusted back to the level of wholesale prices, taken as a percentage of the domestic adjusted retail price.

Appendix table 4--Supply and use of wheat in Central and Eastern Europe, 1986-92

Country and year	Area harvested	Yield	Production	Total imports	Total exports	Total consumption	Ending stocks	Feed use	Imports from U.S.
	1,000 hectares	Tons per hectare	1,000 tons						
Bulgaria:									
1986	1,127	3.84	4,327	438	215	4,050	500	1,300	0
1987	1,085	3.82	4,149	400	300	4,349	400	1,700	154
1988	1,182	4.01	4,743	100	352	4,391	500	1,700	0
1989	1,136	4.75	5,402	100	450	5,102	450	1,800	0
1990	1,163	4.38	5,095	300	200	5,245	400	2,100	0
1986–90 average	1,139	4.16	4,743	268	303	4,627	450	1,720	31
1991	1,200	3.75	4,500	100	0	4,705	295	1,950	0
1992	1,200	3.25	3,900	0	0	4,095	100	2,000	0
Czechoslovakia:									
1986	1,213	4.37	5,305	200	200	5,305	0	3,020	0
1987	1,217	5.06	6,154	200	300	6,054	0	3,000	0
1988	1,250	5.24	6,550	200	400	6,350	0	3,400	0
1989	1,241	5.12	6,356	200	300	6,256	0	3,000	0
1990	1,241	5.41	6,715	200	400	6,515	0	3,500	0
1986–90 average	1,232	5.04	6,216	200	320	6,096	0	3,184	0
1991	1,208	5.07	6,128	200	350	6,350	0	3,250	0
1992	1,170	5.21	6,100	200	100	6,200	0	3,200	0
Hungary:									
1986	1,318	4.40	5,793	0	1,100	4,693	0	2,100	0
1987	1,301	4.42	5,748	0	1,050	4,685	13	2,100	0
1988	1,281	5.44	6,975	0	1,900	4,713	375	2,350	0
1989	1,242	5.24	6,509	0	1,450	4,900	534	2,300	0
1990	1,121	5.50	6,161	0	800	4,889	1,006	2,300	0
1986–90 average	1,253	5.00	6,237	0	1,260	4,776	386	2,230	0
1991	1,150	5.13	5,900	0	2,000	4,000	960	2,000	0
1992	840	5.00	4,200	0	1,000	3,760	400	2,000	0
Poland:									
1986	2,025	3.70	7,502	2,300	0	9,253	570	4,151	508
1987	2,132	3.73	7,942	2,000	0	9,792	720	4,850	1,444
1988	2,179	3.48	7,582	2,000	0	9,600	702	4,100	16
1989	2,195	3.86	8,462	1,370	0	9,862	672	4,300	16
1990	2,281	3.96	9,026	350	250	9,300	498	3,800	125
1986–90 average	2,162	3.74	8,103	1,604	50	9,561	632	4,240	422
1991	2,437	3.80	9,270	120	560	9,058	270	3,917	0
1992	2,370	3.42	8,100	500	50	8,600	220	2,900	0
Romania:									
1986	2,530	2.65	6,700	0	100	6,300	450	2,100	0
1987	2,400	2.50	6,000	0	50	6,250	150	2,000	0
1988	2,400	3.50	8,400	0	250	7,800	500	4,000	0
1989	2,350	3.32	7,800	0	300	7,500	500	2,000	0
1990	2,260	3.12	7,040	600	100	7,840	200	2,900	0
1986–90 average	2,388	3.02	7,188	120	160	7,138	360	2,600	0
1991	2,180	2.52	5,490	500	0	6,140	50	2,200	0
1992	1,755	2.28	4,000	500	0	4,500	50	2,000	0
Yugoslavia:									
1986	1,346	3.55	4,776	701	0	5,400	601	700	551
1987	1,455	3.62	5,272	283	11	5,352	793	700	209
1988	1,506	4.18	6,300	12	685	5,400	1,020	930	0
1989	1,479	3.79	5,599	11	982	5,250	398	700	1
1990	1,495	4.25	6,359	27	198	6,100	486	1,500	15
1986–90 average	1,456	3.88	5,661	207	375	5,500	660	906	155
1991	1,547	4.23	6,539	200	500	6,210	515	1,050	0
1992	1,035	3.86	4,000	500	0	4,700	315	100	0
CEE total:									
1986	9,559	3.60	34,403	3,639	1,615	35,001	2,121	13,371	1,059
1987	9,590	3.68	35,265	2,883	1,711	36,482	2,078	14,350	1,807
1988	9,798	4.14	40,550	2,312	3,587	38,254	3,097	16,480	16
1989	9,645	4.16	40,128	1,681	3,482	38,670	2,554	14,100	17
1990	9,561	4.23	40,396	1,477	1,948	39,889	2,590	16,100	140
1986–90 average	9,631	3.96	38,148	2,398	2,469	37,699	2,488	14,880	608
1991	9,722	3.89	37,825	1,120	3,410	36,463	2,090	14,367	0
1992	8,370	3.62	30,300	1,700	1,150	31,855	1,086	12,200	0

Zeros indicate values less than 1,000 tons or not available.
Data for 1991 are preliminary.
Data for 1992 are estimates.

Source: USDA.

Appendix table 5--Supply and use of corn in Central and Eastern Europe, 1986-92

Country and year	Area harvested	Yield	Production	Total imports	Total exports	Total consumption	Ending stocks	Feed use	Imports from U.S.
	1,000 hectares	Tons per hectare	------	------	------	1,000 tons	------	------	------
Bulgaria:									
1986	573	4.97	2,848	500	0	2,948	400	2,700	280
1987	497	3.74	1,858	700	0	2,658	300	2,150	0
1988	490	3.18	1,557	1,100	0	2,757	200	2,200	0
1989	563	4.30	2,421	25	0	2,446	200	2,100	23
1990	400	3.10	1,241	300	0	1,600	141	1,500	299
1986–90 average	505	3.93	1,986	525	0	2,482	248	2,130	120
1991	560	4.00	2,718	0	0	2,618	241	1,600	0
1992	600	3.83	2,300	0	0	2,300	241	1,500	0
Czechoslovakia:									
1986	217	4.57	992	176	0	1,168	0	1,100	0
1987	220	5.27	1,160	163	0	1,323	0	1,240	0
1988	215	4.42	950	200	0	1,150	0	1,100	0
1989	204	4.90	1,000	150	0	1,150	0	1,150	0
1990	140	3.63	508	0	0	508	0	506	0
1986–90 average	199	4.63	922	138	0	1,060	0	1,020	0
1991	165	4.00	867	0	0	867	0	867	0
1992	160	4.69	750	0	0	750	0	750	0
Hungary:									
1986	1,118	6.49	7,261	23	478	6,560	1,468	6,050	0
1987	1,144	6.32	7,234	100	352	6,695	1,756	6,150	0
1988	1,103	5.47	6,028	2	152	6,450	1,183	5,875	0
1989	1,084	6.22	6,747	0	170	6,200	1,560	5,550	0
1990	1,082	3.99	4,317	275	0	5,387	765	5,100	255
1986–90 average	1,106	5.71	6,317	80	230	6,258	1,346	5,745	51
1991	1,126	6.67	7,510	0	1,800	5,500	975	4,450	0
1992	1,000	6.15	6,150	0	1,000	5,650	475	5,000	0
Poland:									
1986	22	5.14	113	238	0	331	108	265	3
1987	32	4.56	146	211	0	396	69	294	0
1988	40	5.10	204	411	0	580	104	488	0
1989	51	4.76	244	500	0	596	250	498	378
1990	59	4.92	290	41	0	331	250	253	40
1986–90 average	41	4.89	199	280	0	447	156	360	84
1991	70	4.86	340	100	0	464	226	364	0
1992	60	5.83	350	100	0	600	76	430	0
Romania:									
1986	3,000	4.00	12,000	15	600	10,815	1,000	9,250	0
1987	2,900	3.62	10,500	0	130	11,270	100	10,300	0
1988	2,900	3.45	10,000	0	300	9,100	700	8,800	0
1989	2,600	3.21	9,000	800	0	9,100	800	9,000	654
1990	2,470	2.75	6,800	350	0	7,600	350	5,914	314
1986–90 average	2,814	3.43	9,660	233	206	9,697	590	8,653	194
1991	2,578	4.07	10,500	0	0	9,500	1,350	8,500	0
1992	2,650	3.40	9,000	0	0	9,500	850	8,000	0
Yugoslavia:									
1986	2,369	5.29	12,526	108	1,570	9,900	2,708	8,400	108
1987	2,21[illegible]	4.00	8,863	391	113	9,934	1,913	8,600	320
1988	2,269	3.39	7,697	60	200	8,500	670	7,700	0
1989	2,268	4.15	9,415	539	150	9,369	1,106	8,475	539
1990	2,229	3.02	6,724	755	21	8,200	363	700	702
1986–90 average	2,271	3.98	9,045	371	411	9,241	1,351	6,775	334
1991	2,165	5.34	11,557	25	500	9,525	1,920	7,600	0
1992	2,200	4.09	9,000	300	500	9,400	1,320	8,500	0
CEE total:									
1986	7,299	4.90	35,740	1,058	2,648	31,722	5,682	27,765	391
1987	7,011	4.24	29,761	1,565	595	32,276	4,137	28,734	320
1988	7,017	3.77	26,436	1,773	652	28,837	2,857	26,183	0
1989	6,970	4.14	28,827	2,014	320	29,463	3,915	26,773	1,594
1990	6,380	3.12	19,860	1,721	21	23,626	1,869	13,975	1,610
1986–90 average	6,936	4.06	28,129	1,626	847	29,185	3,692	24,662	783
1991	6,665	5.03	33,492	125	2,300	28,474	4,712	23,381	0
1992	6,670	4.13	27,550	400	1,500	26,200	2,962	24,160	0

Zeros indicate value less than 1,000 tons or not available.
Data for 1991 are preliminary.
Data for 1992 are estimates.

Source: USDA.

Appendix table 6--Supply and use of barley in Central and Eastern Europe, 1986-92

Country and year	Area harvested	Yield	Production	Total imports	Total exports	Total consumption	Ending stocks	Feed use	Imports from U.S.
	1,000 hectares	Tons per hectare	1,000 tons						
Bulgaria:									
1986	318	3.60	1,144	100	0	1,244	0	1,080	0
1987	295	3.70	1,091	196	0	1,287	0	1,046	152
1988	345	3.81	1,313	200	0	1,513	0	1,300	0
1989	360	4.36	1,566	100	0	1,666	0	1,450	0
1990	360	3.74	1,345	100	0	1,445	0	1,200	0
1986–90 average	336	3.85	1,292	139	0	1,431	0	1,215	30
1991	383	3.90	1,495	100	0	1,595	0	1,200	0
1992	310	3.87	1,200	100	0	1,300	0	1,100	0
Czechoslovakia:									
1986	821	4.30	3,530	0	50	3,480	0	2,500	0
1987	840	4.23	3,551	30	50	3,531	0	2,460	0
1988	820	4.15	3,400	0	50	3,350	0	2,300	0
1989	752	4.72	3,550	0	50	3,500	0	2,650	0
1990	743	5.45	4,051	0	50	4,001	0	3,151	0
1986–90 average	795	4.55	3,616	6	50	3,572	0	2,616	0
1991	797	4.77	3,798	50	300	3,548	0	2,650	0
1992	800	4.69	3,750	50	200	3,600	0	3,000	0
Hungary:									
1986	253	3.39	857	100	0	1,010	103	815	0
1987	205	3.87	794	373	2	1,120	148	900	0
1988	264	4.43	1,170	112	51	1,220	159	880	25
1989	283	4.68	1,324	150	0	1,400	233	920	0
1990	297	4.57	1,358	200	0	1,629	162	1,275	0
1986–90 average	260	4.23	1,101	187	11	1,276	161	958	5
1991	320	4.86	1,554	100	0	1,695	121	1,100	0
1992	330	4.29	1,415	100	0	1,515	121	1,100	0
Poland:									
1986	1,335	3.30	4,412	279	0	4,617	194	3,606	62
1987	1,286	3.37	4,335	300	16	4,611	202	3,574	116
1988	1,250	3.04	3,804	500	0	4,347	159	3,475	44
1989	1,175	3.33	3,909	125	0	4,083	110	3,245	0
1990	1,174	3.59	4,217	0	0	4,162	145	3,267	0
1986–90 average	1,244	3.32	4,135	241	3	4,368	162	3,433	44
1991	1,237	3.44	4,257	0	0	4,257	145	3,300	0
1992	1,170	2.99	3,500	200	0	3,700	145	3,200	0
Romania:									
1986	575	3.39	1,950	550	0	2,500	50	2,200	111
1987	560	3.21	1,800	100	0	1,900	50	1,600	0
1988	750	4.00	3,000	50	150	2,850	100	2,300	0
1989	768	4.43	3,400	175	0	3,175	500	2,800	0
1990	749	3.54	2,651	1,000	0	3,651	500	3,500	0
1986–90 average	680	3.78	2,560	375	30	2,615	240	2,480	22
1991	1,018	2.90	2,951	200	0	3,551	100	3,000	0
1992	800	2.75	2,200	400	0	2,600	100	1,700	0
Yugoslavia:									
1986	267	2.63	703	15	3	720	21	400	0
1987	213	2.37	504	51	0	560	16	250	0
1988	222	2.77	615	50	0	660	21	350	0
1989	242	2.90	702	15	0	717	21	400	0
1990	245	2.82	692	274	4	960	23	650	0
1986–90 average	238	2.70	643	81	1	723	20	410	0
1991	245	3.08	754	20	2	770	25	440	0
1992	260	2.80	785	0	50	735	30	450	0
CEE total:									
1986	3,569	3.53	12,596	1,044	53	13,571	368	10,601	173
1987	3,399	3.55	12,075	1,050	68	13,009	416	9,850	268
1988	3,651	3.64	13,302	912	251	13,940	439	10,605	69
1989	3,580	4.04	14,453	565	50	14,543	864	11,465	0
1990	3,568	4.01	14,314	1,674	54	15,868	830	13,043	0
1986–90 average	3,553	3.76	13,348	1,029	95	14,186	583	11,113	102
1991	4,000	3.70	14,809	470	302	15,416	391	11,690	0
1992	3,690	3.48	12,850	850	250	13,450	396	10,550	0

