WIIW INDUSTRY STUDIES
2000/3

Development and Prospects of the Food Products, Beverages and Tobacco Sector in the Central and Eastern European Countries

WIIW INDUSTRY STUDIES

In this series, The Vienna Institute for International Economic Studies (WIIW) publishes results which stem from its research on structural developments in CEEC economies. In 1996/97 the WIIW started to build up its Industrial Database Eastern Europe which comprises time series for the Czech Republic, Hungary, Poland, Slovakia, Slovenia, Bulgaria and Romania.

Research results are published in the form of

- ***Structural Reports** as well as*
- ***Industry Studies***

The Industry Studies cover twelve individual branches:

- *Food products; beverages and tobacco*
- *Textiles and textile products*
- *Leather and leather products*
- *Wood and wood products*
- *Pulp, paper & paper products, publishing & printing*
- *Chemicals, chemical products and man-made fibres*
- *Rubber and plastic products*
- *Other non-metallic mineral products*
- *Basic metals and fabricated metal products*
- *Machinery and equipment n.e.c.*
- *Electrical and optical equipment*
- *Transport equipment*

Each of these studies presents a detailed picture of the development and prospects of the particular industry in central and eastern Europe. The first part of each study concentrates on: the patterns of production and employment; international competitiveness and trade performance with the EU (productivity, labour costs, price and quality indicators, revealed comparative advantage, etc.); and foreign direct investment. The second part provides more detailed industry data and valuable information about the leading domestic firms and the foreign investors in the industry.

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Research Director, WIIW

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- *1999/1 Development and Prospects of the Mechanical Engineering Sector in the Central and Eastern European Countries (March 1999)*
- *1999/2 Development and Prospects of the Paper and Printing Sector in the Central and Eastern European Countries (May 1999)*
- *1999/3 Development and Prospects of the Wood and Wood Products Sector in the Central and Eastern European Countries (September 1999)*
- *1999/4 Development and Prospects of the Transport Equipment Sector in the Central and Eastern European Countries (December 1999)*
- *2000/1 Development and Prospects of the 'Other Non-metallic Mineral Products' Industry in the Central and Eastern European Countries (January 2000)*
- *2000/2 Development and Prospects of the Rubber and Plastic Products Sector in the Central and Eastern European Countries (March 2000)*
- *2000/3 Development and Prospects of the Food Products, Beverages and Tobacco Sector in the Central and Eastern European Countries (October 2000)*

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Doris Hanzl

Development and Prospects of the Food Products, Beverages and Tobacco Sector in the Central and Eastern European Countries

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Contents

List of Tables and Figures

Executive Summary

In Central and Eastern Europe, as in most other economies, the food products, beverages and tobacco sector (hereafter called 'food sector') is a central part of manufacturing, both in terms of production and employment. Procuring raw materials from agriculture, it supplies a wide range of products (meat products, processed fruit and vegetables, milk, bread, sugar, beer, wine etc.) for final consumption, with high and steady demand insulating it from cyclical pressures. However, during the transition, food output and exports to the European Union stagnated in the Central and Eastern European countries (CEECs), while a high inflow of foreign direct investment facilitated restructuring and modernization.

***Part One** of the study investigates the development and prospects of the food sector in general, **Part Two** presents a more thorough micro analysis and selected company profiles. Both parts cover the following countries:*

- *Bulgaria*
- *Czech Republic*
- *Hungary*
- *Poland*
- *Romania*
- *Slovakia*
- *Slovenia*

*In size, the food sector is the **largest segment of manufacturing** in most CEECs today and contributes between 14% of manufacturing output in the Slovak Republic and about one quarter in Bulgaria and Romania. Continued specialization on the sector occurred in **Hungary, Poland**, **Bulgaria** and **Romania**, while it has always been less prominent in the Czech Republic, Slovakia and Slovenia.*

*In the first phase of transition, which lasted from 1989 to around 1992, the output decline in the food sector was slowed down by a 'ratchet-effect' which prevented food demand from falling to the same extent as incomes; hence food output declined less than total manufacturing output. From 1993 onwards, growth turned positive in some countries, but remained negative in others. Compared to total manufacturing, the food sector was **less successful and dynamic**. This was due to specialization on other sectors of manufacturing, most evident in Hungary, stagnation of agricultural production, problems in increasing exports and an income elasticity for food products typically less than one. In the region, only Poland's food sector has been able to surpass the 1989 production level in 1999, which is in line with the overall economic development there.*

*Also as an employer, the food sector holds an important position. Food sector shares in total manufacturing range between 9% in Slovenia and 19% in Poland and Hungary. Although the production share declined in **Hungary**, the food sector remained the largest employer in the country and hence retained its traditionally strong role.*

As is typical for all CEECs and all sectors of manufacturing, wages, productivity and unit labour costs in the food sector have generally been much lower than in West European countries, for which we use Austria as a point of reference. From 1993 to 1997, wages and productivity rose in all CEECs. As the wage increase was larger than the productivity increase, unit labour costs rose in all countries, except in Hungary. Nevertheless, the estimated unit labour costs remain at a much lower level than in Austria.

The range for CEECs' unit labour costs in the food sector as a percentage of the Austrian level is:[1]

Bulgaria	*13% - 31%*	*Romania*	*13% - 31%*
Czech Republic	*23% - 34%*	*Slovakia*	*20% - 31%*
Hungary	*20% - 33%*	*Slovenia*	*49% - 58%*
Poland	*22% - 30%*		

In CEECs' manufacturing exports to the EU, the food sector is of little importance today and only accounts for less than 1% of total exports in Romania and 6% in Poland. Although food exports played a major role in Hungary, Poland and Bulgaria in 1989, food sector exports could not keep up with the dynamic growth of other manufacturing products and exports stagnated. This was due to the sector's main orientation towards ***domestic markets,*** *problems in the supply-chain, missing brand names, and also partly because of trade barriers. In addition, the quality of food products is still slightly lower than the EU average import quality.*

In CEECs' manufacturing imports from the EU, food products also account for rather small shares which were, however, larger than the shares in exports. Except in Hungary, the food sector was a ***net importer*** *in all CEECs. The deficit was highest in the Czech Republic and Poland (ECU 400 million in 1998). Compared to total manufacturing, the sector shows a* ***revealed comparative disadvantage****, again with the exception of Hungary, and of Poland.*

On the ***EU market****, in 1989, exports of CEECs' food products had a market share of about 6.4% in total EU imports, which decreased to 5.5% in 1998 (all shares without intra-EU trade). During transition, the food sector's position deteriorated and lay below market shares of total manufacturing in 1998 (about 8%). On the* ***Austrian market****, CEECs' exports had a decisively larger share, accounting for 31% of Austria's non-EU imports of food products in 1995, increasing to 50% in 1998. However, the CEECs are also a major export destination for Austrian food exports and absorbed about 42% of Austria's non-EU*

[1] The lower range is calculated by comparing productivity levels at purchasing power parities (PPP) for GDP, the upper range at PPP for fixed capital formation; figures are for 1998, the Austrian level is for 1996.

food exports in 1998. Ultimately, the CEECs registered a ***trade deficit with Austria****. Only Hungary and Bulgaria did achieve a trade surplus.*

The food sector is a ***prominent target of foreign direct investment*** *and was even the largest/second-largest FDI recipient in manufacturing in the Czech Republic, Hungary and Poland. Foreign investors were drawn by relatively stable domestic markets but also by other motives, thereby contributing to the modernization process of the food sector, as well as to a change in the range and quality of products. The sub-branches mainly targeted were vegetable oil, sugar, confectionery, distilling, beer and especially tobacco.*

Future prospects *of the food sector will be strongly influenced by the* ***development in agriculture****, the demand for food products on* ***domestic markets****, to a lesser extent also on export markets and in particular by a* ***future EU accession****. For the time being, adverse factors in agriculture are hampering rather than promoting the successful development of the food sector. On the domestic market, growth prospects for the food sector are less than for GDP and decline with a higher income level as the income elasticity of food products is typically less than one. On the export markets, export possibilities to the former Soviet Union will improve with the recovery of the region from the Russian crisis. Future export growth to the European Union will depend on the results of the accession negotiations. Compliance with EU directives and the reduction of government interventions required for EU accession will put pressure on many companies and enforce restructuring. Hence overall, future prospects for the CEECs' food sectors are rather restrained, though there is a growth potential for high value added and/or high income-elasticity products, as proven by their attractiveness for FDI. Growth prospects within an enlarged European Union are difficult to predict and strongly depend on the outcome of the pending reform of the Common Agricultural Policy (CAP). Basically, access to CAP may lead to much stronger cross-border vertical and horizontal linkages (including take-overs) in the food sector.*

Development and Prospects of the Food Products, Beverages and Tobacco Sector in the Central and Eastern European Countries

Part I: INDUSTRY SURVEY

In general, the food, beverages and tobacco sector is a central part of manufacturing, both in terms of production and employment. It is characterized by a high and steady level of demand that insulates it from cyclical pressures. Procuring raw materials from agriculture, it produces a wide range of products for final consumption, which is supplied to the retailing sector. It is considered a low-technology industry and can be classified as increasingly capital-intensive, although labour still plays a major role (and even more so in the Central and Eastern European Countries). Innovations come into the sector mainly from suppliers of equipment (machinery) and other key inputs, making it a 'supplier-dominated' sector. Small companies are prevalent in the sector, while large multinationals dominate some sub-branches. In Western Europe a highly saturated market leads to fierce competition and increasing concentration among companies.

This study provides a thorough two-part picture of the food, beverages and tobacco sector in the Central and Eastern European Countries (CEECs). Part One gives a more macroeconomic survey of the developments and prospects of the sector, while Part Two presents further detailed information on the sector and company profiles of selected domestic and foreign enterprises. The first part consists of four sections: Section 1 deals with trends in growth and structure of the sector, including characteristics of production and employment. Section 2 analyses indicators of international competitiveness, in particular wage rates, productivity levels and unit labour costs. Section 3 examines various aspects of trade performance with the European Union, while section 4 takes a closer look at foreign direct investment in this sector. A concluding chapter provides an outlook on future prospects and the appendix presents additional tables and figures.

According to the NACE rev. 1 classification system, the 'food products; beverages and tobacco sector' (in the following called 'food sector') includes the 'food products and beverages' and 'tobacco' industries.[2] The subsequent quantitative analysis is based on the

[2] In detail, the 'food and beverages industry' (division 15 in the NACE rev. 1 classification system) includes 'production, processing and preserving of meat and meat products' (group 15.1), 'processing and preserving of fish and fish products' (group 15.2), 'processing and preserving of fruit and vegetables' (group 15.3), 'manufacture of vegetable and animal oils and fats' (group 15.4), 'manufacture of dairy products; manufacture of ice cream' (group 15.5), 'manufacture of grain mill products, starches and starch products' (group 15.6), 'manufacture of prepared animal feeds' (group 15.7), 'manufacture of other food products' (group 15.8), and 'manufacture of beverages' (group 15.9).

The 'tobacco industry' (division 16 in the NACE rev. 1 classification system) includes only the 'manufacture of tobacco products'.

WIIW Industrial Database – Central and Eastern Europe (IDB-CEE), which currently covers Bulgaria, the Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia.[3]

1 Overview: Trends in growth and structure

Important position in the past and today

Today, the food sector plays an important role in the economies of the CEECs – ranging between 14% of total manufacturing production in the Slovak Republic and about one quarter in Bulgaria or Romania – and hence represents the largest segment in manufacturing in most countries (at current prices, see Table 1). The food and beverages industry makes up the major part of the food sector (for instance 93% in the Czech Republic, 96% in Hungary, see Part II), while the tobacco industry is relatively small. The major sub-branches are meat, other food products, dairy and beverages.

Table 1

Production shares of individual industries in total manufacturing (at current prices), 1999, in %

		Bulgaria 1)	Czech Republic 2)	Hungary	Poland	Romania 2)	Slovak Republic	Slovenia 2)
D	Manufacturing total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
DA	**Food products; beverages and tobacco**	**25.2**	**17.1**	**17.0**	**25.3**	**25.1**	**13.9**	**14.9**
DB	Textiles and textile products	6.7	4.6	3.6	4.6	7.2	4.2	7.5
DC	Leather and leather products	1.3	0.7	0.8	0.9	1.7	1.3	1.5
DD	Wood and wood products	1.5	2.4	1.2	3.5	2.5	3.4	3.3
DE	Pulp, paper & paper products; publishing and printing	4.2	4.6	4.2	6.1	3.1	6.1	7.3
DF	Coke, refined petroleum products & nuclear fuel	15.0	2.5	4.9	4.6	8.0	6.7	0.3
DG	Chemicals, chemical products & man-made fibres	9.3	6.4	7.1	6.8	7.4	6.0	10.0
DH	Rubber and plastic products	2.2	4.1	3.5	4.4	2.2	3.3	3.9
DI	Other non-metallic mineral products	5.1	5.9	2.9	5.4	4.8	5.2	4.6
DJ	Basic metals and fabricated metal products	10.3	18.4	8.1	10.6	16.3	17.0	11.3
DK	Machinery and equipment n.e.c.	11.5	9.3	4.8	5.5	5.5	7.3	10.3
DL	Electrical and optical equipment	4.3	7.3	23.5	7.2	5.0	8.4	9.1
DM	Transport equipment	1.9	13.0	17.0	10.8	7.7	14.0	11.2
DN	Manufacturing n.e.c.	1.5	3.7	1.2	4.3	3.6	3.2	4.8

Notes: 1) Mechanical engineering includes fabricated metal products and casting of metals, normally included in the basic metals and fabricated metals sector (DJ). - 2) 1998.

Source: WIIW Industrial Database.

[3] For Bulgaria, however, data are not consistent over the whole time period. Data before 1996 can be compared with those for 1996 and 1997 only to a limited extent. For Romania, production data at constant prices from 1994 on have to be interpreted carefully due to statistical problems. For a detailed description of data and changes in statistics over all countries, see Appendix A, Table A1, footnote.

On the one hand, the food sector held a relatively important position during the communist period, when the supply and self-sufficiency of food had priority and in some countries per capita consumption of products, such as meat and milk, was almost on the same level as in Western countries. Products were highly subsidized for social reasons. However, the level of processing, packaging, distribution and quality was inferior and the range of products smaller.

On the other hand, the pronounced bias of the command economy towards heavy industry and raw material production led to a neglect of the food sector, which was hence underdeveloped and received less investment.

With the collapse of communism, the food sector faced a severe crisis, due to the collapse of the CMEA market, outdated technology of equipment and, after the trade liberalization, strong import of high-quality and subsidized food from the West. In addition, the loss of former integrated networks with agriculture and the ceasing of subsidies pushed the sector into a transformational recession. The speed and amount of change in agriculture and the rebuilding of networks influenced the extent of restructuring in the food sector. The privatization of companies allowed for an inflow of foreign direct investment, urgently needed for restructuring and modernization. Companies in domestic ownership kept facing severe difficulties, due to the lack of capital for investment. Production as well as exports to the EU stagnated.

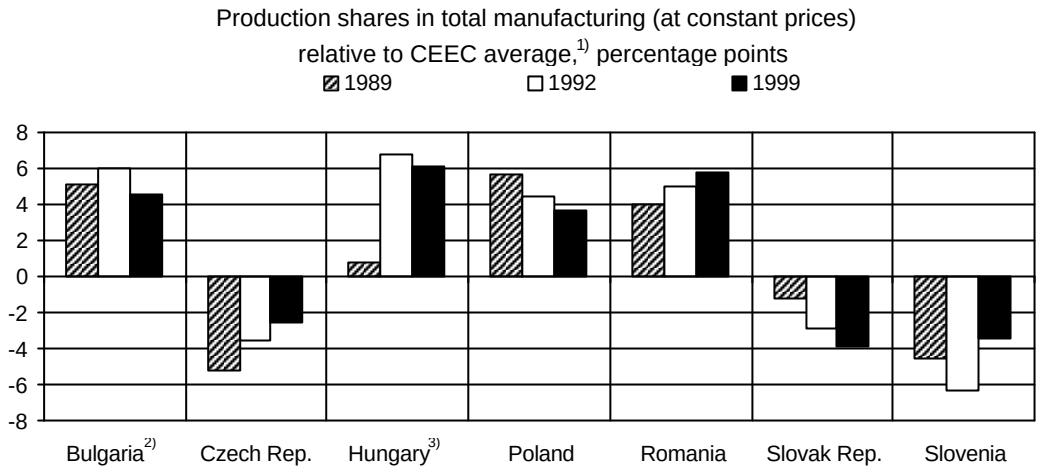
Continued specialization on food in Hungary, Poland, Bulgaria and Romania

Within the region, Poland, Bulgaria and Romania specialized on the food sector, showing the largest production shares in 1999, with 23%, 24% and 25% respectively of total manufacturing production (at constant prices, see Table 2 and Figure 1).[4] In Poland this is due to the large domestic market and many import barriers, while in the latter two countries factors such as delayed restructuring and a relatively lower development level are important, but probably only transitory reasons. Also, agriculture plays a major role in these countries, accounting for 19% of GDP in Bulgaria and 15% in Romania and for 25% and 38% respectively of employment in 1998. In Poland, agriculture also shows a relatively high share, 25%, in employment, due to a favourable pension insurance system, as compared to a share of only 4% in GDP (see Figure 2). In recent years, a kind of 'reagrarization' occurred in Bulgaria and Romania, resulting from an employment crisis in industrial production and limited absorption capacity in services. This, however, should be considered as a transitory phenomenon.[5] Still, a large agricultural sector does not necessarily point to a large and successful food sector, as eventually its size becomes

[4] In all three countries, the food sector already played a major role in 1989.

[5] See Landesmann (2000), p. 3.

Figure 1

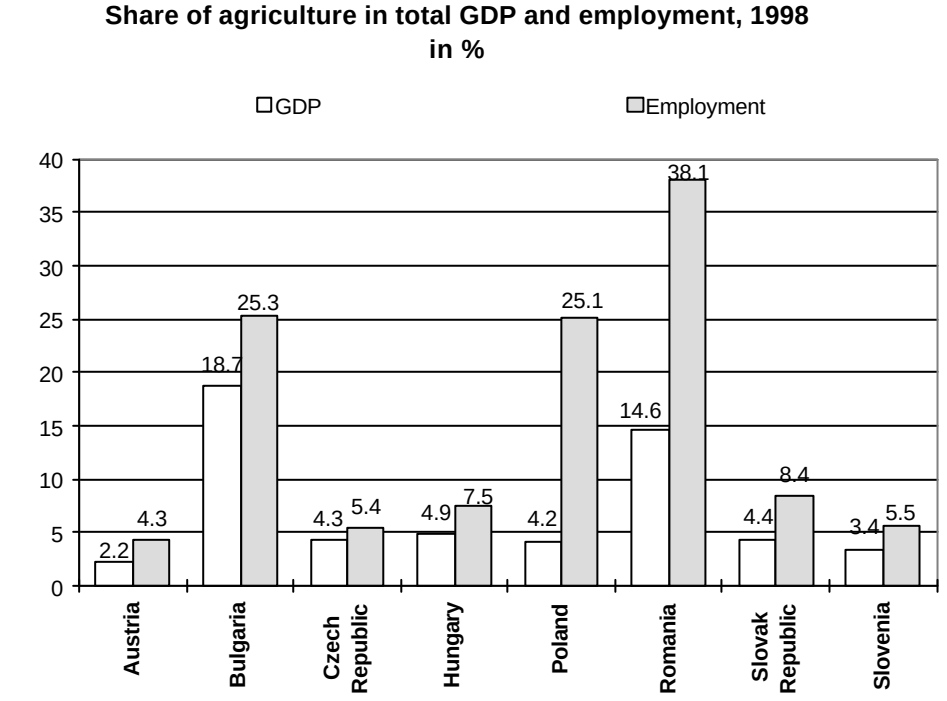


1989 and 1992 production shares at constant prices: Bulgaria at 1996 prices, Czech Republic at 1993 prices, Hungary at 1992 prices, Poland at 1992 prices, Romania at 1993 prices, Slovak Republic at 1993 prices and Slovenia at 1996 prices. 1998 production shares at constant prices 1996 for all countries.

