WIIW INDUSTRY STUDIES
2002/2

Development and Prospects of the Textiles and Textile Products 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.

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- *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*

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Michael Landesmann
Research Director, WIIW

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Doris Hanzl

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May 2002

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Executive summary

In Central and Eastern Europe today the textiles and textile products sector takes a relatively small share in production but plays a major role in employment and, in less advanced CEECs, also in exports. It is considered a labour-intensive, low-skill and low-technology industry, producing a wide range of products (e.g. fibres, threads, carpets, rugs, garments and clothing accessories etc.). The sector was neglected during the former command economy and was further downsized during transition. Outward processing trade with the countries of the European Union probably delayed the decline of the sector, which is expected to proceed in the future.

The study investigates the development and prospects of the textiles and textile products sector in the following countries:

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

In size, the textiles and textile products sector – in the following termed TC sector (textiles and clothing) – is a ***small segment of manufacturing*** *in the Central and Eastern European countries today, contributing between 3% and 4% of manufacturing output. It is only slightly more important in* ***Bulgaria, Slovenia and Romania****, with 6% to 8%.*

In the first phase of transition, which lasted from 1989 to around 1992, a severe transformational recession hit the region, with the output of the TC sector declining even more than the rest of the economy. ***After 1993, production continued to fall*** *in most countries and turned positive only in Poland and Hungary. This was due to the loss of the former important CMEA market, slow export growth to the EU (strong competition), persistently low purchasing power on the domestic market, cheap, partly illegal imports e.g. from Asia, and lacking capital and hence investments. The textiles industry was hit in particular, while the clothing industry gained from outward processing agreements. By the year 2000 the TC sector was far below its 1989 production level in all CEECs.*

The TC sector is one of the ***largest employment sectors*** *in manufacturing, accounting for 10% to 14% of total manufacturing employment today. In Romania and Bulgaria shares even reached 21% and 23% in the year 2000. During transition, employment was reduced in general.*

In the CEECs wages, productivity and unit labour costs in the TC sector have generally been lower than in West European countries (exception: Slovenia). During transition sectoral wages rose in all CEECs as did productivity, except in Bulgaria and Slovakia. The

productivity increase was however less pronounced than in total manufacturing. Estimated unit labour costs also rose (except in Hungary) but still remain at much lower levels than in Western Europe.

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

Bulgaria	*30% - 74%*	*Romania*	*33% - 78%*
Czech Republic	*41% - 62%*	*Slovakia*	*57% - 89%*
Hungary	*38% - 62%*	*Slovenia*	*85% - 100%*
Poland	*46% - 62%*		

In CEE manufacturing ***exports to the EU*** *the* ***TC sector plays an important role****, especially in the less advanced countries* ***Bulgaria and Romania*** *with shares of 29% and 37% respectively. In the other CEECs it ranged between 6% in Hungary and 11% in Poland. TC exports grew less dynamically than total manufacturing exports, except from Bulgaria and Romania. 'Wearing apparel' is the main export product. In CEE manufacturing* ***imports from the EU*** *TC products are also significant, with import shares accounting for 20% and 24% respectively in Bulgaria and Romania and ranging between 5% and 8% in the other CEECs. The import structure is heavily concentrated on 'textiles'.*

The TC sector was a ***net exporter to the EU*** *in 2000, except in Slovenia. Compared to total manufacturing the sector shows a* ***revealed comparative advantage****, which is however mostly deteriorating. The* ***price/quality gap indicator has improved remarkably*** *during transition. Today export prices are higher than EU average import prices in the case of Slovenia and Hungary and lower in Bulgaria and Romania, reflecting their position as low-price/low-quality producers.*

On the ***EU market*** *the role of CEE TC exports is* ***prominent but stagnating****: in 1995 and also in 2000, CEEC(7) TC exports had a market share of 14% (all shares without intra-EU trade). This share lay significantly above total manufacturing market shares (9% in 1995 and 11% in 2000). On the* ***Austrian market****, CEE exports had a decisively larger share, accounting for 26% of Austria's non-EU imports of TC products in 1995, climbing to 39% in 2000. The CEECs' position as an important export destination for Austrian TC exports is also growing (46% of Austria's non-EU exports in 2000). In total, the CEECs registered a* ***trade surplus with Austria*** *(largely due to the Czech and Romanian surplus).*

[1] The lower range is calculated at purchasing power parities (PPPs) for GDP, the upper range at PPPs for fixed capital formation; figures are for 2000, only Austrian figures are for 1999.

The TC sector is not a prominent target for ***foreign direct investment*** *(except in Hungary) as other forms of production integration are favoured, i.e.* ***outward processing*** *(OP). Outward processing determines the CEECs' current trade structure (import of textiles, export of wearing apparel). OP has shifted from higher-wage countries to lower-wage countries, e.g. from Slovenia to Hungary, Poland, and further to Bulgaria and especially Romania, which has become the largest CEE exporter to the EU in 2000 and hence has overtaken Poland.*

The ***future prospects*** *of the CEECs' TC sector are rather unfavourable.* ***Though the TC sector is competitive today, its situation has deteriorated during transition and will continue to do so in the future.*** *Growth potentials on the domestic market are challenged by import competition, and export competition will increase with the removal, by 1 January 2005, of the ACT quota system in the WTO framework. In addition, the future of the sector depends strongly on developments in outward processing, which might shift further eastward as wages in the CEECs are rising.*

Keywords: *textiles and textile products sector, textiles industry, clothing industry, manufacturing, transition countries*

JEL classification: *L6, L67*

Doris Hanzl

Development and Prospects of the Textiles and Textile Products Sector in the Central and Eastern European Countries

Part I: INDUSTRY SURVEY

In the Central and Eastern European countries, the textiles and textile products sector takes a relatively small size in production but plays a major role in employment and, in less advanced CEECs, also in exports. Together with the leather and leather products industry it generally belongs to the core of consumer and light industry, and is also termed a 'traditional industry'. The sector is strongly shaped by globalization and easy relocation to low-cost countries, for instance in East Asia, particularly China. It sources inputs from the agricultural sector (natural fibres such as cotton or wool) and the chemicals industry (man-made fibres, i.e. cellulose/viscose and synthetic fibres, e.g. nylon or polyester). The production process includes the preparation of these fibres, the spinning, weaving, knitting, finishing and dyeing of textiles, and the manufacture of textiles such as carpets, rugs and cordage (*textiles industry*), as well as the manufacture of garments and clothing accessories, including leather clothes and fur articles (*clothing industry*). The textiles and textile products sector is considered a labour-intensive (with the partial exception of textiles), low-skill and low-technology industry, with production taking place mostly in small and medium-sized enterprises (SMEs).

This study presents a thorough picture in two parts of the textiles and textile products sector in the Central and Eastern European countries (CEECs). Part I gives an overview of the developments and prospects of the sector, while Part II presents further detailed information and selected company profiles. The first part consists of four sections: Section 1 deals with trends in the 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 the sector. A concluding section provides a summary and an outlook on future prospects, the appendix presents additional tables and figures.

In the NACE rev. 1 classification system (Statistical classification of economic activities in the European Community) the term 'textiles and textile products', in the following called *TC sector*, denotes the sub-section 'DB', which consists of the following industries (17, 18):

- Manufacture of textiles (17)[2] (*textiles industry*)
- Manufacture of wearing apparel; dressing and dyeing of fur (18)[3] (*clothing industry*)

The following analysis is based on this classification. Data come from the WIIW Industrial Database – Central and Eastern Europe (IDB-CEE), which currently covers Bulgaria, the Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia (CEEC(7)). Data on foreign direct investment originate from the WIIW Database on Foreign Investment Enterprises (FIEs), data on foreign trade from the EUROSTAT Comext Database.

1 Overview: Trends in growth and structure

The TC sector in the region

The TC sector plays a relatively important role in the economies of the CEECs: in the year 2000 it featured a total production volume of EUR 11.4 billion and a workforce of slightly more than 1 million persons in the CEEC(7).

Among the CEEC(7), Poland was the largest producer of TC products in terms of current production in 2000 (EUR 4.6 billion), followed by the Czech Republic (EUR 2.2 billion). The production volume reached EUR 1.3 billion in Romania and Hungary, and was relatively smaller in Slovenia, Slovakia and Bulgaria (see Table 1). Regarding employment, the

Table 1

Textiles and textile products

Overview on production and employment, 2000

	Production[1)]			Employment	
	mn EUR	% of GDP	% of manuf. production	ths. persons	% of manuf.
Bulgaria	513.8	3.9	6.4	122.4	23.1
Czech Republic[3)]	2177.5	4.0	4.6	102.0	9.6
Hungary	1324.2	2.6	3.3	101.6	13.5
Poland	4603.1	2.7	4.3	307.6	12.5
Romania[2)]	1389.9	4.2	7.7	332.4	21.2
Slovak Republic	592.4	2.8	3.6	57.4	11.8
Slovenia[2)]	814.1	4.3	7.3	31.0	13.8
CEEC(7)	**11415.0**	**.**	**.**	**1054.4**	**.**

Notes: 1) At current prices.- 2) Production data 1999.- 3) Production data 2000 estimated.

Source: WIIW Industrial Database

[2] Including the 'preparation and spinning of textile fibres' (17.1), 'textile weaving' (17.2), 'finishing of textiles (17.3), 'manufacture of made-up textiles, except apparel' (17.4), 'manuf. of other textiles' (17.5), 'manuf. of knitted and crocheted fabrics' (17.6) and 'manuf. of knitted and crocheted articles' (17.7).

[3] Including 'manuf. of leather clothes' (18.1), 'manuf. of other wearing apparel and accessories' (18.2) and the 'dressing and dyeing of fur; manuf. of articles of fur' (19.3).

TC sector was of major importance due to its labour-intensive character. Romania took the lead in the region, followed by Poland (see Table 1).

Comparing levels of production with levels of employment in the individual CEECs reveals significant differences in output per employee (= labour productivity) in the sector. While in Poland, for instance, the TC sector produced an output of EUR 4.6 billion with 307,600 persons, in Romania the sector produced only EUR 1.4 billion with an even larger number of employees (332,400). High productivity prevails especially in Slovenia and the Czech Republic, low productivity is observed in Romania and Bulgaria (see analysis of labour productivity below)[4].

Small production sector – specialization in Bulgaria, Slovenia and Romania

In terms of production, the TC sector is one of the smaller segments in the economies of the CEECs. In 2000, it accounted for 3% to 4% of total manufacturing production only (at current prices) in Hungary, the Slovak Republic, Poland and the Czech Republic. The sector was slightly more important in Bulgaria, Slovenia and Romania, with 6% to 8% (see Table 2).

The TC sector has had a long tradition in the CEECs but was neglected under the former command economy with its pronounced bias towards heavy industry and the production of raw materials and intermediate products. But within the CMEA division of labour, Poland and also Hungary specialized in the clothing industry, as did former Czechoslovakia concerning the textiles industry, combined with a longstanding tradition in textile machinery production. Hence, when the CEECs opened up in 1989, the TC sector found itself at a greater disadvantage than other sectors of the economy. Facing the loss of the former CMEA market and rising import competition from cheap Asian products, the sector's relative size in manufacturing was scaled down in all countries (Table 3). Outward processing[5] trade with the countries of the European Union gained an important role in the region and has probably slowed down the decline of the sector. Today, the TC sector is relatively important in Bulgaria, Romania and Slovenia (see Figure 1). While Slovenia has always been specialized on the sector due to longstanding historical tradition,[6] in Bulgaria and in Romania specialization started later, induced by the extremely low wage level there.

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[4] However, the analysis of labour productivity in Chapter 2 uses production data at constant prices 1996 while here production figures at current prices and exchange rates are stated.

[5] Outward processing (OP) is a form of international co-operation on a contractual basis between independent firms from different countries. The contractor exports mainly semi-processed goods (fabric, cuttings or semi-finished garments) to the subcontractor, who refines, assembles or finishes the product which is then re-imported to the contractor's country. Trade for this purpose is called outward processing trade (OPT). Naujoks and Schmidt (1995), p. 14.

[6] In the 1980s former Yugoslavia was in fact among the world's leading producers of textiles and wearing apparel and was a traditional partner in outward processing. As it was a labour-managed economy, it did not suffer from the command economies' heavy industry bias mentioned above. See UNIDO (1998).

Table 2

Production shares of individual industries in total manufacturing (at current prices), 2000, in %

		Bulgaria	Czech Republic[1)]	Hungary	Poland	Romania [1)]	Slovak Republic	Slovenia[1)]
D	Manufacturing total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
DA	Food products; beverages and tobacco	22.1	17.2	15.2	23.5	21.0	12.5	14.9
DB	**Textiles and textile products**	**6.4**	**4.4**	**3.3**	**4.3**	**7.7**	**3.6**	**7.3**
DC	Leather and leather products	1.1	0.8	0.6	0.9	1.8	1.2	1.5
DD	Wood and wood products	1.4	2.7	1.1	3.9	3.4	3.0	3.2
DE	Pulp, paper & paper products; publishing and printing	4.0	4.7	4.3	6.3	3.5	6.3	7.1
DF	Coke, refined petroleum products & nuclear fuel	22.1	2.8	6.3	6.4	10.7	10.1	0.4
DG	Chemicals, chemical products & man-made fibres	9.2	6.7	7.2	6.5	7.8	6.4	10.0
DH	Rubber and plastic products	1.8	4.3	3.3	4.5	2.4	3.4	4.5
DI	Other non-metallic mineral products	4.0	6.4	2.7	5.5	4.7	4.6	4.8
DJ	Basic metals and fabricated metal products	12.4	15.9	8.1	11.2	15.8	17.0	12.3
DK	Machinery and equipment n.e.c.	6.7	8.0	4.1	5.2	5.1	6.8	10.4
DL	Electrical and optical equipment	4.1	7.9	27.2	6.9	4.7	7.9	8.6
DM	Transport equipment	1.5	14.3	15.4	10.2	7.7	14.5	9.9
DN	Manufacturing n.e.c.	3.2	3.9	1.3	4.7	3.7	2.7	5.3

Note: 1) 1999.

Source: WIIW Industrial Database.

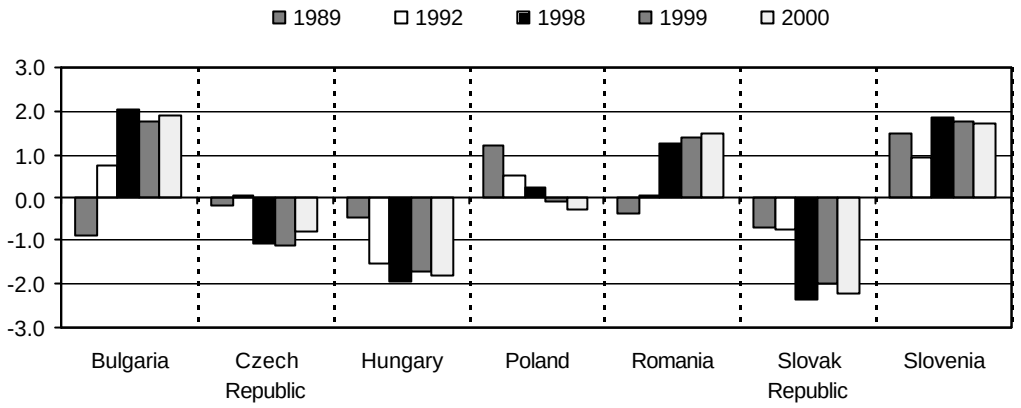
Figure 1

Textiles and textile products

Relative position of CEECs' textiles and textile products sectors in the region

Production shares in total manufacturing (at constant prices 1996)

relative to CEEC average,[1] percentage points



Note: 1) The CEEC average includes all CEEC(7) countries.

Source: WIIW Industrial Database.