Zeros indicate value less than 1,000 tons or not available.
Data for 1991 are preliminary.
Data for 1992 are estimates.

Source: USDA.

Appendix table 7--Supply and use of rye in Central and Eastern Europe, 1986-92

Country and year	Area harvested	Yield	Production	Total imports	Total exports	Total consumption	Ending stocks	Feed use	Imports from U.S.
	1,000 hectares	Tons per hectare	1,000 tons						
Bulgaria:									
1986	30	1.67	50	0	0	50	0	0	0
1987	30	1.50	45	0	0	45	0	0	0
1988	30	1.67	50	0	0	50	0	0	0
1989	30	1.50	45	0	0	45	0	0	0
1990	30	1.50	45	0	0	45	0	0	0
1986–90 average	30	1.57	47	0	0	47	0	0	0
1991	30	1.33	40	0	0	40	0	0	0
1992	25	4.40	35	0	0	35	0	0	0
Czechoslovakia:									
1986	156	3.51	547	50	0	597	0	300	0
1987	142	3.49	496	50	0	546	0	300	0
1988	155	3.42	530	0	0	530	0	300	0
1989	175	4.05	708	0	0	708	0	478	0
1990	171	4.26	729	0	0	729	0	599	0
1986–90 average	160	3.77	602	20	0	622	0	395	0
1991	127	3.60	482	0	0	482	0	400	0
1992	100	3.60	380	0	0	300	0	300	0
Hungary:									
1986	89	1.93	172	40	40	172	0	100	0
1987	94	1.98	186	14	40	160	0	90	0
1988	97	2.53	245	0	0	245	0	155	0
1989	97	2.06	200	0	0	200	0	110	0
1990	92	2.46	226	0	0	226	0	120	0
1986–90 average	94	2.19	206	11	16	201	0	115	0
1991	93	2.38	221	0	0	221	0	120	0
1992	70	2.86	200	0	0	200	0	0	0
Poland:									
1986	2,760	2.56	7,074	21	27	7,000	360	4,362	0
1987	2,647	2.58	6,817	19	20	6,972	204	4,375	0
1988	2,325	2.37	5,501	85	50	5,603	137	4,937	0
1989	2,275	2.73	6,216	100	100	6,089	264	5,693	0
1990	2,314	2.61	6,044	0	50	6,074	184	6,060	0
1986–90 average	2,464	2.57	6,330	45	49	6,348	230	5,085	0
1991	2,290	2.58	5,899	0	470	5,429	184	5,429	0
1992	2,080	2.45	5,100	0	400	4,750	134	4,750	0
Romania:									
1986	40	1.50	60	0	0	60	0	5	0
1987	42	1.19	50	0	0	50	0	5	0
1988	40	1.50	60	0	0	60	0	5	0
1989	40	1.95	78	150	0	228	0	100	0
1990	37	1.78	66	190	0	256	0	120	0
1986–90 average	40	1.58	63	68	0	131	0	47	0
1991	37	1.89	70	190	0	260	0	120	0
1992	30	1.67	50	150	0	200	0	120	0
Yugoslavia:									
1986	42	1.76	74	0	0	75	4	10	0
1987	41	1.68	69	0	0	70	3	10	0
1988	40	1.90	76	0	0	75	4	10	0
1989	37	2.03	75	0	0	75	4	10	0
1990	38	1.89	72	8	0	78	6	10	0
1986–90 average:	40	1.85	73	2	0	75	4	10	0
1991	35	2.03	71	0	0	71	6	10	0
1992	40	1.83	73	5	0	80	4	0	0
CEE total:									
1986	3,117	2.56	7,977	111	67	7,954	364	4,777	0
1987	2,998	2.55	7,663	83	60	7,643	207	4,780	0
1988	2,687	2.40	6,462	85	50	6,563	141	5,407	0
1989	2,654	2.76	7,322	250	100	7,345	268	6,391	0
1990	2,682	2.68	7,182	198	50	7,408	190	6,909	0
1986–90 average	2,827	2.59	7,321	145	65	7,423	234	5,653	0
1991	2,612	2.60	6,783	190	470	6,503	190	6,079	0
1992	2,345	2.49	5,836	155	400	5,845	136	5,170	0

Zeros indicate value less than 1,000 tons or not available.
Data for 1991 are preliminary.
Data for 1992 are estimates.

Source: USDA.

Appendix table 8--Supply and use of oats in Central and Eastern Europe, 1986-92

Country and year	Area harvested	Yield	Production	Total imports	Total exports	Total consumption	Ending stocks	Feed	Imports from U.S.
	1,000 hectares	Tons per hectare	1,000 tons						
Bulgaria:									
1986	28	1.50	42	0	0	42	0	15	0
1987	28	1.46	41	0	0	41	0	15	0
1988	27	1.96	53	0	0	53	0	15	0
1989	26	1.73	45	0	0	45	0	15	0
1990	26	1.73	45	0	0	45	0	15	0
1986–90 average	27	1.67	45	0	0	45	0	15	0
1991	26	1.35	35	0	0	35	0	20	0
1992	20	1.50	30	0	0	30	10	0	0
Czechoslovakia:									
1986	109	3.76	410	0	0	410	0	375	0
1987	120	3.33	400	0	0	400	0	370	0
1988	115	3.13	360	0	0	360	0	350	0
1989	102	3.24	330	0	0	330	0	320	0
1990	91	4.55	414	0	0	414	0	404	0
1986–90 average	107	3.56	383	0	0	383	0	364	0
1991	100	4.00	400	0	0	400	0	300	0
1992	70	3.57	250	0	0	250	0	200	0
Hungary:									
1986	41	3.07	126	0	0	126	0	90	0
1987	40	2.48	99	0	0	99	0	80	0
1988	42	3.19	134	5	0	139	0	116	0
1989	42	3.10	130	5	0	135	0	116	0
1990	48	3.29	158	0	0	158	0	136	0
1986–90 average	43	3.04	129	2	0	131	0	108	0
1991	42	3.24	136	0	0	136	0	120	0
1992	40	3.25	130	0	0	130	0	120	0
Poland:									
1986	924	2.69	2,486	0	0	2,486	141	2,090	0
1987	856	2.84	2,428	0	0	2,368	201	2,030	0
1988	850	2.61	2,222	0	0	2,303	120	1,785	0
1989	803	2.72	2,186	0	0	2,220	86	1,830	0
1990	747	2.84	2,119	0	50	2,065	70	1,715	0
1986–90 average	836	2.74	2,286	0	10	2,222	124	1,886	0
1991	686	2.73	1,873	0	50	1,833	60	1,632	0
1992	680	2.50	1,700	0	50	1,650	60	1,500	0
Romania:									
1986	70	2.14	150	0	0	150	0	125	0
1987	70	1.43	100	30	0	130	0	110	0
1988	75	2.13	160	0	0	160	0	140	0
1989	106	1.58	168	0	0	168	0	120	0
1990	144	1.53	221	0	0	221	0	120	0
1986–90 average	93	1.72	160	6	0	166	0	123	0
1991	150	1.60	240	0	0	240	0	120	0
1992	200	1.00	200	0	0	200	0	120	0
Yugoslavia:									
1986	152	1.71	260	0	0	260	11	205	0
1987	140	1.66	232	5	0	241	7	190	0
1988	135	1.87	253	2	0	250	12	190	0
1989	144	1.94	279	1	0	280	12	220	0
1990	139	2.01	280	4	0	280	16	220	0
1986–90 average	142	1.84	261	2	0	262	12	205	0
1991	130	1.92	250	6	0	250	22	200	0
1992	140	1.86	260	5	0	270	17	210	0
CEE total:									
1986	1,334	2.62	3,474	0	0	3,474	152	2,900	0
1987	1,254	2.63	3,300	35	0	3,279	206	2,795	0
1988	1,244	2.56	3,182	7	0	3,265	132	2,596	0
1989	1,223	2.57	3,136	6	0	3,178	96	2,611	0
1990	1,195	2.71	3,237	4	50	3,203	86	2,610	0
1986–90 average	1,248	2.62	3,266	10	10	3,280	135	2,702	0
1991	1,134	2.59	2,934	6	50	2,884	82	2,382	0
1992	1,150	2.23	2,570	5	50	2,530	87	2,180	0

Zeros indicate value less than 1,000 tons or not available.
Data for 1991 are preliminary.
Data for 1992 are estimates.

Source: USDA.

Appendix table 9--Supply and use of coarse grains in Central and Eastern Europe, 1986-92