Notes: 1) The CEEC average includes the Czech Republic, Hungary, Poland, Slovakia and Slovenia. -2) Bulgarian data are not consistent over the whole period. Data before 1996 can be compared with those for 1996 to 1998 only to a limited extent.- 3) 1996 instead of 1999; because of constant price problems for another sector (electrical engineering) the calculation of shares after 1996 is unreliable for Hungary.

Source: WIIW Industrial Database.

Figure 2



Source: WIIW

negatively correlated.[6] The high capital intensity of the food industry represents a comparative advantage for advanced economies.

In Hungary, the food sector traditionally had an important position[7], which has however decreased since 1993 due to the expansion of other sectors.[8] The food sector has always been less pronounced in the Czech Republic, Slovakia and Slovenia, with a share of 17% in the former and 16% in the latter two countries in 1999 (at constant 1996 prices; see Table 2).

When compared to the countries of the European Union, the food sector of the CEECs shows a middle position between the more advanced countries of the 'EU-North'[9], especially Austria, and the less advanced countries of the 'EU-South'[10]. This means that the CEECs have a larger food sector than Austria, but mostly a smaller share than the latter group. In the past few years, the Czech and Slovak Republics, Slovenia had smaller shares than the total group of 'EU-North' countries (see Appendix, Figure A1).

From a dynamic to a declining sector, growth leader in Poland

During the first phase of transition, lasting from 1989 to about 1992, all CEECs experienced a severe transformational recession, and production in the food sector declined as well (see Table 3). However, this decline was much less pronounced than in total manufacturing in all CEECs and the food sector became what may be called a 'winner'[11] of this period (see Table 3, average annual changes relative to total manufacturing, 1990-1992). This can be explained in part by the 'ratchet-effect', which prevents demand for food from falling to the same extent as incomes and which leads to an under-proportionate fall of production in income-inelastic sectors.

During the second transition phase, starting in 1993, growth in food output set in again; it became positive in Poland, Slovenia and the Czech Republic, stagnated in Hungary, and remained negative in Romania and Slovakia (see Table 3). However, growth was slower than in total manufacturing and hence the food sector turned into a 'loser' in most CEECs (see Table 3, average annual changes relative to total manufacturing, 1993-1999). This was due to several factors: Fist of all, after the transformational recession had been

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6 In some cases, the agricultural sector predominantly produces for self-supply, resulting in a small food sector.

7 In the 1970s, Hungary managed to build up an important meat-processing industry. See Charpiot-Michaud and Tunzelmann (1998).

8 By 1996, the production share (at constant 1996 prices) stood at 25.5%. Because of constant price problems for another sector (electrical engineering) the calculation of shares after 1996 is unreliable for Hungary. However, the production share at current prices has fallen to 17% by 1999.

9 Including UK, France, Germany and Belgium in 1992; including Austria, Denmark, Finland, France, Germany, the Netherlands, Sweden and the UK in 1996.

10 Including Greece, Portugal and Spain.

11 'Winners' of transition are here defined as industries, that performed better than total manufacturing in terms of production growth. 'losers' those that performed worse, see Urban (1999), p. 22.

overcome, industrial structures began to differentiate and specialization on other sectors, such as transport equipment, emerged (see Table 1). On the supply side, stagnation of agricultural production played a role, while on the demand side restricted access to foreign (EU) markets and an income elasticity of less than one for many food products[12] restricted growth. Thus the share of food in household consumption declined in Poland from 48% in 1990 to 35% in 1998, in Hungary from 25% in 1990 to 19% in 1997 and in Slovenia from 31% in 1990 to 20% in 1997. Only in Bulgaria and Romania did the share rise and reach 48% and 55%[13] respectively in 1998, reflecting their relatively lower development level. In all countries, the share of food in consumption is still above West European levels, where food consumption accounts only for 12-18% of household consumption.[14]

Table 2

Food products, beverages and tobacco

Production shares (at constant prices 1996), in %

Manufacturing = 100

	1989	1992	1997	1998	1999
EU-North [1)]	.	17.2 [3)]	17.9 [4)]	.	
EU-South [2)]	.	24.1 [3)]	22.9 [4)]	.	
Austria [5)]	16.0	16.8	13.6	13.1	.
Bulgaria	23.7	28.3	20.4	23.4	24.1
Czech Republic	13.3	18.4	17.4	16.8	17.0
Hungary	23.8	30.7	25.6 [6)]		
Poland	24.2	26.8	24.4	24.1	23.2
Romania	19.8	24.5	19.6	22.6	25.2
Slovakia	17.4	19.7	15.7	15.0	15.6
Slovenia	13.9	15.9	16.0	15.8	16.1

Notes: 1) 1992 including UK, France, Germany and Belgium; 1996 including Austria, Denmark, Finland, France, Germany, the Netherlands, Sweden and the UK.- 2) Including Greece, Portugal and Spain. - 3) At constant prices 1989. - 4) 1996. - 5) 1989 and 1992 at 1993 prices.- 6) 1996; because of constant price problems for another sector (electrical engineering) the calculation of shares after 1996 is unreliable for Hungary.

Source: WIIW Industrial Database.

Table 3

Food products, beverages and tobacco

Production growth (at constant prices 1996)

	Average annual changes in %		Relative to total manufacturing in percentage points		Index 1999
	1990-1992	1993-1999	1990-1992	1993-1999	1989=100
Czech Republic	-4.4	0.7	9.8	-1.2	91.6
Hungary	-6.2	-0.1	9.0	-10.5	81.8
Poland	-8.5	7.7	2.6	-2.2	128.6
Romania	-18.5	-2.6	5.6	0.4	45.1
Slovakia	-12.4	-2.3	3.6	-3.3	57.2
Slovenia	-7.2	1.0	4.1	0.1	85.5

Source: WIIW Industrial Database.

In the region, only Poland surpassed the 1989 production level in 1999 and reached about 130%. In the other countries the food sector still performed at lower levels: In the Czech

[12] Thus, when incomes rise and relative prices remain constant, the share of food in private consumption declines and the industry supplying these goods can be expected to grow less fast than total manufacturing.

[13] Food and beverages together.

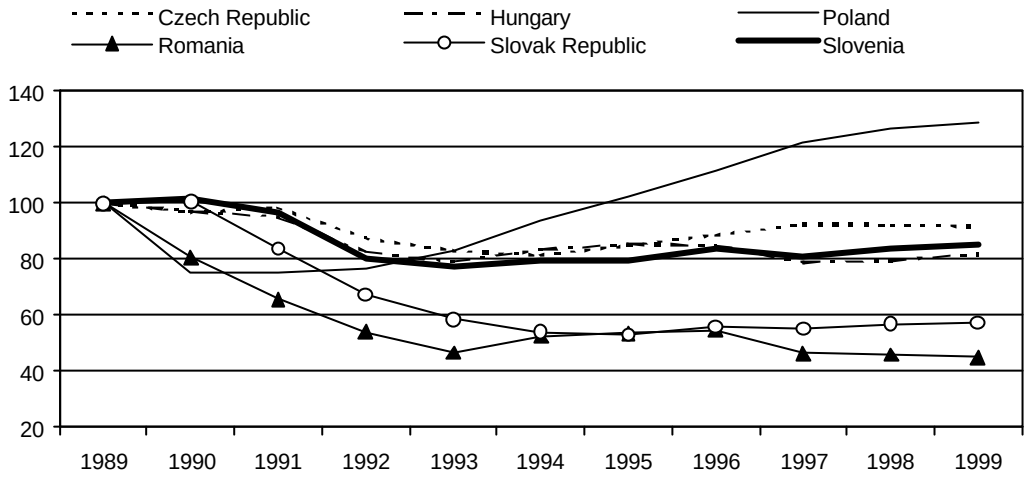
[14] In 1999, the share of food and beverages reached, for example, 16% in Austria.

Republic, Slovenia and Hungary the food sector stagnated at around 80% of the 1989 level, possibly due to less restricted food imports, while in Slovakia and Romania production of the food sector fell to less than 60% (see Figure 3). After a decline of growth rates in 1997, growth improved again in 1998 and hence did not reflect the effects of the Russian crisis, even in Hungary and Poland, major exporters of food products to Russia. However, processed food was less affected than agricultural materials.

Figure 3

Food products, beverages and tobacco

Industrial production index (at constant prices 1996, national currency), 1989 = 100

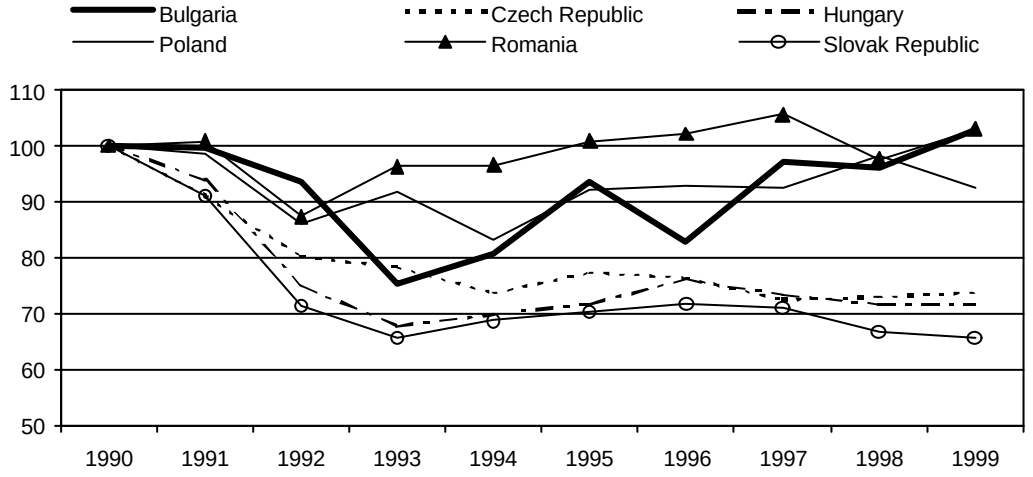


Source: WIIW Industrial Database.

Figure 4

Development of gross agricultural production

1990 = 100



Source: WIIW

Table 4

Per capita consumption of selected food products

	Meat and meat products, kg				Milk and dairy products (excl. butter), litre[2)]			
	1990	**1992**	**1997**	**1998**	**1990**	**1992**	**1997**	**1998**
Austria	101.7	101.1	97.1	97.8	102.9	104.2	95.1	99.8
Bulgaria[1)]	54.5	49.5	25.4	33.4	55.7	41.9	31.3	34.6
Czech Republic	96.5	86.6	81.5	.	256.2	214.4	195.2	.
Hungary	73.1	73.3	58.9	.	169.9	159.7	158.4	.
Poland	68.6	70.3	61.7	64.9	241.0	217.0	194.0	205.0
Romania	61.0	45.7	45.1	39.0	140.1	163.7	192.4	158.4
Slovak Republic	84.0	69.3	66.1	66.0	107.6	90.0	73.6	77.9
Slovenia[1)]	34.8	29.0	37.4	.	98.8	97.0	74.5	.

	Sugar and sugar product, kg[3)]				Cereal products, kg			
	1990	**1992**	**1997**	**1998**	**1990**	**1992**	**1997**	**1998**
Austria	36.6	36.8	42.0	40.4	72.1	71.0	72.4	75.4
Bulgaria[1)]	16.7	16.5	10.8	13.9	184.9	176.2	157.0	162.0
Czech Republic	51.0	46.3	46.4	.	155.5	163.4	141.3	.
Hungary	38.2	39.7	39.9	.	110.4	106.0	89.2	.
Poland	44.1	36.3	43.7	41.7	115.0	119.0	120.0	119.0
Romania	27.3	24.4	19.9	.	158.5	146.5	169.8	165.0
Slovak Republic	46.3	36.6	34.9	35.0	155.7	150.8	158.8	154.3
Slovenia[1)]	13.2	12.7	20.5	.	88.2	86.9	104.1	.

	Fruit, kg				Vegetables, kg			
	1990	**1992**	**1997**	**1998**	**1990**	**1992**	**1997**	**1998**
Austria	70.0	79.6	87.4	87.9	77.9	77.4	93.1	93.6
Bulgaria[1)]	32.2	25.3	16.6	.	61.1	66.1	46.7	60.1
Czech Republic	59.7	69.5	71.5	.	66.6	69.7	81.1	.
Hungary	72.3	72.8	62.6	.	83.3	85.1	98.8	.
Poland	28.9	40.7	53.0	54.3	119.0	116.0	116.0	128.0
Romania	59.5	47.1	44.5	.	110.8	100.7	111.6	.
Slovak Republic	51.3	60.4	71.2	73.6	70.8	75.0	80.7	81.6
Slovenia[1)]	36.3	29.0	46.4	.	12.2	11.1	21.9	.

Notes: 1) Food consumption per household member. - 2) Austria, Bulgaria, Slovak Republic and Slovenia fresh milk only. - 3) Hungary and Slovak Republic sugar only.

Source: WIIW.

Comparing food production to gross agricultural production, the latter stagnated in the Czech Republic, Hungary and Slovakia at a level of 70%, while it grew in Poland, Romania and Bulgaria to the original 1989 level (see Figure 4). In the latter two countries, this positive development did not translate into the food sector possibly due to exports of unprocessed products and self-supply of farmers.

At the detailed level, dairy producers, meat and grain processors faced great difficulties in the CEECs. Retail trade prices of food products had been heavily subsidized during the communist regime; when subsidies ceased, prices rose and consumers switched to cheaper alternatives and substitutes, such as grain-based products or potatoes, reducing the distorted excessive demand. During the second phase of transformation, structural changes in consumption slowed down and, with higher incomes, the demand shifted again from cheap to high-quality and healthier products, including poultry, low-fat products and vegetable oils. However, the consumption of high-quality food, such as dairy products and meat, still remained below pre-transition levels (see Table 4).

Important employment sector

As an employer, the food sector plays a major role in the CEECs and is the largest segment in manufacturing in Poland and Hungary today, accounting for roughly 19% in 1998. In the other CEECs, the sector ranges between 17% in Bulgaria and 12% in the Czech and Slovak Republics, while it is smallest in Slovenia, with 9% (see Table 5). During the transition, employment declined, but less than in total manufacturing, so that employment shares were larger in 1998/1999 than in 1989. Only in Poland did the number of employees grow in absolute terms, due to the more favourable output performance in this country (see Table 6).

Comparing production and employment shares of the sector, the former were typically several percentage points higher in 1989 as well as in 1999. The gap decreased during the transition due to increasing employment shares. (see Figure 5). Although the food sector is generally capital-intensive, it is more labour-intensive in the CEECs than in the West because of relatively low productivity levels (see below) and capital constraints.[15]

[15] Some processes in food production can not be mechanized anyhow.

Table 5

Food products, beverages and tobacco

Employment shares, in %

Manufacturing = 100

	1989	1992	1997	1998	1999
EU-North[1)]	.	11.3	12.7 [3)]	.	.
EU-South[2)]	.	17.4	17.2 [3)]	.	.
Austria	10.3	10.9	11.3	11.6	.
Bulgaria	10.6	11.7	15.6	16.6	16.3
Czech Republic	8.9	8.6	12.1	12.0	12.0
Hungary	17.3	21.4	18.3	18.1	.
Poland	12.5	17.1	18.0	18.6	.
Romania	7.7 [4)]	8.9	10.7	12.6	.
Slovakia	.	10.2	11.8	11.6	11.7
Slovenia	6.6	7.4	9.2	9.1	9.2

Notes: 1) 1992 including UK, France, Germany and Belgium; 1996 including Austria, Denmark, Finland, France, Germany, the Netherlands, Sweden and the UK. - 2) Including Greece, Portugal and Spain. - 3) 1996. - 4) 1990.

Source: WIIW Industrial Database.

Table 6

Food products, beverages and tobacco

Employment, thousand persons

	1989	1992	1997	1998	1999	1998 1989= 100
Bulgaria	150	103	113	114	97	.
Czech Republic	147	102	142	137	131	93.3
Hungary	203	184	116	120	.	58.9
Poland	417	472	509	522	.	125.1
Romania	265 [1)]	249	218	249	.	93.8 [2)]
Slovakia	.	54	52	60	59	.
Slovenia	25	21	21	21	21	84.3

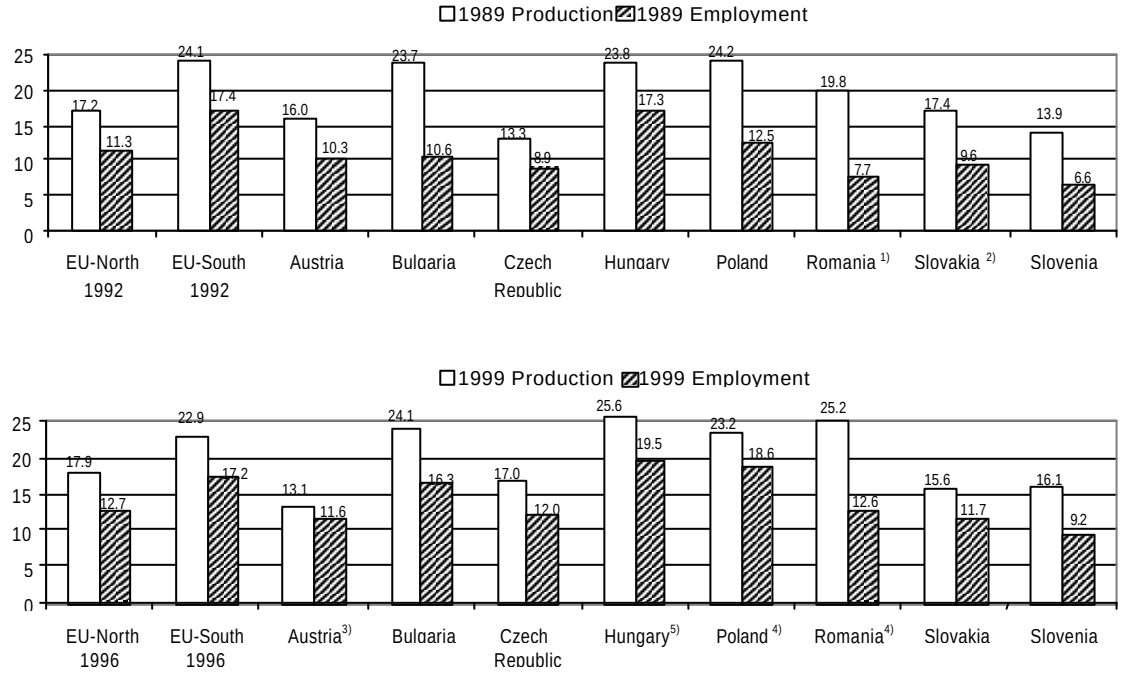
Notes: 1) 1990. - 2) 1990 = 100.

Source: WIIW Industrial Database.

Figure 5

Food products, beverages and tobacco

Shares in production (at constant prices 1996) and employment in total manufacturing, in



Notes: 1) Employment share 1990. – 2) Employment share 1991. – 3) 1998. – 4) Employment share. –5) 1996; because of constant price problem for another sector (electrical engineering) the calculation of shares after 1996 is unreliable for Hungary.

Source: WIIW Industrial Database.

2 International competitiveness

As is typical for all CEECs and all sectors of manufacturing, wages, productivity and unit labour costs in the food sector were and are generally lower than in Western countries. In 1998, nominal wage rates (per employee) in the food sector were about 10% of the Austrian level in most countries, but reached only 4-5% in Bulgaria and Romania, and almost 40% in Slovenia. Unit labour costs[16] were somewhat higher and hovered around 20% of the Austrian level, again being lower in Bulgaria and Romania (10%) and higher in Slovenia (50%).[17] The productivity level of the food sector also differed widely, ranging between 30% (Bulgaria) and 70% (Slovenia) of the Austrian level (see Figure 6).