Table 3

Textiles and textile products

Production shares (at constant prices 1996), in %

Manufacturing = 100

	1989	**1992**	**1998**	**1999**	**2000**
EU-North [1)3)]	.	3.9	3.0	.	.
EU-South [2)3)]	.	7.8	6.5	.	.
Austria [4)]	6.4	5.7	3.5	3.1	.
Bulgaria	5.9	7.3	7.4	6.7	6.7
Czech Republic	6.6	6.6	4.3	3.8	4.0
Hungary	6.3	5.0	3.4	3.2	3.0
Poland	8.0	7.1	5.6	4.8	4.5
Romania	6.4	6.6	6.6	6.3	6.3
Slovak Republic	6.1	5.8	3.0	2.9	2.6
Slovenia	8.3	7.5	7.2	6.7	6.5

Notes: 1) Including UK, France, Germany and Belgium.- 2) Including Greece, Portugal and Spain.- 3) At current prices.- 4) 1989 and 1992 data at constant prices 1993.

Source: WIIW Industrial Database, Eurostat.

Compared to selected countries of the European Union, the TC sector in the CEECs is positioned between the more advanced industrialized countries of the 'EU-North', and also Austria, on the one hand and the less advanced countries of the 'EU-South' on the other hand. In comparison to the 'EU-North', the TC sector of the CEECs is larger, meaning a structural surplus for these countries, while against the 'EU-South', the sector is smaller or of the same size (Bulgaria, Romania and Slovenia, see Annex A, Figure A1).

Stagnation of the TC sector

During the first period of transition, from 1989 to 1992, all CEECs experienced a severe transformational recession and the production of the TC sector declined along with the larger economy. In most countries average production fell by 10% to 20% (see Table 4). In comparison to total manufacturing, the sector was much more affected and hence may be called a relative 'loser'[7] of this period (except in Bulgaria and Romania, see Table 4, average annual changes relative to total manufacturing, 1990-92). On the domestic market, this development was due to the dramatic fall in real incomes resulting in declining demand for consumer goods whose purchase can easily be deferred, as well as to the disappearance of domestic sales networks and the growing competition of imports. On the export side, the collapse of the CMEA market had a decisive negative impact on the TC sector.

Table 4

Textiles and textile products

Production growth (at constant prices 1996)

	Average annual changes in %		Relative to total manufacturing, in percentage points		Index 2000
	1990-92	**1993-2000**	**1990-92**	**1993-2000**	**1989=100**
Bulgaria	-13.1	-5.0 [1)]	5.9	2.4 [1)]	.
Czech Republic	-14.5	-3.6	-0.3	-6.0	46.7
Hungary	-20.2	4.7	-4.9	-7.1	73.6
Poland	-15.1	3.5	-3.9	-5.9	80.4
Romania	-23.4	-2.1	0.7	-0.5	37.8
Slovak Republic	-17.2	-6.9	-1.3	-9.8	32.1
Slovenia	-14.2	-0.3	-3.0	-1.9	61.6

Note: 1) 1997-2000.

Source: WIIW Industrial Database

[7] 'Losers' of transition are here defined as industries that performed worse than total manufacturing in terms of production growth, 'winners' are those that performed better – see Urban (1999), p. 22.

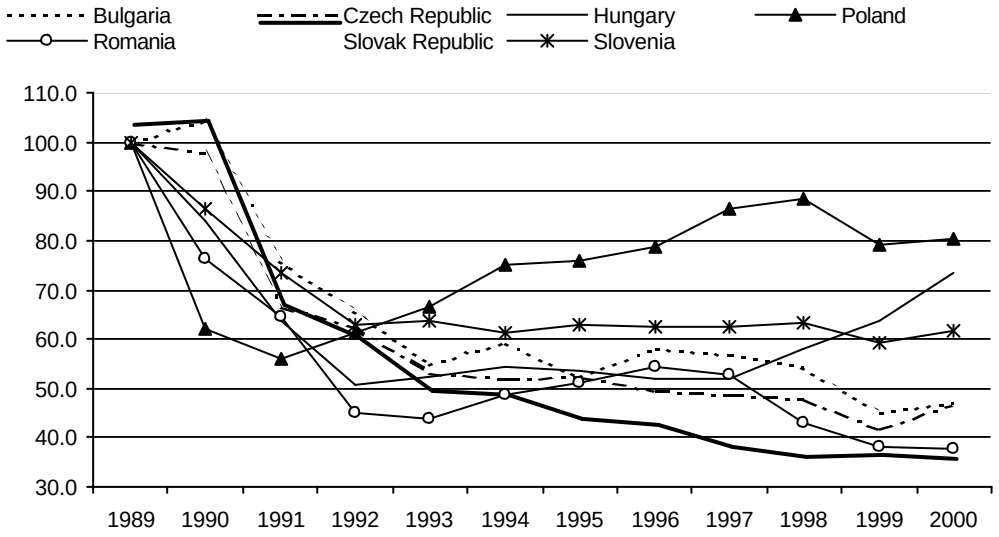
From 1993 onwards growth returned to the region but the TC sector continued to suffer. Growth remained negative in almost all countries and turned positive only in Poland and Hungary (see Table 4). Compared to total manufacturing, growth was hence still smaller and the sector remained a 'loser' of this period as well (see Table 4, average annual changes relative to total manufacturing, 1993-2000). On the demand side, this may have been due to persisting weak purchasing power on the domestic market, competition from cheap, partly illegal imports (e.g. Vietnamese street markets), but also due to the Russian crisis in 1998 (especially in Poland). On the supply side, the textiles industry was much more affected by the downturn (difficult privatization and modernization process, OP imports for clothing, see Conclusions to Part II) than the clothing industry, which benefited from the growth of outward processing agreements. Both industries were however lacking capital and hence investment for new technology, including foreign direct investment (except in Hungary) and were troubled by low productivity levels.

Looking at the production index for the TC sector, a period of stagnation followed the dramatic fall in production between 1989 and 1992. Only in Poland and Hungary did production start to recover but in 2000 it still reached only about 80% and 70% respectively of the 1989 level (see Figure 2). In both countries the sector benefited from a generally better performance of the domestic economy. In Hungary the strong inflow of FDI, in Poland the larger domestic market may have played a role in the recovery process. Concerning the other countries, production in 2000 stood at 60% of the 1989 level in Slovenia, at 50% in Bulgaria and the Czech Republic, and was lowest in Romania and Slovakia with 40% and 30% respectively.

Figure 2

Textiles and textile products

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



Source: WIIW Industrial Database.

Major role in employment

The TC sector is one of the largest employers in manufacturing. In Bulgaria and Romania the sector ranked first in 2000, with shares of 23% and 21% respectively. In the other CEECs, the TC sector accounted for 10% to 14% (see Table 5) and ranked second in manufacturing in Poland, Slovakia and Slovenia. In general, employment declined during transition and employment figures were smaller in 2000 than in 1989 (see Table 6). However, only in the Czech Republic, Poland and Slovenia was the reduction larger than in total manufacturing, resulting in falling shares, while in the other countries employment shares increased.

Table 5

Textiles and textile products

Employment shares, in % (Manufacturing = 100)

	1989	1992	1998	1999	2000
EU-North[1)]	.	6.3	5.4	.	.
EU-South[2)]	.	16.5	14.6	.	.
Austria	9.9	8.7	5.6	5.3	.
Bulgaria	12.6	13.4	19.3	20.8	23.1
Czech Republic	11.3	10.9	9.9	9.9	9.6
Hungary	12.7	13.7	15.4	14.5	13.5
Poland	15.3	14.4	13.8	12.8	12.5
Romania	19.5 [3)]	19.0	19.6	20.5	21.2
Slovak Republic	.	11.4	11.4	11.8	11.8
Slovenia	15.6	16.2	15.0	14.6	13.8

Comparisons should be made with caution due to statistical breaks.

Notes: 1) Including UK, France, Germany and Belgium.- 2) Including Greece, Portugal and Spain.- 3) 1990.

Source: WIIW Industrial Database, Eurostat.

Table 6

Textiles and textile products

Employment, thousand persons

	1989	1992	1998	1999	2000	2000 1989=100
Bulgaria	179	119	133	128	122	.
Czech Republic	187	129	113	107	102	54.5
Hungary	149	118	102	107	102	68.2
Poland	508	398	387	333	308	60.6
Romania	672 [1)]	534	373	341	332	49.5 [2)]
Slovak Republic	.	60	59	59	57	.
Slovenia	58	46	34	33	31	53.5

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

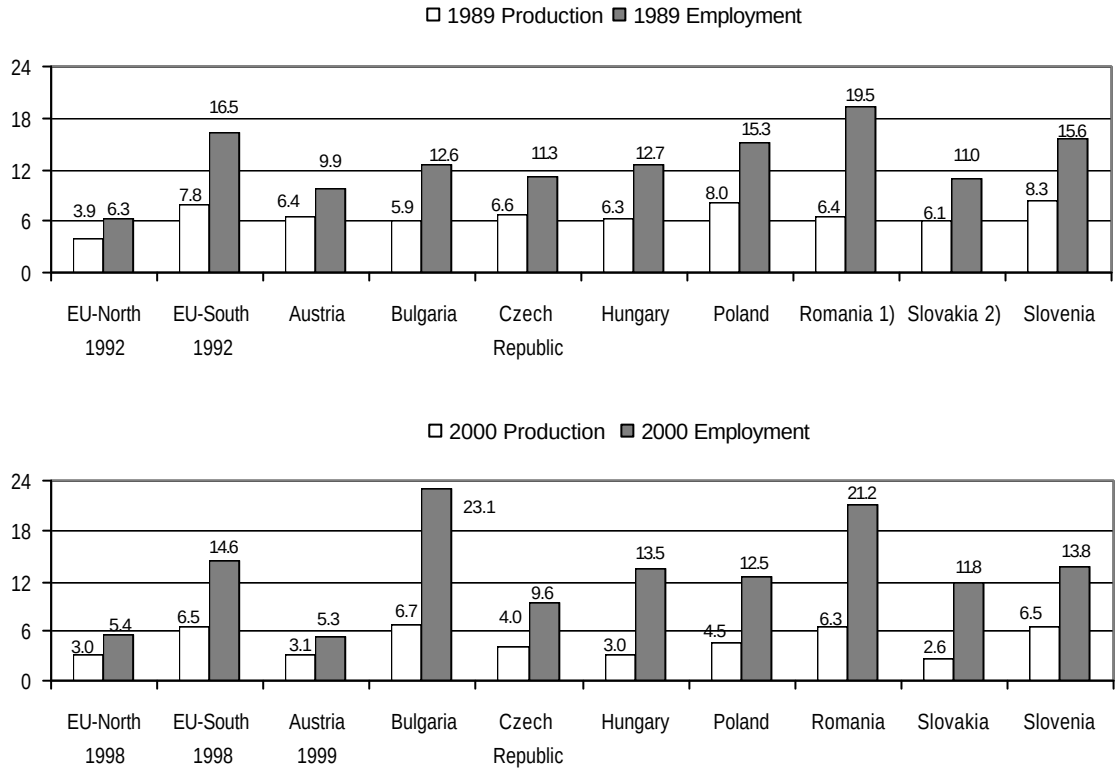
Source: WIIW Industrial Database

Comparing production and employment shares of the sector, the latter were several percentage points higher in all countries both in 1989 and 2000, due to the labour-intensive character of the TC sector (see Figure 3). During transition the gap widened in all CEECs except Slovenia and became largest for Bulgaria and Romania as the share of the labour-intensive clothing industry in the sector increased there (compare Part II, Romania).

Figure 3

Textiles and textile products

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



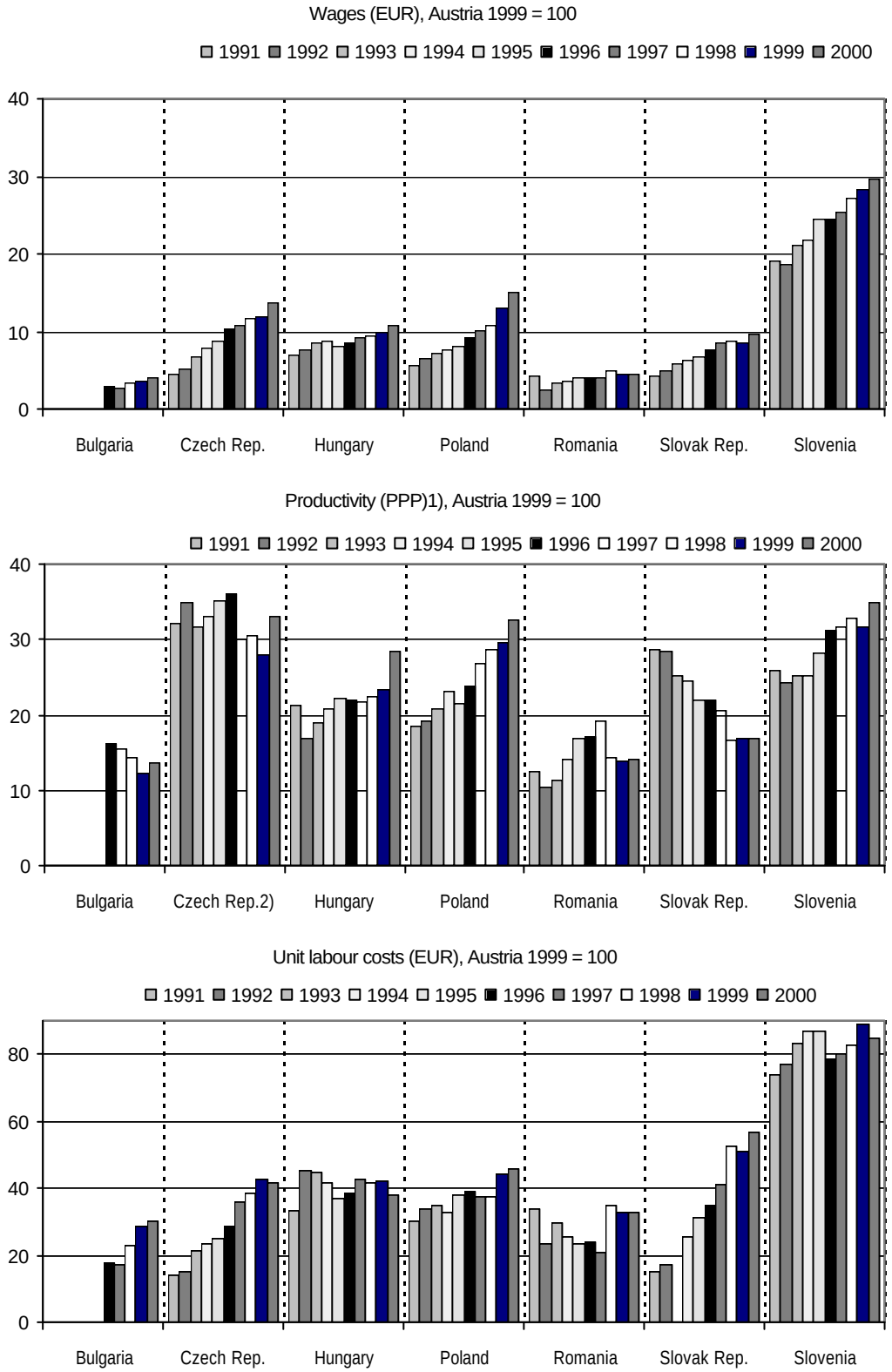
Notes: 1) Employment share 1990. - 2) Employment share 1991.
Source: WIIW Industrial Database.