Country and year	Area harvested	Yield	Production	Total imports	Total exports	Total consumption	Ending stocks	Feed use	Imports from U.S.
	1,000 hectares	Tons per hectare	1,000 tons						
Bulgaria:									
1986	950	4.30	4,085	600	0	4,285	400	3,795	260
1987	851	3.57	3,036	896	0	4,032	300	3,211	152
1988	893	3.33	2,974	1,300	0	4,374	200	3,515	0
1989	980	4.16	4,080	125	0	4,205	200	3,565	23
1990	817	3.28	2,677	400	0	3,136	141	2,715	299
1986–90 average	898	3.75	3,370	664	0	4,006	248	3,360	151
1991	1,000	4.29	4,289	100	0	4,289	241	2,815	0
1992	956	3.73	3,566	100	0	3,663	241	2,610	0
Czechoslovakia:									
1986	1,303	4.20	5,479	226	50	5,655	0	4,275	0
1987	1,322	4.24	5,607	243	50	5,800	0	4,390	0
1988	1,305	4.02	5,240	200	50	5,390	0	4,050	0
1989	1,233	4.53	5,586	150	50	5,686	0	4,596	0
1990	1,145	4.98	5,702	0	50	5,652	0	4,662	0
1986–90 average	1,262	4.38	5,523	164	50	5,637	0	4,395	0
1991	1,189	4.67	5,547	50	300	5,297	0	4,217	0
1992	1,130	4.54	5,130	50	200	4,980	0	4,250	0
Hungary:									
1986	1,501	5.61	8,416	163	518	7,668	1,671	7,055	0
1987	1,483	5.61	8,313	487	394	8,074	1,903	7,220	0
1988	1,506	5.03	7,577	119	203	8,054	1,342	7,028	25
1989	1,508	5.58	8,401	155	170	7,936	1,793	6,695	0
1990	1,519	3.99	6,059	475	0	7,400	927	6,631	255
1986–90 average	1,503	5.16	7,753	280	257	7,826	1,507	6,926	56
1991	1,581	5.96	9,421	100	1,800	7,552	1,098	5,790	0
1992	1,440	5.48	7,895	100	1,000	7,495	596	6,340	0
Poland:									
1986	6,283	2.82	17,741	796	27	18,260	855	13,419	165
1987	6,251	2.90	18,119	730	36	18,980	706	13,258	116
1988	6,259	2.70	16,922	1,096	50	18,058	618	13,590	44
1989	6,181	2.99	18,496	775	100	18,977	812	14,471	390
1990	6,250	3.04	18,988	41	100	18,992	749	14,554	40
1986–90 average	6,245	2.89	18,053	676	63	18,653	748	13,858	151
1991	6,279	2.95	18,541	100	520	18,155	715	13,832	0
1992	5,896	2.70	15,900	300	460	15,950	505	12,865	0
Romania:									
1986	3,696	3.84	14,180	565	600	13,545	1,050	11,600	111
1987	3,582	3.48	12,470	130	130	13,370	150	12,035	0
1988	3,777	3.51	13,250	50	450	12,200	800	11,275	0
1989	3,725	3.40	12,654	1,125	0	13,279	1,300	12,028	654
1990	3,401	2.65	9,013	1,540	0	11,003	850	9,666	314
1986–90 average	3,636	3.39	12,313	682	236	12,679	830	11,321	216
1991	3,843	3.59	13,779	390	0	13,579	1,440	11,750	0
1992	3,686	3.11	11,460	550	0	12,510	940	9,950	0
Yugoslavia:									
1986	2,834	4.79	13,569	148	1,573	10,986	2,742	9,045	133
1987	2,614	3.70	9,671	447	113	10,808	1,939	9,051	320
1988	2,668	3.24	8,646	112	200	9,790	707	8,254	0
1989	2,693	3.89	10,474	555	150	10,444	1,142	9,107	539
1990	2,653	2.93	7,771	1,041	25	9,521	408	1,582	702
1986–90 average	2,692	3.72	10,026	461	412	10,310	1,388	7,408	339
1991	2,578	4.90	12,635	106	502	10,689	1,978	8,252	0
1992	2,662	3.80	10,121	310	550	10,488	1,371	9,170	0
CEE total:									
1986	16,566	3.83	63,470	2,438	2,768	60,619	6,618	49,189	689
1987	16,103	3.55	57,216	2,933	723	61,044	5,000	49,165	588
1988	16,408	3.33	54,609	2,877	953	57,856	3,667	47,710	69
1989	16,318	3.66	59,693	2,885	470	60,528	5,247	50,465	1,606
1990	15,785	3.18	50,210	3,497	175	55,704	3,075	39,809	1,610
1986–90 average	16,236	3.51	57,040	2,926	1,018	59,152	4,721	47,268	912
1991	16,470	3.90	64,212	846	3,122	59,541	5,470	46,668	0
1992	15,771	3.43	54,072	1,410	2,210	55,089	3,653	45,205	0

Zeros indicate value less than 1,000 tons or not available.
Data for 1991 are preliminary.
Data for 1992 are estimates.

Source: USDA.

Appendix table 10--Supply and use of total grains in Central and Eastern Europe, 1986-92

Country and year	Area harvested	Yield	Production	Total imports	Total exports	Total consumption	Ending stocks	Feed use	Imports from U.S.
	1,000 hectares	Tons per hectare	1,000 tons						
Bulgaria:									
1986	2,093	4.04	8,462	1,048	215	8,395	900	5,095	280
1987	1,952	3.71	7,235	1,308	300	8,441	700	4,911	306
1988	2,091	3.71	7,767	1,410	352	8,815	710	5,215	0
1989	2,132	4.46	9,512	245	450	9,357	880	5,366	23
1990	1,991	3.91	7,792	705	200	8,405	551	4,815	299
1986–90 average	2,052	3.97	8,154	943	303	8,683	704	5,080	182
1991	2,208	3.99	8,808	215	0	9,024	550	4,765	0
1992	2,163	3.46	7,485	102	0	7,788	351	4,010	0
Czechoslovakia:									
1986	2,516	4.29	10,784	496	250	11,030	0	7,295	0
1987	2,539	4.63	11,761	513	350	11,924	0	7,390	0
1988	2,555	4.61	11,790	470	450	11,810	0	7,430	0
1989	2,474	4.83	11,944	420	350	12,014	0	7,508	2
1990	2,386	5.20	12,417	270	450	12,237	0	8,162	0
1986–90 average	2,494	4.71	11,739	434	370	11,803	0	7,579	0
1991	2,397	4.91	11,763	350	650	11,463	0	7,342	0
1992	2,300	4.88	11,230	350	300	11,280	0	7,450	0
Hungary:									
1986	2,834	5.02	14,239	218	1,618	12,646	1,571	9,155	0
1987	2,799	5.03	14,091	542	1,444	12,844	1,916	9,320	0
1988	2,800	5.21	14,583	174	2,103	12,853	1,717	9,376	33
1989	2,760	5.41	14,928	210	1,620	12,908	2,327	8,996	0
1990	2,652	4.62	12,295	540	800	12,374	1,938	8,931	255
1986–90 average	2,769	5.07	14,027	337	1,517	12,725	1,894	9,156	58
1991	2,740	5.62	15,391	168	3,800	11,636	2,061	7,760	0
1992	2,287	5.29	12,015	150	2,000	11,315	1,001	8,340	0
Poland:									
1986	8,308	3.04	25,243	3,128	27	27,623	1,432	17,570	874
1987	8,383	3.11	26,061	2,820	36	28,849	1,428	18,108	1,560
1988	8,438	2.90	24,504	3,161	50	27,723	1,320	17,690	68
1989	8,376	3.22	26,956	2,181	100	28,875	1,484	18,771	418
1990	8,531	3.28	28,014	447	350	28,[illegible]	1,252	18,354	179
1986–90 average	8,407	3.11	26,156	2,347	113	28,383	1,383	18,099	580
1991	8,716	3.19	27,811	280	1,080	27,273	990	17,749	0
1992	8,265	2.90	24,000	873	510	24,623	730	15,785	0
Romania:									
1986	6,270	3.35	20,995	640	700	20,035	1,500	13,700	111
1987	6,029	3.08	18,570	200	180	19,790	300	14,035	0
1988	6,225	3.49	21,754	100	700	20,154	1,300	15,275	0
1989	6,124	3.35	20,498	1,175	300	20,873	1,800	14,028	654
1990	5,701	2.82	16,103	2,190	100	18,943	1,050	12,565	314
1986–90 average	6,070	3.23	19,584	861	396	19,959	1,190	13,921	216
1991	6,045	3.19	19,300	940	0	19,800	1,400	13,950	0
1992	5,408	2.83	15,940	1,100	0	17,090	990	11,950	0
Yugoslavia:									
1986	4,189	4.39	18,374	869	1,573	16,426	3,364	9,745	684
1987	4,079	3.67	14,972	750	124	16,206	2,756	9,761	529
1988	4,183	3.58	14,968	154	885	15,240	1,753	9,184	0
1989	4,178	3.85	16,089	596	1,132	15,750	1,556	9,807	540
1990	4,157	3.40	14,147	1,098	223	15,661	917	3,082	717
1986–90 average	4,157	3.78	15,710	693	787	15,857	2,069	8,314	494
1991	4,134	4.64	19,190	313	1,003	18,912	2,505	9,302	0
1992	3,704	3.82	14,134	835	556	15,223	1,695	9,270	0
CEE total:									
1986	26,210	3.74	98,097	6,397	4,383	98,155	8,767	62,580	1,749
1987	25,781	3.60	92,690	6,131	2,434	98,054	7,100	63,515	2,395
1988	26,292	3.63	95,356	5,469	4,540	96,595	6,800	64,190	101
1989	26,044	3.84	99,929	4,827	3,952	99,777	7,827	64,565	1,637
1990	25,418	3.57	90,768	5,250	2,123	96,464	5,708	55,909	1,764
1986–90 average	25,949	3.68	95,370	5,615	3,488	97,409	7,240	62,148	1,529
1991	26,240	3.90	102,263	2,266	6,533	96,108	7,598	60,898	0
1992	24,187	3.51	84,804	3,410	3,368	87,317	4,767	57,405	0

Zeros indicate value less than 1,000 tons or not available.
Data for 1991 are preliminary.
Data for 1992 are estimates.

Source: USDA.

Appendix table 11--Supply and use of sunflower in Central and Eastern Europe, 1986-92

Country and year	Area harvested	Yield	Production	Total imports	Total exports	Total consumption	Ending stocks	Feed, seed, and waste	Amount crushed
	1,000 hectares	Tons per hectare	1,000 tons						
Bulgaria:									
1986	255	1.92	489	0	10	479	25	19	460
1987	266	1.54	410	31	5	436	25	21	415
1988	265	1.38	367	12	5	387	12	20	367
1989	240	1.86	447	25	5	479	0	20	459
1990	238	1.57	374	25	5	394	0	20	374
1986-90 average	253	1.65	417	19	6	435	12	20	415
1991	270	1.64	442	25	5	462	0	20	442
1992	270	1.48	400	26	6	420	0	20	400
Czechoslovakia:									
1986	27	2.30	62	5	0	67	0	1	65
1987	27	2.30	62	8	0	70	0	1	68
1988	30	2.07	62	21	0	83	0	1	81
1989	31	2.26	70	12	0	82	0	1	80
1990	34	2.32	79	10	0	89	0	1	87
1986-90 average	30	2.25	67	11	0	78	0	1	76
1991	56	2.32	130	4	57	77	0	1	75
1992	55	2.36	130	4	55	79	0	1	77
Hungary:									
1986	391	2.19	857	0	142	685	30	30	652
1987	376	2.09	787	0	100	707	10	30	674
1988	363	1.95	706	0	48	670	0	25	642
1989	356	1.94	692	20	65	648	0	25	618
1990	346	1.95	673	20	37	656	0	25	628
1986-90 average	366	2.03	743	8	79	673	8	27	643
1991	350	2.00	700	20	70	650	0	25	622
1992	350	2.00	700	20	60	660	0	25	632
Poland:									
1986	0	0.00	0	0	0	0	0	0	0
1987	0	0.00	0	0	0	0	0	0	0
1988	0	0.00	0	0	0	0	0	0	0
1989	0	0.00	0	0	0	0	0	0	0
1990	0	0.00	0	0	0	0	0	0	0
1986-90 average	0	0.00	0	0	0	0	0	0	0
1991	0	0.00	0	0	0	0	0	0	0
1992	0	0.00	0	0	0	0	0	0	0
Romania:									
1986	470	2.14	1,004	4	30	974	15	99	870
1987	455	1.43	650	1	0	656	10	31	620
1988	444	1.31	580	0	0	580	10	35	540
1989	434	1.51	656	0	0	656	10	25	625
1990	395	1.41	556	0	0	560	6	20	535
1986-90 average	440	1.57	689	1	6	685	10	42	638
1991	400	1.34	535	0	0	536	5	20	610
1992	400	1.38	550	0	0	550	5	20	525
Yugoslavia:									
1986	189	2.38	449	10	1	458	0	25	433
1987	251	1.94	486	11	1	496	0	26	470
1988	209	1.96	410	8	3	415	0	25	390
1989	204	2.06	420	47	4	463	0	33	430
1990	214	1.97	422	28	2	448	0	33	415
1986-90 average	213	2.05	437	21	2	456	0	28	428
1991	190	2.00	380	50	0	430	0	30	400
1992	200	2.00	400	25	0	425	0	30	395
CEE total:									
1986	1,332	2.15	2,861	19	183	2,663	70	174	2,480
1987	1,375	1.74	2,395	51	106	2,365	45	109	2,247
1988	1,311	1.62	2,127	41	56	2,135	22	106	2,020
1989	1,265	1.81	2,286	104	75	2,326	10	104	2,212
1990	1,227	1.71	2,104	83	44	2,147	6	99	2,039
1986-90 average	1,302	1.81	2,354	60	93	2,327	31	118	2,200
1991	1,266	1.73	2,167	99	132	2,155	5	96	2,049
1992	1,275	1.71	2,180	74	120	2,134	5	96	2,029

Zeros indicate value less than 1,000 tons or not available.
Data for 1991 are preliminary.
Data for 1992 are estimates.

Source: USDA.