During the transition, wages in the food sector grew throughout the region: Between 1993 and 1998, the annual average growth rates of wages were highest in the Czech and Slovak Republics and lowest in Hungary (see Table 7). While in most countries productivity was growing reflecting the ongoing restructuring process, it declined in Romania (-0.7%). As the increase in wages was larger than the increase in productivity, unit labour costs were rising, except in Hungary (see Table 7).

Looking at the wage level of the food sector, wages were slightly above the manufacturing average in most CEECs in 1992. However, by 1998 wages were somewhat below the average, which is more typical for jobs requiring less qualifications. Only in Slovenia were wages slightly higher than the average over the whole time period (see Table 8).

Table 7

Food products, beverages and tobacco

Average annual growth rates, 1993-1998

in %

	Output	Employment	Productivity (ECU basis)	Wage rates (ECU basis)	Unit Labour Costs (ECU basis)	Exports to EU (ECU basis)
Czech Republic	0.9	-0.2	1.0	16.1	14.9	6.1 [1)]
Hungary	-0.6	-6.9	6.8	5.1	-1.5	-2.9
Poland	8.8	1.7	7.0	10.5	3.3	3.3
Romania	-2.7	-2.0	-0.7	10.8	11.6	-4.1
Slovak Republic	-2.8	-4.4	1.7	14.7	12.9	18.6 [1)]
Slovenia	0.8	-1.7	2.5	9.1	6.4	1.9 [1)]

Notes: 1) 1994 - 1998.

Source: WIIW Industrial Database.

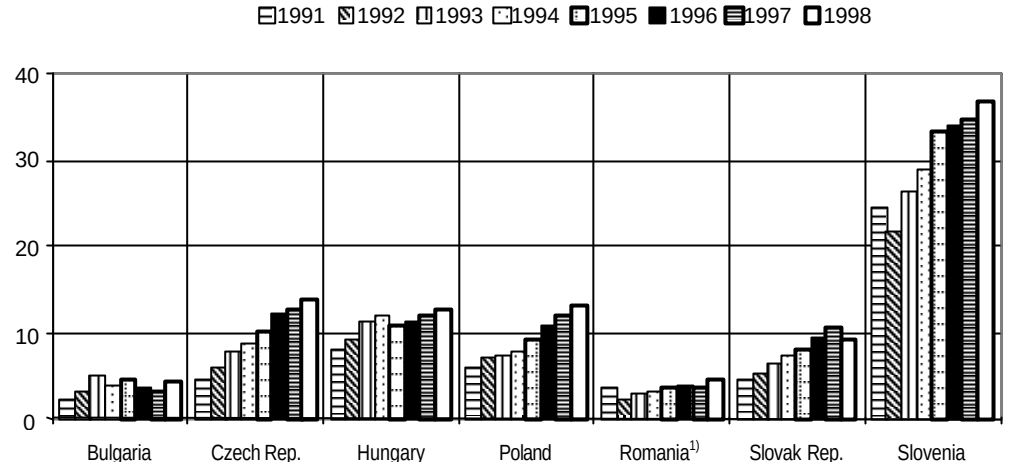
[16] Defined as wage rate divided by labour productivity.

[17] As these figures are however strongly affected by different productivity estimates, Table A2 in the Appendix shows the lower and upper range for estimated unit labour costs in 1998, using alternative productivity measures.

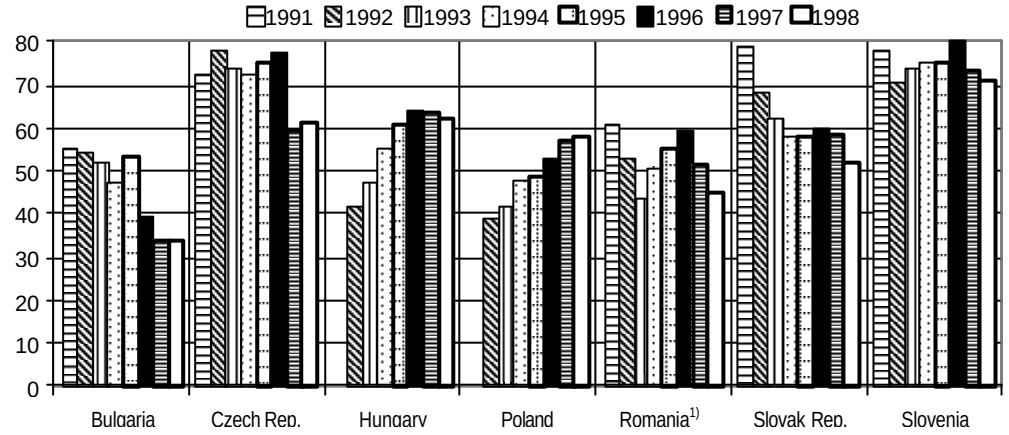
Figure 6

Food products, beverages and tobacco

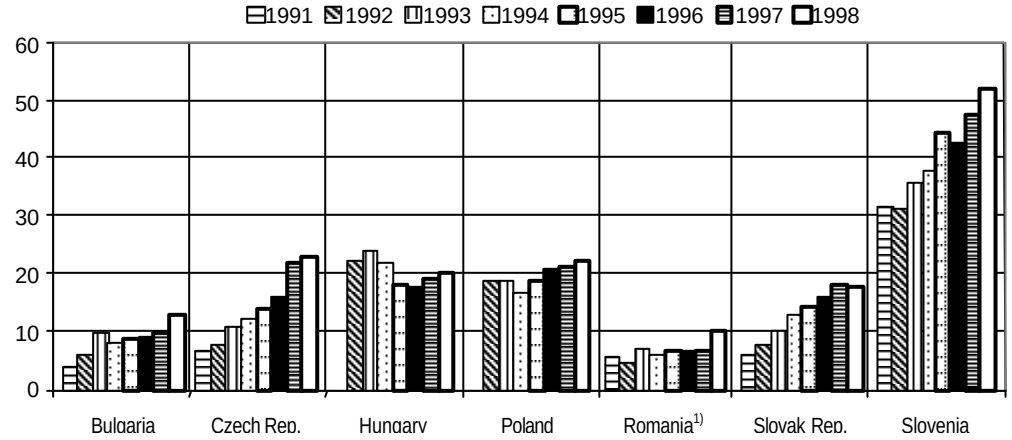
Wages (ECU), Austria 1996 = 100



Productivity (PPP) 2), Austria 1996 = 100



Unit labour costs (ECU), Austria 1996 = 100



Notes: 1) Net wages; all other countries gross wages.1994-1998 productivity figures for Romania must be interpreted carefully due to some statistical problems regarding production data at constant prices. - 2) PPP = Purchasing Power Parities.

Source: WIIW Industrial Database.

Table 8

Food products, beverages and tobacco

Average monthly gross wages

Manufacturing = 100

	1992	1995	1996	1997	1998
Bulgaria	114.6	113.7	99.5	96.2	98.2
Czech Republic	103.4	100.4	101.4	98.3	96.9
Hungary	100.3	100.8	99.3	96.9	98.0
Poland	103.9	94.4	95.3	95.7	94.1
Romania	106.4	102.1	101.8	98.4	100.2
Slovak Republic	99.4	98.4	98.9	97.1	93.7
Slovenia	118.1	122.6	121.0	117.4	115.7

Source: WIIW Industrial Database.

3 Trade performance with the EU[18]

Stagnant exports and growing imports leading to slightly widening trade deficit

As an exporter to the EU, the food sector plays only a minor role today, mainly due to its domestic orientation. In 1998, export shares ranged between less than 1% in Romania and about 6% in Poland. However, during the transition, export shares declined dramatically in Hungary, Poland and Bulgaria, where the food sector had traditionally held a dominant position until 1989. In Hungary, exports from the food sector ranked first then, accounting for 23% of all exports, in Poland, the food sector ranked second (18%) and in Bulgaria fourth (15%). In the former two countries, export structures shifted to electrical and optical equipment and the transport equipment sector,[19] while in Bulgaria textiles and basic metals and fabricated metal products became the major export sectors. In the other CEECs, export shares were smaller but also fell during the transition although in a less dramatic way (see Appendix, Figure A2).

Food exports from Poland and Bulgaria to the EU reached about 150% of the 1989 level in 1998, while they more or less stagnated in the other countries. This might be due to restrictions in the supply-chain, missing brand names and distribution networks, packaging deficiencies and also partly due to the restrictive trade policy of the European Union. In addition, exports of mostly low-quality food products to Russia played a role and are not

[18] Trade with the EU is investigated in detail because it plays an important role in the CEECs: After the collapse of the CMEA market, CEECs' trade became heavily reoriented towards EU markets. By 1998, 70% of Hungarian, Polish and Slovenian total exports went to the EU(15), for Romania and the Czech Republic the levels were above 60%, for the Slovak Republic somewhat below 60%, and for Bulgaria around 50%. On the import side, Slovenian and Polish imports from the EU(15) accounted for roughly 70%, in the Czech Republic, Hungary and Romania EU(15) imports had a share of 60%, in Slovakia 50% and in Bulgaria somewhat less than 50%.

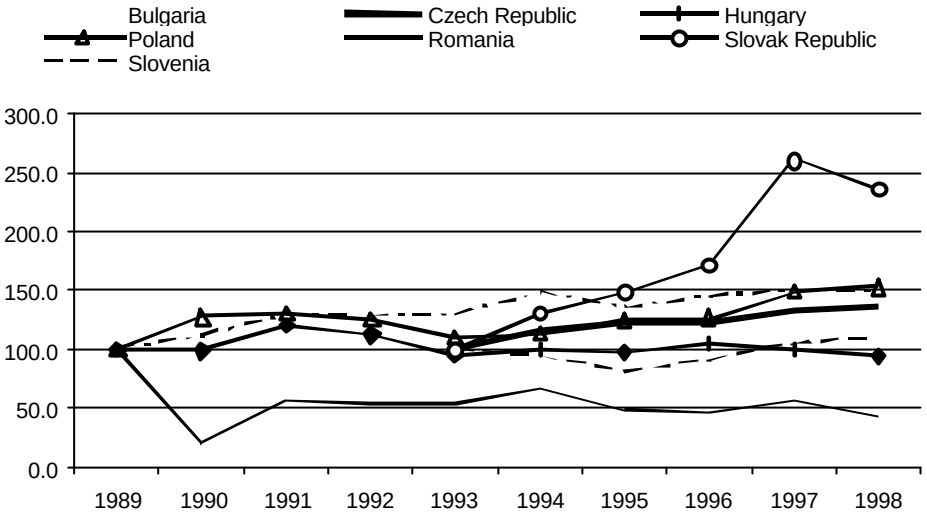
[19] In Hungary, food exports remained on a similar level in ECU terms.

recorded here. Only in the Slovak Republic did exports to the EU grow fast from 1993 (albeit from a very low level) and reached about 250% in 1998 (see Figure 7).

Figure 7

Food products, beverages and tobacco

Export index EU(12), in ECU mn, 1989=100



Notes :1) Export data for the Czech and Slovak Republics and Slovenia since 1993, 1993=100.
Source : Eurostat, WIIW calculations

Food products imported from the EU also accounted only for a small share of CEECs' total imports from the EU, but they were larger than export shares (except for Hungary and Poland): Import shares ranged from 2% in Hungary to almost 9% in Bulgaria (see Appendix, Figure A2). During the transition, import growth of food products was smaller than that of total manufacturing, so that shares were declining in all countries. In Hungary, import shares rose initially but fell again after 1995, reflecting the introduction of an 8% temporary import surcharge in March 1995. At the beginning of transition, especially imports of processed food were rising because of formerly suppressed demand, the novelty-effect, and – in most cases – the superior quality of imported (and subsidized) food. Advertising and brand names also shaped the demand of imported products. Before foreign investment made an impact, domestic producers were unable to supply retailers with the appropriate packaging, quantity and assortment and timing of products.[20] While imports were liberalized at the beginning of transition, barriers were reintroduced later, especially in Poland, to a lesser extent in the Czech Republic and in Hungary.

In absolute terms, higher imports than exports in the food sector led to a slightly growing sectoral trade deficit in almost all CEECs, which however was mostly below

[20] Szabó (1996a).

ECU 200 million in the individual countries in 1998. Only in the Czech Republic and Poland did the food sector reach a deficit of ECU 400 million. Notably, Poland turned from a net exporter in 1989/1990 to a net importer thereafter. Hungary was the only country with a trade surplus over the whole period (see Appendix, Figure A2).

Export and import trade pattern

At a more detailed three-digit NACE level,[21] exports of all CEECs were concentrated on 'slaughtering, preparing and preserving of meat' in 1998 (e.g. making up 69% of all exports in Hungary), four countries had a high share of 'fruit and vegetables' exports (e.g. making up 44% of exports in Bulgaria), two in 'dairy products'; 'fish and sea food' exports; and 'animal and poultry foods'. Only the Czech Republic had a traditionally large share of 'brewing and malting' exports (see Table 9).
During the transition period, the export structure of the food sector remained fairly constant in the Czech Republic and Hungary. The most dramatic changes (more than 10 percentage points difference in the 1998 share compared to 1989) occurred in Romania and Slovakia (1993 shares), followed ex aequo by Bulgaria and Poland. Most obvious is the decline of 'slaughtering, preparing and preserving of meat' and 'dairy-products' export shares, while the share of 'fruit and vegetables' exports increased. [22]

On the import side, all CEECs had a large import share of 'other food products' in 1998, many countries imported also products from the sub-branches 'slaughtering, preserving of meat' and 'vegetable and animal oils and fats' (see Table 10).
During transition, the import structure of the food sector remained fairly constant in the Czech Republic and Slovenia, while the most dramatic changes occurred in Romania, Hungary and Bulgaria between 1989 and 1998. Most obvious is the decrease of 'slaughtering, preparing and preserving of meat' import-shares, and the increase of 'other food products'.[23]

For an assessment of detailed trade balances see page 22 below

[21] NACE 1970 classification, codes 411-429.

[22] In Romania, e.g., export shares of 'slaughtering, preparing and preserving of meat' (-35 percentage points) and 'dairy products' (-19 p.p.) decreased, while the shares of 'fruit and vegetables (+29 p.p.) and of 'fish and other sea foods' (+11 p.p.) increased. In Slovakia, the export share of 'slaughtering, preparing and preserving of meat' (-38 p.p.) decreased, while 'dairy products' (+20 p.p.) and 'animal and poultry foods' (+19 p.p.) increased. In Bulgaria and Poland, export shares of 'dairy products' (-16 and -13 p.p.) decreased, while those of 'fruit and vegetables' (+18 and +14 p.p.) increased. In Slovenia, the export share of 'slaughtering, preparing and preserving of meat' (-11 p.p.) also decreased.

[23] In Romania, e.g., import shares of 'slaughtering, preparing and preserving of meat' decreased by 74 percentage points, those of 'fruit and vegetables' and of 'other food products' increased by 13 p.p. and 22 p.p. respectively. In Hungary, import shares of 'slaughtering, preparing and preserving of meat' (-12 p.p.) and of 'animal and poultry food' (-15 p.p.) decreased, that of 'other food products' (+10 p.p.) increased. In Bulgaria, import shares of 'dairy products' (-15 p.p.) and of 'animal and poultry foods' (-10 p.p.) decreased, those of 'other food products' (+11 p.p.) increased. In Poland, the import share of 'slaughtering, preparing and preserving of meat' (-18 p.p.) decreased. In Slovakia, the import share of 'vegetable and animal oils and fats' (+11 p.p.) increased.

Table 9

Detailed export structure of the food products, beverages and tobacco sector, 1998

		Bulgaria	Czech Republic	Hungary	Poland	Romania	Slovak Republic	Slovenia
411	Manufacture of vegetable and animal oils and fats	0.9	11.6	1.1	3.3	7.7	15.9	4.2
412	Slaughtering, preparing and preseving of meat	**30.6**	**17.9**	**68.9**	**22.9**	**33.8**	**15.6**	**48.7**
413	Manufacture of dairy products	0.0	**16.5**	1.2	4.9	1.9	**25.9**	9.0
414	Processing and preserving of fruit and vegetables	**44.0**	6.0	**15.9**	**43.7**	**36.7**	3.8	6.1
415	Process.&preserv.of fish&oth.sea foods f.hum.con	8.1	0.0	0.0	**15.2**	**11.6**	0.1	0.3
416	Grain milling	0.0	0.1	0.4	0.0	0.8	2.8	0.0
417	Manufacture of spaghetti, macaroni, etc.	0.0	0.0	0.1	0.0	0.0	0.0	0.1
418	Manufacture of starch and starch products	0.4	0.0	0.2	0.0	0.0	0.4	0.0
419	Bread and flour confectionery	0.0	2.0	0.3	0.5	1.4	0.1	0.4
41		***84.0***	***54.1***	***88.1***	***90.5***	***93.8***	***64.5***	***68.8***
420	Sugar manufacturing and refining	1.1	4.8	1.0	4.1	0.0	4.0	0.9
421	Manuf.of cocoa, chocolate and sugar confect.	0.1	8.2	1.3	3.0	1.4	3.2	7.1
422	Manuf.of animal and poultry foods (incl.fish meal)	**13.0**	1.1	2.1	0.5	4.0	**24.3**	9.8
423	Manufacture of other food products	1.0	4.0	7.0	0.7	0.1	0.6	2.1
424	Distilling of ethyl alcohol from fermented materials	0.1	0.1	0.2	0.7	0.2	0.0	0.1
425	Manuf.of wine of fresh grapes&bev.based thereon	0.3	0.0	0.1	0.0	0.1	0.0	0.0
426	Manuf. of cider and other fruit wines	0.0	0.0	0.0	0.0	0.0	0.0	0.0
427	Brewing and malting	0.1	**25.1**	0.0	0.2	0.3	0.4	4.6
428	Manuf.of soft drinks,incl.bottling of nat.spa waters	0.2	2.5	0.1	0.2	0.0	0.5	3.5
429	Manufacture of tobacco products	0.1	0.0	0.0	0.0	0.0	2.4	3.0
42		***16.0***	***45.9***	***11.9***	***9.5***	***6.2***	***35.5***	***31.2***
DA	**Food products, beverages and tobacco**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	in ECU mn	**86.8**	**163.4**	**463.3**	**758.1**	**29.6**	**43.3**	**60.0**

Source: Eurostat, WIIW calculations.

Table 10

Detailed import structure of the food products, beverages and tobacco sector, 1998

		Bulgaria	Czech Republic	Hungary	Poland	Romania	Slovak Republic	Slovenia
411	Manufacture of vegetable and animal oils and fats	6.9	16.5	10.4	23.4	9.4	23.5	5.8
412	Slaughtering, preparing and preseving of meat	22.4	9.7	19.8	11.4	14.7	10.8	12.8
413	Manufacture of dairy products	4.9	4.2	4.0	5.3	7.2	3.2	2.6
414	Processing and preserving of fruit and vegetables	9.7	7.9	7.8	6.5	14.1	6.8	10.1
415	Process.&preserv.of fish&oth.sea foods f.hum.con	1.9	3.7	1.3	4.0	3.5	4.1	4.8
416	Grain milling	0.5	0.1	0.2	1.3	0.8	0.1	1.6
417	Manufacture of spaghetti, macaroni, etc.	0.7	0.5	0.5	0.3	0.5	0.5	1.9
418	Manufacture of starch and starch products	0.3	0.2	0.2	0.2	0.3	0.1	0.8
419	Bread and flour confectionery	2.9	2.9	3.0	1.9	2.1	3.2	6.3
41		***50.1***	***45.8***	***47.2***	***54.4***	***52.7***	***52.4***	***46.7***
420	Sugar manufacturing and refining	2.5	0.3	0.2	0.3	3.6	4.4	1.5
421	Manuf.of cocoa, chocolate and sugar confect.	9.2	9.7	10.1	8.4	3.2	8.3	12.4
422	Manuf.of animal and poultry foods (incl.fish meal)	2.9	9.0	17.7	13.9	6.6	12.0	4.7
423	Manufacture of other food products	15.5	20.6	17.4	18.5	24.0	16.7	13.9
424	Distilling of ethyl alcohol from fermented materials	12.1	5.2	3.2	1.0	3.4	3.1	4.1
425	Manuf.of wine of fresh grapes&bev.based thereon	0.2	0.7	0.6	0.7	0.4	0.3	0.7
426	Manuf. of cider and other fruit wines	0.0	0.0	0.0	0.1	0.0	0.0	0.3
427	Brewing and malting	0.7	0.3	1.1	1.7	0.6	0.3	1.6
428	Manuf.of soft drinks,incl.bottling of nat.spa waters	0.3	0.6	1.0	0.3	0.2	0.8	0.8
429	Manufacture of tobacco products	6.4	7.9	1.7	0.6	5.2	1.9	13.3
42		***49.9***	***54.2***	***52.8***	***45.6***	***47.3***	***47.6***	***53.3***
DA	**Food products, beverages and tobacco**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	in ECU mn	**158.8**	**559.6**	**285.0**	**1114.1**	**259.5**	**158.6**	**221.8**

Source: Eurostat, WIIW calculations.