2 International competitiveness

In all CEECs wages, productivity and unit labour costs in the TC sector have generally been lower than in Western countries for which we have used Austria as a reference point. In 2000, nominal wage rates (gross wages at exchange rates per employee) hovered between 10% and 15% of the Austrian level in most countries; they were even lower (at 4%) in Bulgaria and Romania, but somewhat higher in Slovenia (30%). The estimated productivity level of the TC sector was particularly low in Bulgaria and Romania but also in Slovakia (14% in the former two countries, 17% in the latter one) and reached only 30% of

Figure 4

Textiles and textile products



Notes: 1) PPP = Purchasing Power Parities for GDP. - 2) Coverage of Czech industrial statistics had a break in 1996/97 due to the size of enterprises included.
Source: WIIW Industrial Database.

the Austrian level in the other CEECs. Unit labour costs ranged between 30% of the Austrian level in Bulgaria and Romania, 40% in most other CEECs, 60% in Slovakia and 85% in Slovenia (see Figure 4). [8]

During transition, wages in the TC sector rose throughout the region. Between 1993 and 2000, the annual wage increase ranged between 5% in Hungary and 13% in the Czech Republic (see Table 7). In the same period productivity increased as well in most countries (with fluctuations occurring in the Czech Republic and Romania, see Figure 4), but clearly declined in Bulgaria and Slovakia.[9] When compared to total manufacturing, the productivity increase in the TC sector was less pronounced, making the sector a relative productivity loser in all countries. As the wage increase was higher than the productivity increase, unit labour costs rose in all CEECs, except in Hungary, and the cost competitiveness of the sector deteriorated (see Table 7).[10]

Table 7

Textiles and textile products

Average annual growth rates, 1993-2000

in %

	Output	Employment	Productivity (EUR basis)	Productivity relative to total manuf.	Wage rates (EUR basis)	Unit Labour Costs (EUR basis)
Bulgaria [1)]	-5.0	-0.8	-4.3	-4.9	9.6	14.6
Czech Republic	-3.6	-5.1	1.6	-4.7	13.0	11.2
Hungary	4.7	-2.8	7.7	-7.5	5.0	-2.5
Poland	3.5	-3.2	6.9	-4.1	8.4	1.4
Romania	-2.1	-5.8	3.8	-2.0	8.2	4.2
Slovak Republic	-6.9	-2.1	-4.9	-11.7	9.1	14.7
Slovenia	-0.3	-5.4	5.4	-0.1	5.9	0.5

Note: 1) 1997-2000.

Source: WIIW Industrial Database.

[8] These figures are however strongly affected by different productivity measures. Table A2 in the Appendix shows the lower and upper ranges for estimated unit labour costs in 2000, using alternative measures for productivity. In the text, only the lower range (productivity calculated at PPPs for GDP) is stated. When using the upper range (productivity calculated at PPPs for fixed capital formation) unit labour costs are higher but still below the Austrian level.

[9] Labour productivity for the period t is defined as: $productivity_t = output_t / employment_t$. Changes of productivity therefore can be explained by the change of output on the one hand and the change of employment on the other: d productivity dt = d output dt – d employment dt.

[10] Unit labour costs (ULCs) for the period t are defined as: $ULC_t = wages_t / productivty_t = wages_t * employment_t / output_t$. Changes of ULCs thus depend on the respective changes of wages, employment and output: d ULCs dt = d wages dt + d employment dt – output dt.

Looking at the wage level in the TC sector, wages lay significantly below manufacturing average and reached between 61% and 73% of manufacturing average in 2000 (see Table 8). Hence, workers in the TC sector (mostly women) were among the worst paid of all workers in total manufacturing. This is typical for jobs requiring little qualification and skills. During transition, relative wages even declined, except in Slovenia.

Table 8

Textiles and textile products

Average monthly gross wages

Manufacturing = 100

	1992	1995	1998	1999	2000
Bulgaria	74.6	68.4	64.4	65.4	67.9
Czech Republic	79.1	73.8	70.6	69.0	70.8
Hungary	71.2	64.3	62.9	62.3	61.2
Poland	81.9	73.1	67.4	66.5	65.0
Romania	76.5	74.1	76.5	78.0	73.1
Slovak Republic	78.8	69.7	67.3	67.5	67.1
Slovenia	87.2	77.8	73.8	72.8	72.5

Source: WIIW Industrial Database.

3 Trade performance with the EU(15)

Trade between the European Union and the CEECs is governed by the *Europe Agreements*,[11] aiming to gradually establish free trade in industrial products, with the EU opening its markets more quickly than the associated countries. CEE industrial exports to the EU have been fully subject to free trade since 1 January 1997, but textiles and clothing exports were liberalized only as of 1 January 1998[12] because they were regarded as 'sensitive' products and hence were exempted from early liberalization. Barriers to EU exports to the CEECs were generally removed on 1 January 2001.

Outward processing transactions (OP) benefited from special, softer regulations: First, tariffs were levied on value added only. Second, beginning in March 1992, the Europe Agreements abolished tariffs for most categories of textiles and clothing imported after outward processing, which was then extended to all products in December 1994.[13] Consequently, imports related to non-OP co-operation agreements (mainly subcontracting)

[11] The Europe Agreements were signed between the European Union and Hungary, the former CSFR and Poland in 1991 and were renewed after the separation with the Czech and Slovak Republics in 1993. Bulgaria and Romania followed in 1993, Slovenia in 1996.

[12] All quantitative restrictions were lifted then.

[13] Naujoks and Schmidt (1994), p. 5 and Quaisser (1996a), p. 45.

and to FDI were at a disadvantage. These different regulations for OP clearly benefited EU producers and discriminated against genuine Eastern European products. The differences vanished by 1 January 1997, when tariffs on non-OP imports were removed as well.

Generally, world trade is governed by *WTO rules*,[14] trade in the TC sector by the WTO Agreement on Textiles and Clothing (ATC) – a transitional instrument for the integration of the TC sector into the general rules of the WTO over a ten-year period. Quotas will be removed in four stages until 1 January 2005. Hence, by that time the cushioning effects of trade restrictions for the EU industry will disappear, as will the preferential treatment of CEE exports to the EU, and competition will increase in the textiles and clothing market. Especially large textiles and clothing producers such as India, Indonesia, Pakistan and above all China will challenge current suppliers to the EU for market shares.[15]

Trade with the EU is investigated in detail as the EU is the dominant trading partner of all CEECs today: after the collapse of the CMEA market, CEECs' trade became heavily oriented towards EU markets.[16] In the TC sector, trade with the EU is even relatively more important (in both exports and imports) than in total manufacturing due to outward processing trade. By the end of the 1990s, the EU(15) accounted for 70% to 90% of CEECs' TC exports in the region (see Figure 5). The share of exports going to the EU(15) was largest in Romania and Poland (about 90%), Hungary, Slovakia and Slovenia (84%, 82% and 80% respectively) and was still relatively pronounced in Bulgaria and the Czech Republic (77% and 74%). In all countries except Hungary and the Czech Republic the export orientation towards the EU(15) markets was distinctly above that of total manufacturing (compare footnote 16). On the import side, the share of imports coming from the EU(15) ranged between 65% and 90% and was hence also larger than for total manufacturing imports. (Romania, the main target for OP, showed the highest share.)

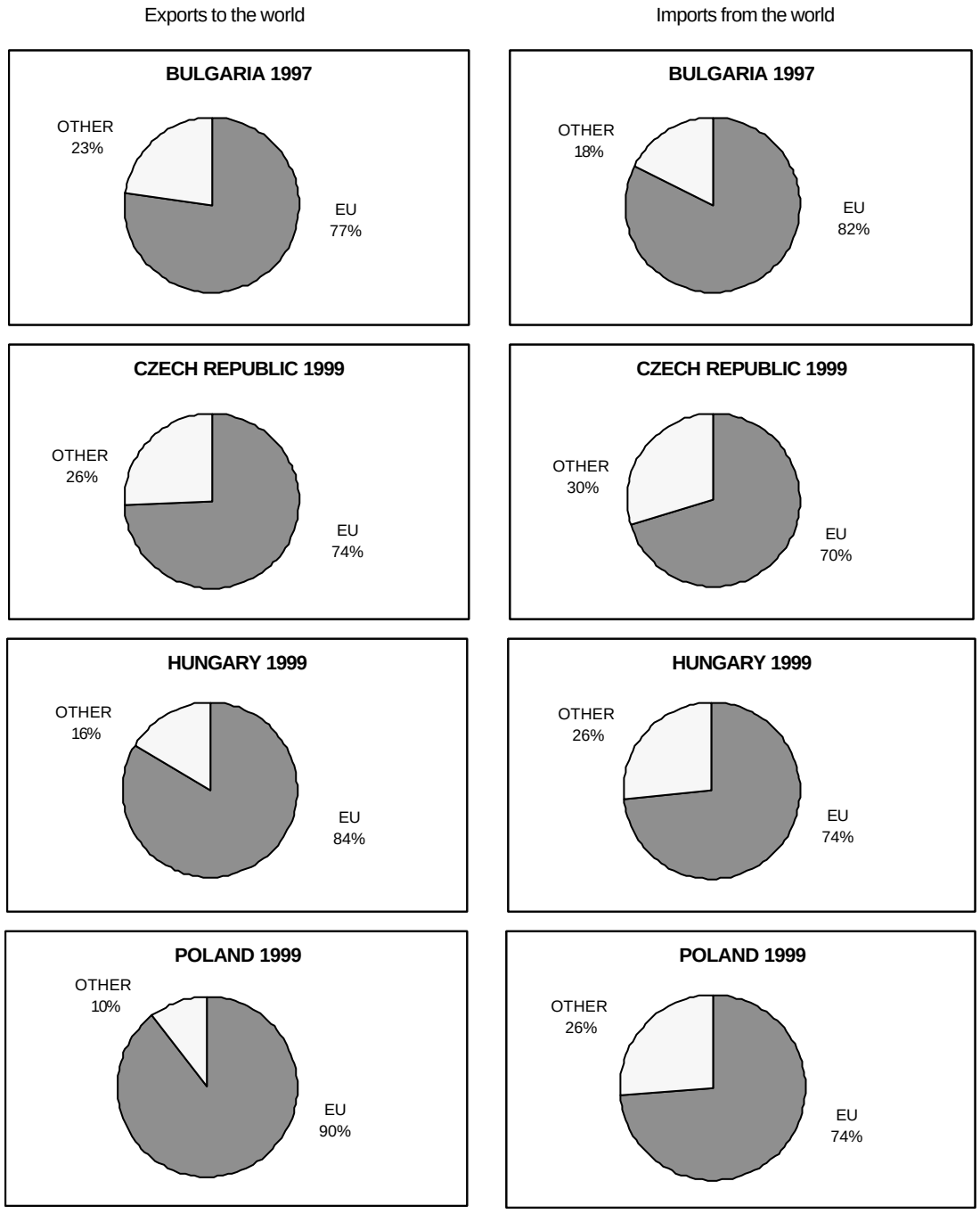
[14] In general the World Trade Organization (WTO), formerly GATT, embodies free trade. However, the *Multifibre Agreement* (MFA) – the only separate agreement on branch level – made the application of selective quantitative restrictions, in case of market disruptions, possible. The aim was to ease structural change and its detrimental effects on employment. The MFA set the multilateral rules under which bilateral agreements were concluded. These contained voluntary export restraints, quantitative restrictions and growth rates thereof. The MFA was in force from 1974 to 1994 and was replaced in 1995 by the WTO Agreement on Textiles and Clothing (ATC).

[15] Strengg (2001).

[16] By 1999, more than 70% of total Hungarian exports went to the EU(15), for Poland and the Czech Republic the levels were about 70%, for Romania and Slovenia somewhat below 70%, for the Slovak Republic 60%, and for Bulgaria around 50% (40% in 1997). 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 about 60%, and in Slovakia and Bulgaria of 50% (Bulgaria: 40% in 1997).

Figure 5

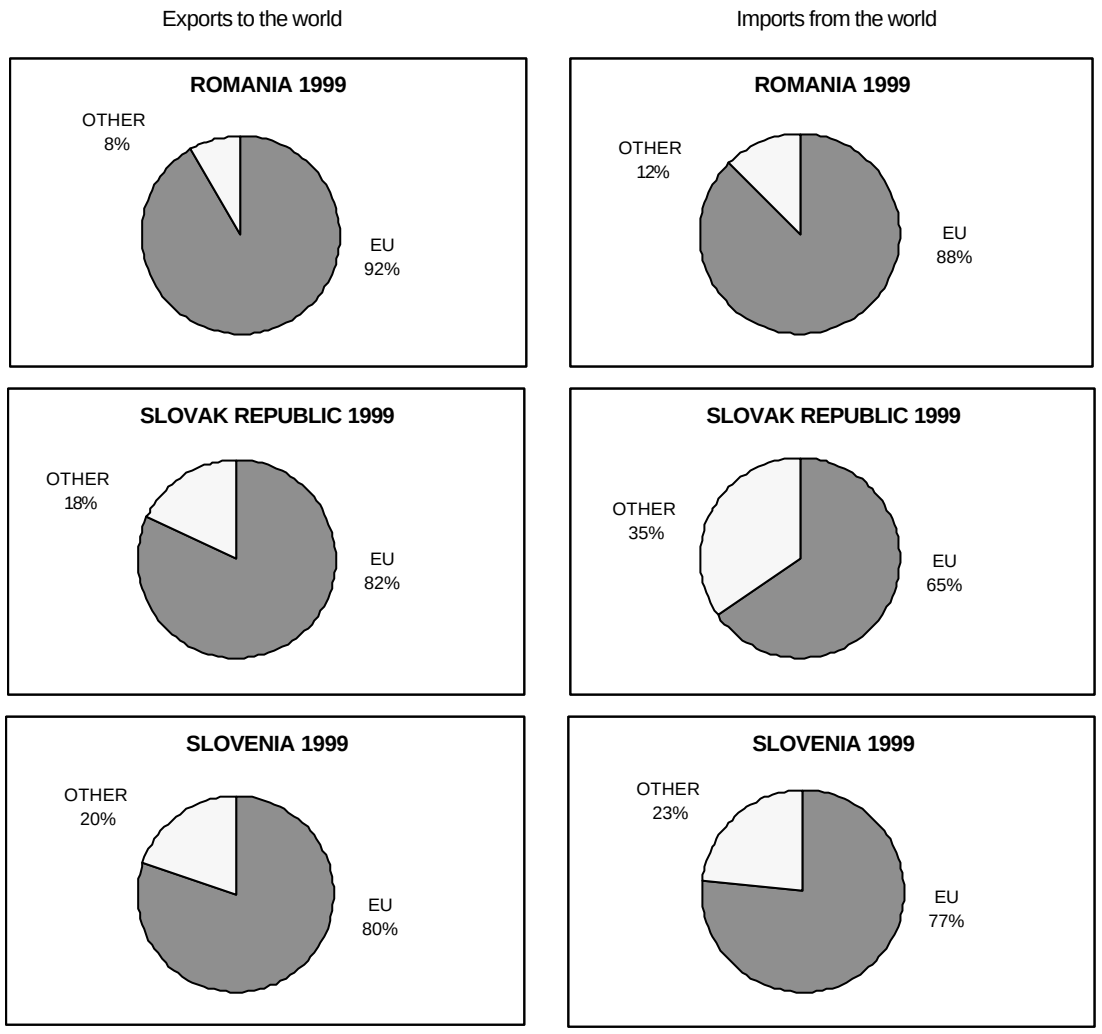
Textiles and textile products
CEECs' exports to and imports from the world



(Figure 5 contd.)

(Figure 5 contd.)

Textiles and textile products
CEECs' exports to and imports from the world



Source: UN Database.