Appendix table 12--Supply and use of rapeseed in Central and Eastern Europe, 1986-92

Country and year	Area harvested	Yield	Production	Total imports	Total exports	Total consumption	Ending stocks	Feed, seed, and waste	Amount crushed
	1,000 hectares	Tons per hectare	1,000 tons						
Bulgaria:									
1986	0	0.00	0	0	0	0	0	0	0
1987	0	0.00	0	0	0	0	0	0	0
1988	0	0.00	0	0	0	0	0	0	0
1989	0	0.00	0	0	0	0	0	0	0
1990	0	0.00	0	0	0	0	0	0	0
1986–90 average	0	0.00	0	0	0	0	0	0	0
1991	0	0.00	0	0	0	0	0	0	0
1992	0	0.00	0	0	0	0	0	0	0
Czechoslovakia:									
1986	121	2.53	306	0	0	306	0	5	301
1987	128	2.63	337	0	0	337	0	6	331
1988	130	2.92	380	0	0	380	0	6	374
1989	133	2.91	387	0	0	387	0	6	381
1990	137	2.77	380	0	0	380	0	6	374
1986–90 average	130	2.76	358	0	0	358	0	6	352
1991	165	2.70	445	10	27	418	0	7	441
1992	165	2.61	430	0	30	400	0	7	393
Hungary:									
1986	58	2.07	120	2	0	122	0	1	121
1987	54	1.94	105	0	3	92	10	1	91
1988	39	2.08	81	0	3	85	3	3	82
1989	52	1.81	94	0	3	94	0	3	91
1990	50	1.82	91	0	3	88	0	3	85
1986–90 average	51	1.94	98	0	2	96	3	2	94
1991	50	1.82	91	0	3	88	0	3	85
1992	50	1.80	90	0	3	87	0	3	84
Poland:									
1986	515	2.52	1,298	0	524	800	14	83	717
1987	499	2.39	1,192	0	344	820	42	85	735
1988	471	2.55	1,199	0	376	780	85	75	705
1989	570	2.78	1,586	3	729	860	85	90	770
1990	500	2.41	1,206	0	488	773	30	78	695
1986–90 average	511	2.54	1,296	1	492	807	51	82	724
1991	468	2.23	1,043	60	450	683	0	78	605
1992	410	2.07	850	0	220	630	0	75	555
Romania:									
1986	58	0.95	55	1	0	55	3	2	53
1987	62	0.81	50	1	0	52	2	1	51
1988	60	0.75	45	0	0	45	2	3	42
1989	20	0.90	18	0	0	19	1	0	19
1990	13	0.85	11	0	0	12	0	0	12
1986–90 average	43	0.84	36	0	0	37	2	1	35
1991	11	0.91	10	0	0	10	0	0	10
1992	10	1.00	10	0	0	10	0	0	10
Yugoslavia:									
1986	56	2.34	131	30	0	161	0	12	149
1987	36	2.44	88	5	8	84	0	9	75
1988	29	2.34	68	9	0	77	0	7	70
1989	32	2.00	64	22	3	83	0	8	75
1990	35	1.94	68	17	0	85	0	10	75
1986–90 average	38	2.23	84	17	2	98	0	9	89
1991	18	2.00	36	24	0	60	0	10	50
1992	20	1.75	35	12	0	47	0	10	37
CEE total:									
1986	808	2.36	1,910	33	524	1,444	17	103	1,341
1987	779	2.27	1,772	6	356	1,385	54	102	1,283
1988	729	2.43	1,773	9	379	1,367	90	94	1,273
1989	807	2.66	2,149	25	735	1,443	86	107	1,336
1990	735	2.39	1,756	17	491	1,338	30	97	1,241
1986–90 average	772	2.43	1,872	18	497	1,395	55	101	1,295
1991	712	2.28	1,625	94	480	1,259	0	98	1,191
1992	655	2.16	1,415	12	253	1,174	0	95	1,079

Zeros indicate value less than 1,000 tons or not available.
Data for 1991 are preliminary.
Data for 1992 are estimates.

Source: USDA.

Appendix table 13--Supply and use of soybeans in Central and Eastern Europe, 1986-92

Country and year	Area harvested	Yield	Production	Total imports	Total exports	Total consumption	Ending stocks	Feed, seed, and waste	Amount crushed
	1,000 hectares	Tons per hectare	1,000 tons						
Bulgaria:									
1986	51	1.06	54	58	0	112	5	6	106
1987	36	0.94	34	74	0	109	4	4	105
1988	40	1.00	40	75	0	115	4	5	110
1989	40	1.00	40	75	0	115	4	5	110
1990	17	0.88	15	75	0	90	4	5	85
1986--90 average	37	0.99	37	71	0	108	4	5	103
1991	11	1.36	15	85	0	100	4	5	95
1992	10	1.50	15	85	0	100	4	5	95
Czechoslovakia:									
1986	2	1.50	3	10	0	13	0	0	7
1987	2	2.50	5	13	0	18	0	1	10
1988	2	2.50	5	12	0	17	0	1	9
1989	2	3.00	6	17	0	23	0	1	16
1990	7	1.00	7	44	0	51	0	33	10
1986--90 average	3	1.73	5	19	0	24	0	7	10
1991	11	1.55	17	4	0	21	0	1	12
1992	10	1.50	15	12	0	27	0	9	10
Hungary:									
1986	23	2.22	51	34	15	70	0	10	60
1987	36	1.81	65	0	35	30	0	11	18
1988	66	1.58	104	0	35	69	0	53	15
1989	54	2.15	116	0	35	81	0	58	22
1990	33	1.33	44	0	15	29	0	1[illegible]	10
1986--90 average	42	1.79	76	7	27	56	0	30	25
1991	22	2.18	48	0	20	28	0	17	10
1992	20	2.50	50	0	15	35	0	17	17
Poland:									
1986	0	0.00	0	6	0	6	0	0	6
1987	0	0.00	0	0	0	0	0	0	0
1988	0	0.00	0	0	0	0	0	0	0
1989	0	0.00	0	0	0	0	0	0	0
1990	0	0.00	0	5	0	5	0	0	0
1986--90 average	0	0.00	0	2	0	2	0	0	1
1991	0	0.00	0	50	0	50	0	0	45
1992	0	0.00	0	70	0	70	0	0	65
Romania:									
1986	312	1.51	472	440	0	909	25	61	843
1987	350	1.00	350	400	0	765	10	10	750
1988	340	1.00	340	100	0	435	15	10	420
1989	512	0.59	304	487	0	771	35	30	731
1990	190	0.74	141	350	0	496	30	15	476
1986--90 average	341	0.94	321	355	0	675	23	25	644
1991	130	0.77	100	300	0	405	25	15	385
1992	150	1.00	150	300	0	450	25	15	430
Yugoslavia:									
1986	96	2.34	225	205	0	430	0	20	410
1987	105	2.26	237	240	0	477	0	32	445
1988	110	1.64	180	235	10	405	0	35	370
1989	88	2.38	209	199	0	408	0	38	370
1990	91	1.67	152	150	0	302	0	32	270
1986--90 average	98	2.05	201	206	2	404	0	31	373
1991	80	2.00	160	175	0	335	0	35	300
1992	80	2.00	160	80	0	240	0	30	210
CEE total:									
1986	484	1.66	805	753	15	1,540	30	97	1,432
1987	529	1.31	691	727	35	1,369	14	58	1,328
1988	558	1.20	669	422	45	1,041	19	104	924
1989	696	0.97	675	778	35	1,396	39	132	1,248
1990	338	1.06	359	624	15	973	34	103	851
1986--90 average	521	1.23	640	661	29	1,270	27	99	1,157
1991	254	1.34	340	614	20	938	29	73	847
1992	270	1.44	390	547	16	922	29	76	827

Zeros indicate value less than 1,000 tons or not available.
Data for 1991 are preliminary.
Data for 1992 are estimates.

Source: USDA.

Appendix table 14--Supply and use of oilseeds in Central and Eastern Europe, 1986-92

Country and year	Area harvested	Yield	Production	Total imports	Total exports	Total consumption	Ending stocks	Feed, seed, and waste	Amount crushed
	1,000 hectares	Tons per hectare	1,000 tons						
Bulgaria:									
1986	320	1.73	552	56	10	600	30	25	575
1987	314	1.44	452	105	5	553	29	25	528
1988	317	1.31	414	87	5	509	16	25	484
1989	291	1.70	494	100	5	601	4	25	576
1990	267	1.49	397	100	5	492	4	25	467
1986–90 average	302	1.53	462	90	6	551	17	25	526
1991	293	1.59	465	110	5	570	4	25	545
1992	292	1.45	423	110	5	528	4	25	503
Czechoslovakia:									
1986	180	2.14	386	63	0	449	0	6	436
1987	187	2.24	419	69	0	488	0	8	472
1988	192	2.41	462	61	0	523	0	8	507
1989	196	2.44	478	62	0	540	0	8	524
1990	208	2.31	481	87	0	568	0	40	519
1986–90 average	193	2.31	445	68	0	514	0	14	492
1991	262	2.32	607	41	84	566	0	9	546
1992	260	2.27	590	24	85	529	0	17	503
Hungary:									
1986	478	2.16	1,034	39	157	866	33	43	839
1987	472	2.04	964	5	138	844	20	44	791
1988	474	1.90	900	1	86	832	3	81	746
1989	468	1.94	909	21	104	829	0	88	736
1990	435	1.87	815	21	55	781	0	46	730
1986–90 average	465	1.99	924	17	108	835	11	60	769
1991	428	1.98	846	21	93	774	0	45	724
1992	426	1.99	847	21	78	790	0	45	740
Poland:									
1986	545	2.41	1,313	59	524	874	14	69	785
1987	527	2.28	1,203	0	344	831	42	90	741
1988	501	2.42	1,214	0	376	795	85	80	715
1989	600	2.66	1,597	3	729	871	85	91	780
1990	530	2.30	1,217	5	488	789	30	79	705
1986–90 average	541	2.42	1,309	13	492	832	51	86	745
1991	478	2.19	1,048	110	450	738	0	78	655
1992	420	2.04	855	70	220	705	0	75	625
Romania:									
1986	915	1.71	1,563	445	30	1,970	44	163	1,797
1987	942	1.15	1,083	402	0	1,506	24	43	1,452
1988	914	1.09	995	100	0	1,092	27	49	1,033
1989	1,045	0.98	1,027	487	0	1,495	46	55	1,424
1990	646	1.14	736	350	0	1,098	36	35	1,051
1986–90 average	893	1.21	1,081	357	6	1,432	35	69	1,351
1991	584	1.15	671	300	0	977	30	35	931
1992	600	1.23	735	300	0	1,035	30	35	990
Yugoslavia:									
1986	342	2.36	806	253	1	1,058	0	57	993
1987	393	2.07	812	264	10	1,066	0	67	991
1988	349	1.89	659	260	13	906	0	67	831
1989	325	2.14	694	276	7	963	0	79	876
1990	341	1.89	643	203	2	844	0	75	761
1986–90 average	350	2.07	723	251	7	967	0	69	890
1991	289	2.00	577	257	0	834	0	75	751
1992	301	1.98	598	121	0	717	0	70	643
CEE total:									
1986	2,780	2.03	5,654	917	722	5,839	121	383	5,425
1987	2,836	1.74	4,933	845	497	5,287	115	277	4,975
1988	2,747	1.69	4,644	509	480	4,657	131	310	4,316
1989	2,925	1.78	5,199	949	845	5,299	135	344	4,918
1990	2,429	1.77	4,289	766	550	4,570	70	300	4,233
1986–90 average	2,743	1.80	4,944	797	619	5,130	114	323	4,773
1991	2,334	1.81	4,214	839	632	4,461	34	267	4,152
1992	2,299	1.76	4,046	648	388	4,304	34	267	4,004

Zeros indicate value less than 1,000 tons or not available.
Data for 1991 are preliminary.
Data for 1992 are estimates.

Source: USDA.