Quality/prices of food products slightly lower than average EU import quality

In 1996, the export quality/export prices of food, beverages and tobacco products exported from the CEECs to the EU, as measured by the export unit values (value per kg) reached EU average in Hungary but lay somewhat below in the other CEECs. Between 1989 and 1996, the price/quality gap indicator increased in Bulgaria, Hungary and Poland, but decreased in Slovenia (see Table 11).

Table 11

Food products, beverages and tobacco

Price/quality gap indicator[1)]

Average import quality = 1[2)]

			Bulgaria	Czech Republic[3)]	Hungary	Poland	Romania	Slovak Republic	Slovenia[4)]
DA	**Food products, beverages and tobacco[5)]**	**1989**	0.774	0.872	0.963	0.825	0.911	.	1.016
		1990	0.735	0.942	1.051	0.856	0.866	.	1.025
		1993	0.865	0.862	1.078	0.896	0.757	0.872	0.904
		1995	0.918	0.818	1.109	0.984	0.966	0.851	0.933
		1996	0.871	0.825	1.036	0.922	0.868	0.881	0.985

Notes: 1) The industry-level weighted price/quality gap indicator is defined as:

$$Q_j^c = \sum_{i \in l(j)} (p_i^c / p_i^{EU}) * sx_i^c$$

p_i^c is the price (per kg) at which country c sells exports of the product item i on EU marktets (refers here to the EU 12 markets)

p_i^{EU} is the average price of product item i intotal EU 12 imports

sx_i^c is the share of product item i in country c's exports to the EU 12 market and

$$\sum_{i \in l(j)} sx_i^c = 1$$

where l(j) is the set of product items i belonging to NACE industry j. See Landesmann, M., Burgstaller, J. (1999). -

2) Average of total (extra + intra) EU-imports. - 3) Until 1992 CSFR. - 4) Until 1990 Yugoslavia. - 5) 1989-1994 data from NACE 1970 41-42; 1995-1996 data from NACE rev. 1 15-16.

Source: Calculations by J. Burgstaller, University of Linz for the WIIW.

Deteriorating position on the European market

In 1989, CEEC(6)[24] food exports to the EU(12) had a market share of about 6.4%, which decreased to 5.5% in 1998 (all shares without intra-EU trade). While in 1989, the food sector reached a larger share than exports from total manufacturing (3%), the situation turned around and by 1998, the food sector had a smaller share than total manufacturing

[24] Bulgaria, the Czech Republic, Hungary, Poland, Romania and Slovak Republic. Data for Slovenia are available since 1993 only.

(about 8%). In absolute terms, total manufacturing exports increased five times, while food exports increased by 21% only (see Table 12). As mentioned above, the expansion of food exports was restricted by several factors.

In 1989, the most important food exporters to the EU were Poland and Hungary, providing 2.7% and 1.7% of all extra-EU food imports. Interestingly, these two countries exported nearly the same amount in 1989, hence reflecting the significance of Hungarian food exports in that year. All other CEECs had market shares of less than 1% in 1998 (see Table 12).

Table 12

Food products, beverages and tobacco

CEECs' exports to the EU(12) in ECU mn, market shares in %

	EU(12)	Bulgaria		Czech Republic[1)]		Hungary		Poland	
	extra-EU imports	ECU mn	%	ECU mn	%	ECU mn	%	ECU mn	%
1989	20105.7	57.8	0.29	153.5	0.76	494.9	2.46	496.7	2.47
1992	21307.5	73.8	0.35	139.1	0.65	552.2	2.59	625.3	2.93
1995	23788.2	78.5	0.33	150.4	0.63	483.6	2.03	618.6	2.60
1996	25959.4	84.0	0.32	150.3	0.58	520.6	2.01	628.7	2.42
1997	27179.8	87.4	0.32	161.6	0.59	493.5	1.82	736.2	2.71
1998	28082.2	86.8	0.31	163.4	0.58	463.3	1.65	758.1	2.70

	Romania		Slovak Republic		Slovenia		CEEC(6)[2)]		Total Manufacturing CEEC(6)[3)]	
	ECU mn	%	ECU mn	%	ECU mn	%	ECU mn	%	ECU mn	%
1989	70.8	0.35	.	.	.	.	1273.7	6.34	9243	2.83
1992	38.1	0.18	.	.	.	.	1428.5	6.70	16586	4.48
1995	33.6	0.14	27.3	0.11	44.1	0.19	1391.9	5.85	30470	6.53
1996	32.9	0.13	31.6	0.12	49.9	0.19	1448.1	5.58	32157	6.61
1997	39.2	0.14	48.0	0.18	57.1	0.21	1565.9	5.76	39474	6.95
1998	29.6	0.11	43.3	0.15	60.0	0.21	1544.5	5.50	47074	7.66

Notes: 1) Until 1992 CSFR. - 2) Including Bulgaria, Czech Republic, Hungary, Poland, Romania and Slovak Republic. - 3) CEEC(6) total manufacturing exports to the EU and their market shares.

Source: Eurostat, WIIW calculations.

Trade deficit with Austria in food products

Exports from the CEEC(7)[25] had a decisively larger share on Austria's market than on the EU(12) market, accounting for 31% of Austria's non EU-food imports (world-wide imports without EU) in 1995, climbing to 50% in 1998. In 1998, the most important exporting country was Hungary, with a market share of 30%. All other countries had significantly lower shares, ranging from 5% in the Czech Republic and Poland to 2% in the Slovak Republic (see Table 13).

Food imports from Austria to the CEECs

The CEEC(7) are a major export destination of Austria's non-EU food exports, accounting for about 42% of all extra-EU(15) food exports (see Table 14). Among the CEECs, Slovenia, the Czech Republic, Hungary and Romania were the most important food importers from Austria. In fact, CEEC(7) food imports from Austria have been larger than exports, leading to a trade deficit of ECU 101 million in 1998. Only in Hungary and Bulgaria did the food sector achieve a trade surplus with Austria, reaching ECU 69 million in the former and ECU 2.5 million in the latter country in 1998, while in all other countries a trade deficit was recorded. It ranged between ECU 65 million in Slovenia and ECU 4 million in Poland.

Table 13

Food products, beverages and tobacco

CEECs' exports to Austria in ECU mn, market shares in %

	Austria	Bulgaria		Czech Republic		Hungary		Poland	
	extra-EU(15) imports	ECU mn	%	ECU mn	%	ECU mn	%	ECU mn	%
1995	218.6 [1)]	1.4	0.63	8.8	4.01	38.1	17.45	11.8	5.41
1996	394.3	6.4	1.64	18.3	4.63	114.7	29.09	21.2	5.37
1997	391.3	14.2	3.63	20.2	5.16	118.7	30.34	21.5	5.50
1998	407.4	12.8	3.14	20.3	4.99	120.5	29.57	20.4	5.01

	Romania		Slovak Republic		Slovenia		CEEC(7)[2)]	
	ECU mn	%	ECU mn	%	ECU mn	%	ECU mn	%
1995	1.9	0.87	1.9	0.89	4.4	2.01	68.4	31.27
1996	4.5	1.15	5.0	1.27	6.2	1.57	176.3	44.72
1997	6.4	1.63	8.1	2.07	6.4	1.64	195.5	49.97
1998	6.5	1.61	9.1	2.23	11.4	2.80	201.1	49.35

Notes: 1) 1995 data for Austria are not strictly comparable to 1996 and 1997 data. - 2) Including Bulgaria, the Czech Republic, Hungary, Poland, Romania, the Slovak Republic and Slovenia.

Source: WIIW Database.

[25] CEEC(6) plus Slovenia.

Table 14

Food products, beverages and tobacco

CEECs' imports from Austria in ECU mn, market shares in %

	Austria	Bulgaria		Czech Republic		Hungary		Poland	
	extra-EU(15) exports	ECU mn	%	ECU mn	%	ECU mn	%	ECU mn	%
1995	460.6 [1)]	6.6	1.44	40.2	8.72	42.5	9.23	14.2	3.08
1996	665.6	4.1	0.61	56.4	8.47	53.7	8.07	17.1	2.58
1997	747.1	6.3	0.85	59.3	7.94	60.3	8.07	21.9	2.93
1998	717.3	10.3	1.43	60.7	8.46	52.6	7.33	24.3	3.39

	Romania		Slovak Republic		Slovenia		CEEC(7)[2)]	
	ECU mn	%	ECU mn	%	ECU mn	%	ECU mn	%
1995	19.0	4.13	14.1	3.07	52.1	11.32	188.8	40.99
1996	45.4	6.82	19.7	2.97	62.4	9.37	258.9	38.89
1997	29.5	3.95	27.4	3.66	72.4	9.70	277.1	37.09
1998	50.2	7.00	27.6	3.85	76.8	10.71	302.5	42.17

Notes: 1) 1995 data for Austria are not strictly comparable to 1996 and 1997 data. - 2) Including Bulgaria, the Czech Republic, Hungary, Poland, Romania, the Slovak Republic and Slovenia.
Source: WIIW Database.

Revealed comparative disadvantage

Revealed comparative advantage values (RCAs)[26] in relation to the EU(12) were negative in all CEECs (except in Hungary), reflecting the negative trade balance of the food sector (see Table 15). When compared to total manufacturing,[27] data indicate a comparative disadvantage in most countries in 1998 (exceptions: Hungary and Poland), which was largest for Romania and smallest for Bulgaria. In the latter, relative RCA values deteriorated significantly during the transition (see Table 16).

There existed, however, particular sub-branches with positive RCAs in 1998, including 'slaughtering, preparing and preserving of meat', 'fruit and vegetables' and 'sugar manufacturing and refining' in some CEECs (see Table 17). In Hungary, five out of nineteen sub-branches showed a positive RCA value, while in Romania there was none.

[26] Measured as RCA = (exports – imports) / (exports + imports).

[27] Measured as RCA (food sector) – RCA (total manufacturing).

Table 15

Food sector RCAs

	1989	1992	1997	1998
Austria	-0.28	-0.31	-0.28	-0.22
Bulgaria	-0.21	-0.17	-0.11	-0.29
Czech Republic	.	.	-0.50	-0.55
Hungary	0.69	0.55	0.23	0.24
Poland	0.09	-0.02	-0.17	-0.19
Romania	-0.08	-0.65	-0.62	-0.80
Slovak Republic	.	.	-0.50	-0.57
Slovenia	.	.	-0.59	-0.57
Greece			-0.54	-0.55
Portugal			-0.40	-0.41
Spain			-0.05	-0.07

Measured as: RCA = (exports – imports) / (exports + imports).
Source: Eurostat, WIIW calculations.

Table 16

Relative position of food sector RCAs

	1989	1992	1997	1998
Austria	-0.15	-0.20	-0.11	-0.07
Bulgaria	0.33	-0.04	-0.20	-0.30
Czech Republic	.	.	-0.36	-0.49
Hungary	0.79	0.57	0.29	0.28
Poland	0.17	0.06	0.10	0.06
Romania	-0.54	-0.58	-0.59	-0.73
Slovak Republic	.	.	-0.42	-0.56
Slovenia	.	.	-0.49	-0.49
Greece			0.07	0.05
Portugal			-0.19	-0.19
Spain			0.08	0.06

Measured as: RCA (food sector) - RCA (total manufacturing)
Source: Eurostat, WIIW calculations.

Table 17

Detailed RCA structure of the food products, beverages and tobacco sector, 1998

		Bulgaria	Czech	Hungary	Poland	Romania	Slovak	Slovenia
411	Manufacture of vegetable and animal oils and fats	-0.87	-0.66	-0.71	-0.82	-0.83	-0.69	-0.67
412	Slaughtering, preparing and preseving of meat	-0.15	-0.30	0.70	0.15	-0.58	-0.44	0.02
413	Manufacture of dairy products	-0.99	0.07	-0.35	-0.23	-0.94	0.37	-0.03
414	Processing and preserving of fruit and vegetables	0.43	-0.64	0.54	0.64	-0.54	-0.73	-0.72
415	Process.&preserv.of fish&oth.sea foods f.hum.con	0.40	-1.00	-0.98	0.44	-0.45	-0.99	-0.97
416	Grain milling	-0.98	-0.77	0.47	-0.99	-0.80	0.75	-0.99
417	Manufacture of spaghetti, macaroni, etc.	-1.00	-1.00	-0.44	-0.85	-1.00	-1.00	-0.97
418	Manufacture of starch and starch products	-0.17	-0.95	0.35	-1.00	-1.00	0.35	-1.00
419	Bread and flour confectionery	-1.00	-0.67	-0.75	-0.71	-0.86	-0.99	-0.97
420	Sugar manufacturing and refining	-0.61	0.69	0.83	0.79	-1.00	-0.61	-0.72
421	Manuf.of cocoa, chocolate and sugar confect.	-0.99	-0.60	-0.64	-0.60	-0.91	-0.81	-0.73
422	Manuf.of animal and poultry foods (incl.fish meal)	0.41	-0.93	-0.68	-0.95	-0.87	-0.29	-0.28
423	Manufacture of other food products	-0.93	-0.89	-0.21	-0.95	-1.00	-0.98	-0.92
424	Distilling of ethyl alcohol from fermented materials	-0.99	-0.99	-0.83	-0.35	-0.98	-1.00	-0.99
425	Manuf.of wine of fresh grapes&bev.based thereon	-0.22	-0.96	-0.59	-1.00	-0.96	-0.92	-0.98
426	Manuf. of cider and other fruit wines	-1.00	-1.00	-0.94	-0.80	-1.00	-1.00	-1.00
427	Brewing and malting	-0.80	0.92	-0.98	-0.87	-0.90	-0.41	-0.12
428	Manuf.of soft drinks,incl.bottling of nat.spa waters	-0.40	0.13	-0.64	-0.36	-1.00	-0.68	0.05
429	Manufacture of tobacco products	-0.98	-1.00	-1.00	-0.94	-1.00	-0.48	-0.88
DA	**Food products, beverages and tobacco**	**-0.29**	**-0.55**	**0.24**	**-0.19**	**-0.80**	**-0.57**	**-0.57**

Source: Eurostat, WIIW calculations.

4 Foreign direct investment

The food sector, forming a large part of the CEECs' economies, has also been a prominent target of foreign direct investment, especially in the early years of transition. Compared to its production share, it attracted an over-proportionate share of FDI in the Czech Republic and Hungary in 1998, but not in Poland, Slovakia and especially Slovenia, where FDI was less important. Over the years, however, the significance of foreign direct investment flowing into the food sector declined slightly, with other sectors of the economy becoming more attractive (e.g. motor vehicles).

Foreign investors were mainly drawn by entering domestic markets, but also by other motives such as the circumvention of import tariffs, building up world-wide networks or reducing competition in neighbouring countries by producing within the CEEC region. Export orientation did not play a decisive role, except for example in the Czech beer sub-branch. Foreign investors mostly preferred companies with advanced technology, a monopolistic position, relatively good organisational features and favourable location, e.g. vegetable-oil, sugar, confectionery, distilling, beer and tobacco. Foreign investors have had a strong impact on the modernization process of the food sector, on the change in the range and quality of food products, on marketing and packaging, and on technological standards.[28]

Looking at the shares of the food sector in the distribution of the nominal capital of all foreign investment enterprises (FIEs)[29] in total manufacturing, shares were comparatively large in the Czech Republic (20%), Hungary (24%) and Poland (20%) in 1998, and smaller in Slovakia (12%) and Slovenia (9%). While in the former three countries the food sector ranked first/second as a target of FDI in manufacturing, it was less prominently placed in the latter two (see Figure 8A).

Foreign penetration of the food sector (as measured by the share of the nominal capital of the sector's FIEs in the nominal capital of all food sector companies) was at above-average levels of foreign penetration for total manufacturing in all CEECs in 1994 (except Slovenia), but fell below average by 1997/1998 in most countries. In 1998, the largest foreign penetration in the region was measured in Hungary (71%), followed by Poland (40%) and the Czech Republic (37%). Only in Slovakia and Slovenia, foreign penetration was low and reached only about 17% (see Figure 8B). However, the levels of foreign penetration varied enormously among sub-branches. While foreign ownership was nearly 100% in the tobacco industry, it was much lower in the food products and beverages industry (28% in the Czech Republic, 71% in Hungary or 39% in Poland, see Figure 9). The tobacco

[28] Kiss (1997a), p. 12.

[29] Firms with any share of foreign ownership, including minority stakes.

industry is usually foreign-owned, as only big international companies can cope with the brand names and promotion costs of this industry. They often hold monopoly positions, with high profit rates pointing to the abuse of their power.[30]

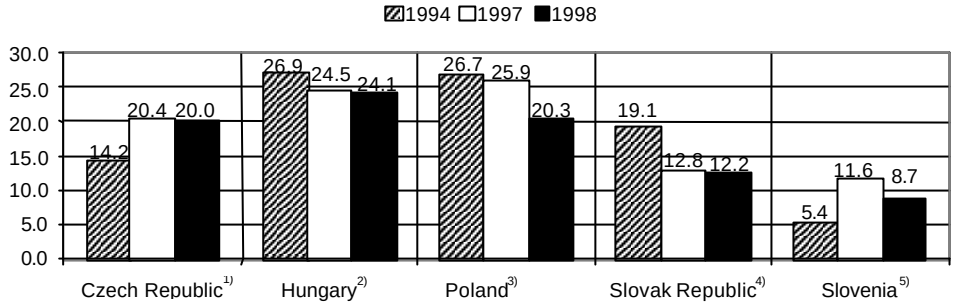
Figure 8

Food products, beverages and tobacco

A. Position of food in the distribution of foreign capital

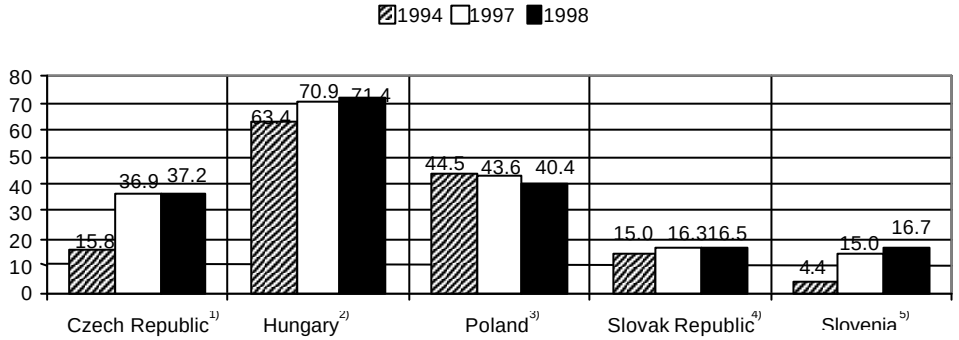
Percentage share of the food sector in total manufacturing's nominal capital of foreign investment enterprises (FIEs)

Manufacturing = 100



B. Foreign penetration of the food sector

Share of nominal capital of food FIEs in the nominal capital of all food companies (FIEs + all others)



Notes : 1) 1994 own capital, 1997-1998 equity captial.- 2) Nominal capital.- 3) Equity capital.- 4) Output of companies; 1995 data instead of 1997, 1996 data instead of 1998.- 5) Nominal cpaital; data for tobacco manufacturers (16) not stated due to confidentiality (industry with less than 3 FIEs).