Major role of trade in Romania and Bulgaria

Looking at the share of TC products in total manufacturing exports to the EU(15), the importance of the sector today differs significantly between two country groups. In the less advanced countries Romania and Bulgaria, the sector accounted for a major part of manufacturing exports, reaching 37% and 29% respectively in 2000, and hence was the largest exporter by far in Romania and ranked second in Bulgaria. In the more advanced transition countries, the sector still held an important position, with 11% in Poland and 9% in Slovenia and Slovakia. The export share was only slightly smaller in the Czech Republic

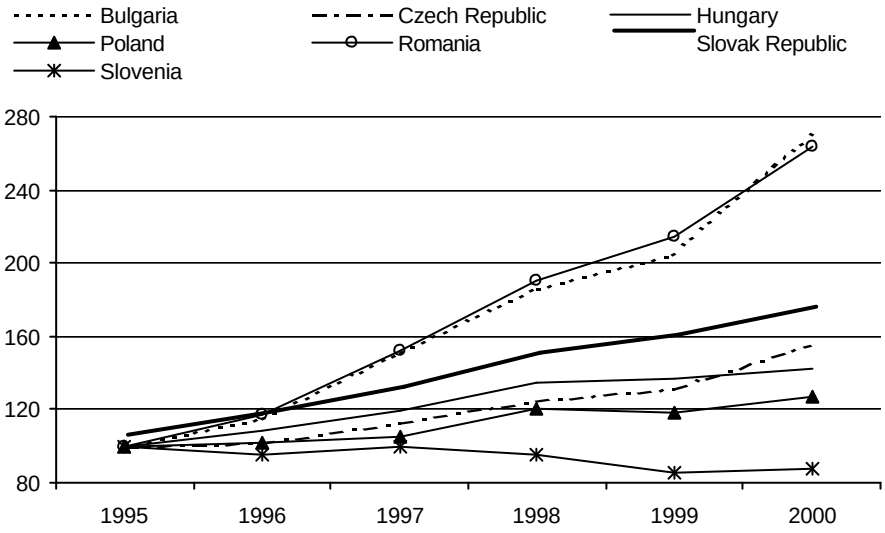
and Hungary (7%) (see Appendix, Table A3 and Figure A2). In general, export shares were larger than production shares, reflecting the TC sector's above-average export orientation towards the EU(15).

Between 1995 and 2000, TC exports to the EU(15) grew most dynamically in Bulgaria and Romania, reaching average annual growth rates of 20% and hence reaching 270% of the 1995 level in 2000 (see Figure 6). Among other things this was due to a major competitive gain in 'other wearing apparel and accessories' exports, which experienced a large competitive loss in the other CEECs (except in Slovakia, where they also showed a competitive gain).[17] Only in Bulgaria and Romania did TC exports expand faster than total manufacturing exports so that export shares increased. In the other CEECs export shares fell, because TC exports either grew less dynamically than total manufacturing exports or even declined (Slovenia).

Figure 6

Textiles and textile products

Export index EU(15), 1995=100



Source: Eurostat, WIIW calculations.

With regard to imports from the EU(15), a diversified picture emerges as well. Again, in Romania and Bulgaria TC imports accounted for the largest share of total manufacturing imports in 2000, with 24% and 20% respectively due to the importance of outward processing trade. In the other CEECs shares ranged between 5% in the Czech Republic and 8% in Slovenia (see Appendix, Figure A2). Between 1995 and 2000, import shares rose in Bulgaria and Romania, while they declined in the other CEECs.

[17] Measured by a 'shift and share analysis'. See Havlik, Landesmann and Stehrer (2001).

In absolute terms, higher exports than imports in the TC sector led to a small sectoral trade surplus in most countries from 1995 to 2000 (except in Slovenia from 1998 onwards and in Poland between 1997 and 1999; see Appendix Figure A2). In 2000, the sectoral trade surplus ranged between EUR 30 million in Poland and EUR 240 million in Bulgaria; it was significantly larger only in Romania, with EUR 700 million.

Exports concentrated on 'wearing apparel', imports on 'textiles'

At a more detailed three-digit NACE level (see Table 9), exports of the CEECs to the EU(15) were concentrated on 'wearing apparel; dressing and dyeing of fur' (between 60% and 84% of the sector's exports). The Czech Republic (36%) was an exception: here exports of 'textiles' (64%) were more important in the sectoral structure in 2000. The concentration on 'wearing apparel; dressing and dyeing of fur' was most pronounced in Bulgaria and Romania (slightly more than 80%) and least so in Slovenia (60%) and of course the Czech Republic. That pattern matched the concentration on the sub-branch 'other wearing apparel and accessories'. In the 'textiles' industry, exports from 'knitted and crocheted articles' – including socks, hosiery, or pullovers etc. – played a role in some countries (see Table 9).

Between 1995 and 2000, the concentration on 'wearing apparel; dressing and dyeing of fur' exports declined in all countries except in Bulgaria, with the reduction being especially pronounced in the Czech Republic, Poland and Hungary (hence 'textiles' exports grew faster). Export growth was particularly strong in 'other textiles' – including carpets, ropes, embroideries, etc. – although from a low level.

The import structure of the TC sector was heavily concentrated too. Major import products came from the 'textiles' industry however (between 70% and 86% of the sector's imports in 2000). The concentration was most pronounced in Slovakia and Poland (about 86%), the Czech Republic and Slovenia (about 80%) and least so in Bulgaria (70%). The most important sub-branches were 'textile-weaving', 'other textiles' and 'other wearing apparel and accessories' (see Table 10). Between 1995 and 2000 the concentration was somewhat declining, except in the Czech Republic and Slovakia. Imports from 'dressing and dyeing of fur, manufacture of articles of fur' fell in absolute terms.

Table 9

Detailed export structure of the textiles and textile products sector, exports to EU(15), 2000, in %

		Bulgaria	Czech Republic	Hungary	Poland	Romania	Slovak Republic	Slovenia
17	**Textiles**	**16.4**	**63.9**	**33.4**	**28.5**	**17.6**	**28.7**	**39.6**
17.1	Preparation and spinning of textile fibres	1.2	10.4	5.4	3.5	0.7	1.5	9.3
17.2	Textile weaving	3.9	21.7	6.0	2.0	0.9	7.8	10.9
17.4	Manuf. of made-up textile articles, except apparel	2.7	15.1	6.1	13.2	2.9	4.6	7.8
17.5	Manuf. of other textiles	0.2	10.5	4.7	3.8	0.8	2.1	4.1
17.6	Manuf. of knitted and crocheted fabrics	0.1	1.8	0.4	0.6	0.1	0.3	0.3
17.7	Manuf. of knitted and crocheted articles	8.3	4.5	10.7	5.4	12.3	12.5	7.4
18	**Wearing apparel; Dressing and dyeing of fur**	**83.6**	**36.1**	**66.6**	**71.5**	**82.4**	**71.3**	**60.4**
18.1	Manuf. of leather clothes	0.2	0.3	1.3	0.5	0.6	0.0	2.4
18.2	Manuf. of other wearing apparel and accessories	83.4	35.0	64.6	69.6	81.6	71.2	57.4
18.3	Dressing and dyeing of fur; manuf. of articles of fur	0.0	0.7	0.7	1.3	0.2	0.1	0.5
DB	**Textiles and textile products**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	in EUR mn	**843.8**	**1374.1**	**1322.9**	**2426.0**	**2724.5**	**577.2**	**535.4**

Source: Eurostat, WIIW calculations.

Table 10

Detailed import structure of the textiles and textile products sector, imports from EU(15), 2000, in %

		Bulgaria	Czech Republic	Hungary	Poland	Romania	Slovak Republic	Slovenia
17	**Textiles**	**69.6**	**81.2**	**71.6**	**85.0**	**75.0**	**86.2**	**79.0**
17.1	Preparation and spinning of textile fibres	5.3	13.1	7.5	5.6	4.7	7.5	5.5
17.2	Textile weaving	43.4	23.8	30.6	42.9	49.9	41.0	35.1
17.4	Manuf. of made-up textile articles, except apparel	1.2	5.0	2.2	2.5	0.8	3.1	2.5
17.5	Manuf. of other textiles	8.9	27.5	18.7	22.0	10.3	19.1	22.8
17.6	Manuf. of knitted and crocheted fabrics	8.1	8.6	8.1	9.0	5.5	10.9	7.7
17.7	Manuf. of knitted and crocheted articles	2.6	3.2	4.4	2.9	3.7	4.5	5.5
18	**Wearing apparel; Dressing and dyeing of fur**	**30.4**	**18.8**	**28.4**	**15.0**	**25.0**	**13.8**	**21.0**
18.1	Manuf. of leather clothes	0.0	0.5	0.2	0.2	0.0	0.3	0.2
18.2	Manuf. of other wearing apparel and accessories	30.3	17.7	27.6	14.4	24.9	13.3	20.5
18.3	Dressing and dyeing of fur; manuf. of articles of fur	0.1	0.6	0.6	0.4	0.1	0.2	0.3
DB	**Textiles and textile products**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	in EUR mn	**606.9**	**1162.3**	**1250.4**	**2392.1**	**1981.4**	**462.7**	**612.3**

Source: Eurostat, WIIW calculations.

Price/quality gaps

The price/quality gap indicator reveals differences in export prices which under certain conditions can be interpreted as differences in product quality. This indicator measures the CEE export unit values (value per kg) to the EU(15) compared to the overall EU import unit value.[18] A positive value of this indicator suggests that CEE exports are more expensive, and thus presumably have a better quality, than average EU imports. A negative figure suggests that the exported products are cheaper, and therefore presumably have a lower quality. For the average of 1995-2000 the TC price/quality gap indicator differed substantially in the individual CEECs: for Slovenia and Hungary it was positive and 41% and 18% higher than the average EU import unit value. The indicator ranged around zero in Slovakia, Poland and the Czech Republic and was negative in Romania and Bulgaria (-13% and -27% respectively). Between 1995 and 2000 the indicator improved remarkably, the 2000 indicator was significantly higher than the average (see Table 11).

At a more detailed level the price/quality gap was however mostly negative, with some exceptions: 'leather clothes' exports achieved a positive price/quality gap indicator in all countries as did 'other wearing apparel and accessories' exports, except in Bulgaria and Romania (see Table 11).

[18] Zero refers to the average price line for total EU imports and the values off the zero price can be interpreted as (positive or negative) export price gaps (in %) relative to that average. See Havlik et al. (2001), p. 4-26.

Table 11

Textiles and textile products

Price/quality gap indicator for CEECs' exports to the EU[1)]

			Bulgaria	Czech Republic	Hungary	Poland	Romania	Slovak Republic	Slovenia
17.1	Preparation and spinning of textile fibres	**2000**	-33.3	-10.6	5.1	-4.8	-31.4	-18.8	2.9
17.2	Textile weaving	**2000**	-38.9	-24.3	3.9	-30.9	-19.1	-34.8	-7.0
17.4	Manuf. of made-up textile articles, except apparel	**2000**	-31.0	8.8	11.8	2.4	-19.0	13.8	27.4
17.5	Manuf. of other textiles	**2000**	0.7	-20.0	-3.1	-12.1	18.2	53.6	-16.5
17.6	Manuf. of knitted and crocheted fabrics	**2000**	-2.8	-11.2	-6.7	-22.9	-13.5	9.1	-5.0
17.7	Manuf. of knitted and crocheted articles	**2000**	-33.2	-15.2	-9.2	-21.8	-23.4	-15.1	8.9
18.1	Manuf. of leather clothes	**2000**	19.9	8.7	86.9	48.5	16.8	164.9	73.6
18.2	Manuf. of other wearing apparel and accessories	**2000**	-15.3	30.0	39.4	13.1	-4.2	27.3	81.0
18.3	Dressing and dyeing of fur; manuf. of articles of fur	**2000**	-41.1	-39.3	28.0	-18.2	-46.1	-56.8	-10.2
DB	**Textiles and textile products**	**1995**	-26.7	-8.7	6.7	-2.9	-25.1	-14.4	36.7
		1996	-27.9	-8.6	8.2	-3.2	-20.0	-8.3	33.7
		1997	-31.4	-9.4	8.5	-5.1	-20.2	-10.0	32.8
		1998	-27.1	-2.5	26.1	3.6	-9.7	4.4	43.7
		1999	-26.3	2.8	29.6	1.9	-5.1	14.5	58.0
		2000	**-16.9**	**2.5**	**28.7**	**10.7**	**0.1**	**21.8**	**43.3**
		avge 1995-2000	**-26.1**	**-4.0**	**18.0**	**0.8**	**-13.3**	**1.3**	**41.4**

Notes: 1) Defined as the unit value ratio uvr^c of country c,which shows the percentage deviation from the average EU import unit value.

Source: Calculations by Stehrer, R., WIIW.

Prominent position on the EU market

In 1995 CEEC(7) TC exports had a market share of 14% in the EU(15); after some fluctuations in the subsequent years that share stood at slightly above 14% again in 2000 (all shares without intra-EU trade). Compared to EU market shares of total manufacturing (9% in 1995 and 11% in 2000) the TC sector shares were larger, reflecting its significant position on the EU market – although the positive deviation was slightly decreasing. In 2000 the largest exporters to the EU were Romania and Poland with market shares around 4%, followed by the Czech Republic and Hungary with 2%. The other countries held shares of around 1% (see Table 12).

Table 12

Textiles and textile products

CEECs' exports to the EU(15) in EUR million, market shares in %

	EU(15) extra-EU imports, EUR mn	Bulgaria		Czech Republic		Hungary		Poland	
		EUR mn	%	EUR mn	%	EUR mn	%	EUR mn	%
1995	43395.2	310.7	0.72	885.3	2.04	928.9	2.14	1911.0	4.40
1996	46012.7	357.0	0.78	903.1	1.96	1008.1	2.19	1946.8	4.23
1997	53184.8	468.9	0.88	997.4	1.88	1108.4	2.08	2016.8	3.79
1998	55854.1	576.4	1.03	1101.3	1.97	1250.5	2.24	2308.0	4.13
1999	58332.9	637.2	1.09	1165.3	2.00	1274.2	2.18	2258.1	3.87
2000	68099.1	843.8	1.24	1374.1	2.02	1322.9	1.94	2426.0	3.56

	Romania		Slovak Republic		Slovenia		CEEC(7)		Total Manufacturing CEEC(7)[1)]	
	EUR mn	%	EUR mn	%	EUR mn	%	EUR mn	%	EUR mn	%
1995	1034.1	2.38	339.3	0.78	608.1	1.40	6017.4	13.87	38401	8.93
1996	1214.9	2.64	379.8	0.83	580.2	1.26	6389.9	13.89	40903	9.05
1997	1574.6	2.96	427.7	0.80	603.9	1.14	7197.6	13.53	49447	9.48
1998	1964.7	3.52	489.0	0.88	576.6	1.03	8266.5	14.80	59900	10.43
1999	2213.1	3.79	524.1	0.90	518.8	0.89	8590.7	14.73	67623	10.71
2000	2724.5	4.00	577.2	0.85	535.4	0.79	9803.8	14.40	86379	10.83

Note: 1) CEEC(7) total manufacturing exports to the EU and their market shares.

Source: Eurostat, WIIW calculations.

Trade surplus with Austria

TC imports from the CEEC(7) had a distinctively larger share on the Austrian market than on the EU(15) market, accounting for 26% of Austria's non-EU TC imports in 1995 and reaching 39% in 2000. Import volumes doubled in that period. In 2000 the main import items came from 'wearing apparel; dressing and dyeing of fur' (except from the Czech Republic and Slovenia). The most important source of TC imports from the CEECs was Hungary with 13% of all Austrian extra-EU imports, followed by the Czech Republic with

9%. Both Slovakia and Romania held 5%, Slovenia 3%; imports from Bulgaria and Poland were smaller (see Table 13).