Appendix table 15--Supply and use of soymeal in Central and Eastern Europe, 1986-92

Country and year	Oilseeds crushed	Extraction rate	Production	Total imports	Total exports	Total consumption	Ending stocks	Feed, seed, and waste
	1,000 tons	Production/ oilseeds crushed	1,000 tons					
Bulgaria:								
1986	106	0.78	83	555	0	598	62	598
1987	105	0.78	82	565	0	639	70	639
1988	110	0.78	86	500	0	601	55	601
1989	110	0.79	87	500	0	602	40	602
1990	85	0.79	67	500	0	582	25	582
1986–90 average	103	0.78	81	524	0	604	50	604
1991	95	0.79	75	500	0	590	10	590
1992	95	0.08	8	500	0	508	10	508
Czechoslovakia:								
1986	7	0.86	6	574	0	580	0	580
1987	10	0.80	8	450	0	458	0	458
1988	9	0.78	7	546	0	553	0	553
1989	15	0.80	12	560	0	572	0	572
1990	10	0.80	8	550	0	558	0	558
1986–90 average	10	0.80	8	536	0	544	0	544
1991	12	0.83	10	500	0	510	0	510
1992	10	0.80	8	400	0	408	0	408
Hungary:								
1986	60	0.80	48	510	0	558	0	558
1987	18	0.78	14	610	0	624	0	624
1988	15	0.87	13	643	0	656	0	656
1989	22	0.82	18	650	0	668	0	668
1990	10	0.80	8	654	0	662	0	662
1986–90 average	25	0.81	20	613	0	634	0	634
1991	10	0.80	8	650	0	658	0	658
1992	17	0.76	13	650	0	663	0	663
Poland:								
1986	6	0.83	5	1,030	0	1,015	100	1,015
1987	0	0.00	0	960	0	1,000	80	1,000
1988	0	0.00	0	1,260	0	1,260	80	1,260
1989	0	0.00	0	457	91	436	10	436
1990	0	0.00	0	550	80	470	10	470
1986–90 average	1	0.83	1	855	34	836	56	836
1991	45	0.80	36	700	0	726	20	726
1992	65	0.82	53	700	0	753	20	753
Romania:								
1986	843	0.82	690	22	0	695	47	695
1987	750	0.82	615	57	0	693	26	693
1988	425	0.80	340	83	0	429	20	420
1989	731	0.78	570	435	0	1,000	25	1,000
1990	476	0.76	362	300	0	677	10	677
1986–90 average	645	0.80	515	179	0	699	26	699
1991	385	0.78	301	200	0	501	10	501
1992	430	0.80	342	200	0	542	10	542
Yugoslavia:								
1986	410	0.78	320	173	5	488	0	488
1987	445	0.78	347	130	4	473	0	473
1988	370	0.78	289	93	4	378	0	378
1989	370	0.78	289	230	18	503	0	503
1990	270	0.78	211	350	20	541	0	541
1986–90 average	373	0.78	291	195	10	477	0	477
1991	300	0.78	234	325	10	549	0	549
1992	210	0.48	101	165	0	266	0	266
CEE total:								
1986	1,432	0.80	1,152	2,864	5	3,934	209	3,934
1987	1,328	0.80	1,066	2,792	4	3,887	176	3,887
1988	929	0.79	735	3,125	4	3,877	155	3,877
1989	1,248	0.78	976	2,832	107	3,781	75	3,781
1990	851	0.77	656	2,904	100	3,490	45	3,490
1986–90 average	1,158	0.79	917	2,903	44	3,794	132	3,794
1991	847	0.78	664	2,875	10	3,534	40	3,534
1992	827	0.63	525	2,615	0	3,140	40	3,140

Zeros indicate value less than 1,000 tons or not available.
Data for 1991 are preliminary.
Data for 1992 are estimates.

Source: USDA.

Appendix table 16--Supply and use of oilmeal in Central and Eastern Europe, 1986-92

Country and year	Oilseeds crushed	Extraction rate	Production	Total imports	Total exports	Total consumption	Ending stocks	Food, seed, and waste
	1,000 tons	Production/ oilseeds crushed	1,000 tons					
Bulgaria:								
1986	575	0.46	264	584	0	798	0	798
1987	528	0.47	247	590	0	839	0	839
1988	484	0.49	236	521	0	772	0	772
1989	576	0.47	272	510	0	797	0	797
1990	467	0.47	220	506	0	741	0	741
1986--90 average	526	0.47	248	542	0	789	0	789
1991	545	0.47	254	509	0	778	20	778
1992	478	0.34	161	509	0	670	20	670
Czechoslovakia:								
1986	436	0.55	241	676	0	917	0	917
1987	472	0.55	261	570	0	831	0	831
1988	512	0.57	290	645	0	935	0	935
1989	524	0.57	299	657	0	956	0	951
1990	494	0.54	267	617	0	884	0	884
1986--90 average	488	0.56	272	633	0	905	0	904
1991	519	0.55	283	568	0	851	0	851
1992	500	0.54	272	470	0	742	0	742
Hungary:								
1986	839	0.44	368	562	0	930	0	930
1987	791	0.42	331	705	0	1,036	0	1,036
1988	746	0.42	314	735	0	1,049	0	1,049
1989	731	0.48	348	732	0	1,080	0	1,080
1990	730	0.47	342	721	0	1,063	0	1,063
1986--90 average	707	0.44	341	691	0	1,032	0	1,032
1991	724	0.47	343	716	0	1,059	0	1,059
1992	740	0.48	352	717	0	1,069	0	1,069
Poland:								
1986	1,080	0.49	525	1,360	18	1,835	152	1,836
1987	982	0.51	500	1,182	47	1,625	162	1,625
1988	950	0.49	467	1,477	64	1,913	129	1,913
1989	984	0.52	513	484	155	907	64	907
1990	887	0.52	464	570	218	863	17	863
1986--90 average	977	0.51	494	1,019	100	1,429	105	1,429
1991	849	0.53	444	726	70	1,087	30	1,087
1992	815	0.53	431	735	50	1,126	20	1,126
Romania:								
1986	1,802	0.59	1,066	48	0	1,097	78	1,097
1987	1,502	0.61	911	94	0	1,046	37	1,046
1988	1,086	0.55	599	124	0	728	32	728
1989	1,469	0.67	985	467	0	1,450	34	1,450
1990	1,061	0.65	704	339	0	1,062	15	1,062
1986--90 average	1,398	0.61	857	214	0	1,077	39	1,077
1991	1,061	0.65	627	237	0	864	15	864
1992	0	0.65	671	240	0	911	15	911
Yugoslavia:								
1986	1,003	0.54	542	270	82	730	0	730
1987	1,001	0.55	546	230	77	703	0	703
1988	841	0.55	459	190	71	578	0	578
1989	886	0.53	474	343	61	756	0	756
1990	771	0.51	391	424	45	770	0	770
1986--90 average	900	0.54	482	291	67	707	0	707
1991	761	0.52	397	404	25	776	0	776
1992	641	0.38	241	217	10	448	0	448
CEE total:								
1986	5,765	0.52	3,026	3,520	100	6,307	230	6,307
1987	5,276	0.53	2,796	3,371	124	6,060	199	6,060
1988	4,619	0.51	2,365	3,692	135	5,975	161	5,975
1989	5,170	0.56	2,891	3,193	216	5,946	98	5,941
1990	4,430	0.54	2,388	3,177	263	5,383	32	5,383
1986--90 average	5,056	0.53	2,693	3,391	168	5,936	144	5,937
1991	4,479	0.52	2,348	3,160	95	5,415	65	5,415
1992	3,174	0.67	2,128	2,868	60	4,966	55	4,966

Zeros indicate value less than 1,000 tons or not available.
Data for 1991 are preliminary.
Data for 1992 are estimates.

Source: USDA.

Appendix table 17--Cattle inventory in Central and Eastern Europe, 1986-92

Country and year	Total cattle inventory	Dairy cows	Beef cows	Calf crop	Total imports	Total exports	Total slaughter
			1,000 head				
Bulgaria:							
1986	1,708	0	670	651	0	25	590
1987	1,678	632	21	512	0	17	516
1988	1,649	625	21	504	0	15	514
1989	1,615	624	24	616	0	8	648
1990	1,577	600	23	564	0	12	618
1986–90 average	1,645	496	152	573	0	15	577
1991	1,524	575	22	567	0	8	565
1992	1,512	575	22	567	0	8	565
Czechoslovakia:							
1986	5,066	1,815	45	1,806	0	20	1,572
1987	5,073	1,792	50	1,768	0	25	1,519
1988	5,044	1,825	55	1,810	0	20	1,651
1989	5,075	1,775	40	1,745	0	20	1,601
1990	5,129	1,795	40	1,705	0	180	1,607
1986–90 average	5,077	1,801	46	1,767	0	53	1,590
1991	4,923	1,744	40	1,655	0	200	1,420
1992	4,838	1,700	40	1,615	0	100	1,420
Hungary:							
1986	1,766	604	84	604	0	156	372
1987	1,725	611	65	575	0	147	379
1988	1,664	611	62	598	21	169	343
1989	1,690	614	49	523	0	146	389
1990	1,598	608	38	560	0	92	410
1986–90 average	1,689	610	60	572	4	142	379
1991	1,571	598	32	535	0	110	411
1992	1,500	570	35	495	0	80	355
Poland:							
1986	10,774	5,331	0	4,642	0	303	4,322
1987	10,522	5,021	0	4,406	0	418	4,047
1988	10,200	4,830	0	4,328	1	583	3,511
1989	10,322	4,800	0	4,527	0	667	3,356
1990	10,143	4,900	0	4,383	0	734	4,493
1986–90 average	10,392	4,976	0	4,457	0	537	3,946
1991	9,024	4,707	0	4,050	63	700	4,147
1992	8,030	4,363	0	3,900	0	400	3,480
Romania:							
1986	7,077	2,650	520	1,650	0	35	1,350
1987	7,225	2,680	550	1,750	0	50	1,543
1988	7,182	2,457	540	1,293	0	45	1,547
1989	6,416	2,030	475	1,400	0	40	1,413
1990	6,283	1,990	463	1,295	0	26	2,025
1986–90 average	6,837	2,361	510	1,478	0	39	1,576
1991	5,437	1,600	431	1,230	0	130	1,440
1992	5,017	1,500	390	1,190	10	100	1,005
Yugoslavia:							
1986	5,034	2,915	0	2,390	6	123	2,173
1987	5,030	2,893	0	2,395	14	310	2,148
1988	4,881	2,903	0	2,379	31	227	2,207
1989	4,759	2,858	0	2,348	74	217	2,167
1990	4,702	2,816	0	2,313	198	150	2,453
1986–90 average	4,881	2,877	0	2,365	65	205	2,230
1991	4,527	2,764	0	2,262	100	115	2,169
1992	4,415	2,720	0	2,238	30	90	2,116
CEE Total:							
1986	31,422	13,315	1,319	11,742	6	662	10,379
1987	31,253	13,629	686	11,406	14	967	10,152
1988	30,620	13,254	676	10,912	53	1,039	9,773
1989	29,877	12,701	588	11,159	74	1,098	9,573
1990	29,432	12,709	564	10,840	198	1,194	11,606
1986–90 average	30,521	13,122	767	11,212	69	992	10,297
1991	27,006	12,008	525	10,319	163	1,263	10,172
1992	25,312	11,428	487	10,005	40	778	9,953

Zeros indicate value less than 1,000 tons or not available.
Data for 1991 are preliminary.
Data for 1992 are estimates.

Source: USDA.

Appendix table 18--Swine inventory in Central and Eastern Europe, 1986-92

Country and year	Beginning inventory	Sows	Pig crop	Total imports	Total exports	Total slaughter	Sow slaughter	Other slaughter
				1,000 head				
Bulgaria:								
1986	3,912	401	5,103	0	0	4,87[illegible]	0	4,870
1987	4,050	393	6,069	0	0	5,945	90	5,855
1988	4,034	394	6,027	0	0	5,777	90	5,687
1989	4,132	366	5,710	0	0	5,416	80	5,336
1990	4,352	366	6,094	0	0	5,978	100	5,878
1986–90 average	4,096	386	5,801	0	0	5,597	72	5,525
1991	4,340	380	6,080	0	0	5,870	63	5,757
1992	4,390	0	6,080	0	0	5,978	70	5,908
Czechoslovakia:								
1986	6,651	455	9,100	50	0	6,316	0	8,316
1987	6,833	474	9,284	25	0	8,122	0	8,122
1988	7,235	496	9,596	10	0	8,986	165	8,821
1989	7,348	497	9,600	0	0	9,100	166	8,934
1990	7,498	493	9,367	0	0	9,225	166	9,059
1986–90 average	7,113	483	9,389	17	0	8,750	99	8,650
1991	7,090	493	9,120	0	200	8,660	175	8,486
1992	6,800	470	9,070	0	100	8,660	170	8,490
Hungary:								
1986	8,280	655	12,391	200	304	10,295	0	10,295
1987	8,687	701	13,060	0	405	11,381	0	11,381
1988	8,218	674	12,825	0	465	10,549	0	10,549
1989	8,327	669	13,179	0	600	11,546	0	11,546
1990	7,660	624	12,367	0	270	10,207	0	10,207
1986–90 average	8,234	665	12,764	40	409	10,796	0	10,796
1991	8,000	624	11,200	0	320	9,930	0	9,930
1992	7,400	550	9,900	0	300	8,050	0	8,050
Poland:								
1986	19,170	1,945	23,018	0	0	19,116	292	18,824
1987	19,619	1,930	22,039	166	0	19,145	290	18,855
1988	19,373	1,942	23,698	229	0	20,056	291	19,765
1989	19,605	1,916	20,395	377	0	20,134	511	19,623
1990	18,685	1,791	23,283	119	2	19,598	300	19,298
1986–90 average	19,290	1,905	22,487	176	0	19,610	337	19,273
1991	19,739	1,964	26,000	10	30	22,000	300	21,700
1992	20,722	1,951	25,200	10	100	23,000	500	22,500
Romania:								
1986	14,319	1,123	15,000	0	0	14,000	420	13,580
1987	14,711	1,139	15,500	0	0	14,176	430	13,746
1988	15,224	1,141	15,495	0	0	14,744	445	14,299
1989	14,350	1,265	11,000	0	0	12,191	400	11,791
1990	11,659	1,028	12,500	200	0	9,568	350	9,218
1986–90 average	14,053	1,139	13,899	40	0	12,936	409	12,527
1991	12,066	987	11,900	0	0	9,120	320	8,800
1992	11,940	1,000	12,300	0	0	0,940	340	8,600
Yugoslavia:								
1986	7,621	1,277	14,900	163	0	12,448	650	11,798
1987	8,459	1,356	16,000	10	0	13,845	630	13,215
1988	8,323	1,[illegible]4	14,676	169	0	14,156	755	13,401
1989	7,396	1,269	14,801	484	0	13,758	610	13,148
1990	7,231	1,311	15,284	355	0	13,835	600	13,235
1986–90 average	7,846	1,319	15,172	236	0	13,608	649	12,959
1991	7,358	1,312	15,292	150	0	12,850	550	12,300
1992	7,050	1,270	14,500	50	0	13,100	530	12,570
CEE Total:								
1986	60,153	5,856	79,512	413	304	69,045	1,362	67,683
1987	62,369	5,993	81,952	201	405	72,614	1,440	71,174
1988	62,405	6,031	82,516	408	465	74,268	1,746	72,522
1989	61,156	5,982	74,685	861	600	72,145	1,767	70,378
1990	57,085	5,633	78,895	674	272	68,411	1,516	66,895
1986–90 average	60,632	5,899	79,512	511	409	71,297	1,566	69,730
91	58,593	5,740	79,592	160	550	68,430	1,428	67,002
92	58,302	5,241	77,050	60	500	67,728	1,610	66,118