Source: WIIW, FIE Database

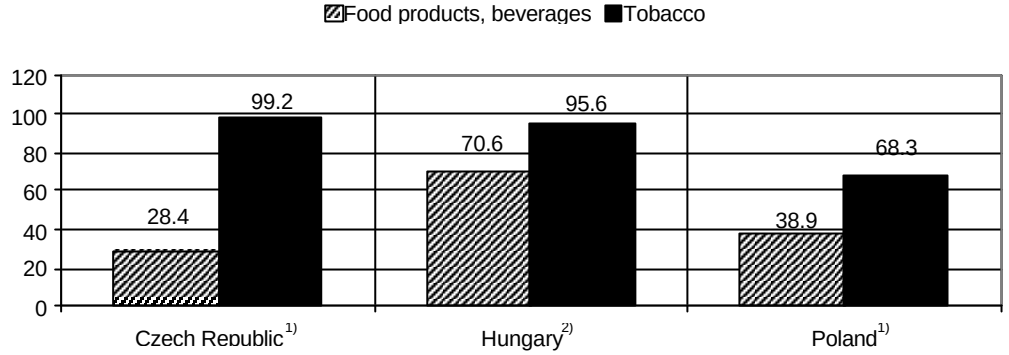
[30] Hunya (2000), pp. 19 and 30.

Figure 9

Food products, beverages and tobacco

Foreign penetration of individual industries in 1998

Share of nominal capital of FIEs in
the nominal capital of all companies (FIEs + all others)



Notes: 1) Equity capital.- 2) Nominal capital.

Source: WIIW, FIE Database

5 Prospects

Within the region, the food sector has an important position in Poland, Hungary, Bulgaria and Romania today. In *Poland*, this is reflected by the large share of the food sector in manufacturing production and employment, a positive relative RCA value and a large share on the European market. The overall positive picture is blurred only by a rising trade deficit with the EU. In *Hungary*, a long-lasting tradition of production of food products and the country's advantage regarding soil and climatic conditions transformed into the sector's high share in employment, positive RCA values and a trade surplus with the EU countries. Restructuring was enforced by a high share of FDI participation in the food sector, outstanding among the CEECs. Although spezialization occurred in other – more high-tech – sectors in manufacturing, the food sector continues to be of major importance. In *Bulgaria*, the former comparative advantage and tradition of food production also turned into an important position of the food sector today. Although its situation deteriorated and the comparative advantage in trade has disappeared, the country records a trade surplus with Austria. On the one hand, the large share in production can be seen as a transitory phenomenon due to delayed restructuring and a relatively lower development level in the country. On the other hand, however, Bulgaria may use its advantage of good soils and expand its food sector in the future. In *Romania*, the food sector also plays a major role in manufacturing, but has a major disadvantage in trade with the EU. In contrast to Bulgaria, the pronounced bias towards food may be restricted to the transitory period and may change thereafter.

With regard to growth, the food sector did relatively worse than total manufacturing throughout the region. In most countries it was not able to reach the pre-transition level of 1989. Only in Poland was the food sector more successful and achieved positive growth rates from 1992 onwards and a level of 130% in 1999. While average annual growth of food production was positive in the Czech Republic and Slovenia from 1993 onwards, it remained negative in Hungary, Slovakia, Romania and Bulgaria.

The future prospects of the food sector are mainly influenced by the development in agriculture, the demand for food products on the domestic and export markets and, in particular, by a future EU accession: As an upstream supplier, ***agriculture,*** for the time being, is hampering rather than supporting the growth prospects of the food sector in the CEECs: As farmers are highly indebted, technical equipment is outdated, farmers lack own capital for new machinery and access to credit is difficult, quality is often inferior and the growth prospects in agriculture are limited. In addition, small farm structures – particularly in Poland, Bulgaria and Romania – create large costs and linkages between these small suppliers are difficult to establish. Moreover, the underdeveloped land market creates a lot of uncertainty. At the same time it hinders access to agricultural loans, as land cannot be used as a collateral.

Growth of ***domestic demand*** mainly depends on income growth and the structure of household expenditure, which is again determined by the level of income. The development of income can be shown by the development of GDP (see Table 18). Growth prospects are best for Hungary and Poland, followed by Slovenia and Bulgaria. They are less favourable for Slovakia and the Czech Republic and very poor for Romania. But as the income elasticity for food products is less than one, the share of expenditure for food declines with the increase in the level of income. Thus, growth prospects for the food sector are less than for GDP and decline with a higher-level income. The current share of food expenditure is still higher than in the West European countries, but is assumed to reach similar levels in the future. Demand for food will increase slowest in Slovenia and the Czech Republic, as living standards are relatively high for these countries; the income elasticity is estimated to be 0.10 for Slovenia and 0.12 for the Czech Republic. In Romania (probably also Bulgaria), on the other hand, living standards and food expenditure are very low and the income elasticity for food is estimated to be 0.25. In Poland, Slovakia and Hungary it is estimated at 0.15. Hence food expenditure will increase most in Romania and least in Slovenia (see Table 18).[31] Whether domestic demand will be met by domestic production or by imports depends on the range and quality of domestic products, as well as on trade barriers for imports.

[31] Lukas and Pöschl (2000).

Exports of food products to the EU have been hampered by several factors and hence have grown only slightly during the last few years. Future growth will depend on the removal of these factors, as well as on further trade liberalization with EU accession and the effects of the single market.[32] Exports to Russia are also of major importance to the CEECs' food sector. Export possibilities still exist, as soon as the effects of the 1998 Russian crisis have been overcome.

The markets for agricultural and food products are highly distorted by government intervention, including trade restrictions (regulations, quotas, institutional barriers), export subsidies, investment incentives etc., both in the European Union and the CEECs. The pending CEECs' ***accession to the EU*** puts pressure on reforming these interventions on both sides: The European Union has to reform the Common Agricultural Policy (CAP), the CEECs have to adopt EU competition policy rules. However, the burden on the CEECs is larger, as restructuring of the food sector has to continue and companies have to bear the cost of compliance with EU directives and regulations, such as product certification requirements for exports to the EU. Hence overall, future prospects for the CEECs' food sectors are rather restrained, though growth possibilities exist for high value added and/or high income-elasticity products, as proven by their attractiveness for FDI. Growth prospects within an enlarged European Union are difficult to predict and strongly depend on the outcome of the pending reform of the Common Agricultural Policy (CAP). Access to CAP may increase substantially the profitability of agricultural production and also lead to much stronger cross-border vertical and horizontal linkages (including take-overs) in the food sector.

Table 18

Developments in GDP and food expenditure

	Gross domestic product				Food expenditure				
	real change in % against preceding year				in EUR bn, current prices, current exchange rate				
	1998	1999	2000	2001	1998	1999	2000	2001	2005
			forecast		forecast				1998=100
Czech Republic	-2.2	-0.2	1.5	2	5.6	5.6	5.9	6.2	133
Hungary	4.9	4.5	5.5	5.5	4.3	4.5	4.6	4.7	136
Poland	4.8	4.1	4.5	5	20.1	20.1	21.5	22.0	131
Slovak Republic	4.4	1.9	2.0	3	2.1	2.1	2.5	2.6	136
Slovenia	3.8	4.9	4.0	4	1.6	1.6	1.6	1.7	124
Bulgaria	3.5	2.4	4	4	.	.	.	.	.
Romania	-5.4	-3.2	0	1	8.8	7.8	8.4	9.4	162

Source: WIIW (June 2000), Lukas and Pöschl (2000).

[32] After the Europe Agreements, tariff barriers have declined, while non-tariff barriers have increased.

Part II: COMPANY PROFILES

This second part of the study sets out a more detailed micro-analysis of the food, beverages and tobacco sector and contains the following data for each country, as far as available:

- Structure of the sector in detail (size of food and beverages industry and tobacco industry, main sub-branches) and development trends
- Profitability
- Privatization and FDI
- Description of selected companies or a list of major enterprises
- Description of selected sub-branches (as there are eight sub-branches according to the NACE rev. 1 classification system and even more product groups, not all can be described)

Bulgaria[33]

After 1990, a deep transformational crisis hit Bulgarian manufacturing and also the food sector, suffering from a decline of domestic demand and the collapse of the CMEA market, which had been the main export destination of food products. For a long time, the food market was characterized by price regulations and selected export prohibition. Nevertheless, the food sector remained important. The most important sub-branches are wine, processed fruit and vegetables, sunflower seeds and roses for high-value rose-oil. Difficulties in the sector include the lack of credit, problems related to land ownership (absence of land registry, proper titles to land) and to the supply of inputs (e.g. quality).

The privatization of food companies has reached 92% of assets, except for fish and sugar industries where privatization reached just over 70%. There are more than 1,300 companies active in the food sector. Newly created private enterprises can be found mainly in the dairy, meat, wine and canned-products sub-branches.[34] The first large deals with foreign investors and joint ventures have taken place in the dairy, brewing and confectionery sub-branches. The largest foreign investors in brewing include Interbrew (Belgium) and Brewinvest (Greece). In wine production Boyar International (UK), Seaboard Overseas (USA), Vinprom Service Kork (Portugal), and Unibul Wines (UK) are prominent investors.

[33] Because of the lack of data, a detailed distribution of industries and sub-branches cannot be given for this country.

[34] See Ministry of Economy of Bulgaria (http://nacid.nat.bg/micfi.htm).

In food processing, the largest foreign investors include:[35]

- Eaststarch (Netherlands)
- Klarina Holding (Luxembourg)
- Luxcraft (UK)
- Softbul Investment Ltd. (Cyprus)
- Kraft Foods International (USA): In 1993, Kraft Jacobs Suchard bought the previous state-owned confectionery Svoge. It produces chocolate – tablets, bars, pralines – and with several of its brands it is the market leader in Bulgaria.
- Nestlé (Switzerland, production of chocolate)
- TKM Fruit and Juice (Greece)
- Danone (France): In 1993, the French company Danone formed a joint venture with the Bulgarian company Serdika for the production of dairy, mainly yoghurt. The foreign investor increased the workforce and capacity, introduced new lines and raised market shares.
- Delta (Greece, ice-cream factory)
- Chipita International (Greece)
- Helian Commodities (Netherlands)
- Zankl (Austria)

Table 19

The largest Bulgarian food processing companies, ranked by 1999 net sales

Name, location	Net sales in ths. BGL	Net sales in ths. EUR[1)]	Employees	Main activity
Blagoevgrad BT, Blagoevgrad[2)]	183911	94024	1404	Tobacco
Sofia BT, Sofia[2)]	64904	33182	457	Tobacco
Zaharni zavodi, Gorna Oryahovitza[3)]	58749	30035	1566	Sugar, sweets, alcohol, soft drinks
Plovdiv Yuriy Gagarin BT, Polvdiv[2)]	41372	21151	780	Tobacco
Zagorka, Stara Zagora	41129	21027	421	Beer
Sluntze-St. Zagora BT, Stara Zagora[2)]	40627	20770	747	Tobacco
Targovishte botteling company, Targovishte	36227	18521	.	Soft drinks
Kaliakra-Dobrich, Dobrich	34128	17448	380	Vegetable oils
Plevensko pivo, Pleven	31398	16052	427	Beer
Biser-Oliva, Stara Zagora	28029	14330	344	Vegetable oils

Notes: 1) Preliminary average exchange rate Bulgarian Lev BGL/EUR 1.956. - 2) Belonging to the Bulgartabac Holding Group (BT). - 3) For privatization now.

Source: Bulgarian Enterprises Information System BEIS (http:// www.bic.bia-bg.com)

[35] See Bulgarian Foreign Investment Agency (http://bfia.org/Investment_Statistics/index.htm).

— *Bulgartabac:* In 1993, Bulgartabac Holding AD was established as a successor of the former Bulgarian state cigarette and tobacco monopoly Bulgartabac; it is one of the largest cigarette producers in Europe. Bulgartabac Holding has 22 subsidiaries, of which 12 are tobacco processing factories, nine cigarette factories and one producer of tobacco driers (Plovdiv Yuriy Gagarin BT). In addition it has three cigarette factories in Russia, one in Ukraine and one in Romania, and further expansion plans to Slovakia and Paraguay (through joint ventures). The holding employs 18,000 persons in total and is owned by the state (94%). Bulgartabac produces 70 different cigarette brands – with an output of 35,000 tonnes of cigarettes in 1999 up from 23,000 tonnes in 1998. It dominates the Bulgarian market but is also highly export-oriented – with exports particularly to the former Soviet Union, where it has a long-standing brand recognition. Hence, it is the only East European cigarette manufacturer with significant sales on foreign markets. Privatization should take place in 2000, with a 51% stake offered to a foreign strategic investor. The government wants to keep a golden share. Potential bidders include Philip Morris (USA), Gallaher (UK) and Reemtsma (Germany).[36]

The Bulgarian ***wine industry*** includes some 35-38 wineries, most of which have been privatized through management and employee buyouts. Exports are important, mainly to the CIS countries (Ukraine, Moldova). The growing reputation of Bulgarian wines has also helped exports to Western markets such as the UK, Japan and Germany. The country has given priority to the modernization of wine companies. The main problems in the industry include finding markets and the lack of vertical integration, as the wineries have no own vineyards.[37]

Czech Republic

In the structure of the Czech food, beverages and tobacco sector, the food and beverages industry accounted for 93% of the sector's sales revenues in 1998, the tobacco industry for 7%. Together, about 1,230 companies with more than 20 employees were located in both industries (making up 15% of all manufacturing enterprises). The largest sub-branches were 'other food products' including the sugar industry (23%), 'processing and preserving of meat and meat products' (22%), 'beverages' (16%) and 'dairy products' (14%, see Table 20).

While sales revenues in current prices slightly increased in the food and beverages industry between 1994 and 1998, sales revenues in constant prices stagnated. The largest

[36] *New Europe* (1999), 26 July - 1 August; Privatization Agency – Bugaria http:// www. priv.government.bg/pools/ Bulgartabak.html.

[37] PHARE, Euro JOP Data (1999).

increase by sub-branches was achieved in 'prepared animal feeds' and in 'fish and fish products' (see Table 20).

Investment in the food sector totalled about 15 billion Czech koruna (CZK) in 1998, representing 14% of total manufacturing investment and being second only to investment in the transport equipment sector. The investment growth rate reached 5% in that year and was far above the manufacturing average (-16.7%). The pre-tax profit of food companies with 100 or more employees stood at CZK 4 billion, 45% less than in the preceding year, but still among the sectors with the largest profits. In detail, 226 companies made a profit of CZK 10 billion, and 123 a loss of CZK 6 billion. The technological level of most companies is still below EU standards, further modernization is needed. As most companies are already highly indebted, own resources are limited and bank loans hard to obtain, which poses a serious problem.[38]

Table 20

Czech Republic: Sales revenues of the food products, beverages and tobacco sector

CZK million, distribution in %

		1994	1996	1998	1998	98/94
			CZK mn		in %	
15	**Manufacture of food products and beverages**	**169259.1**	**212566.8**	**239111.4**	**93.3**	**141.3**
15.1	Production, processing and preserving of meat and meat products	41003.4	49104.3	56356.2	22.0	137.4
15.2	Processing and preserving of fish and fish products	799.7	1147.3	1445.7	0.6	180.8
15.3	Processing and preserving of fruit and vegetables	4687.8	5865.4	6139.2	2.4	131.0
15.4	Manufacture of vegetable and animal oils and fats	9320.6	10687.9	11945.6	4.7	128.2
15.5	Manufacture of dairy products; ice cream	26412.0	30222.0	35720.4	13.9	135.2
15.6	Manufacture of grain mill products, starches and starch products	6610.3	7903.7	7070.0	2.8	107.0
15.7	Manufacture of prepared animal feeds	9602.1	12831.2	20017.9	7.8	208.5
15.8	Manufacture of other food products	42165.4	56387.1	59162.1	23.1	140.3
15.9	Manufacture of beverages	28657.8	38417.9	41254.3	16.1	144.0
16	**Manufacture of tobacco products**	**.**	**.**	**17170.9**	**6.7**	**.**
DA	**Manufacture of food products; beverages and tobacco**	**.**	**.**	**256282.3**	**100.0**	**.**

Source: Ministry of Industry and Trade (2000).

[38] Ministry of Industry and Trade (2000), p. 31.

The privatization of the food sector has reached a final stage, now followed by ownership alliances and the closure of non-perspective capacities. The largest foreign investors include Philip Morris (USA, tobacco), Coca-Cola Co. (USA, beverages), Pepsi-Cola International (USA, food and beverages), Bass International Brewers Oversees Holding Ltd. (Great Britain, brewing), Danone a.s. (France, Switzerland, food) and Devro PLC Glasgow (USA, food processing).

The Czech ***beer industry*** is dominated by five large breweries (see below and Table 21), which hold 70% of the production volume, the rest is made up by small breweries. Although per capita beer consumption in the Czech Republic – with about 160 litres annually (see Table 22) – is the highest in the world, the situation on the market is harsh: strong competition, zero brand loyalty, and hence competition on prices leads to small profits or losses and thus to low investment. While in 1989, 77 breweries existed, 16 have gone bankrupt since then, another dozen are in trouble.[39] Even the large investor Bass, from the UK, has made losses over four years (see below). Although this industry is just barely profitable, foreign investors are keen to step in, due to expected price rises, possible export opportunities, and the good reputation of Czech beer.

Table 21

The largest Czech breweries, ranked by 1998 production volume

Name	Volume in ths. hl	Revenues in CZK mn	Revenues in EUR mn[1)]	Employees	Export share	Net profit in CZK mn
Plzeòský Prazdroj a.s.	5,061	6,715	186	2,558	8	181.4
Praž ské pivovary a.s.	2,439	2,725	75	1,335	14	-766
Pivovar Radegast a.s.	2,144	1,980	55	654	4.3	152 (3Q98)
Budìjovický Budvar	1,169	2,200	61	552	45	414
Jihoèeské pivovary a.s.	902	678	19	668	6	157
Královský pivovar Krušovice a.s.	865	790	22	380	3	-80

Notes: 1) Average exchange rate CZK/EUR 36.16.

Source: *Prague Business Journal* (1999).

Battles over the Czech brewing companies:

— *Plzeòský Prazdroj a.s.:* The largest Czech brewing company, with a 28% market share in 1998, is the producer of the famous Pilsner Urquell beer. It belongs to the holding company Èeské Pivo, controlled by Nomura Securities from Japan. Èeské Pivo took control over Radegast – the third largest brewery – and merged the two breweries in 1999, after the competition office finally approved the merger (after it had rejected it twice, in September 1997 and August 1998). Together they hold 44% of the market.

[39] *Financial Times* (1999), 4/5 September.

Before, a heavy battle for Radegast took place between Nomura Securities and Bass, which itself held a minority stake in Radegast (see below). In October 1999, Nomura Securities sold a 51% share of Èeské Pivo to South African Breweries (SAB).

— *Pražské pivovary a.s.:* The second largest brewer, with a 13% market share, was taken over by the British Bass in 1993. Bass wanted to merge Pražské pivovary with Radegast, in which it held a 33% stake since 1996. However, it lost the battle over Radegast and sold its shares in 1999. In addition, Pražské pivovary made losses over four years. Hence, Bass announced to sell its share in Pražské pivovary to the Belgian Interbrew in June 2000.