Table 13

Textiles and textile products

CEECs' exports to Austria in EUR million, market shares in %

	Austria extra-EU(15) imports, EUR mn	Bulgaria		Czech Republic		Hungary		Poland	
		EUR mn	%	EUR mn	%	EUR mn	%	EUR mn	%
1995	950.1	8.7	0.92	70.6	7.43	98.3	10.35	7.8	0.82
1996	1108.9	9.8	0.88	88.2	7.95	144.0	12.98	10.0	0.91
1997	1127.4	12.0	1.06	94.6	8.40	149.8	13.29	9.8	0.87
1998	1187.4	17.2	1.45	111.5	9.39	176.2	14.84	11.3	0.95
1999	1232.3	20.1	1.63	110.8	8.99	177.7	14.42	16.0	1.30
2000	1262.8	21.6	1.71	115.5	9.14	164.6	13.03	18.4	1.46

	Romania		Slovak Republic		Slovenia		CEEC(7)[1)]	
	EUR mn	%	EUR mn	%	EUR mn	%	EUR mn	%
1995	11.1	1.17	33.7	3.54	13.5	1.42	243.7	25.65
1996	17.5	1.58	47.6	4.30	18.9	1.70	336.0	30.30
1997	29.0	2.57	51.1	4.53	27.0	2.40	373.4	33.12
1998	34.8	2.93	52.7	4.44	31.7	2.67	435.4	36.67
1999	43.2	3.51	62.5	5.07	29.4	2.38	459.6	37.30
2000	57.6	4.56	66.0	5.23	40.5	3.21	484.3	38.35

Note: 1) Including Bulgaria, the Czech Republic, Hungary, Poland, Romania, the Slovak Republic and Slovenia.
Source: Eurostat, WIIW calculations.

TC exports from Austria to the CEECs

The CEEC(7) market is a major export destination for Austria's non-EU TC exports. In 1995 the CEEC(7) accounted for 33% of Austria's extra-EU(15) TC exports. That share increased steadily to 46% in 2000. Exports concentrated on 'textiles', the major export destination was Hungary with 18% of all Austrian extra-EU exports (see Table 14).

As TC exports from Austria to the CEEC(7) were smaller than imports from these countries, Austria recorded a deficit and the CEECs a surplus in most years (except in 1995 and 1997). Austria's trade deficit in the sector reached EUR -19 million in 2000, mainly due to a larger trade deficit with the Czech Republic (EUR -35 million) and Romania (EUR -20 million) and a smaller one with Bulgaria and Slovakia. With Hungary, Poland and Slovenia, Austria achieved a sectoral trade surplus in that year.

Table 14

Textiles and textile products

CEECs' imports from Austria in EUR million, market shares in %

	Austria extra-EU(15) exports, EUR mn	Bulgaria EUR mn	Bulgaria %	Czech Republic EUR mn	Czech Republic %	Hungary EUR mn	Hungary %	Poland EUR mn	Poland %
1995	763.5	8.5	1.12	52.0	6.82	105.3	13.79	14.6	1.91
1996	821.5	7.9	0.96	58.2	7.09	143.2	17.43	23.0	2.80
1997	941.4	9.7	1.03	64.6	6.86	163.5	17.37	30.4	3.23
1998	970.0	13.1	1.35	61.2	6.31	179.2	18.47	31.0	3.19
1999	986.9	14.0	1.41	78.5	7.95	186.3	18.88	27.5	2.78
2000	1014.7	18.1	1.79	80.2	7.90	185.6	18.29	32.4	3.19

	Romania EUR mn	Romania %	Slovak Republic EUR mn	Slovak Republic %	Slovenia EUR mn	Slovenia %	CEEC(7)[1] EUR mn	CEEC(7)[1] %
1995	7.8	1.03	38.5	5.05	25.8	3.38	252.6	33.09
1996	10.3	1.26	54.8	6.67	21.8	2.65	319.2	38.86
1997	12.8	1.36	62.8	6.67	30.5	3.24	374.3	39.76
1998	20.7	2.13	64.1	6.60	49.7	5.13	419.0	43.19
1999	22.5	2.28	66.8	6.76	52.9	5.36	448.4	45.43
2000	37.6	3.70	65.4	6.44	46.0	4.53	465.1	45.84

Note: 1) Including Bulgaria, the Czech Republic, Hungary, Poland, Romania, the Slovak Republic and Slovenia.
Source: Eurostat, WIIW calculations.

Mostly declining revealed comparative advantage

Revealed comparative advantage values (RCAs)[19] for the TC sector in relation to the EU(15) were positive for most CEECs between 1995 and 2000, except for Slovenia in the last few years and Poland in 1997 and 1998, reflecting the negative sign of their sectoral trade balances (see Table 15). When compared to manufacturing total,[20] data indicate a relative comparative advantage of the TC sector in all CEECs. In 2000 this advantage was largest in Romania, followed by Bulgaria and Poland. Between 1995 and 2000 relative RCAs fluctuated widely in most countries and declined continuously in the Czech Republic, Hungary and Slovenia. In the year 2000, relative RCA values were slightly larger than in 1995 only in Poland and Romania; they had remained constant in Bulgaria and were smaller in the other countries (see Table 16).

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

[20] Measured as relative RCA = RCA (sector) – RCA (total manufacturing).

Positive RCA values in the TC sector are due to positive trade balances in 'wearing apparel; dressing and dyeing of fur', while 'textiles' show a trade deficit in all CEECs (see Table 17). This is quite clear from the detailed trade data, with imports focusing on 'textiles' and exports on 'wearing apparel; dressing and dyeing of fur' (see previous chapter). Within the 'textiles' industry, 'made-up textile articles, except apparel' also achieved a trade surplus in 2000.

Table 15

Textiles and textile products sector RCAs in trade with EU(15)

	1995	1996	1997	1998	1999	2000
Bulgaria	0.13	0.18	0.16	0.17	0.17	0.16
Czech Republic	0.11	0.06	0.06	0.06	0.07	0.08
Hungary	0.07	0.05	0.05	0.06	0.05	0.03
Poland	0.05	0.01	-0.02	-0.01	0.00	0.01
Romania	0.14	0.15	0.15	0.15	0.16	0.16
Slovak Republic	0.12	0.08	0.08	0.09	0.12	0.11
Slovenia	0.08	0.04	0.01	-0.02	-0.03	-0.07
Greece	0.06	0.01	-0.03	0.01	-0.02	-0.06
Portugal	0.27	0.25	0.22	0.20	0.15	0.13
Spain	-0.23	-0.21	-0.20	-0.20	-0.23	-0.23

Measured as: RCA = (exports – imports) / (exports + imports).

Source: Eurostat, WIIW calculations.

Table 16

Relative position of textiles and textile products sector RCAs in trade with EU(15)

	1995	1996	1997	1998	1999	2000
Bulgaria	0.18	0.17	0.09	0.20	0.25	0.18
Czech Republic	0.24	0.23	0.20	0.13	0.10	0.12
Hungary	0.14	0.12	0.09	0.08	0.03	0.00
Poland	0.17	0.25	0.26	0.26	0.24	0.18
Romania	0.19	0.24	0.19	0.24	0.20	0.21
Slovak Republic	0.13	0.15	0.15	0.10	0.07	0.06
Slovenia	0.16	0.14	0.14	0.08	0.08	0.04
Greece	0.59	0.55	0.56	0.61	0.60	0.58
Portugal	0.46	0.44	0.43	0.43	0.40	0.36
Spain	-0.10	-0.08	-0.06	-0.05	-0.04	-0.03

Measured as: RCA (sector) – RCA (total manufacturing).

Source: Eurostat, WIIW calculations.

Table 17

Detailed RCA structure of the textiles and textile products sector in trade with EU(15), 2000

		Bulgaria	Czech Republic	Hungary	Poland	Romania	Slovak Republic	Slovenia
17	**Textiles**	**-0.51**	**-0.04**	**-0.34**	**-0.49**	**-0.51**	**-0.41**	**-0.39**
17.1	Preparation and spinning of textile fibres	-0.53	-0.03	-0.13	-0.22	-0.67	-0.61	0.19
17.2	Textile weaving	-0.78	0.04	-0.65	-0.91	-0.95	-0.61	-0.57
17.4	Manuf. of made-up textile articles, except apparel	0.52	0.56	0.48	0.68	0.66	0.30	0.47
17.5	Manuf. of other textiles	-0.92	-0.38	-0.58	-0.70	-0.81	-0.76	-0.73
17.6	Manuf. of knitted and crocheted fabrics	-0.96	-0.61	-0.89	-0.87	-0.96	-0.94	-0.94
17.7	Manuf. of knitted and crocheted articles	0.63	0.25	0.44	0.31	0.64	0.55	0.08
18	**Wearing apparel; Dressing and dyeing of fur**	**0.59**	**0.39**	**0.43**	**0.66**	**0.64**	**0.73**	**0.43**
18.1	Manuf. of leather clothes	0.79	-0.12	0.78	0.47	0.92	-0.75	0.85
18.2	Manuf. of other wearing apparel and accessories	0.59	0.40	0.42	0.66	0.64	0.74	0.42
18.3	Dressing and dyeing of fur; manuf. of articles of fur	-0.11	0.16	0.08	0.53	0.43	-0.49	0.26
DB	**Textiles and textile products**	**0.16**	**0.08**	**0.03**	**0.01**	**0.16**	**0.11**	**-0.07**

Measured as: RCA = (exports – imports) / (exports + imports).

Source: Eurostat, WIIW calculations.

The important role of outward processing trade

Outward processing trade (OPT; compare footnote 5) can be considered as a sub-category of what is called counter-trade, a transaction where exports and imports are linked. Outward processing (OP) in the TC sector is very important for the CEECs and has accelerated their integration into the international economy. The CEECs are a preferred target for West European producers for several reasons:

- Low unit labour cost are the main reason for OP, referred to as 'cost-saving OP'.[21]
- The CEECs are geographically located close to Western Europe, thus keeping transport costs and delivery times at a minimum and providing better links and flexibility.
- Contracting between Western and Eastern Europe in the sector has a longstanding tradition, especially between former Yugoslavia, Hungary and Poland on the one hand and Germany and Italy on the other.
- Traditions in textiles and clothing production guarantee good quality.
- Trade regulations were in favour of OP until 1 January 1997 (compare beginning of this section).

For the West European countries as well as for the CEECs, OP is a necessary device for survival: Western companies are confronted with high labour costs which can be reduced though OP. In return, the Central and Eastern European companies enjoy guaranteed purchases and thus better market access, the acquisition of managerial and technical know-how, specific production skills, financial support and employment opportunities.[22] However, the CEECs run the risk of becoming dependent on these contracts and on the foreign country's business climate. In addition, they may discriminate against domestic suppliers (textiles industry!) and, more importantly, they become vulnerable to a sudden collapse if production is shifted further to other countries with still lower labour costs.

During transition, outward processing generally evolved in the following way: First, OP shifted from 'borderline countries' to more distant ones and second, from labour-intensive forms such as the TC sector to capital- and research-intensive forms of production such as mechanical and electrical engineering, electronics and transport equipment.[23]

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[21] The other forms are 'capacity OP' and 'specialized OP'. See Naujoks and Schmidt (1995).

[22] However, Obst (1998) is of the opinion that the transfer of capital, technology and human skills is limited and the transfer of R&D does largely not occur. Value added and profits are low and hence sources for reinvestment are missing. In his opinion, OP does not contribute to the development of a modern industry in the host country but rather strengthens outmoded company and production structures.

[23] See Naujoks and Schmidt (1995), p. 41.

Table 18

Export shares after outward processing in total exports to EU(15), in %

(CEECs' exports after OP to EU(15) / total CEECs' exports) * 100

			Bulgaria	Czech Republic	Hungary	Poland	Romania	Slovak Republic	Slovenia
17.7	Manuf. of knitted and	1995	48.6	61.8	71.1	65.7	52.5	68.8	28.5
	crocheted articles	2000	(16.2)	(4.7)	(6.3)	(29.9)	(9.5)	(13.4)	(13.9)
18.2	Manuf. of other wearing	1995	73.5	73.2	84.3	87.5	81.3	71.9	53.9
	apparel and accessories	2000	(43.0)	(12.2)	(27.4)	(29.6)	(29.7)	(21.3)	(21.0)

Note: () limited comparability because of institutional changes.

Sources: Eurostat, WIIW calculations.

As illustrated by two important sub-branches, 'manuf. of knitted and crocheted articles' (17.7) and 'other wearing apparel and accessories' (18.2), outward processing has an important position in the CEECs. In 1995 exports after outward processing accounted for 88% of Poland's total exports to the EU in 'other wearing apparel and accessories', which can be characterized as the typical OP target then. The comparable figures were about 80% in Romania and Hungary, approximately 70% in Bulgaria, the Czech Republic and Slovakia, but only about 50% in Slovenia (see Table 17). It must be noted that data for the year 2000 in Table 17 are grossly underestimated, as preferential treatment of OP ended in 1997 and with it the incentive for its registration. Still OP has a much more important role than indicated by these figures (compare Part II).[24] As a proxy, market shares in the EU indicate developments between 1995 and 2000 (compare Table 12): Romania became the new main importer to the EU by 2000, as OP shifted from Poland to Romania. Market shares for Bulgaria improved as well, while those of Hungary, Poland and Slovenia declined, pointing to their declining attractiveness for OP.

4 Foreign direct investment

The TC sector has not been a prominent target for foreign direct investments (except in Hungary), which are otherwise an important instrument of industrial restructuring. Those investors who came to the CEECs were mainly attracted by low labour costs and used efficiency-seeking strategies, especially in Romania and Bulgaria; other motives were market-seeking considerations (Poland) and follow-the-leader strategies (e.g. textiles for the car industry). Financial and budget constraints in SMEs often make foreign direct investment very difficult, favouring other forms of production integration, especially outward processing trade.[25]

[24] See Brenton and Januskaite (2001).

[25] See Alessandrini (2000), p. 88.

Looking at the shares of the TC sector in the *distribution* of nominal capital of foreign investment enterprises (FIEs)[26] in total manufacturing and comparing them to shares in current production, the TC sector was not a prominent FDI target, reflecting its lower priority for foreign investors (except to some degree in Hungary and Slovakia). In 1999, shares ranged between 1.4% in Slovenia and 3.6% in Hungary (see Figure 7).

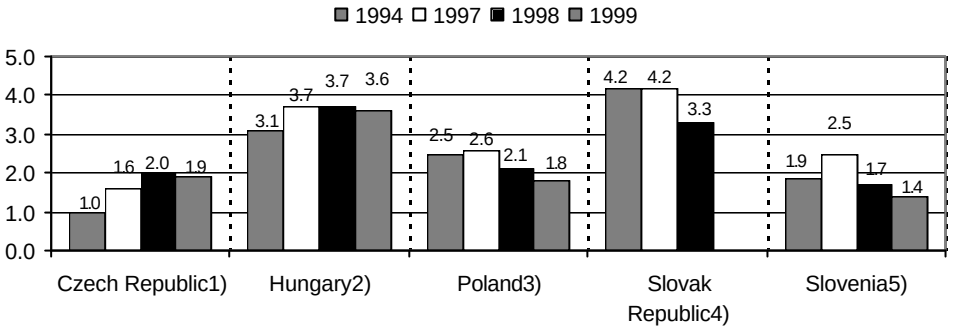
Figure 7

Textiles and textile products

A. Position of the sector in the distribution of foreign capital

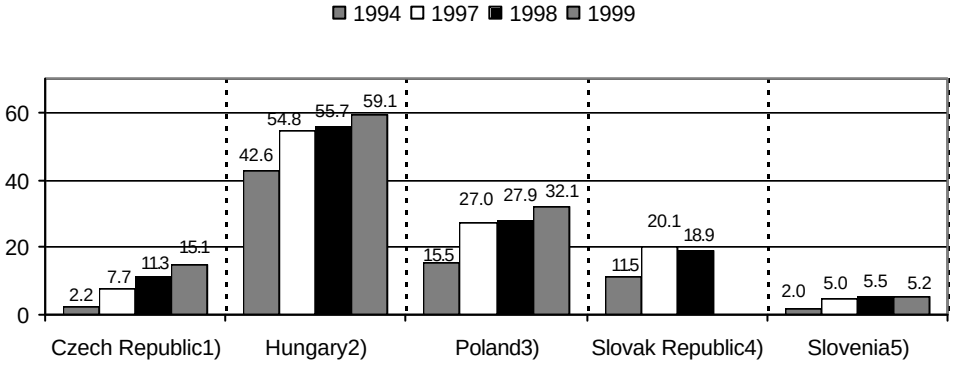
Percentage share of the sector in total manufacturing's nominal capital of foreign investment enterprises (FIEs)

Manufacturing = 100



B. Foreign penetration of the sector

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



Notes: 1) 1994 own capital, 1997-1999 equity captial.- 2) Nominal capital.- 3) Equity capital.- 4) Output of companies; 1995 data instead of 1997, 1996 data instead of 1998.- 5) Nominal capital.