Zeros indicate value less than 1,000 tons or not available.
Data for 1991 are preliminary.
Data for 1992 are estimates.

Source: USDA.

Appendix table 19--Sheep inventory in Central and Eastern Europe, 1986-92

Country and year	Beginning inventory	Ewes	Lamb crop	Total imports	Total exports	Total slaughter	Ewe slaughter	Lamb slaughter
				1,000 head				
Bulgaria:								
1986	9,724	6,350	7,901	0	1,250	6,762	0	0
1987	9,563	6,403	6,455	0	1,075	5,757	1,000	3,000
1988	8,886	6,088	5,868	0	900	4,995	1,000	3,000
1989	8,593	5,269	5,024	0	800	4,786	900	3,416
1990	7,988	5,199	4,800	0	700	4,720	900	3,370
1986–90 average	8,951	5,886	6,010	0	945	5,404	760	2,557
1991	7,300	5,036	4,862	0	700	4,000	800	2,800
1992	7,241	5,085	4,800	0	600	4,000	800	2,800
Czechoslovakia:								
1986	1,067	550	620	0	183	280	0	0
1987	1,104	550	620	0	229	280	0	0
1988	1,075	550	620	0	228	280	0	0
1989	1,047	550	620	0	193	280	0	0
1990	1,051	550	620	0	164	280	0	0
1986–90 average	1,073	550	620	0	200	280	0	0
1991	1,087	550	620	0	200	280	0	0
1992	1,087	550	620	0	200	280	0	0
Hungary:								
1986	2,465	1,646	1,547	0	904	450	0	0
1987	2,337	1,549	1,584	0	1,000	330	0	0
1988	2,336	1,520	1,672	0	1,200	307	0	0
1989	2,216	1,442	1,656	0	1,200	322	0	0
1990	2,069	1,396	1,496	0	1,110	320	0	0
1986–90 average	2,285	1,511	1,591	0	1,083	346	0	0
1991	1,865	1,313	1,478	0	1,050	320	0	0
1992	1,723	1,236	1,336	0	808	310	0	0
Poland:								
1986	4,720	2,053	2,528	0	566	1,616	0	0
1987	4,725	2,030	2,096	0	751	1,654	0	0
1988	4,075	1,925	2,413	2	906	1,408	0	0
1989	4,300	2,400	2,429	0	886	1,347	0	0
1990	4,196	2,455	2,405	0	768	1,687	0	0
1986–90 average	4,403	2,173	2,374	0	776	1,542	0	0
1991	3,798	2,213	2,200	0	700	2,046	0	0
1992	2,900	1,700	1,750	0	750	1,100	0	0
Romania:								
1986	[illegible]	10,663	7,520	0	650	6,500	1,800	4,200
1987	18,792	10,364	7,300	0	650	6,100	1,700	4,000
1988	15,000	10,425	5,800	0	750	5,800	1,740	3,600
1989	16,210	9,900	7,600	0	850	7,116	2,100	4,416
1990	15,442	9,884	7,400	0	200	8,166	2,000	5,500
1986–90 average	17,585	10,255	7,124	0	620	6,737	1,868	4,344
1991	13,886	8,683	8,300	0	1,300	6,920	1,800	4,500
1992	13,466	8,500	8,100	0	1,000	6,400	1,600	4,200
Yugoslavia:								
1986	7,693	5,628	5,350	0	11	4,686	0	4,200
1987	7,819	5,758	5,600	2	24	5,253	500	3,700
1988	7,824	5,804	5,496	0	19	5,476	496	4,124
1989	7,504	5,612	5,562	16	30	5,285	512	3,883
1990	7,596	5,566	5,272	80	13	5,279	850	3,929
1986–90 average	7,699	5,674	5,456	20	19	5,236	472	3,967
1991	7,431	5,459	5,186	10	8	5,125	870	3,775
1992	7,264	5,302	5,100	6	15	4,900	880	3,630
CEE Total:								
1986	44,298	26,910	25,466	0	3,564	20,496	1,800	8,400
1987	44,310	26,674	23,655	2	3,729	19,374	3,200	10,700
1988	43,096	26,312	21,871	2	4,003	18,266	3,236	10,724
1989	39,930	25,193	22,890	16	3,964	19,136	3,512	11,717
1990	38,342	25,050	21,993	80	2,955	20,452	3,750	12,799
1986–90 average	41,995	26,028	23,175	20	3,643	19,545	3,100	10,866
1991	35,376	23,306	22,666	10	3,958	18,693	3,470	11,075
1992	33,661	22,372	21,705	6	3,373	17,060	3,280	10,630

Zeros indicate value less than 1,000 tons or not available.
Data for 1991 are preliminary.
Data for 1992 are estimates.

Source: USDA.

Appendix table 20--Supply and use of beef and veal in Central and Eastern Europe, 1986-92

Country and year	Slaughter	Production	Total imports	Total exports	Total consumption	Ending stocks
	1,000 head	1,000 tons				
Bulgaria:						
1986	590	153	0	3	165	10
1987	516	132	0	12	120	10
1988	514	131	0	12	119	10
1989	648	136	0	8	133	5
1990	618	137	0	6	131	5
1986--90 average	577	140	0	8	134	8
1991	565	126	0	6	120	5
1992	565	126	0	3	123	5
Czechoslovakia:						
1986	1,572	457	10	55	412	5
1987	1,519	458	10	45	423	5
1988	1,651	451	10	40	421	5
1989	1,601	488	20	50	458	5
1990	1,607	454	10	50	414	5
1986--90 average	1,590	462	12	48	426	5
1991	1,420	391	4	50	345	5
1992	1,420	390	0	5[illegible]	340	5
Hungary:						
1986	372	112	3	39	60	13
1987	379	114	13	44	65	11
1988	343	93	18	37	76	9
1989	389	108	15	47	76	7
1990	410	110	4	35	71	15
1986--90 average	379	107	11	40	78	11
1991	411	111	5	39	69	23
1992	365	100	8	39	69	23
Poland:						
1986	4,322	854	2	49	816	73
1987	4,047	835	0	53	805	50
1988	3,511	763	44	55	810	12
1989	3,356	729	90	48	782	1
1990	4,493	838	3	57	779	20
1986--90 average	3,946	808	28	52	799	31
1991	4,147	726	30	10	756	10
1992	3,480	654	50	20	689	5
Romania:						
1986	1,350	195	0	100	100	20
1987	1,543	210	0	115	125	20
1988	1,547	230	0	120	115	15
1989	1,413	210	0	100	115	10
1990	2,025	370	80	0	430	30
1986--90 average	1,576	249	16	87	177	19
1991	1,440	280	10	5	295	20
1992	1,005	205	20	0	230	15
Yugoslavia:						
1986	2,173	317	30	30	305	55
1987	2,148	317	41	25	305	83
1988	2,207	301	53	32	325	80
1989	2,167	309	60	28	322	99
1990	2,453	352	72	25	370	128
1986--90 average	2,230	319	51	28	325	89
1991	2,189	320	20	19	350	99
1992	2,118	310	18	35	330	62
CEE Total						
1986	10,379	2,098	45	276	1,880	176
1987	10,152	2,098	64	294	1,803	179
1988	9,773	1,989	125	296	1,880	131
1989	9,573	1,980	185	281	1,888	127
1990	11,606	2,261	169	173	2,195	203
1986--90 average	10,297	2,065	118	264	1,938	163
1991	10,172	1,954	69	129	1,935	162
1992	8,953	1,765	96	147	1,761	115

[illegible] indicate value less than 1,000 tons or not available.
Data for 1991 are preliminary.
Data for 1992 are estimates.

Source: USDA.

Appendix table 21--Supply and use of pork in Central and Eastern Europe, 1986-92

Country and year	Slaughter	Production	Total imports	Total exports	Total consumption	Ending stocks
	1,000 head	1,000 tons				
Bulgaria:						
1986	4,870	434	0	10	414	10
1987	5,945	416	0	4	412	10
1988	5,777	404	0	5	399	10
1989	5,416	424	0	5	419	10
1990	5,978	422	0	5	417	10
1986–90 average	5,597	420	0	6	412	10
1991	5,870	400	0	5	395	10
1992	5,978	420	0	0	410	10
Czechoslovakia:						
1986	8,316	859	5	30	834	5
1987	8,1[illegible]	843	5	25	823	5
1988	8,985	936	5	35	906	5
1989	9,100	960	5	40	925	5
1990	9,225	942	5	40	907	5
1986–90 average	8,750	908	5	34	879	5
1991	8,660	894	0	40	834	25
1992	8,660	894	0	40	854	25
Hungary:						
1986	10,295	962	0	133	829	5
1987	11,381	1,064	0	123	936	6
1988	10,549	986	0	133	851	10
1989	11,546	1,079	0	135	937	17
1990	10,207	970	0	210	734	43
1986–90 average	10,796	1,012	0	147	858	17
1991	9,930	893	0	200	706	30
1992	8,050	725	0	180	555	20
Poland:						
1986	19,116	1,749	12	73	1,676	165
1987	19,145	1,745	14	75	1,724	125
1988	20,056	1,845	6	76	1,776	124
1989	20,134	1,870	20	73	1,806	136
1990	19,598	1,870	36	50	1,881	42
1986–90 average	19,810	1,816	18	69	1,772	118
1991	22,000	2,085	60	30	2,105	52
1992	23,000	2,165	10	50	2,137	60
Romania:						
1986	14,000	840	0	135	700	25
1987	14,176	900	0	150	750	25
1988	14,744	840	0	140	710	15
1989	12,191	600	0	180	410	25
1990	9,568	620	70	0	685	30
1986–90 average	12,936	760	14	121	651	24
1991	9,120	600	10	26	589	25
1992	8,940	590	15	50	565	15
Yugoslavia:						
1986	12,448	795	27	21	783	154
1987	13,845	871	14	27	835	177
1988	14,156	819	42	24	862	152
1989	13,758	791	43	20	795	171
1990	13,835	799	84	23	845	186
1986–90 average	13,608	815	42	23	824	168
1991	12,850	720	20	15	800	111
1992	13,100	740	15	30	757	79
CEE Total:						
1986	69,045	5,639	44	402	5,236	364
1987	72,614	5,839	33	404	5,482	350
1988	74,268	5,832	53	413	5,508	316
1989	72,145	5,724	68	453	5,291	364
1990	66,411	5,623	195	328	5,469	316
1986–90 average	71,297	5,731	79	400	5,397	342
1991	68,430	5,592	90	316	5,429	253
1992	67,728	5,554	40	350	5,278	209

Zeros indicate value less than 1,000 tons or not available.
Data for 1991 are preliminary.
Data for 1992 are estimates.