— *Budìjovický Budvar*: This brewery is still state-owned (and is supposed to remain so) and very successful abroad due to is renowned brand 'Budweiser', over which it disputes with the US brewer Anheuscher-Busch. The battle started in the last century, when Anheuscher-Busch was permitted to sell its Budweiser everywhere – except in Europe, where it sold it under the name 'Bud'. Budvar, on the other hand, was constrained from exporting freely outside Europe. The battle over the trademark is still going on.

Table 22

Per capita beer consumption in the CEECs and Austria

	1990	1993	1995	1997	1998
Austria[1)]	120.2	114.4	112.4	113.2	113.3
Bulgaria[2)]	26.4	15.5	14.7	5.5	8.9
Czech Republic	155.2	153.6	156.9	161.4	.
Hungary	105.3	82.9	75.3	69.5	.
Poland	30.4	33.0	39.0	49.8	54.1
Romania	44.5 [4)]	.	38.0	.	.
Slovak Republic	95.6	90.3	87.5	92.3	85.2
Slovenia[3)]	15.6	20.6 [5)]	19.2	27.5	.

Notes: 1) Data for 1990/1991, 1993/1994, 1995/1996, 1997/1998 and 1998/1999.-2) Household consumption per capita. Per capita beer consumption 1997 36 l, 1998 46 l; Ministry of Economy of Bulgaria Internet-Homepage www.mi.government.bg/ns_hran.html. - 3) Average annual quantity of purchased food and beverages per household member. - 4) 1991. - 5) 1994.

Source: National statistics.

Hungary

In the structure of the Hungarian food, beverages and tobacco sector, the food products and beverage industry dominates (96% of the total sector's gross production in 1998), while the tobacco industry is rather small (4%). The number of food enterprises was about 1,154 in the former and 6 in the latter industry. The largest sub-branches were 'processing and preserving of meat and fish' (17%), 'other food products' (about 16%, including bakery products, sugar, sugar confectionery and other food n.e.c.), followed by 'dairy products'

(12%), ‘processing and preserving of poultry’ and ‘fruit and vegetables’ (both 11%, see Table 23).

Table 23

Hungary: Value of gross production in the food, beverages and tobacco sector

HUF million, distribution in %

Code[1)]		1993 [2)]	1996 [3)]	1998 [3)]	1993	1996	1998	98/93
			HUF mn			in %		
1511	Processing and preserving of meat and fish	92829	169066	217528	19.2	17.1	17.4	234.3
1512	Processing and preserving of poultry	34801	92090	140574	7.2	9.3	11.2	403.9
1513	Processing and preserving of fruit and vegetables	37342	92383	131786	7.7	9.4	10.5	352.9
152	Manufacture of dairy products	60468	96713	151658	12.5	9.8	12.1	250.8
1531	Manufacture of grain mill products	11593	56330	51088	2.4	5.7	4.1	440.7
1533	Manufacture of prepared animal fodder	51768	88696	97809	10.7	9.0	7.8	188.9
1541	Manufacture of bakery products	28831	49514	63055	6.0	5.0	5.0	218.7
1542	Manufacture of sugar	25994	52657	41950	5.4	5.3	3.3	161.4
1543	Manufacture of sugar confectionery	12973	37246	48937	2.7	3.8	3.9	377.2
1544	Manufacture of macaroni, noodles and similar farinaceous products	2173	5396	.	0.4	0.5	.	.
1549	Manufacture of other food n.e.c.	23131	52887	51217	4.8	5.4	4.1	221.4
1551	Manufacture of ethyl alcohol and alcoholic beverages	13776	17629	18324	2.8	1.8	1.5	133.0
1552	Manufacture of wines	8012	14079	13919	1.7	1.4	1.1	173.7
1553	Manufacture of beer and malt	24667	32367	52016	5.1	3.3	4.1	210.9
1554	Manufacture of soft drinks, production or mineral water	14111	47587	51983	2.9	4.8	4.1	368.4
15	**Manufacture of food products and beverages**	**463480**	**950802**	**1208137**	**95.9**	**96.4**	**96.4**	**260.7**
16	**Manufacture of tobacco products**	**19963**	**35625**	**45306**	**4.1**	**3.6**	**3.6**	**226.9**
DA	**Manufacture of food products and beverages and tobacco products**	**483443**	**986427**	**1253443**	**100.0**	**100.0**	**100.0**	**259.3**

Notes: 1) Hungarian Classification; some differences to NACE rev.1. - 2) Economic organizations employing more than 20 persons.- 3) Economic organizations employing more than 10 persons.

Source: Statistical Handbook of Agriculture and Food Industry of Hungary (1997), Statistical Yearbook of Agriculture (1999).

Between 1993 and 1998, the food products and beverages industry grew slightly faster than the tobacco industry (data at current prices, hence including inflation). The most

dynamic sub-branches in this period were 'grain mill products', 'processing and preserving of poultry' and 'sugar confectionery', the least dynamic 'sugar' and 'ethyl alcohol and alcoholic beverages' (see Table 23).

The privatization of the Hungarian food sector was virtually completed by 1996. FDI has played a decisive role in this process, with foreign investment enterprises (FIEs) holding about 70% of the nominal capital of all food companies in 1998 (see Part I, section 4). Foreign penetration came along with the beginning of privatization, so that by 1992, distilling, starch, confectionery, and vegetable oil industries were already acquired by foreign investors. By 1997, vegetable oil, soft drinks, and tobacco were almost 100% foreign-owned, confectionery and beer 90%, other food, and sugar 80% and starch 70%. Foreign investors were mainly drawn by the high level of concentration in the respective industries and strong market positions. On the other hand, scattered industry structures and adverse administrative factors discouraged FDI in milling, wine and baking.[40] While investment in foreign-owned branches was mostly quick and large, in those with less FDI, modernization of the first processing level has just started. These branches include fruit and vegetables, meat and milk processing, which also have to cope with the problem of excessive supply.[41]

Table 24

The largest companies of the Hungarian food and beverage industry, ranked by 1999 net revenue

Name	Net sales in mn HUF	Net revenues in mn EUR[1)]	Employees	Export Share	Main activity
Pick Szeged Szalámigyár és Húsüzem Rt.	51,597	204	4,658	42	Meat
Hajdúsagi Baromfitermelö és Értékesítö Rt	43,288	171	3,671	45	Poultry
Hajdútej Tejipari Rt.	38,586	153	1,069	8	Milk
Bábolna Mezögazdasági Termelö, Fejlesztö és Ker. Rt.	34,825	138	4,659	37	Food
Coca-Cola Beverages Ütítöital Gyártó Kft.	27,617	109	1,314	0	Beverages
Nestlé Hungária Kft.	24,278	96	1,095	16	Food
Sága Foods Baromfiipari Rt.	22,087	87	1,969	38	Poultry
Fövárosi Ásványvíz- és Üdítöipari Rt.	19,496	77	1,439	0	Beverages
Dreher Sörgyárak Rt.	19,313	76	1,323	0	Beer
Borsodi Sörgyár Rt.	19,302	76	903	6	Beer

Notes: 1) Preliminary average exchange rate Hungarian forint HUF/EUR 252.80.

Source: Figyelö TOP 200 (2000), October.

40 See Jansik (2000).

41 *NewsBase CEBD* (2000), 6 September.

In 1998, the Hungarian food sector was hit hard by the Russian crisis, and sub-branches mainly exporting to Russia were severely affected. The canning industry, for example, exported 70% of its sales up to then, of which half went to former Soviet markets.[42] As a consequence, companies ran into troubles, operations were shut down and foreign investors, such as the US food giant Heinz, left the country.[43] The meat industry was also affected and missing export opportunities led to an oversupply on the domestic market and thus falling prices.

Selected important domestic and foreign companies:

- *Pick Salami:* Hungary's largest producer and distributor of meat products was founded in 1869 by Pick Mark and transformed into a public company in 1992 with its shares listed on the Budapest Stock Exchange. Its core and best-known product is the high-margin winter salami but it also produces bacons, sausages, cold-cuts and canned meat. The PICK-group today has six domestic and one foreign subsidiary (Senfter ALCISA & PICK Gmbh, German-based meat distributor) and includes four processing, two breeding, one transportation and two retail companies. In 1994, Pick bought the Herz Salami Factory, which was its main competitor, and at the beginning of 1998 it acquired Ringa, a Hungarian bacon and ham producer, which mainly sold its products on the Russian market and was hence badly hit by the Russian crisis. In July 1998, Pick expanded its product range for paprika powder by acquiring the Szegedi Paprika company and it is said to have further acquisition plans. In 1999, Pick recorded sales revenues of HUF 51.6 billion (USD 217 million) and employed almost 4,700 persons. About 76% of shares are held by foreign institutional investors.[44]
- *Agrana,* Germany, Austria: The sugar company, owned by the German Südzucker (43.2%) and the Austrian Raiffeisen-Bank (43.2%), has expanded into the Central European region. In Hungary, it has a majority ownership in Magyar Cukor with its sugar plants in Acs, Petöhaza and Kaposvat and 50% in Hungrana, a starch producer. Agrana has thus a market share of 37%. In the Czech Republic, it holds a 24% market shares (97% of Cukovar Hrusovany with its sugar plants Hrusovany and Opava), in the Slovak Republic 28% (Gemercukor and Cukrovar Nova), and in Romania 30% (Bazau, Tandarei, Roman).[45]
- *Cereol Hungary Co.*: Formerly, the Hungarian Vegetable Oilseed Production Company, together with 11 oil processing plants, was part of the country's single monopoly in the vegetable fats industry. It was not split up by the Hungarian decentralization policy and

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42 In fact, the Hungarian canning industry always had strong ties with the former Soviet Union. In the 1970s, capacities were expanded due to a 15-year treaty between the former Soviet Union and Hungary. While Hungary supplied canned fruit and vegetables, the Soviet Union delivered natural gas and crude oil in exchange. After the collapse of the CMEA, the Hungarian canning industry faced a severe crisis and capacities were reduced. See Szabó (1997), p. 15.

43 *Business Central Europe* (1999), November.

44 PICK-Homepage www.pick.hu; ABN-AMRO (1998), November; *Business Central Europe* (1999), October; *Business Central Europe* (2000), September.

45 Agrana-Hompepage www.agrana.com/ag_int_u.htm.

was bought for USD 120 million by the Italian Feruzzi group in 1992, the main foreign competitor for Hungarian vegetable oil exports. Although domestic interest existed, sufficient resources were lacking. The privatized company now enjoys a monopolistic position in purchasing, procurement, marketing and exports of seeds. The foreign investor modernized the company, expanded capacities, paid back the former high debts, turned losses into a profit and stepped up exports tremendously.[46]

The ***dairy industry*** is one of the largest Hungarian food sector sub-branches and accounted for 12% of the sector's production value and 10% of employment in 1998. There were 101 enterprises in the industry, and about 62% of the industry's subscribed capital belonged to foreign investors in that year. The industry is mainly domestic-oriented, with 91% of sales for the Hungarian market. Though gross production value more than doubled between 1993 and 1998 (see Table 23), this was mostly because of inflation, while production volumes declined. This was due to the shrinkage of supply of base material on the one hand and a decline of consumption on the other hand. The demand for dairy products fell as a result of diminishing purchasing power in the first years of transformation, drastic prices increases and advertisements shaping demand in favour of substitute products such as soft drinks or margarine. However, as consumption declined less than the base material, oversupply still prevails on the market.[47]

The ***fruit and vegetable processing industry*** also belongs to the major sub-branches of the Hungarian food sector and represented about 11% of the sector's production value in 1998. The industry includes the production and distribution of canned food, frozen products, dehydrated foodstuffs and paprika, with canning and freezing activities taking the major part. There were 264 enterprises in the industry employing double-entry accounting in 1998, with a lot of small companies and about 20 large ones. About 57% of the sector's subscribed capital was in foreign ownership in 1998. The industry is strongly export-oriented, with 49% of sales being exported. It is one of the most dynamically developing sectors of the Hungarian food sector.[48]

Poland

In the structure of the Polish food, beverages and tobacco sector, the food products and beverages industry dominates, while the tobacco industry is relatively small. In 1998, the former accounted for 94% of the sector's sold production of companies with more than 50 employees, the latter only for 6%. The respective number of companies were about

[46] Kiss (1994), p. 13 and Jansik (2000), p. 93.

[47] Hungarian Ministry of Economy (2000b).

[48] Hungarian Ministry of Economy (2000a).

1,670 in the food and beverages industry and 11 companies in the tobacco industry.[49] The largest sub-branches in that year were 'preserving and processing of meat products' and 'other food products', each reaching 22% of sales, followed by 'dairy products' (15%) and 'beverages' (13%, see Table 25).

Table 25

Poland: Sold production of food products, beverages and tobacco[1)]

PLN mn, distribution in %

		1994	1996	1998	1994	1996	1998	98/94
		PLN mn			in %			
15	**Manufacture of food products and beverages**	**26064.2**	**41948.0**	**56938.8**	**89.6**	**94.9**	**93.7**	**218.5**
15.1	Production, processing and preserving of meat and meat products	5518.1	9321.7	13339.1	19.0	21.1	21.9	241.7
15.2	Processing and preserving of fish and fish products	391.5	744.7	1186.1	1.3	1.7	2.0	303.0
15.3	Processing and preserving of fruit and vegetables	1719.3	3190.1	5284.8	5.9	7.2	8.7	307.4
15.4	Manufacture of vegetable and animal oils and fats	1271.1	2340.8	2242.3	4.4	5.3	3.7	176.4
15.5	Manufacture of dairy products; ice cream	3455.2	6564.5	8984.5	11.9	14.9	14.8	260.0
15.6	Manufacture of grain mill products, starches and starch products	911.4	1852.7	2009.2	3.1	4.2	3.3	220.5
15.7	Manufacture of prepared animal feeds	697.7	2111.0	2982.0	2.4	4.8	4.9	427.4
15.8	Manufacture of other food products	5045.3	9615.4	12964.2	17.3	21.8	21.3	257.0
15.9	Manufacture of beverages	7054.6	6207.1	7946.6	24.2	14.0	13.1	112.6
16	**Manufacture of tobacco products**	**3027.9**	**2247.2**	**3857.5**	**10.4**	**5.1**	**6.3**	**127.4**
DA	**Manufacture of food products; beverages and tobacco**	**29092.1**	**44195.2**	**60796.3**	**100.0**	**100.0**	**100.0**	**209.0**
D	**Total manufacturing**	**112335**	**183452**	**255607**	**.**	**.**	**.**	**227.5**

Note: 1) Of companies with more than 50 employees.
Source: Polish Statistical Yearbook, Polish Industrial Yearbook, various issues.

The development of the food and beverages industry and that of tobacco was quite different: While food products and beverages grew almost in line with total manufacturing (+109% compared to +128% since 1994), the growth of the tobacco industry was slow (+27%). The most successful sub-branches were 'prepared animal feeds', 'fruit and vegetables' and 'fish and fish products', the least successful 'tobacco' and 'beverages' (see

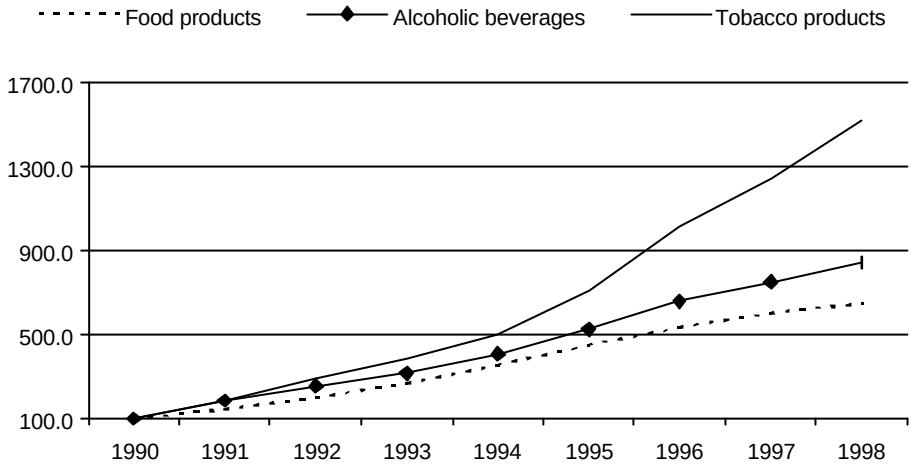
[49] According to PAIZ (1999), about 30,300 companies operate in the food and beverages industry (with 65% employing less than 5 persons) and 20 companies in the tobacco industry.

Table 25). Growth in the tobacco industry was hampered by a steep rise in excise taxes and in retail prices, resulting in a drop in demand and in a very high level of smuggling. In 1998, prices of tobacco products reached about 1500% of the 1990 level, alcoholic beverages about 850% and food products about 650% (see Figure 10).

Figure 10

Poland: Consumer price indices of food, alcoholic beverages and tobacco products

1990=100



Source: Polish Statistical Yearbook, various issues.

Table 26

Poland: Net profitability in the enterprise [1] sector and real growth rates of investment outlays, in %

	Net profitability[2]				Investment growth			
	1996	**1997**	**1998**	**1999**	**1996**	**1997**	**1998**	**1999**
15 Food products & beverages	1.8	1.2	0.5	-1.1	36.4	22.9	16.3	5.0
16 Tobacco products	0.1	2.0	4.5	4.3	149.9	44.0	-11.8	56.2
D Total manufacturing	2.3	2.3	1.2	0.1	32.7	38.2	30.9	1.2

Note: 1) Firms with 50 or more employees.- 2) Ratio of net profits to all revenue.

Source: Podkaminer (1998) and Central Statistical Office (1998, 1999, 2000).

In the food products and beverages industry, net profitability and investment growth have declined over the last few years, while in the tobacco industry net profitability has increased and investment growth fluctuated. 1999 was an exceptionally bad year for profits – both in the food industry (see also Table 28 on the main companies in the Polish meat industry and their gross profit rates) and for total manufacturing (see Table 26).[50] Brewing and the

[50] However, while the rate of profit in domestic food companies is close to nil, it is rather high for foreign investment enterprises. See Hunya (2000), p. 19.

production of oils and fats recorded the highest profitability ratios in 1998, fruit and vegetable production the lowest, due to large differences in companies.[51]

Privatization of companies has occurred in the major part of the Polish food sector (about 90%), with the private sector reaching about 70% in oils' manufacturing, 70% in meat production and 63% in the production of animal feeds. Only in the sugar and spirits production has privatization yet to proceed.[52] Foreign investment has played a major role in this process: According to the Polish Agency for Foreign Investment (PAIZ) the food, beverages and tobacco sector was the major target of foreign direct investment in Polish manufacturing, receiving as much as USD 4,600 million as of end-1999 out of USD 17,300 million going to total manufacturing. The most prominent sub-branches were sugar confectionery, beer, soft drinks and tobacco products. Table 27 shows the largest foreign investors as of end-June 1999.

The ***meat industry*** is the largest sub-branch of the Polish food sector, accounting for 22% of the sector's sold production in 1998. Within the sector, 'production and preserving of meat' (15.11) was largest with 56%, followed by the 'production of meat and poultry meat products' (15.12; 27%) and the 'production and preserving of poultry meat' (15.13; 17%). While profitability was high between 1989 and 1991, the industry faced financial problems thereafter, with economic conditions improving again since 1995.[53] The meat industry is still fragmented, with about half of the meat processed in small slaughterhouses that often do not meet EU quality standards. Only 40 of them are permitted to export to the EU and the US, about 4,000 out of 5,000 should be shut down according to EU experts.[54] At the end of 1999, the merger of four large meat processors, FarmFood, Sokolow, Jaroslaw and Miestar into Sokolow brought some consolidation. Sokolow itself is 30% owned by the Federation of Swedish Farmers.[55] In many of the largest meat enterprises foreign investors hold shares (see Table 28): Animex, a successful former trader and agro-business giant and today the largest Polish meat and poultry producer, was acquired by Smithfield Foods from the US in 1999, while Morliny was taken over by the Spanish company Campofrio also in that year.