Source: WIIW, FIE Database.

Foreign *penetration* of the TC sector (measured by the share of nominal capital of the sector's FIEs in the nominal capital of all TC companies) has been below the levels of foreign penetration for total manufacturing in all countries (except for Slovakia in 1995). In 1999 it was lowest in Slovenia with 5%, reached 15% in the Czech Republic, 32% in Poland and was highest in Hungary with 59% (see Figure 7). In that year, foreign penetration was slightly higher in 'textiles' in the Czech Republic, Hungary and Slovenia,

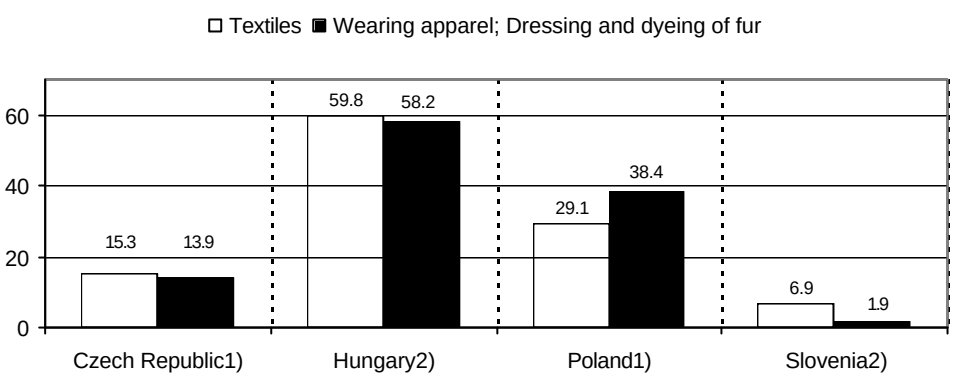
[26] Firms with any share of foreign ownership, including minority stakes.

while it was more pronounced in 'wearing apparel; dressing and dyeing of fur' in Poland (see Figure 8).

Figure 8

Textiles and textile products

Foreign penetration of individual industries in 1999
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

In the Central and Eastern European countries today the TC sector takes a relatively small share in production but plays a major role in employment and, in less advanced CEECs, also in exports. The sector is competitive on the EU market – it holds an important position there – and has a revealed comparative advantage relative to total manufacturing. The sector benefits from lower wages and unit labour costs as compared to Western European countries and also from outward processing agreements. However, investment and especially foreign direct investment is small and productivity levels are low.

During transition the size of the TC sector was scaled down and its competitiveness deteriorated: production and employment declined in all countries, productivity grew less than in total manufacturing, ULCs increased, EU market shares stagnated on the whole and revealed comparative advantage values declined in most cases. The negative performance of the sector was due to weak domestic consumption and rising competition from cheap imports. Exports to the EU(15) increased (except from Slovenia), thanks to outward processing (OP), and slowed down a further decline of the sector.

- In *Bulgaria and Romania* the TC sector gained significant importance in trade; exports to the EU showed the highest growth rates among all countries of the region, OP played an increasing role and 'other wearing apparel and accessories' exports experienced a competitive gain. Romania became the main target for European OP with exports of

EUR 2.7 billion to the EU(15), while exports from Bulgaria are still much smaller (EUR 0.8 billion in 2000, see Table 12).

- *Hungary and Poland* were the only two countries where the TC sector showed a recovery, possibly due to the better performance of the domestic economy.
- In *Slovakia* the TC sector was hit hardest of all countries in the region, productivity declined significantly and unit labour costs increased and are relatively high now.
- Outward processing shifted away from *Slovenia* as unit labour costs were already too high there (close to the Austrian level, upper range).

On the *domestic market* growth prospects still exist as incomes are rising and the domestic market is recovering. GDP developments are currently quite favourable and forecasts are positive for all CEECs (except for Poland in 2002). The trends are most promising in Hungary, followed by the Czech Republic, Slovakia, Slovenia and Bulgaria. The growth rates for Romania are lower but still pronounced, while those for Poland were markedly scaled down (see most recent WIIW forecasts, Appendix Table A4). However, in the long run the TC sector is expected to grow less than average because the income elasticity for clothing products is typically less than one: when incomes rise, their share in private consumption declines. In addition, domestic markets are under heavy pressure from cheaper imports.

On the *external markets* competition will increase with the removal of the ACT quota system by 1 January 2005. Future prospects will heavily depend on further developments in outward processing: As these agreements are mainly based on low labour costs, locations for outward processing have already shifted from Slovenia to Hungary and Poland, and further east to Romania. With the ongoing economic restructuring however, wages are rising and will continued to do so in the future so that the comparative cost advantage in this field will evaporate. The eventual integration into the European Union will further speed up this process. Therefore, outward processing trade is no long-term strategy for the CEECs. On the other hand, outward processing poses the great opportunity to learn from the Western producers and to manage the restructuring process. The future of the CEECs will thus depend on this learning process, on further restructuring and the development of long-term strategies. The sector seems, however, doomed to follow the development path of Western Europe, with further production and employment reductions and outsourcing to even lower-wage countries further east. Still, production for niche markets remains a glimmer of hope as in the West.

Part II: COMPANY PROFILES

This second part presents a more detailed micro-analysis of the TC sector and contains the following information for each country, as far as available:

– Detailed structure of the sector (on the 2-digit NACE level differentiating between 'textiles' and 'other wearing apparel; dressing and dyeing of fur' – in short: textiles and clothing industries –, and on the 3-digit NACE level describing certain sub-branches)[27]

– Number and size structure of companies

– Profitability and investment / foreign direct investment

– List of major companies

– Description of industries / selected companies

Bulgaria

The Bulgarian TC sector comprises some 3000 enterprises of which 95% have already been privatized. The textiles industry is concentrated in the Sofia region, in Gabrovo, Plovdiv and the Sliven region; the clothing industry is geographically spread throughout Bulgaria. Foreign direct investment amounted to USD 1 billion between 1992 and 2000, half of which went into privatization projects.[28] Main foreign investors in the textiles industry include Marland International Ltd. (Ireland), Maser (Turkey), Miroglio (Italy) and Salvadori (Italy) and, in the clothing industry, Hainer & Peter Roesler (Germany), Rollmann (Germany) and Brandex.

After the collapse of the socialist system the *Bulgarian woollen textiles industry* was negatively affected by a number of factors. On the supply side, it lost its high-quality domestic raw material base: merino sheep herds were destroyed, or exported, in the course of the land reform and the implementation of land restitution policies. On the demand side, it lost its Russian export market. In addition, the domestic, mostly monopolistic wholesale and retailing infrastructure disappeared, credit was scarce and hence new investment impossible. Firms often followed short-term, price-only strategies, the domestic market was neglected and excess capacities prevailed in the industry. In the second half of the 1990s privatization started, one of the largest companies was closed down and international textile producers were attracted by the industry. But there still exist problems such as limited access to capital, improvements needed in marketing, lack of

[27] Special attention should be paid to the definition of production statistics comprising enterprises with differing numbers of employees. Especially in the TC sector, which consists of small and medium-sized enterprises mainly, the exclusion or inclusion of small companies makes a large difference in statistical data.

[28] *New Europe* (2001), 20-26 May.

clusters (forward and backward linkages) and rising prices of inputs, which mainly come from Russia.[29]

Today the *Bulgarian clothing industry* shows the following important trends: Exports and export capacities are increasing and along with that the international competitiveness of the industry. However, the industry still needs to improve productivity (e.g. through organizational changes), technology, management (lack of middle management) and marketing. Financing is still difficult, especially for small companies. The industry also faces serious unfair competition from illegal imports and mainly works in the framework of outward processing agreements, hence companies do not have their own brand names.[30]

Table 19

The largest Bulgarian textiles and clothing companies, ranked by employees

Name, location	Employees	Net sales in ths. EUR[1)]	Profit in ths. EUR[1)]	Sub-branch
Katex, Kazanluk	1,770	14,556	-1,348	Woolen-type weaving
Yana (Vayatex), Bourgas[2)]	1,354	8,099	.	Cotton-type weaving
Velbuzhd, Kyustendil	1,102	8,643	3	Preparation and spinning of woolen-type fibres
Maritzatex, Plovdiv	1,059	8,119	-253	Cotton-type weaving
Dekotex, Sliven	1,020	10,179	344	Manuf. of carpets and rugs
Druzhba-stil, Varna	2,000	5,531	-82	Manuf. of other outerwear
Brilliant, Sofia[2)]	1,982	7,548	570	Manuf. of other outerwear
Albena Style, Dobrich	1,738	9,478	103	Manuf. of other outerwear
Vida Stil, Vidion[2)]	1,626	4,917	255	Manuf. of underwear
Pirintex, Gotze Delchev[2)]	1,434	7,162	324	Manuf. of other outerwear

Notes: 1) Converted with average exchange rate Bulgarian lev 2000 and 2001 BGN/EUR 1.95583. - 2) Net sales and profits 2000, other companies 2001.

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

[29] Ganev (2001a).

[30] Ganev (2001b).

Czech Republic

In spite of the closure of textile companies in the Sudeten region after World War II and the general negligence under the communist regime, the TC sector in the Czech Republic remained a large employer and an important source of Western currency then, and the textile machinery industry was quite developed. Since the beginning of transition, however, the TC sector has become one of the more problematic segments of manufacturing. Enterprises of the TC sector were not considered priority during the first wave of voucher privatization in 1992, but were mostly privatized under the second wave in 1994, ending up in the portfolios of investment funds. By the beginning of 1995 nearly all enterprises in the sector had been privatized. The split-up of formerly large combines, and the rise of many new firms created a new size distribution of firms.

In 1990 the Czech Republic accounted for 80% of the production of the former Czechoslovak textiles industry and for 61% of the clothing industry.[31] In the structure of the Czech TC sector in the year 2000, 'textiles' held about 74% of the sector's sales revenues and 'wearing apparel; dressing and dyeing of fur' about 26%. The main sub-branches were 'textile weaving' (35%), 'other wearing apparel and accessories' (25%) and 'other textiles' (15%). Between 1994 and 2000 'textiles' lost in share size, while 'wearing apparel; dressing and dyeing of fur' grew due to outward processing (see Table 20).

Table 20

Czech Republic: Sales revenues of the textiles and textile products sector

EUR million, distribution in %

		1994	1999	2000[1)]	2000	2000 level
		EUR million, current prices			in %	in % of 1994
17	**Textiles**	**1270**	**1393**	**1623**	**73.9**	**127.8**
17.1	Preparation and spinning of textile fibres	194	139	183	8.4	94.5
17.2	Textile weaving	491	630	760	34.6	154.7
17.3	Finishing of textiles	153	114	102	4.7	67.0
17.4	Manuf. of made-up textile articles, except apparel	73	99	102	4.7	139.3
17.5	Manuf. of other textiles	226	276	330	15.0	145.9
17.6	Manuf. of knitted and crocheted fabrics	10	38	48	2.2	467.1
17.7	Manuf. of knitted and crocheted articles	122	98	97	4.4	79.7
18	**Wearing apparel; Dressing and dyeing of fur**	**303**	**513**	**572**	**26.1**	**188.6**
18.1	Manuf. of leather clothes	4	10	10	0.4	267.7
18.2	Manuf. of other wearing apparel and accessories	284	493	551	25.1	193.8
18.3	Dressing and dyeing of fur; manuf. of articles of fur	15	10	12	0.5	75.1
DB	**Textiles and textile products**	**1573**	**1907**	**2196**	**100.0**	**139.6**

Notes: Average exchange rate Czech koruna 1999 CZK/EUR 36.88; 2000 CZK/EUR 35.61. - 1) Estimate.

Source: Ministry of Industry and Trade (2001b).

[31] Fath et.al. (1993), p. 45.

In 2000 there were about 860 companies with more than 20 employees operating in the Czech TC sector, representing 10% of all manufacturing companies. Of these, 180 companies had more than 100 employees. Privatization has been completed in the sector, although in the textiles industry the ownership structure is undergoing a process of permanent change, accompanied by a concentration tendency.[32]

Table 21

The largest Czech textiles and textile products companies, ranked by 2000 revenues

Name, location	Net sales in EUR[1)] mn	Employees	Export-share in %	Sub-branch
Kordárna, a.s., Velká nad Velickou	90.2	830	68	Technical textiles for the rubber and building industry
Nová Mosilana, a.s., Brno	55.4	1,120	93	Yarns, fabrics
Juta, a.s., Dvur Králové n. Labem	51.4	1,980	.	Polypropylene and polyethylene products (twins, geotextiles, etc.)
Slezan Frýdek-Místek, a.s., Frýdek-Místek	49.9	2,110	65	Yarns, fabrics, prints, bedding
Pleas, a.s., Havlíckuv Brod	39.3	1,540	94	Fabrics, knitted garments, leisure time wear
Technolen Technický Textil, a.s., Lomnice nad Popelkou	39.1	1,050	80	Fabrics, tents
Tiba, a.s., Dvur Králové n. Labem	37.6	2,190	61	Yarns, fabrics
Veba, Textilní Závody, a.s., Broumov	36.5	1,620	80	Damasks, terry goods
Velveta, a.s., Varnsdorf	36.1	1,290	84	Pile fabrics
Textonnia Czech, spol.s.r.o., Hronov	35.2	740	.	Yarns, fabrics
Odevni Podnik, a.s., Prostejov	59.7	5,560	65	Ladies and Gentlemen's clothing, jeans
Faurecia Lecotex, Tábor	38.0	830	.	Automotive components
Otavan Trebon, a.s., Trebon	20.4	1,580	61	Men's and woman's clothing, working clothing
Tonak, a.s., Nový Jicin	15.0	1,300	86	Hats
Kras - Haka Brno, a.s., Brno	12.7	1,520	58	Men's and woman's clothing, working clothing

Note:: 1) Converted with average exchange rate Czech koruna 2000 CZK/EUR 35.61.

Source: Czech Association of Textile – Clothing – Leather Industry Inquiry.

[32] Ministry of Industry and Trade (2001b).

In the year 2000 investment outlays in the TC sector totalled about EUR 138 million, representing 4% of total manufacturing investment, and a 10% fall as compared to the preceding year. Of total investment outlays in the sector, the majority was channelled into the textiles industry (89% in 2000). In general the level of investment in the sector was insufficient over time and even failed to cover simple reproduction of fixed assets.[33] Foreign investors concentrated heavily on the textiles industry (e.g. Toray Textiles from Japan, Hualon Group from Taiwan, Schoeller from Germany, Marzotto from Italy, Radici Group from Italy); joint ventures had a high share in the production of the clothing industry. The TC sector registered small profits from 1998 to 2000, reaching a total of EUR 57 million in 2000 in companies with 100 or more employees.[34]

Today the Czech TC sector is still hampered by outdated machinery and equipment and limited access to financial resources resulting in low investment activity. Hence, the restructuring process of the sector was not sufficient to meet the new market conditions and customer requirements. In addition raw materials have to be imported as both the production range and volume is limited and the production of viscose fibres in Spolana was stopped in 1999. In the textiles industry, changes in the production structure towards products for technical use and for the application outside the textiles industry have had a favourable impact. The clothing industry is strongly shaped by outward processing, which accounts for approximately 71% of exports (38% in textiles).[35]

Hungary

In the structure of the Hungarian TC sector, 'other wearing apparel; dressing and dyeing of fur' accounted for slightly more than half of the sector's output in 2000 (54%), 'textiles' for somewhat less (47%). The main sub-branch was 'other wearing apparel and accessories' with 53%, followed by 'made-up textile articles, except apparel' with 17% (see Table 22). The export orientation of the TC sector was stronger than that of total manufacturing, realizing about 65% of total sales from exports as compared to 59%. This was mainly due to the strong export orientation of 'other wearing apparel and accessories' (see Table 22).