Source: USDA.

Appendix table 22--Supply and use of lamb/mutton in Central and Eastern Europe, 1986-92

Country and year	Slaughter	Production	Total imports	Total exports	Total consumption	Ending stocks
	1,000 head	1,000 tons				
Bulgaria:						
1986	6,750	113	1	30	87	0
1987	5,757	98	0	1	97	4
1988	4,995	89	0	1	88	4
1989	4,788	78	0	0	78	4
1990	4,720	77	0	0	77	4
1986–90 average	5,402	91	0	6	85	3
1991	4,000	70	0	0	70	4
1992	4,000	70	0	0	70	4
Czechoslovakia:						
1986	250	10	0	3	7	0
1987	280	10	0	3	7	0
1988	280	10	0	3	7	0
1989	280	10	0	3	7	0
1990	260	10	0	3	7	0
1986–90 average	280	10	0	3	7	0
1991	280	10	0	3	7	0
1992	280	10	0	3	7	0
Hungary:						
1986	450	5	0	3	2	0
1987	330	5	0	3	2	0
1988	307	4	0	2	2	0
1989	322	4	0	2	2	0
1990	320	4	0	2	2	0
1986–90 average	346	4	0	2	2	0
1991	320	4	0	2	2	0
1992	310	4	0	2	2	0
Poland:						
1986	1,616	30	0	0	30	0
1987	1,654	29	0	0	29	0
1988	1,408	25	0	0	25	0
1989	1,347	22	0	0	22	0
1990	1,530	28	0	0	28	0
1986–90 average	1,511	27	0	0	27	0
1991	2,048	33	0	0	33	0
1992	1,100	20	0	0	20	0
Romania:						
1986	6,750	67	0	45	22	4
1987	6,300	63	0	45	18	4
1988	6,000	60	0	45	16	3
1989	7,116	72	0	50	21	4
1990	8,165	90	0	0	89	5
1986–90 average	6,867	70	0	37	33	4
1991	6,920	78	0	0	79	4
1992	6,400	73	0	0	73	4
Yugoslavia:						
1986	4,888	62	0	4	52	10
1987	5,253	65	0	6	59	10
1988	5,478	70	0	5	62	13
1989	5,285	69	0	5	62	15
1990	5,279	67	1	2	66	15
1986–90 average	5,236	67	0	4	60	13
1991	5,125	65	0	2	63	15
1992	4,990	63	0	3	61	14
CEE Total:						
1986	20,264	282	1	82	196	14
1987	19,244	265	0	55	210	18
1988	18,159	254	0	54	198	20
1989	18,816	251	0	58	190	23
1990	19,975	272	1	5	207	24
1986–90 average	19,298	265	0	51	213	20
1991	18,373	256	0	5	252	23
1992	16,770	236	0	6	231	22

Zeros indicate value less than 1,000 tons or not available.
Data for 1991 are preliminary.
Data for 1992 are estimates.

Source: USDA.

Appendix table 23--Supply and use of poultry in Central and Eastern Europe, 1986-92

Country and year	Production	Total imports	Total exports	Total consumption	Ending stocks
			1,000 tons		
Bulgaria:					
1986	167	0	29	138	0
1987	169	0	24	145	0
1988	183	0	30	153	0
1989	196	0	30	166	0
1990	200	0	30	170	0
1986–90 average	183	0	29	155	0
1991	200	0	30	170	0
1992	200	0	30	170	0
Czechoslovakia:					
1986	176	6	23	158	4
1987	181	5	19	171	0
1988	211	5	15	201	0
1989	216	5	10	211	0
1990	211	5	10	206	0
1986–90 average	199	5	15	189	1
1991	210	5	10	205	0
1992	210	5	10	205	0
Hungary:					
1986	445	0	181	245	46
1987	470	0	205	252	59
1988	465	0	234	251	39
1989	420	0	174	243	42
1990	426	0	189	235	75
1986–90 average	445	0	197	245	52
1991	405	0	165	235	80
1992	430	0	185	245	80
Poland:					
1986	332	0	13	310	16
1987	343	0	16	335	7
1988	351	0	23	321	14
1989	348	5	18	335	10
1990	328	1	21	311	5
1986–90 average	340	1	18	322	10
1991	340	5	15	330	5
1992	352	7	18	341	5
Romania:					
1986	455	0	60	390	15
1987	425	10	110	325	15
1988	370	7	125	257	10
1989	365	7	120	254	8
1990	425	48	0	463	16
1986–90 average	408	14	83	338	13
1991	410	32	0	446	12
1992	349	41	0	392	10
Yugoslavia:					
1986	329	0	13	299	19
1987	323	0	17	311	14
1988	330	0	12	317	15
1989	320	1	15	310	11
1990	295	2	11	293	5
1986–90 average	319	1	14	306	13
1991	308	1	9	300	5
1992	315	1	12	308	1
CEE Total:					
1986	1,904	5	319	1,540	99
1987	1,911	15	391	1,539	95
1988	1,910	12	439	1,500	78
1989	1,867	18	357	1,521	71
1990	1,865	56	261	1,678	101
1986–90 average	1,895	21	355	1,556	89
1991	1,873	43	229	1,686	102
1992	1,858	54	255	1,661	96

Zeros indicate value less than 1,000 tons or not available.
Data for 1991 are preliminary.
Data for 1992 are estimates.

Source: USDA.

Appendix table 24--Supply and use of eggs in Central and Eastern Europe, 1986-92

Country and year	Number of layers	Production	Imports	Exports	Consumption	Ending stocks
	1,000 layers	Million eggs				
Bulgaria:						
1986	0	2,620	0	310	2,544	0
1987	0	2,646	0	310	2,536	0
1988	0	2,650	0	310	2,540	0
1989	0	[illegible],650	0	310	2,540	0
1990	0	2,650	0	310	2,540	0
1986–90 average	0	2,643	0	310	2,540	0
1991	0	2,650	0	310	2,540	0
1992	0	2,650	0	310	2,540	0
Czechoslovakia:						
1986	23	5,558	0	100	5,458	0
1987	24	5,544	0	100	5,444	0
1988	24	5,596	0	85	5,511	0
1989	24	5,628	0	35	5,593	0
1990	23	5,665	0	120	5,545	0
1986–90 average	24	5,598	0	88	5,510	0
1991	23	5,400	0	150	5,250	0
1992	23	5,350	0	150	5,200	0
Hungary:						
1986	25	4,290	0	137	3,963	190
1987	28	4,237	0	145	3,975	307
1988	27	4,695	35	160	4,570	307
1989	27	4,250	0	125	4,125	0
1990	26	4,300	0	100	4,200	0
1986–90 average	27	4,354	7	133	4,167	161
1991	26	4,300	0	110	4,190	0
1992	26	4,300	0	110	4,190	0
Poland:						
1986	56	8,303	0	38	8,264	303
1987	50	7,966	0	25	7,873	371
1988	49	8,220	0	30	8,076	485
1989	46	8,200	0	15	8,285	385
1990	56	7,649	60	107	7,602	100
1986–90 average	51	8,068	12	43	8,020	329
1991	46	7,800	70	10	7,860	100
1992	54	8,000	30	50	7,980	100
Romania:						
1986	50	7,900	0	625	7,250	100
1987	50	8,000	0	525	7,455	120
1988	52	7,650	0	525	7,135	110
1989	52	7,600	0	535	7,075	100
1990	49	7,100	200	0	7,200	200
1986–90 average	51	7,650	40	442	7,223	126
1991	51	6,900	100	0	7,050	150
1992	50	6,800	200	0	7,025	125
Yugoslavia:						
1986	37	4,770	106	156	4,752	113
1987	38	4,922	11	106	4,563	375
1988	39	4,972	50	300	4,606	291
1989	37	4,700	16	10	4,650	347
1990	37	4,566	86	6	4,726	132
1986–90 average	38	4,786	54	116	4,693	252
1991	37	4,680	16	12	4,725	91
1992	37	4,730	12	14	4,729	90
CEE Total:						
1986	191	33,641	106	1,386	32,231	706
1987	190	33,515	11	1,213	31,846	1,173
1988	191	33,963	85	1,410	32,636	1,193
1989	186	33,228	16	1,030	32,268	832
1990	191	32,130	346	643	31,813	432
1986–90 average	190	33,299	113	1,132	32,159	867
1991	183	31,930	186	592	31,615	341
1992	190	32,030	242	634	31,664	315

Zeros indicate value less than 1,000 tons or not available.
Data for 1991 are preliminary.
Data for 1992 are estimates.

Source: USDA.

Appendix table 25--Supply and use of milk in Central and Eastern Europe, 1986-92

Country and year	Milk cows	Production	Total imports	Total exports	Total consumption	Feed use	Fluid use	Factory use
	1,000 head	1,000 liters						
Bulgaria:								
1986	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0
1986-90 average	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0
Czechoslovakia:								
1986	1,817	7,015	0	0	7,081	400	1,500	5,181
1987	1,791	6,921	0	0	6,965	380	1,422	5,163
1988	1,788	6,963	0	0	7,025	380	1,490	5,155
1989	1,812	7,031	0	0	7,095	40	1,605	5,450
1990	1,761	6,861	0	0	6,924	24	1,500	5,400
1986-90 average	1,794	6,958	0	0	7,022	245	1,503	5,274
1991	1,650	6,400	0	0	6,462	362	1,400	4,700
1992	1,750	6,200	0	0	6,262	380	1,050	4,832
Hungary:								
1986	591	2,732	0	0	2,743	410	985	1,348
1987	585	2,770	0	0	2,782	410	990	1,382
1988	578	2,788	0	0	2,800	410	990	1,400
1989	580	2,840	0	6	2,844	410	1,000	1,434
1990	570	2,743	0	28	2,725	600	800	1,325
1986-90 average	581	2,775	0	7	2,779	448	953	1,378
1991	545	2,625	0	10	2,625	650	800	1,175
1992	505	2,475	0	10	2,475	450	850	1,175
Poland:								
1986	5,207	15,747	0	0	15,817	806	5,754	9,257
1987	4,937	15,467	0	0	15,537	700	5,750	9,087
1988	4,808	15,450	0	0	15,520	560	5,700	9,260
1989	4,994	16,371	0	0	16,441	800	6,044	9,597
1990	4,900	15,801	0	0	15,871	964	5,900	9,007
1986-90 average	4,969	15,767	0	0	15,837	766	5,830	9,242
1991	4,707	14,906	0	0	14,956	1,000	5,600	8,356
1992	4,363	14,300	0	0	14,350	900	5,400	8,050
Romania:								
1986	2,119	4,239	0	0	4,665	325	2,470	1,870
1987	2,111	4,275	0	0	4,687	350	2,673	1,664
1988	2,075	4,300	0	0	4,720	360	2,758	1,602
1989	2,030	4,150	0	0	4,600	320	2,600	1,680
1990	1,990	4,775	0	0	5,300	350	3,100	1,850
1986-90 average	2,065	4,348	0	0	4,794	341	2,720	1,733
1991	1,600	4,100	0	0	4,650	300	2,400	1,950
1992	1,500	4,050	0	0	4,620	290	2,330	2,000
Yugoslavia:								
1986	2,600	4,661	29	0	4,834	300	2,051	2,483
1987	2,610	4,736	30	0	4,920	280	2,210	2,430
1988	2,585	4,629	44	0	4,821	250	2,135	2,436
1989	2,530	4,599	48	12	4,763	260	2,005	2,518
1990	2,460	4,500	74	10	4,703	310	2,020	2,373
1986-90 average	2,561	4,625	45	4	4,812	280	2,084	2,448
1991	2,425	4,450	35	5	4,610	270	2,085	2,255
1992	2,470	4,500	40	6	4,672	290	2,095	2,287
CEE Total:								
1986	12,334	34,394	29	0	35,140	2,241	12,760	20,139
1987	12,034	34,169	30	0	34,911	2,120	13,045	19,746
1988	11,832	34,130	44	0	34,886	1,960	13,073	19,853
1989	11,946	34,991	48	20	35,763	1,830	13,254	20,679
1990	11,701	34,680	74	38	35,523	2,246	13,320	19,955
1986-90 average	11,989	34,473	45	12	35,245	2,080	13,090	20,074
1991	10,927	32,481	35	15	33,303	2,582	12,285	18,436
1992	10,588	31,525	40	16	32,379	2,310	11,725	18,344

Zeros indicate value less than 1,000 tons or not available.
Data for 1991 are preliminary.
Data for 1992 are estimates.