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51 PAIZ (1999), p. 8.

52 PAIZ (1999), p. 6.

53 PAIZ (1997), p. 9.

54 *Business Eastern Europe* (2000), 14 February.

55 *Business Eastern Europe* (1999), 6 December.

Table 27

The largest foreign investors in the Polish food, beverages and tobacco sector

No.[1)]	Investor	Origin	Capital invested [2)] In USD mn	Sub-Branch
14	Reemtsma	Germany	417.1+150.0 plans	Tobacco processing
16	Philip Morris	USA	372.0+80.0 plans	Tobacco processing
17	Coca-Cola	Great Britain	360.0	Beverages
19	Harbin BV	Netherlands	325.9	Brewery
21	Nestlé S.A.	Switzerland	309.0	Sugar confectionery, food processing
32	PepsiCo	USA	203.0	Beverages
39	Heineken	Netherlands	180.7	Breweries
42	Mars Incorporated	USA	163.0+30.0 plans	Sugar confectionery, food processing, animal feeds
49	Unilever NV	International	140.0	Sugar confectionery, oils and fats, fish
	Cadbury's Schweppes	Great Britain	126.5	Sugar confectionery
	Seita	France	120.0	Tobacco
	BAT	International	88.0+70.0 plans	Tobacco
	Ferrero Holding	Italy	80.0+10.0 plans	Sugar confectionery
	BSN Gervais Danone	France	80.0	Milk products, sugar confectionery
	R.J. Reynolds	USA	70.0	Tobacco
	Carlsberg	Denmark	69.7	Brewery
	Cargill	USA	60.0	Animal feeds, glucose production
	McCain Foods	Canada	54.0	Manufacturing of frozen fries
	EBS Montendinson	Netherlands	53.8+40.0 plans	Oils and fats
	Bestfoods	USA	52.1+7.0 plans	Edible oil, food concentrates and food processing
	Wrigley	USA	49.0+30.0 plans	Chewing gum production
	Provimi Holding	Netherlands	48.0	Fodder production
	Schoeller	Germany	43.0	Manufacturing of ice-cream
	Tchibo	Germany	42.0	Production of coffee
	British Sugar	Great Britain	41.0+200.0 plans	Sugar production

Notes: 1) This number indicates the rank of the company in the Top 50 of Major Foreign Investors in Poland, according to the sum of foreign investment. - 2) Foreign direct investment includes contributed equity, medium- and long-term loans granted by foreign investors to companies established by them and the value of re-invested profits reduced by the dividend exported.

Source: PAIZ (1999), p. 7.

Table 28

Main companies of the Polish meat industry, 1999

NACE Code[1]	Name	Revenues[2] in PLN mn	Revenues In EUR mn[3]	Employees	Share of exports	Gross profit, in %	Ownership[4]
5170	Animex SA, Warszawa	589	139	282	55	-3.77	**5**40
1511	Sokolów SA, Sokolów Podlaski	447	106	2726	3.5	-5.71	4**5**0
1511	Morliny, Ostóda[5]	351[6]	83	n.a.	n.a.	n.a.	**5**10
1513	Drosed SA, Siedlce	314	74	1268	0.8	0.0	400
1512	Indykpol SA, Olsztyn	262	62	1316	6.3	-1.09	4**5**0
1511	OPP Miesnego, Bialystok	260	62	2133	6.3	-4.6	200
1511	Mazury SA,[5] Elk	238[6]	56	n.a.	n.a.	n.a.	**5**00
1511	Pekpol SA, Warszawa	214	51	411	4.0	1.01	420
1511	Zakl. Mies. LMEAT-Luków SA, Luków	210	50	1549	0.0	0.3	100
1511	Farm Food SA, Warszawa	206	49	987	4.8	1.23	4**5**0
1513	Jaroslaw Zakl. Mies. SA, Jaroslaw	160	38	797	12	-10.9	4**5**1

Notes: 1) NACE Codes: 1511 Production and preserving of meat, 1512 Production and preserving of poultry meat, 1513 Production of meat and poultry meat products, 5170 Other wholesale. - 2) Total revenues. - 3) Preliminary average exchange rate Polish zloty PLN/EUR 4.23. - 4) Ownership defined as State treasury (1), State or state agency (2), communal ownership (3), private ownership (4), foreign ownership (5). - 5) Data taken from a report for the Warsaw Stock Exchange, revenues minus share tax. - 6) Revenues of main activity.

Source: *Rzeczpospolita* (2000).

The ***sugar industry*** is the largest part of 'other food products', the second major sub-branch of the Polish food sector in 1998 (22%). The sugar industry itself accounted for 24% of 'other food products', closely followed by 'cocoa, chocolate and sugar confectionery', with 23%. Indeed, this industry is very important as Poland is the fourth largest sugar producer in Europe. However, privatization has been delayed due to political problems with the Polish farm lobbies. About 160,000 beet-growers supply to the industry a number too high, but reduction will cause social problems. Today, 56 out of the 76 sugar mills are not yet privatized,[56] 61 of them are grouped in four sugar holdings: Lubelsko-Ma³opolska Spó³ka Cukrowa, Mazowiecko-Kujawska Spó³ka Cukrowa, Poznañsko-Pomorska Spó³ka Cukrowa and Œaska Spó³ka Cukrowa. Foreign investors include British

[56] *NewsBase CEBD* (2000), 26 April.

Sugar, Pfeiffer and Langen, Tate and Lyle, and Nordzucker. Between 1991 and 1998, sugar consumption increased by more than 50% owing to growing production of sugar-containing articles, such as confectionery or pastrycooks' products.[57] Nevertheless, the industry is fragmented and recorded debts of PLN 2 billion in 1999 (USD 500 million). Oversupply (still owing to the Russian crisis), low world prices, subsidized EU exports and lack of financial funding are troubling the industry, which itself is heavily regulated and also subsidized.[58]

Romania

In the Romanian food, beverages and tobacco sector the tobacco industry is rather small, reaching only 5% of the sector's production in 1998. In the food and beverages industry, the largest sub-branches include meat, bakeries, flour milling and beverages. The sector has experienced a continuous production decline since 1989 (see Part I). This decline was much more pronounced in the food and beverages industry, which reached only 56% of the 1990 production level in 1998 (compared to 55% in total manufacturing). The tobacco industry, conversely, was successful and reached 106%. The largest production reductions were found in canned meat, meat products, sugar and pastry's products, fresh diary and canned fruits. The most successful products were alcoholic drinks (alcohol, wine and beer), flour, edible oils and margarine.[59] The food sector is still handicapped by problems in the agricultural sector, outdated equipment, missing modernization and the lack of investment.

The privatization of the Romanian food sector is not yet completed. As of 1998, about 38% of the sector's fixed assets were still in state hands, 44% were already private and 18% foreign-owned.[60] In comparison, only 21% of turnover was accounted for by the former, 52% and 26% by the latter owners. The profit rate (profit-loss/turnover) turned out to be negative for state enterprises (-4.69) and positive for private (2.65) and foreign owners (3.82).[61] Foreign investors were especially drawn to the brewing industry, due to the large market and still low consumption levels of only 38 l per head (1995). In addition, initially high import tariffs forced international companies to produce in Romania. These include the Belgian company Interbrew, the South African Breweries, the Austrian Brau Beteiligungs AG (BBAG, now holding a 18% market share), the Danish company Carlsberg through a subsidiary and the Turkish Efes.

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57 PAIZ (1999), p. 26.

58 *Business Central Europe* (2000), March.

59 See Mereuta (1999), p. 27.

60 In total manufacturing the distribution is as follows: 61% state, 29% private and 9% foreign ownership.

61 Boscaiu and Munteanu (2000).

Looking at the financial results of the sector, the food and beverages industry and the tobacco industry mostly compare favourably to the total manufacturing average (see Table 29, Status). However, the gross result is rather low in both industries, restricting the growth from own resources. In the tobacco industry, the operational result was below average, suggesting that the cost increase was larger than the increase in selling prices.[62]

Table 29

Financial results of the Romanian food, beverages and tobacco sector, 1998

	Food and beverages industry		Tobacco industry	
Rate [1)]	**Rate value [1)]**	**Status [2)]**	**Rate value [1)]**	**Status [2)]**
Operational result	9.42	A	6.47	C
Financial result	-5.87	C	-2.79	A
Exceptional result	-1.96	A	-3.15	C
Gross result	1.60	A	0.53	A
Outstanding debts	14.69	A	2.66	A

Notes: 1) Result and debt divided by turnover. - 2) Rate compared to the same rate of total manufacturing: A meaning a rate superior by at least 5% to the equivalent total manufacturing rate, B meaning a rate placed between +/- 5% of the equivalent total manufacturing rate, C meaning a rate inferior by at least 5% to the equivalent total manufacturing rate.

Source: Mereuta (1999), p. 61.

There are about 450 state- and private-run business operators in the Romanian ***milk and dairy industry***, having a capacity of about 24-30 million hl/year. Out of the total milk supply, only 18% were processed in 1998, 31% sold on peasant markets and 51% were not marketed and used. e.g., for family consumption. The major Romanian companies in the industry include Nopolact, Mures Milk Industry, Somesana, Prodlacta and Lactis, the major foreign companies Danone, Hochland and Parmalat. The best known brands are Dorna and Parmalat. The milk and dairy industry faces many problems: the low supply of quality milk, the failure to meet hygiene standards, small and inefficient cow farms, inaccurate market information, low capacity utilization of about 33%, differences in winter and summer supply, high level of taxation, unfair competition from subsidized imports and a growing trade deficit. On the other hand, there exists also a number of opportunities including the low level of per capita milk consumption, the large market, low starting costs and skilled staff.[63]

There are about 33 sugar mills located in the Romanian ***sugar industry***, situated in the major sugar beet growing areas across the whole country. However, only 11 of them operate and have been denationalized, with only six of them processing sugar beets from Romania. This is due to the shrinkage of the sugar beet growing area caused by natural forces and other factors hampering growth. Thus, the output of sugar covers only 10-15%

62 Mereuta (1999), p. 61.

63 *Romanian Economic Daily* (1999), 20-22 August.

of the processors' needs, reaching only 65,000 tons out of the needed 450,000 tons per year. As a result, raw and refined sugar is heavily imported to Romania from the EU, the Republic of Moldova and CEFTA countries. Imports are mostly duty-free and international sugar prices are falling.[64]

There are 17 edible oil making factories located in the Romanian ***oil industry***. Just as the sugar mills, they lack raw materials and thus have to produce at lower capacity. Hence, oil had to be taken out of the state reserve. The lack of raw materials is due to the large exports of sunflower seeds selling at higher prices than on the domestic market, and due to government incentives to exporters of both raw materials and finished products. The situation is said to have aggravated in 2000 because of lower harvests and the resulting increase in the price of edible oil. In addition, farmers receive low government support and lack financial means.[65]

Slovak Republic

The privatization of the Slovak food, beverages and tobacco sector is completed, with 98% of all companies in the sector being in private ownership at the end of 1999. About

Table 30

The largest companies of the Slovak food and tobacco industry, ranked by 1998 net revenues

Name, location	Net revenues in SKK mn	Net revenues in EUR mn[1)]	Employees	Export share	Main activity
Palma-Tumys, a.s., Bratislava	3,662	93	1,011	15	Edible oils
Slovak International Tabak, a.s, Bratislava	3,096	78	1,000	29	Tobacco
Jacobs Suchard Figaro, a.s., Bratislava	2,446	62	764	22	Confectionery
Heineken Slovensko, a.s., Nitra[2)]	2,151	54	892	27	Beer
Coca-Cola Beverages Slovakia, s.r.o., Bratislava	1,942	49	668	3	Beverages
I.D.C. Holding, a.s., Bratislava	1,749	44	1,659	23	All sub-branches, especially bakery
Tauris, a.s., Rimavská Sobota	1,715	43	633	.	Meat processing
Hrádok Mäsokombinát, s.r.o., Luèenec	1,686	43	675	.	Meat processing
Nestlé Food, s.r.o., Prievidza	1,668	42	596	34	Food
L. Kabát, s.r.o., Bratislava	1,513	38	999	6	Meat processing

Notes: 1) Average exchange rate SKK/EUR 39.58. - 2) Company was established 06/30/98, however, results cover the whole year. Consolidated results including Zlatý baž ant, a.s., Hurbanovo a Corgoò, s.r.o., Nitro are shown.

Source: Trend Top 1999 (1999).

64 *Romanian Economic Daily* (2000), 27 September.

65 *Romanian Economic Daily* (2000), 26 September.

1,230 companies were located in the sector then, of which 52% had less than 10 employees. Only 1% of all companies had more than 500 employees (for a list of major companies see Table 30). The main sub-branches in the sector include meat, dairy, other food products and beverages. The development of production over the transition period has been very weak (see Part I).

While in 1996 the food and beverages industry had registered a profit before taxation, the situation turned around in 1997 and even aggravated until 1998. The industry then belonged to the sectors with the largest losses, reaching 1.8 billion Slovak koruna (SKK) in that year. As other sectors of manufacturing, the industry struggles with increasing internal and external indebtedness.

Slovenia

The collapse of the former Yugoslav dealt a severe blow to the Slovenian food sector, which lost its major output as well as input markets and was hence left with excess production capacities. The major sub-branches today are meat, bread, confectionery and dairy, the major companies of the Slovenian food sector are listed in Table 31.

Table 31

The largest companies of the Slovenian food and tobacco industry, ranked by 1999 income

Name, location	Total income in SIT mn	Net revenues in EUR mn[1)]	Employees	Export share	Main activity
Ljubljanske Mlekarne, d.d., Ljubljana	25,466	132	802	<20	Dairy, cheese
Tobaèna Ljubljana, d.o.o., Ljubljana	20,947	108	459	20-40	Tobacco
Pivovarna Union, d.d., Ljubljana	15,976	83	490	<20	Beer
Pivovarna Laško, d.d., Laško	15,795	82	492	<20	Beer
Perutnina Ptuj, d.d., Ptuj	15,546	80	1,284	40-60	Poultry
Droga Portorož , d.d., Portorož	14,416	74	636	20-40	Tea, coffee, others
Kolinska, d.d., Ljubljana	12,492	65	590	20-40	Fruit and vegetable processing, others
Fructal, d.d., Ajdovšèina	11,012	57	777	40-60	Fruit and vegetable juices
Mlekarna Celeia, d.o.o., Arja vas	7,844	41	144	.	Dairy
Tovarna sladkorja Ormož , d.d. , Ormož	7,444	38	337	<20	Sugar

Notes: 1) Preliminary average exchange rate SIT/EUR 193.63.

Source: *Slovenian Business Report* (2000), Fall; SLO Export Internet-Homepage www.gzs.si/sloexporta/default.htm.

In terms of profits, 1999 was an exceptionally good year for manufacturing, but also for the food sector. The latter recorded net profits of 12.3 billion Slovenian tolar (SIT, EUR 63 million), only second to the chemical sector in total manufacturing.[66]

The Slovenian ***milling industry*** suffers losses, probably because of the high level of administrative protection of trading conditions (the bread grain market is still dominated by the state monopoly). The major flourmills include Volovec, Korošec, Kmeèki mlin and Katiè, which produce about 95% of the industry's output. In addition, there are about 40 small flourmills. They process around 200 thousand tons of wheat yearly, only half of which is domestically grown. The other half has to be imported. For the future, consolidation and creating higher value added in the industry is necessary.[67]

Meanwhile the Slovenian ***bakeries and confectioners*** perform quite well. Free market conditions have been established. The range of products has broadened and the quality improved. Major companies include Žito, Mlinotest, Klasje, Pekarna Jager, Intes and Mlinopek Murska Sobota. Confectionery production is concentrated in Žito, although other companies also partly produce confectionery. Exports to West European countries play a major role, with e.g. all chewing gum production being exported, as well as 70% of candy and dessert output and a slightly smaller share of chocolate products. In the bakery sub-branch, there are about 390 bakeries; here, 18 joint ventures hold about 60% of the market.[68]

The Slovenian ***dairy industry*** produces about 30% more milk than Slovenia consumes, which makes exports very important. The industry registers a trade surplus and exports mainly to Croatia and Bosnia-Herzegovina, to a lesser extent also to Macedonia, Italy and Austria. The local market, yet, is still protected, with only 10% in foreign hands. The industry constantly struggles with losses and low competitiveness. It consists of 14 larger dairies and of many smaller ones. All put together, they would form only a medium-sized European dairy. Mergers are already under way, with Ljubljanske Mlekarne and Pomurske Mlekane playing the major role in the consolidation process. For the future, consolidation into one or two dairies seems necessary.[69]

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66 *Slovenian Business Report* (2000), Fall.

67 *Slovenian Business Report* (2000), Summer.

68 *Slovenian Business Report* (2000), Summer.

69 *Slovenian Business Report* (2000), Summer.

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Appendix of Tables and Figures

Table A1

Key data on total manufacturing

		1989	1992	1993	1996	1997	1998	Average growth in % 1993-1998
BULGARIA								
Industrial production (at current prices)	in BGL mn	59320	189449	212700	1527399	13510638	12673772	.
Industrial growth (at constant prices)	in %	.	-17.2	-12.6	.	-12.0	-17.2	.
Employment	in 1000	1420	883	767	741	720	665	.
Employment growth	in %	.	-16.3	-13.2	.	-2.7	-7.6	.
Wage growth (ECU basis)	in %	.	46.0	44.5	.	-1.9	28.4	.
Productivity growth	in %	.	-1.0	0.7	.	-9.5	-10.4	.
ULC growth (ECU basis)	in %	.	47.5	43.6	.	8.4	43.3	.
Total exports to EU	in ECU mn	394	757	779	1447	1772	1896	16.5
Total imports from EU	in ECU mn	1316	971	1158	1401	1492	1863	11.5
Trade balance with EU	in ECU mn	-921	-214	-380	46	280	33	.
Exports to the EU: Market shares	in %	0.12	0.20	0.20	0.30	0.31	0.31	.
CZECH REPUBLIC								
Industrial production (at current prices)	in CZK mn	558351	652893	655289	894694	1330877	1442259	.
Industrial growth (at constant prices)	in %	.	-8.0	-8.4	4.7	7.6	3.6	2.5
Employment	in 1000	1658	1181	1098	983	1170	1140	.
Employment growth	in %	.	-13.2	-7.0	-3.4	-2.5	-2.6	-3.8
Wage growth (ECU basis)	in %	.	20.0	33.7	17.0	8.2	10.6	16.8
Productivity growth	in %	.	6.0	-1.5	8.3	10.4	6.4	6.6
ULC growth (ECU basis)	in %	.	13.2	35.7	8.0	-2.0	4.0	9.6
Total exports to EU	in ECU mn	.	.	4385	7950	9660	11796	21.9 [1)]
Total imports from EU	in ECU mn	.	.	5613	11409	12885	13259	18.8 [1)]
Trade balance with the EU	in ECU mn	.	.	-1228	-3460	-3225	-1463	.
Exports to the EU: Market shares	in %	.	.	1.13	1.61	1.68	1.90	.
HUNGARY								
Industrial production (at current prices)	in HUF mn	146110	1497321	1721479	3827038	5197367	6615642	27.2
Industrial growth (at constant prices)	in %	.	-17.4	3.0	3.0	15.9	18.0	9.1
Employment	in 1000	1171	857	747	633	637	659	.
Employment growth	in %	.	-14.5	-12.9	-2.9	0.7	3.4	-4.3
Wage growth (ECU basis)	in %		14.5	18.4	3.7	10.8	2.3	5.5
Productivity growth	in %	.	.	18.2	6.2	15.2	14.1	14.0
ULC growth (ECU basis)	in %	.	.	0.2	-2.4	-3.8	-10.3	-7.4
Total exports to EU	in ECU mn	2177	3548	3522	6605	8981	11213	21.1
Total imports from EU	in ECU mn	2665	3738	4585	7382	10092	12236	21.9
Trade balance with the EU	in ECU mn	-488	-189	-1063	-778	-1111	-1023	.
Exports to the EU: Market shares	in %	0.74	0.94	0.90	1.33	1.55	1.80	.
POLAND								
Industrial production (at current prices)	in PLN mn	.	78975	104441	244193	299825	334887	27.2
Industrial growth (at constant prices)	in %	.	4.9	10.2	9.8	13.3	5.3	10.7
Employment	in 1000	3326	2767	2700	2803	2821	2801	.
Employment growth	in %	.	-13.1	-2.4	-0.2	0.7	-0.7	0.2
Wage growth (ECU basis)	in %	.	2.6	13.8	18.2	11.1	8.5	12.4
Productivity growth	in %	.	.	12.9	10.1	12.5	6.1	10.5
ULC growth (ECU basis)	in %	.	.	0.8	7.3	-1.3	2.3	1.7
Total exports to EU	in ECU mn	2835	5910	6497	10133	11828	13277	14.4
Total imports from EU	in ECU mn	3289	6952	8658	16030	20465	22291	21.4
Trade balance with the EU	in ECU mn	-454	-1043	-2161	-5897	-8637	-9014	.
Exports to the EU: Market shares	in %	0.84	1.58	1.68	2.06	2.06	2.14	.