[33] Ministry of Industry and Trade (2001b).

[34] Ministry of Industry and Trade (2001a).

[35] Ministry of Industry and Trade (2001a) and Ministry of Industry and Trade (2001b).

Table 22

Hungary: Gross output, total sales and export sales in the textiles and textile products sector

Code[1)]		Gross output		Total sales	Export sales	Export sales/ Total sales
		2000 EUR mn	2000 in %	2000 EUR mn	2000 EUR mn	2000 in %
17	**Textiles**	**617.6**	**46.6**	**615.0**	**336.8**	**54.8**
17.1	Preparation and spinning of textile fibres	105.3	7.9	103.8	61.0	58.8
17.2	Textile weaving	88.5	6.7	89.0	42.1	47.4
17.3	Finishing of textiles	26.0	2.0	25.2	15.8	62.8
17.4	Manuf. of made-up textile articles, except apparel	224.3	16.9	224.7	120.4	53.6
17.5	Manuf. of other textiles	119.8	9.0	118.2	69.2	58.6
17.6	Manuf. of knitted and crocheted fabrics	22.7	1.7	22.7	9.2	40.4
17.7	Manuf. of knitted and crocheted articles	30.9	2.3	31.3	19.1	60.9
18	**Wearing apparel; Dressing and dyeing of fur**	**706.6**	**53.4**	**706.6**	**522.8**	**74.0**
18.1	Manuf. of leather clothes	10.3	0.8	10.3	3.3	32.6
18.2	Manuf. of other wearing apparel and accessories	695.4	52.5	694.1	519.1	74.8
18.3	Dressing and dyeing of fur; manuf. of articles of fur	0.9	0.1	2.3	0.3	14.8
DB	**Textiles and textile products**	**1324.2**	**100.0**	**1321.6**	**859.6**	**65.0**
D	**TOTAL MANUFACTURING**	**40474.8**	**.**	**40207.7**	**23656.7**	**58.8**

Notes: Average exchange rate Hungarian forint 2000 HUF/EUR 260.04. Data of companies with 5 or more employees. - 1) TEAOR'98 (Standard Industrial Classification of All Economic Activies) was introduced on 1 January 1998.

Source: Yearbook of Industrial and Construction Statistics Hungary (2001).

At the end of 2000 there were about 2200 companies with legal entity active in the Hungarian TC sector, representing close to 10% of all manufacturing operations in the country. Of these, 870 were operating in the textiles industry and 1350 in the clothing industry. In terms of company size, 45% of all companies had less than 5 employees, 22.5% employed between 5 and 19 persons, 28% between 20 and 249 employees, and 4.5% had more than 250 employees. In terms of legal form, 92% of all active corporations were private limited companies and about 3% were public limited companies.[36]

At the beginning of the 1990s the Hungarian *textiles industry* was hit severely by the collapse of the large former Soviet clothing market and the growth of outward processing, which reduced the former integrated textiles production activity. Large traditional companies were partly or wholly closed down,[37] and competition increased with the liberalization of the domestic market. This process led to strong restructuring and significant changes in the Hungarian textiles industry. Companies were privatized and foreign direct investors took over a determining role, especially in the silk industry (mostly Italian investors). Because of the small domestic market the industry is highly export-oriented; outward processing trade and exports from special economic zones which provide tax incentives for companies play a major role and accounted for 44% of textiles exports in 2000 (28.5% and 15.7% respectively). However, the important position of outward processing in production is expected to decline in the long run, and first signs of that trend are already visible.[38]

The most important Hungarian textile companies include Masterfil-Tex Kft., Uniontext Textilipari Kft., Coats Magyarország Cérnagyártó és Értékesíto Kft., Pannon-Flax Gyori Lenszövö Rt. (see detailed description below), Szegedi Fonalfeldolgozó Rt., Elso Magyar Kenderfonó Rt., Heavytex Ujsezegedi Szövo Rt., Lurotex Textilipari Kft., Bajafil Fonalgyártó és Kereskedelmi Kft., Tolnatext Fonalfeldolgozó és Muszaki Szövetgyártó Kft., Graboplast Textil-és Mubõrgyártó Rt., Maya Divatkelmenyomó Rt. and Masterfil Rt.:

– Pannon-Flax Györi Lenszövö Rt. (Györ Flax Weaving Factory Joint Stock Company): Established in 1911, Pannon-Flax is the largest Hungarian flax processing factory. It is located in the city of Györ, one of the most important textile centres in Hungary. In 1988 the company was turned into a joint stock company, in 1990 70% got into the hands of the Austrian Erste-Österreichische Sparkasse (until 1996) and the German Benjamin Franklin Institut. Pannon-Flax is a fully vertically-integrated factory with sales revenues of EUR 14 million in 2000. Of these, 28% derived from exports, mainly to Spain, France,

[36] Hungarian Central Statistical Office (2001).

[37] Including Goldberger Textilmuvek, Magyar Pamutipar (cotton industry), Maygar Gyapjúfonó, Szegedi Textilmuvek, Soproni Pamutipar, Kelenföldi Textil, Hazai Fésusfonó, Mayar Posztógyár, Magyar Selyemipar (silk industry).

[38] Hungarian Ministry of Economic Affairs (2002).

Germany and others. On the US market, competition from cheap Russian, CIS and Chinese exports was strong.[39]

Poland

In the year 2000 there were about 1230 companies with more than 49 employees in the Polish TC sector (370 in 'textiles' and 860 in 'wearing apparel; dressing and dyeing of fur'), accounting for 14% of total manufacturing enterprises (with more than 49 employees). Looking at the sold production of these companies,[40] the 'textiles' industry held about 57% of the sector's sold production in 2000, 'wearing apparel; dressing and dyeing of fur' about 43%.[41] The main sub-branch was 'other wearing apparel and accessories' with 43% followed by 'other textiles' (14%), 'textile weaving' (13%) and 'preparation and spinning of textile fibres' (11%; see Table 23).

Table 23

Poland: Sold production of the textiles and textile products sector[1)]

EUR million, distribution in %

		1994	1996	2000	2000	2000 level
		EUR million, current prices			in %	in % of 1994
17	**Textiles**	**1488**	**1688**	**1665**	**56.6**	**111.8**
17.1	Preparation and spinning of textile fibres	379	337	312	10.6	82.4
17.2	Textile weaving	425	530	387	13.1	91.0
17.3	Finishing of textiles	9	20	61	2.1	667.7
17.4	Manuf. of made-up textile articles, except apparel	82	116	181	6.2	220.7
17.5	Manuf. of other textiles	309	353	398	13.5	128.8
17.6	Manuf. of knitted and crocheted fabrics	100	149	136	4.6	136.3
17.7	Manuf. of knitted and crocheted articles	184	185	189	6.4	103.0
18	**Wearing apparel; Dressing and dyeing of fur**	**869**	**1068**	**1277**	**43.4**	**146.9**
18.1	Manuf. of leather clothes	16	9	12	0.4	76.0
18.2	Manuf. of other wearing apparel and accessories	842	1048	1256	42.7	149.1
18.3	Dressing and dyeing of fur; manuf. of articles of fur	11	11	9	0.3	81.7
DB	**Textiles and textile products**	**2358**	**2756**	**2942**	**24.9**	**124.8**

Notes: Average exchange rate Polish zloty 1994 PLN/EUR 2.70, 1996 PLN/EUR 3.38, 2000 PLN/EUR 4.0110. - 1) Companies with more than 49 employees.

Source: Polish Statistical Yearbook, Polish Industrial Yearbook, various issues.

[39] See Pannon-Flax website www.pannon-flax.hu.

[40] Accounting for 65% of the sector's production including all companies.

[41] Looking at the sold production including all companies, the shares were 48% for 'textiles' and 52% for 'wearing apparel; dressing and dyeing of fur'.

After the collapse of the socialist system the textiles and clothing industries were hit by the transformational recession that affected the entire region and total sales declined markedly in 1990 and 1991. This was due to the fall in domestic demand, following a decline in real incomes.[42] The textiles industry suffered in particular, while sales declined less in the clothing industry, mainly thanks to the dynamic growth of small, private companies and of outward processing (OP) agreements. Hence the private sector soon dominated the clothing industry, while the privatization process was slower and more difficult in the textiles industry. In 2000 public-sector companies still accounted for 14% of production in the textiles industry but only for 2% in the clothing industry.

Today the TC sector struggles with low competitiveness of its products, low labour productivity compared to the EU and relatively low technological investment outlays. The textiles industry is still at a stage of adjusting and thorough restructuring; the clothing industry faces competition among others from imported second-hand clothing and the trend of shifting OP to countries with even lower manufacturing costs. Hence on 24 November 2000 the Council of Ministers passed a 'Strategy for the light industry for the years 2000-2005', with the aim of increasing the competitiveness of goods produced in the textiles, clothing and leather industries.[43]

The financial standing of companies differs slightly among industries. In 'textiles' net profitability was negative over the whole period observed (1998 to 2001), in 'wearing apparel; dressing and dyeing of fur' it was negative from 2000 onwards. Investment growth was rather volatile and also turned negative for 'wearing apparel; dressing and dyeing of fur' in 2000 and 2001 (see Table 24). Foreign direct investment was small compared to

Table 24

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

in %

		Net profitability[2]				Investment growth			
		1998	1999	2000	2001 I-IX	1998	1999	2000	2001 I-IX
17	Textiles	-2.1	-3.1	-2.6	-0.3	9.9	-27.5	1.2	1.8
18	Wearing apparel; Dressing and dyeing of fur	2.6	1.0	-0.3	-0.1	12.2	11.7	-41.7	-14.9
D	Total manufacturing	1.2	0.1	0.7	0.6	30.9	1.2	-4.1	-13.7

Notes: 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, 2001).

42 See Corado, Benacek and Caban (1995), p. 30.

43 See Ministry of Economy (2001).

other sectors: according to PAIZ, the TC sector accounted for only 1.1% of all capital investment in manufacturing as of end-2001, investors including Lee Wrangler from the US or Sue Wolle AG from Germany.[44]

Table 25

Largest companies of the Polish textiles and textile products sector, ranked by 2000 revenues

NACE Code[1]	Name, Location	Revenues[2)] in PLN mn	Revenues in EUR[3)] mn	Employees	Share of exports[4)]	Gross profit, in %	Owner-ship[5)]
17.54	Torunskie Zakl. Mater. Opatrunkowych SA, Torun	1,038	259	1,427	27.1	11.34	D
18.22	VF Polska sp.z.o.o., Warszawa	329	82	1,147	58.5	16.69	E
17.12	East West Spinning sp.z.o.o., Lódz	265	66	493	104.6	11.74	E

Notes:: 1) NACE Codes: 17.12 Preparation and spinning of woollen-type fibres; 17.54 Manufacture of embroideries and of other textiles n.e.c.; 18.22 Manufacture of other outerwear . - 2) Total revenues. - 3) Preliminary average exchange rate Polish zloty 2000 PLN/EUR 4.011. - 4) As per cent of revenues of main activity. - 5) Ownership defined as State treasury (A), State or state agency (B), communal ownership (C), private ownership (D), foreign ownership (E).

Source: *Rzeczpospolita* (2001).

Romania

Today, the structure of the Romanian TC sector is dominated by 'wearing apparel; dressing and dyeing of fur', accounting for 61% of the sector's production in 1999 and for 71% of its employment. 'Textiles' held a share of 39% and 29% respectively (see Table 26). During transition production and employment declined significantly in 'textiles',

Table 26

Romania: Industrial production and employment in the textiles and textile products sector

		Industrial production			Employment		
		1994	1999	1999	1994	2000	2000
		EUR mn, c.p.		in %	ths. persons		in %
17	Textiles	777	540	38.8	221	97	29.1
18	Wearing apparel; Dressing and dyeing of fur	486	850	61.2	208	236	70.9
DB	**Textiles and textile products**	**1263**	**1390**	**100.0**	**429**	**332**	**100.0**

Notes: Converted with average exchange rate Romanian leu 1994 ROL/EUR 1967.56 and 1999 ROL/EUR 16295.57.

Source: Statistical Yearbook Romania, various issues.

[44] PAIZ Homepage www.paiz.gov.pl.

while 'wearing apparel; dressing and dyeing of fur' was much less affected (for reasons see below). In 1999, production reached 24% of the 1989 level in 'textiles' and 84% in 'wearing apparel, dressing and dyeing of fur' (at constant prices). Employment stood at 23% of the 1990 level in 2000 in 'textiles' and at 91% in 'wearing apparel; dressing and dyeing of fur'.

Table 27

The largest Romanian textiles and textile products companies, ranked by 1999 turnover

Name, location	Turnover in ROL mn	Turnover in EUR[1)] mn	Employees	Sub-branch
Rifil SA, Savinesti	549,186	33.7	496	Textiles
Steilmann Bukarest SRL, Bukarest	504,113	30.9	2,058	Clothing
Ikos Konf SA, Odorheiu Secuiesc	278,885	17.1	3,286	Clothing
Siretul Pascani SA, Pascani	181,681	11.1	1,670	Textiles & Clothing
Secuiana SA, Tirgu Secuiesc	172,985	10.6	2,495	Clothing
Iasitex SA, Iasi	168,278	10.3	2,446	Textiles & Clothing
Braiconf SA, Braila	150,179	9.2	3,551	Clothing
Ciserom SA, Sebes	140,583	8.6	1,736	Textiles
Sorste SA, Focsani	140,299	8.6	1,579	Clothing
Traft Tricoul Rosu SA, Arad	136,537	8.4	1,550	Textiles & Clothing

Notes:: Not included are A&A Trading company and La Galea Trade. - 1) Converted with average exchange rate Romanian leu 1999 ROL/EUR 16295.57.

Source: Chamber of Commerce and Industry of Romania and Bucharest (2001).

At the end of 2000 more than 7000 companies operated in the Romanian TC sector; of these 41 were still state-owned. The output of private enterprises accounted for 88% of total industrial production of the sector. The textiles industry had to cope with oversized production capacities, financial difficulties and hence low competitiveness, and was thus unattractive for privatization. The situation was far better in the clothing industry, where about 85% of capacities were already modernized, over 95% of production was competitive for export, and privatization had reached a degree of 98.5%.[45] The share of outward processing is especially high in the Romanian clothing industry and said to reach 90% of exports. Because of this, Romania has become the most important CEE supplier to the EU, overtaking Poland in 2000. However, the market moves quickly and East European countries such as Russia, Belarus and the Ukraine might soon become strong

[45] Romanian Government (2001).

competitors. Future prospects are nevertheless favourable as non-OP exports are increasing and companies are start to design their own collections.[46]

Slovak Republic

In 1990 the Slovak Republic accounted for 20% of the production of the former Czechoslovak textiles industry and for 39% of the clothing industry.[47] With the collapse of the socialist system, the Slovak TC sector plunged into a deep crisis because of the loss of the important CMEA market, especially the former Soviet Union, the disintegration of domestic networks, the low purchasing power of its population and increasing competition from cheap, often illegal imports. Exports were redirected from the East to the West, however, mostly cheap standard products were exported. The clothing industry experienced a recovery in the last few years due to outward processing agreements which helped ease problems with sales and with lacking capital for the purchase of raw materials. The textiles industry was in a more difficult situation than the clothing industry, as funds for modernization were missing and the restructuring process was dragging on. The downward trend might continue in the future.[48]

Today the privatization process of the sector is almost completed. On the domestic market, sales are still declining due to the low purchasing power of the population and because of competition from cheap, illegal products.[49] Exports account for about 50% of sales in textiles and for about two thirds in the clothing industry. According to the Association of the Textile and Clothing Industry in the Slovak Republic (ATOP), outward processing has reached a ceiling: it now accounts for 10% of sales in textiles and about two thirds in the clothing industry. ATOP hopes that, along with the accession to the EU, full production will increase as it did in Portugal and Spain. The sector has to cope with low productivity.[50]

Looking at the company structure, about 700 companies were operating in the Slovak TC sector at the end of 2000, representing 8% of all manufacturing enterprises. In terms of company size, small companies with less than 20 employees dominated – although significantly less than in total manufacturing – and accounted for 65% of all companies. About 29% of companies had between 20 and 249 employees, and about 6% employed more than 250 persons. In terms of ownership, 99% of all companies were private, of which 11% were in total foreign ownership (above manufacturing average), another 10% in

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46 See *Ost-West-Contact* (2002), No. 3; *Ost-West-Contact* (2001), No. 4; *Ost-West-Contact* (2000), No. 3.