Source: USDA.

Appendix table 26--Supply and use of butter in Central and Eastern Europe, 1986-92

Country and year	Production	Total imports	Total exports	Total consumption	Ending stocks
			1,000 tons		
Bulgaria:					
1986	0	0	0	0	0
1987	0	0	0	0	0
1988	0	0	0	0	0
1989	0	0	0	0	0
1990	0	0	0	0	0
1986–90 average	0	0	0	0	0
1991	0	0	0	0	0
1992	0	0	0	0	0
Czechoslovakia:					
1986	156	0	5	151	0
1987	149	0	4	145	0
1988	148	0	4	144	0
1989	156	0	5	151	0
1990	159	0	10	149	0
1986–90 average	154	0	6	148	0
1991	150	0	10	140	0
1992	145	0	3	139	3
Hungary:					
1986	33	0	1	32	1
1987	33	0	1	32	1
1988	35	0	1	33	2
1989	38	0	5	32	3
1990	38	0	8	24	9
1986–90 average	35	0	3	31	3
1991	29	0	4	21	13
1992	26	0	5	21	13
Poland:					
1986	290	39	0	338	43
1987	293	33	0	347	22
1988	293	34	0	326	23
1989	325	16	0	341	23
1990	300	4	18	294	15
1986–90 average	300	25	4	329	25
1991	220	30	5	250	10
1992	220	30	0	250	10
Romania:					
1986	52	0	17	30	6
1987	42	2	20	27	3
1988	40	0	19	21	3
1989	48	0	22	24	3
1990	33	15	0	44	7
1986–90 average	43	3	16	29	4
1991	41	2	0	44	6
1992	40	12	0	51	7
Yugoslavia:					
1986	9	1	0	11	1
1987	8	3	0	11	1
1988	8	4	0	9	4
1989	12	3	0	12	7
1990	11	7	0	19	6
1986–90 average	10	4	0	12	4
1991	8	2	0	13	3
1992	9	3	0	14	1
CEE Total:					
1986	540	40	23	562	51
1987	525	38	25	562	27
1988	524	38	24	533	32
1989	577	19	32	580	30
1990	541	26	38	530	37
1986–90 average	541	32	28	549	37
1991	448	34	19	468	32
1992	440	45	8	475	34

Zeros indicate value less than 1,000 tons or not available.
Data for 1991 are preliminary.
Data for 1992 are estimates.

Source: USDA.

Appendix table 27--Supply and use of cheese in Central and Eastern Europe, 1986-92

Country and year	Production	Total imports	Total exports	Total consumption	Ending stocks
			1,000 tons		
Bulgaria:					
1986	0	0	0	0	0
1987	0	0	0	0	0
1988	0	0	0	0	0
1989	0	0	0	0	0
1990	0	0	0	0	0
1986–90 average	0	0	0	0	0
1991	0	0	0	0	0
1992	0	0	0	0	0
Czechoslovakia:					
1986	134	1	8	127	0
1987	142	1	9	134	0
1988	146	1	9	138	0
1989	152	2	15	130	0
1990	150	2	18	134	0
1986–90 average	145	1	12	134	0
1991	140	1	20	121	0
1992	135	1	5	131	0
Hungary:					
1986	50	1	11	40	5
1987	52	1	6	45	7
1988	54	1	10	45	7
1989	54	0	14	43	4
1990	64	0	23	35	10
1986–90 average	55	1	13	42	7
1991	58	0	19	35	14
1992	58	0	23	35	14
Poland:					
1986	114	6	2	122	14
1987	123	4	1	128	12
1988	133	11	1	135	20
1989	130	5	3	132	20
1990	126	0	7	119	20
1986–90 average	125	5	3	127	17
1991	106	10	2	116	18
1992	115	5	3	125	10
Romania:					
1986	84	2	10	76	4
1987	86	2	16	70	6
1988	84	2	18	69	5
1989	82	0	18	63	6
1990	91	7	0	97	7
1986–90 average	85	3	12	75	6
1991	97	2	0	100	6
1992	100	3	0	102	7
Yugoslavia:					
1986	45	6	1	48	8
1987	48	4	0	46	14
1988	54	5	1	52	20
1989	56	9	2	59	24
1990	52	35	1	85	25
1986–90 average	51	12	1	58	18
1991	45	6	1	58	17
1992	48	6	2	60	9
CEE Total:					
1986	427	16	32	413	31
1987	451	12	32	423	39
1988	471	20	39	439	52
1989	474	18	52	436	54
1990	483	44	49	470	62
1986–90 average	461	22	41	436	46
1991	446	19	42	430	55
1992	456	15	33	453	40

Zeros indicate value less than 1,000 tons or not available.
Data for 1991 are preliminary.
Data for 1992 are estimates.

Source: USDA.

Appendix table 28--Supply and use of sugar in Central and Eastern Europe, 1986-92

Country and year	Production	Total imports	Total exports	Total consumption	Ending stocks
			1,000 tons		
Bulgaria:					
1986	107	438	100	525	100
1987	113	410	65	450	108
1988	75	405	35	460	93
1989	60	409	40	460	62
1990	60	435	35	465	77
1986–90 average	67	419	55	472	92
1991	60	400	45	430	62
1992	70	400	30	430	92
Czechoslovakia:					
1986	825	156	367	659	177
1987	862	110	270	760	119
1988	800	140	150	770	139
1989	707	140	140	775	71
1990	678	90	65	775	199
1986–90 average	814	127	198	748	141
1991	700	100	50	800	149
1992	800	25	30	800	144
Hungary:					
1986	532	0	44	510	98
1987	506	0	0	522	82
1988	450	18	0	500	50
1989	513	70	70	525	38
1990	630	0	60	530	78
1986–90 average	526	18	35	517	69
1991	550	0	55	525	48
1992	700	0	120	535	93
Poland:					
1986	1,611	0	142	1,717	353
1987	1,691	161	282	1,931	102
1988	1,623	61	86	1,945	45
1989	1,625	243	99	1,978	36
1990	1,865	6	221	1,649	37
1986–90 average	1,643	94	166	1,844	133
1991	2,174	5	570	1,560	86
1992	1,650	0	100	1,575	61
Romania:					
1986	585	63	133	600	42
1987	582	56	9	641	30
1988	450	303	0	690	93
1989	425	100	125	483	10
1990	499	294	172	591	40
1986–90 average	508	163	88	619	43
1991	334	200	0	564	10
1992	400	200	0	595	15
Yugoslavia:					
1986	989	13	68	945	406
1987	870	0	25	969	262
1988	946	13	60	930	231
1989	660	250	30	924	187
1990	930	16	60	850	203
1986–90 average	879	58	53	928	258
1991	865	67	108	860	187
1992	800	60	45	860	142
CEE Total:					
1986	5,195	760	875	5,311	1,277
1987	4,318	737	651	4,771	711
1988	4,908	1,049	529	5,543	742
1989	3,697	1,142	434	4,620	366
1990	4,932	941	623	5,130	705
1986–90 average	4,610	926	622	5,075	764
1991	4,705	772	617	4,724	612
1992	4,226	665	205	4,782	536

Zeros indicate value less than 1,000 tons or not available.
Data for 1991 are preliminary.
Data for 1992 are estimates.

Source: USDA.

Appendix table 29--Supply and use of cotton in Central and Eastern Europe, 1986-92

Country and year	Area harvested	Yield	Production	Total imports	Total exports	Total consumption	Ending stocks
	1,000 hectares	Tons per hectare	1,000 bales (480 lb/ba)				
Bulgaria:							
1986	14	1.43	20	68	2	85	3
1987	12	1.08	13	66	2	96	3
1988	12	1.00	12	63	2	73	3
1989	11	1.09	12	50	2	60	3
1990	13	1.23	16	33	0	46	5
1986–90 average	12	1.18	15	60	2	72	3
1991	15	1.13	17	22	0	33	11
1992	15	0.00	17	16	0	33	12
Czechoslovakia:							
1986	0	0.00	0	121	0	120	27
1987	0	0.00	0	121	0	125	22
1988	0	0.00	0	120	0	120	22
1989	0	0.00	0	109	0	109	22
1990	0	0.00	0	76	0	76	22
1986–90 average	0	0.00	0	109	0	110	23
1991	0	0.00	0	76	0	65	12
1992	0	0.00	0	65	0	65	12
Hungary:							
1986	0	0.00	0	91	2	93	18
1987	0	0.00	0	93	2	93	15
1988	0	0.00	0	90	2	90	13
1989	0	0.00	0	76	2	76	11
1990	0	0.00	0	44	0	44	11
1986–90 average	0	0.00	0	79	2	79	14
1991	0	0.00	0	33	0	33	11
1992	0	0.00	0	33	0	33	11
Poland:							
1986	0	0.00	0	141	0	155	27
1987	0	0.00	0	167	0	158	36
1988	0	0.00	0	178	0	160	54
1989	0	0.00	0	142	0	148	50
1990	0	0.00	0	70	0	69	30
1986–90 average	0	0.00	0	140	0	142	39
1991	0	0.00	0	76	0	85	21
1992	0	0.00	0	76	0	81	17
Romania:							
1986	0	0.00	0	89	0	90	19
1987	0	0.00	0	87	0	87	19
1988	0	0.00	0	76	0	76	19
1989	0	0.00	0	65	0	65	19
1990	0	0.00	0	54	0	54	19
1986–90 average	0	0.00	0	74	0	74	19
1991	0	0.00	0	44	0	44	19
1992	0	0.00	0	54	0	54	19
Yugoslavia:							
1986	1	0.00	0	114	0	115	25
1987	1	0.00	0	108	1	108	25
1988	1	0.00	0	103	0	116	10
1989	1	0.00	0	98	0	98	10
1990	1	0.00	0	64	0	65	10
1986–90 average	1	0.00	0	97	0	101	16
1991	1	0.00	0	50	0	50	10
1992	1	0.00	0	50	0	50	10
CEE Total:							
1986	15	1.33	20	624	4	658	119
1987	13	1.00	13	662	5	667	120
1988	13	0.92	12	630	4	637	121
1989	12	1.00	12	540	4	554	115
1990	14	1.14	16	341	0	374	97
1986–90 average	13	1.09	15	550	3	576	114
1991	16	1.06	17	301	0	310	84
1992	16	1.06	17	294	0	316	81

Zeros indicate value less than 1,000 tons or not available.
Data for 1991 are preliminary.
Data for 1992 are estimates.

Source: USDA.

U.S. Department of Agriculture
Economic Research Service

SUMMARY OF REPORT

Japanese and EC Investment in U.S. Agriculture in 1980's

Number 2, December 1992

Japan

Japanese investment in U.S. farmland and agribusiness has grown to over $3 billion, but these holdings represent less than 1 percent of total investment in U.S. agriculture. Japan ranks fourth among the foreign owners of U.S. agricultural land and agribusiness in terms of value. Investments have been made in cattle ranches and livestock slaughterhouses, citrus groves and other orchards, vineyards, bottled water companies, food processing and beverage companies, bakeries, fisheries, grain storage facilities, restaurants, convenience foodstores, and grocery stores. International agreements like the 1988 U.S.-Japan Beef and Citrus Understanding have liberalized Japanese imports, presenting both Japanese investors and American growers with opportunities to invest profitably in an expanding market.

The European Community

West European countries, especially the United Kingdom, are the principal source of foreign investment in U.S. agricultural land and agribusinesses. But, such investment amounts to less than 1 percent of the total value of U.S. agricultural land and about 10 percent of the total assets of the U.S. food and beverage industry. European Community (EC) companies had $29.4 billion invested in these sectors by 1990. EC investors' landholdings were concentrated mainly in timber (3.25 million acres) and pastureland (1.52 million acres).

Where are Holdings Concentrated and Does the United States Benefit?

Foreign direct investment (10 percent or more in an enterprise, as defined by the U.S. Department of Commerce) in the United States is partially offset by U.S. investment abroad. Economic theory tells us that the host country benefits from foreign direct investment through increased employment and labor income. EC affiliates employ 120,000 persons in the U.S. food and kindred products industries and another 204,000 persons in retail foodstores and other retail trade. Only a small portion of these jobs represents a gain in jobs since less than 10 percent of the EC investments involves new investment; most represent just a change in ownership. Japanese companies employ 10,000 persons in the food and beverage industry, 6,100 in textile products, 4,000 in wholesale trade, 24,000 in restaurants, and 3,600 in agriculture, forestry, and fisheries. These numbers represented less than 1 percent of the labor force in these sectors in 1989.

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