Table A1 (continued)

		1989	1992	1993	1996	1997	1998	Average growth in % 1993-1998
ROMANIA								
Industrial production (at current prices)	in ROL bn	.	5484	15302	76198	171363	.	.
Industrial growth (at constant prices)	in %	.	-23.1	-1.2	2.1	-6.7	-13.8	-1.4
Employment	in 1000	.	2811	2590	2148	2032	1969	.
Employment growth	in %	.	-12.5	-7.9	-2.0	-5.4	-3.1	-5.8
Wage growth (ECU basis)	in %	.	-37.0	34.5	5.8	-6.5	30.3	13.5
Productivity growth	in %	.	-12.1	7.2	4.2	-1.4	-11.1	4.6
ULC growth (ECU basis)	in %	.	-28.3	25.5	1.5	-5.2	46.5	8.5
Total exports to EU	in ECU mn	1654	1333	1582	3275	4012	4554	22.7
Total imports from EU	in ECU mn	611	1545	1958	3747	4254	5168	22.3
Trade balance with the EU	in ECU mn	1043	-211	-376	-472	-242	-614	.
Exports to the EU: Market shares	in %	0.49	0.35	0.41	0.66	0.69	0.73	.
SLOVAK REPUBLIC								
Industrial production (at current prices)	in SKK mn	.	.	266525	390233	419028	545700	15.4 [1)]
Industrial growth (at constant prices)	in %	.	-15.7	-11.9	2.6	2.6	7.5	1.7
Employment	in 1000	.	527	472	447	439	515	.
Employment growth	in %	.	-12.6	-10.4	-1.1	-3.6	-4.4	-4.0
Wage growth (ECU basis)	in %	.	11.3	23.6	14.8	13.0	3.9	13.5
Productivity growth	in %	.	-3.6	-1.6	3.8	6.5	11.1	5.7
ULC growth (ECU basis)	in %	.	15.4	25.6	10.7	6.1	-6.5	7.3
Total exports to EU	in ECU mn	.	.	1069	2748	3221	4337	32.3 [1)]
Total imports from EU	in ECU mn	.	.	1084	3125	3729	4396	32.3 [1)]
Trade balance with the EU	in ECU mn	.	.	-15	-378	-508	-59	.
Exports to the EU: Market shares	in %	.	.	0.28	0.56	0.56	0.70	.
SLOVENIA								
Industrial production (at current prices)	in SIT mn	.	809602	998161	1597863	1868671	.	.
Industrial growth (at constant prices)	in %	.	-13.9	-4.1	-0.4	-2.6	4.5	0.9
Employment	in 1000	370	282	257	220	229	225	.
Employment growth	in %	.	-10.1	-9.0	-5.5	-3.2	-1.9	-4.9
Wage growth (ECU basis)	in %	.	-4.8	14.6	3.2	5.3	7.5	9.5
Productivity growth	in %	.	-4.2	5.4	5.4	0.7	6.5	5.2
ULC growth (ECU basis)	in %	.	-0.6	8.7	-2.0	4.6	2.1	3.3
Total exports to EU	in ECU mn	.	.	2808	3684	3960	4278	8.8 [1)]
Total imports from EU	in ECU mn	.	.	2852	4217	4886	5070	12.2 [1)]
Trade balance with the EU	in ECU mn	.	.	-44	-534	-926	-792	.
Exports to the EU: Market shares	in %	.	.	0.72	0.74	0.69	0.69	.

Notes: 1) 1994-1998.
EU : European Union (12)
Bulgaria: 1989-1995: Total manufacturing excluding petroleum refineries; Industrial production at 1993 prices.
From 1996: Industrial production at 1996 prices.
Czech Republic: Up to 1996 enterprises with 100 employees or more, from 1997 enterprises with 20 employees or more.
Industrial production at constant prices: 1997 and 1998 industrial output index calculated from production statistics of businesses with 20 employees or more.
Hungary: Industrial production: Enterprises with more than 20, from 1996 enterprises with more than 10 employees.
Employment and wages: Enterprises with more than 20 employees.
Poland: Industrial production at current prices: From 1993 excluding VAT; including import duties; from 1996 basic prices, the years before producer prices. Average monthly gross wages: Enterprises with more than 5 employees.
Slovak Republic: Enterprises with 25 and more employees, 1997 enterprises with 20 and more employees, 1998 all enterprises.
Slovenia: Employment in enterprises, companies and organizations: 1989-1996 private enterprises are included only if they have 3 or more persons in paid employment and armed forces staff, from 1997 all enterprises.
Wages in enterprises, companies and organizations.
Source : WIIW database

Table A2

Food products, beverages and tobacco

Estimated ranges for Unit Labour Costs in 1998, Austria 1996 = 100[1)]

	Bulgaria	Czech Republic	Hungary	Poland	Romania	Slovak Republic	Slovenia
PPP for GDP (lower range)	13	23	20	22	13	20	49
PPP for fixed capital formation (upper range)	31	34	33	30	31	31	58

Notes: Defined as wages in ECU divided by productivity (measured as output at constant prices 1996 converted with ECU-based purchasing power parities (PPPs) divided by employees); gross wages used for calculation.
Source: WIIW

Table A3

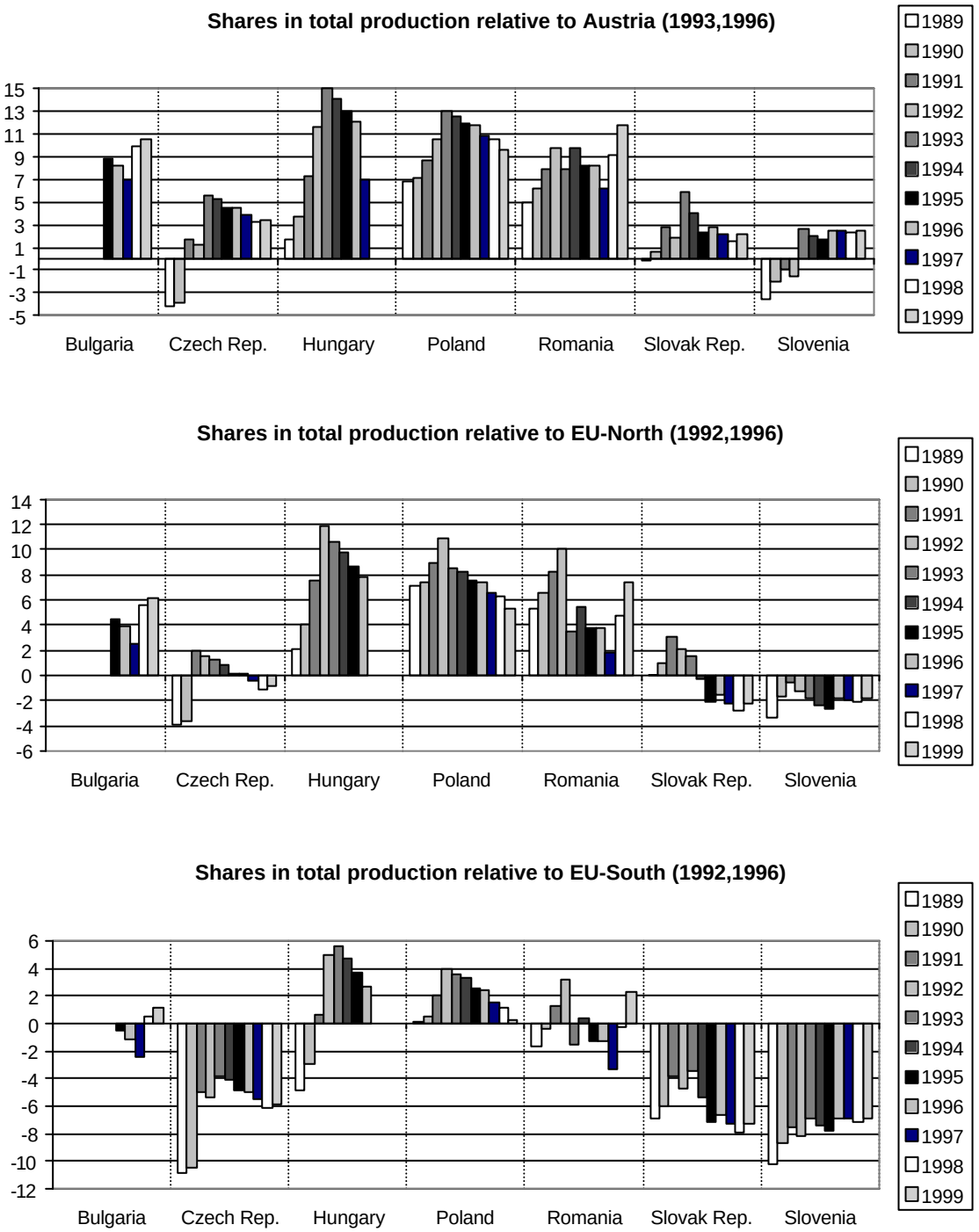
Exports of individual industries in total manufacturing exports to the EU(12), 1998, in %

		Bulgaria	Czech Republic	Hungary	Poland	Romania	Slovak Republic	Slovenia
D	Manufacturing total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
DA	**Food products; beverages and tobacco**	**4.6**	**1.4**	**4.1**	**5.7**	**0.7**	**1.0**	**1.4**
DB	Textiles and textile products	29.2	8.1	9.2	16.8	41.8	9.7	12.4
DC	Leather and leather products	6.6	1.3	2.7	1.5	12.7	3.5	2.0
DD	Wood and wood products	2.4	3.0	1.4	5.7	2.6	2.1	3.7
DE	Pulp, paper & paper products; publishing and printing	0.9	2.6	0.7	2.3	0.3	2.4	3.1
DF	Coke, refined petroleum products & nuclear fuel[1)]	.	.	.	.	.	.	.
DG	Chemicals, chemical products & man-made fibres	10.3	5.7	4.7	5.4	3.6	5.3	3.5
DH	Rubber and plastic products	1.2	5.0	2.1	2.9	1.1	2.6	3.4
DI	Other non-metallic mineral products	2.6	4.6	1.4	3.0	2.1	2.5	2.3
DJ	Basic metals and fabricated metal products	29.2	17.7	7.9	17.6	16.0	14.7	17.0
DK	Machinery and equipment n.e.c.	5.8	12.2	6.6	6.0	5.0	6.2	13.0
DL	Electrical and optical equipment	3.4	15.5	30.1	12.6	4.4	11.0	10.8
DM	Transport equipment	0.8	18.5	26.8	11.4	2.4	36.1	23.3
DN	Manufacturing n.e.c.	2.9	4.4	2.4	9.0	7.3	2.8	4.1

Notes: 1) Coke, refined petroleum products & nulcear fuels not termed manufacturing in the trade statistics.
Source : Eurostat, WIIW calculations

Figure A1

Food products, beverages and tobacco
Shares of CEECs (at constant prices) relative to other countries

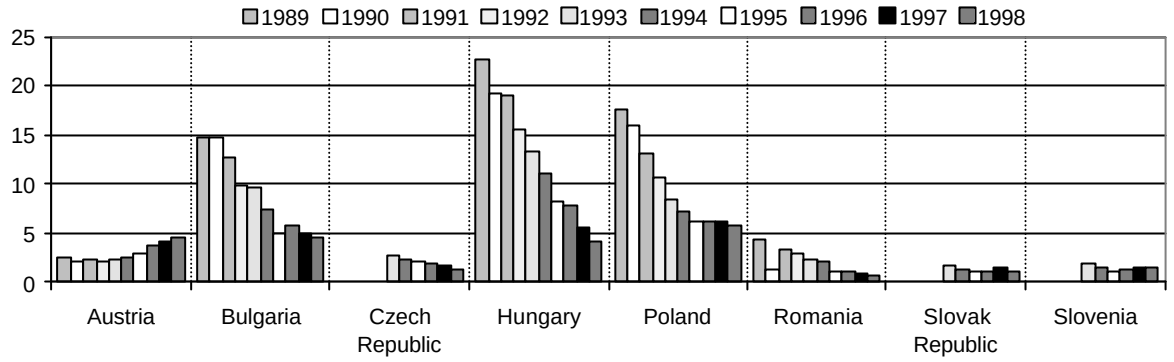


1989-1992 production shares at constant prices: Czech Republic at 1993 prices,
Hungary at 1992 prices, Poland at 1992 prices, Romania at 1993 prices, Slovak Republic at 1993 prices,
and Slovenia at 1996 prices. 1993-1998 production shares at constant prices 1996 for all countries.
Hungarian data only until 1996; because of constant price problems for another sector (electrical engineering)
the calculation of shares is unreliable thereafter.
Source : WIIW Industrial Database

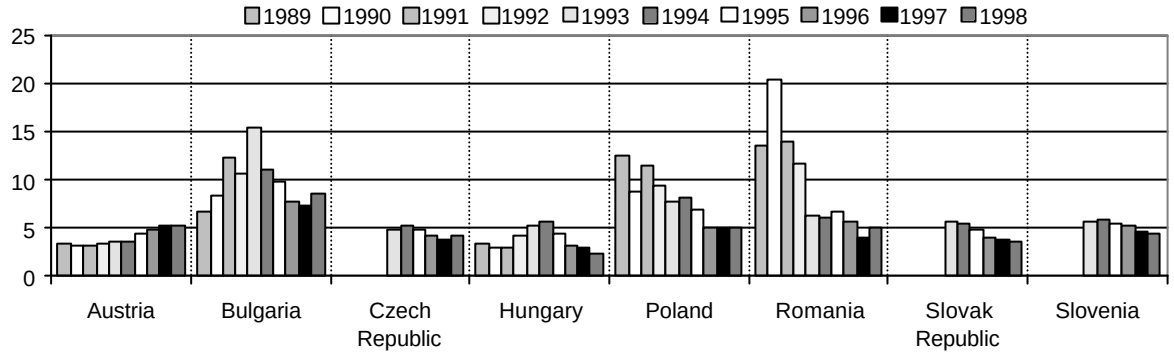
Figure A2

Food products, beverages and tobacco

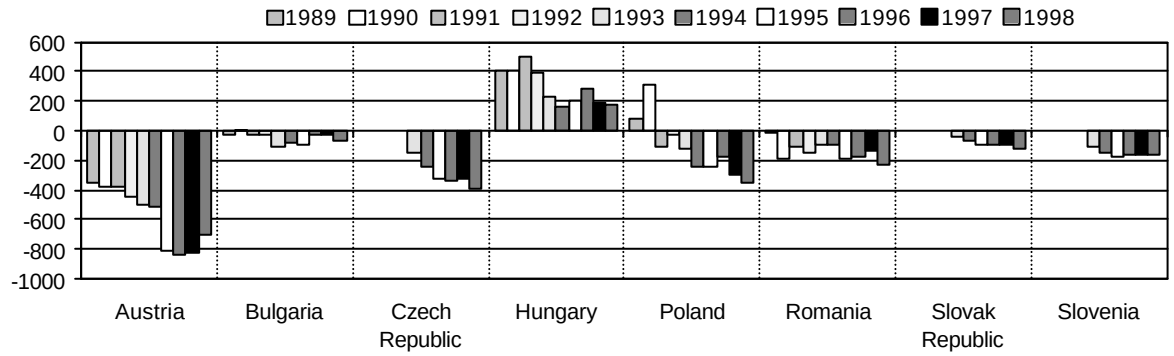
Share in manufacturing exports to the EU(12), in %



Share in manufacturing imports from the EU(12), in %



CEECs trade balance with the EU(12), ECU mn



Source: Eurostat, WIIW calculations

WIIW Industrial Database Eastern Europe

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Topics covered:

Industrial production (current prices), national currency mn
Production structure (current prices), manufacturing = 100
Industrial production (constant prices), national currency mn
Production structure (constant prices), manufacturing = 100
Production growth, annual changes in %
Employment, thousand persons
Employment structure, manufacturing = 100
Employment growth, annual changes in %
Average monthly gross wages (national currency)
Average monthly gross wages (ECU)
Average monthly gross wages (DEM)
Average monthly gross wages (USD)
Average monthly gross wages, manufacturing = 100
Average monthly gross wages, annual changes, real (deflated with CPI)
Labour productivity, manufacturing = 100
Labour productivity, annual changes in %
Unit Labour Costs (national currency), manufacturing = 100
Unit Labour Costs (national currency), annual growth rates in %
Unit Labour Costs (ECU), annual growth rates in %
Unit Labour Costs (DEM), annual growth rates in %
Unit Labour Costs (USD), annual growth rates in %
Unit Labour Costs ECU, Austria = 100
Exports to the EU, 1000 ECU
Imports from the EU, 1000 ECU
Foreign trade with the EU, Balance, 1000 ECU

WIIW Industrial Database Eastern Europe

Tables contained in the database:

	By NACE industries	Dimension
D	Manufacturing total	Countries X 1989-98
DA	Food products; beverages and tobacco	Countries X 1989-98
DB	Textiles and textile products	Countries X 1989-98
DC	Leather and leather products	Countries X 1989-98
DD	Wood and wood products	Countries X 1989-98
DE	Pulp, paper & paper products, publishing & printing	Countries X 1989-98
DF	Coke, refined petroleum products & nuclear fuel	Countries X 1989-98
DG	Chemicals, chemical products and man-made fibres	Countries X 1989-98
DH	Rubber and plastic products	Countries X 1989-98
DI	Other non-metallic mineral products	Countries X 1989-98
DJ	Basic metals and fabricated metal products	Countries X 1989-98
DK	Machinery and equipment n.e.c	Countries X 1989-98
DL	Electrical and optical equipment	Countries X 1989-98
DM	Transport Equipment	Countries X 1989-98
DN	Manufacturing n.e.c.	Countries X 1989-98

By country	Dimension
Czech Republic	NACE X 1989-1998
Hungary	NACE X 1989-1998
Poland	NACE X 1989-1998
Romania	NACE X 1989-1998
Slovak Republic	NACE X 1989-1998
Slovenia	NACE X 1989-1998
Bulgaria	NACE X 1989-1998

By year	Dimension
1989	NACE X Countries
1990	NACE X Countries
1991	NACE X Countries
1992	NACE X Countries
1993	NACE X Countries
1994	NACE X Countries
1995	NACE X Countries
1996	NACE X Countries
1997	NACE X Countries
1998	NACE X Countries

The WIIW Industrial Database Eastern Europe is available on diskette (MS Excel format; two updates a year) at a price of ATS 9,000 (€ 654.06). Reduced rate for Member companies: ATS 6,000 (€ 436.04)

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