47 Fath et.al. (1993), p. 45.

48 Paulinyová and Baláz (1999).

49 It is estimated that about 60% of the textile and clothing products sold in Slovakia do not have a certificate of origin. See *Trend Top* (2001).

50 See *Trend Top* (2001).

mixed ownership (at manufacturing average).[51] Foreign direct investment played only a small role in the sector. At the end of 2000 the TC sector accounted for 1% of the stock of foreign direct investment in total manufacturing (USD 16.7 million in the textiles industry and USD 3.9 million in the clothing industry) and hence was one of the smallest FDI recipients in manufacturing.

Table 28

The largest companies of the Slovak textiles and textile products sector, ranked by 2000 net revenues

Name, location	Net revenues in EUR mn[1)]	Pre-tax profit in EUR ths.[1)]	Employees	Export share	Main activity/products
Ozeta Odevné Závody, a.s., Trencín	49.1	252	4,815	89	Clothing
Makyta, a.s., Púchov	29.2	524	3,342	75	Clothing
Merina, a.s., Trencín	24.2	549	1,406	62	Textiles (wool)
Maytex, a.s., Liptovský Mikuláš	23.8	-1,530	1,161	58	Textiles (cotton)
Levitex, a.s., Levice	15.9	56	892	37	Textiles (cotton)
BZ - Texicom, s.r.o., Ružomberok	14.2	-1,080	1,423	41	Textiles (cotton)
Slovenka, a.s., Banská Bystrica	11.6	-54	1,402	65	Textiles (knitting)
Zekon, a.s., Michalovce	9.9	.	1,165	58	Clothing
Tatrasvit Svit - Socks, a.s., Svit	7.9	11	904	65	Textiles (knitting)
Slovena, a.s., Žilina	7.8	9	584	43	Textiles (wool)

Note: 1) Average exchange rate Slovak koruna 2000 SKK/EUR 42.59.

Source: Association of Textile and Clothing Industry in the Slovak Republic (2001) and *Trend Top* (2001), October.

Between 1996 and 2000 the TC sector (including only companies with 20 and more employees) registered a loss before taxation, reaching EUR 5 million in 2000. This was largely due to a loss in 'textiles' (EUR -5 million), although 'wearing apparel, dressing and dyeing of fur' registered a small loss as well (EUR 50,700).[52]

Slovenia

In the structure of the Slovenian TC sector the 'textiles' industry held about 68% of the sector's sales revenues in 1999, 'wearing apparel; dressing and dyeing of fur' about 32%. The main sub-branches were 'other wearing apparel and accessories' and 'made-up textile articles, except apparel' (both 31%; see Table 29). 'Wearing apparel; dressing and dyeing

[51] Statistical Office of the Slovak Republic (2000).

[52] Statistical Office of the Slovak Republic (2001).

Table 29

Slovenia: Revenue, employment, gross value added and capital in the textiles and textile products sector, 1999

		Revenue		Employment		Gross Value Added		Capital	
		EUR mn	in %	persons	in %	EUR mn	in %	EUR mn	in %
17	**Textiles**	**653**	**68.5**	**14496**	**49.4**	**187**	**57.3**	**349**	**64.8**
17.1	Preparation and spinning of textile fibres	35	3.7	924	3.1	13	4.1	32	5.9
17.2	Textile weaving	91	9.6	3320	11.3	25	7.7	77	14.3
17.3	Finishing of textiles	50	5.2	571	1.9	12	3.7	17	3.1
17.4	Manuf. of made-up textile articles, except apparel	294	30.8	4547	15.5	73	22.4	77	14.4
17.5	Manuf. of other textiles	91	9.5	2149	7.3	34	10.5	78	14.6
17.6	Manuf. of knitted and crocheted fabrics	7	0.8	118	0.4	2	0.5	3	0.5
17.7	Manuf. of knitted and crocheted articles	70	7.3	2867	9.8	28	8.5	65	12.0
18	**Wearing apparel; Dressing and dyeing of fur**	**301**	**31.5**	**14854**	**50.6**	**139**	**42.7**	**189**	**35.2**
18.1	Manuf. of leather clothes	3	0.3	137	0.5	1	0.3	2	0.3
18.2	Manuf. of other wearing apparel and accessories	298	31.2	14717	50.1	138	42.4	187	34.8
18.3	Dressing and dyeing of fur; manuf. of articles of fur	0	0.0	0	0.0	0	0.0	0	0.0
DB	**Textiles and textile products**	**954**	**100.0**	**29350**	**100.0**	**327**	**100.0**	**538**	**100.0**

Notes: Converted with average exchange rate Slovenian tolar 1999 SIT/EUR 193.63.

Source: Chamber of Commerce and Industry of Slovenia website www.gzs.si.

of fur' was particularly important as an employer (51%), but also held a larger share in value added (43%) and capital (35%, see also Table 29). Both industries of the TC sector are dependent on imports of raw materials and semi-finished products. The degree of export orientation is quite high, with 71% of textiles and 55% of clothing production being exported. In textiles a growing number of companies is engaged in just one part of the whole textiles manufacturing process.

Today the Slovenian TC sector is an ailing industry with a host of structural problems including losses, missing funds for modernizing production and strong regional concentration. It is mainly large companies that are facing difficulties. During transition the sector has experienced large cuts in employment. While the textiles industry has recorded positive growth rates since 1996, the clothing industry has declined continuously since then.[53] The restructuring needs and problems of the Slovenian TC sector were recognized by the Slovenian government, which at the end of 1999 adopted a programme for the adjustment to the EU's internal market for the period 2000 to 2003, involving the textiles, clothing and footwear industries. It targets companies' marketing capacities, technological modernization, and human resources development. For the future a continued downward trend is expected, as labour costs are too high for OP contracts. Further cuts are anticipated in employment as well, which is said to be two to three times higher than in similar branches in the EU;[54] the country's largest clothing company, Mura, is planning to dismiss 1500 people in the course of the next few years.[55]

Table 30

The largest companies of the Slovenian textiles and textile products sector, ranked by 2000 income

Name, location	Total income in EUR mn[1)]	Net profit in EUR ths[1)]	Employees	Export Share	Main activity[2)]
Prevent, d.d., Slovenj Gradec	368.7	5823	252	92%	17.40
Mura, d.d., Murska Sobota	84.3	0	5,257	83%	18.22
Aquasava, d.o.o., Kranj	49.6	95	519	97%	17.30
Lisca, d.d., Sevnica	30.6	682	942	77%	18.23
Labod Konfekcija Novo Mesto, d.d., Novo Mesto	25.0	420	479	35%	18.23
Tosama, d.d., Vir	22.6	499	642	55%	17.54
Beti, d.d., Metlika	22.2	173	456	60%	17.72

Notes: 1) Converted with average exchange rate Slovenian tolar, 2000 SIT/EUR 205.03. - 2) 17.30 Finishing of textiles; 17.40 Manufacture of made-up textile articles, except apparel; 17.54 Manufacture of other textiles not elsewhere classified; 17.72 Manufacture of knitted & crocheted pullovers, cardigans and similar; 18.22 Manufacture of other outerwear; 18.23 Manufacture of underwear.

Source: *Slovenian Business Report* (2001), Fall; SLO Export Internet Homepage www..gzs.si/sloexport.

[53] *Slovenia Business Week* (2002), 22 April.

[54] *Slovenia Business Week* (2000), 24 January.

[55] *Slovenia Business Week* (2002), 2 April.

The following company represents an interesting example for a niche-producer in Slovenia:

- Prevent, d.d., Slovenj Gradec: Founded in 1952 as a producer of protective work clothing, the company started manufacturing car-seat covers in 1976 and is today Europe's largest producer of these covers supplying Volkswagen, Renault, Ford, Peugeot, BMW and Citroën. It is hence one of the largest Slovenian companies, ranking eighth in 2000, and also a major exporter. The production range also includes protective work clothing and protective gloves. As labour costs were rising in Slovenia, Prevent shifted parts of its production to cheaper sites in Bosnia, Croatia and Moldova.[56]

Conclusions to Part II

- In the production structure of the TC sector, 'textiles' is more important than 'wearing apparel; dressing and dyeing of fur' in the Czech Republic (74%) and Slovenia (68%), the most advanced CEECs. It is the other way round in Romania, the least advanced-country, where 'wearing apparel; dressing and dyeing of fur' takes 61% of the sector's production. In Hungary and Poland, each industry accounts for approximately half of the sector's production (no detailed data are available for Bulgaria and Slovakia).
- 'Manufacture of other wearing apparel and accessories' is the core sub-branch of the clothing industry ('manufacture of leather clothes' and 'dressing and dyeing of fur; manufacturing of articles of fur' are negligible because of their small size). It is the largest sub-branch of the whole sector in Hungary (52%) and Poland (43%) but also in Slovenia (32%), and comes second in the Czech Republic (25%), behind 'textile weaving' (35%).
- During transition the clothing industry developed better than the textiles industry in all countries except Slovenia (where wages were already too high to attract OP). This was due to the creation of new, private small companies and the growth of outward processing in the clothing industry, while in the textiles industry the privatization process as well as the modernization of the capital-intensive industry were more difficult. In addition, imports for outward processing in clothing decreased the domestic market for textiles.
- Both industries are lacking capital and hence investment for new technology, including foreign direct investment (except in Hungary) and are troubled by a low productivity level.

[56] See Prevent website www. prevent.si and *Business Central Europe* (2001), April.

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APPENDIX OF TABLES AND FIGURES

Table A1

Key data on total manufacturing

		1989	1992	1997	1998	1999	2000	Average annual growth in % 1993-2000
BULGARIA								
Industrial production (at current prices)	in BGN mn	59	177	13511	13501	12523	15755	.
Industrial growth (at constant prices)	in %	.	-17.2	-13.5	-12.0	-8.9	5.7	.
Employment	in 1000	1420	883	720	690	616	529	.
Employment growth	in %	.	-16.3	-2.7	-4.3	-10.7	-14.1	.
Wage growth (EUR basis)	in %	.	46.0	-1.6	25.9	5.0	11.8	.
Productivity growth	in %	.	-1.0	-11.1	-8.1	2.0	23.1	.
ULC growth (EUR basis)	in %	.	47.5	10.6	37.0	3.0	-9.2	.
Total exports to EU	in EUR mn	445	809	1940	2095	2099	2911	.
Total imports from EU	in EUR mn	1275	1029	1674	2225	2480	2988	.
Trade balance with EU	in EUR mn	-830	-220	266	-130	-381	-77	.
Exports to the EU: Market shares	in %	0.13	0.21	0.37	0.36	0.33	0.37	.
CZECH REPUBLIC								
Industrial production (at current prices)	in CZK mn	558351	652893	1330877	1442259	1438096	1696816	.
Industrial growth (at constant prices)	in %	.	-8.0	7.6	4.4	-1.5	5.6	2.5
Employment	in 1000	1658	1181	1163	1147	1078	1062	.
Employment growth	in %	.	-13.2	-2.4	-1.4	-6.0	-1.5	-3.6
Wage growth (EUR basis)	in %	.	20.0	8.1	9.5	4.5	11.2	14.5
Productivity growth	in %	.	6.0	10.2	5.8	4.9	7.2	6.3
ULC growth (EUR basis)	in %	.	13.2	-1.9	3.5	-0.3	3.7	9.7
Total exports to EU	in EUR mn	.	.	10989	13899	16023	20576	.
Total imports from EU	in EUR mn	.	.	14617	15854	17177	22261	.
Trade balance with EU	in EUR mn	.	.	-3628	-1955	-1154	-1685	.
Exports to the EU: Market shares	in %	.	.	2.11	2.42	2.54	2.58	.
HUNGARY								
Industrial production (at current prices)	in HUF mn	1461100	1497321	5197367	6615642	7886728	10538103	.
Industrial growth (at constant prices)	in %	.	-17.5	16.3	18.9	18.1	22.9	12.0
Employment	in 1000	1171	857	637	659	743	753	.
Employment growth	in %	.	-14.5	0.7	3.4	1.2	1.4	-2.9
Wage growth (EUR basis)	in %	.	14.5	10.8	2.3	10.4	12.8	7.0
Productivity growth	in %	.	-3.5	15.5	15.0	16.7	21.3	15.4
ULC growth (EUR basis)	in %	.	18.6	-4.1	-11.0	-5.4	-7.0	-7.3
Total exports to EU	in EUR mn	2245	3620	11007	13791	16710	20978	.
Total imports from EU	in EUR mn	2713	3785	11819	14317	16022	19729	.
Trade balance with EU	in EUR mn	-468	-165	-812	-527	688	1249	.
Exports to the EU: Market shares	in %	0.67	0.96	2.11	2.40	2.65	2.63	.
POLAND								
Industrial production (at current prices)	in PLN mn	.	78975	299825	334887	359650	427374	.
Industrial growth (at constant prices)	in %	.	4.9	13.3	5.3	3.9	7.2	9.4
Employment	in 1000	3326	2767	2821	2801	2611	2467	.
Employment growth	in %	.	-13.1	0.7	-0.7	-6.8	-5.5	-1.5
Wage growth (EUR basis)	in %	.	2.6	11.1	8.5	3.8	15.8	11.7
Productivity growth	in %	.	20.7	7.2	10.1	12.5	6.1	11.2
ULC growth (EUR basis)	in %	.	-15.0	7.3	7.3	-1.3	2.3	0.5
Total exports to EU	in EUR mn	2924	6070	12772	14763	16239	21686	.
Total imports from EU	in EUR mn	3308	7103	22634	25527	26642	30917	.
Trade balance with EU	in EUR mn	-384	-1033	-9863	-10764	-10403	-9230	.
Exports to the EU: Market shares	in %	0.87	1.61	2.45	2.57	2.57	2.72	.

Table A1 (continued)

Table A1 (continued)

		1989	1992	1997	1998	1999	2000	Average annual growth in % 1993-2000
ROMANIA								
Industrial production (at current prices)	in ROL bn	.	5484	171363	205445	292302	382198	.
Industrial growth (at constant prices)	in %	.	-23.1	-6.7	-11.4	-6.6	2.4	-1.2
Employment	in 1000	.	2811	2032	1907	1660	1566	.
Employment growth	in %	.	-12.5	-5.4	-6.2	-13.0	-5.7	-7.1
Wage growth (EUR basis)	in %	.	-37.0	-7.1	24.7	-12.0	8.5	8.8
Productivity growth	in %	.	-12.1	-1.4	-5.6	7.3	8.5	6.3
ULC growth (EUR basis)	in %	.	-28.3	-5.8	32.0	-18.1	0.0	2.3
Total exports to EU	in EUR mn	2502	1355	4297	4991	5534	7395	.
Total imports from EU	in EUR mn	603	1592	4709	5956	5950	8250	.
Trade balance with EU	in EUR mn	1898	-237	-412	-965	-416	-854	.
Exports to the EU: Market shares	in %	0.74	0.36	0.82	0.87	0.88	0.93	.
SLOVAK REPUBLIC								
Industrial production (at current prices)	in SKK mn	.	.	419028	545700	599075	708367	.
Industrial growth (at constant prices)	in %	.	-15.7	2.6	7.5	3.4	10.4	3.0
Employment	in 1000	.	527	439	516	501	486	.
Employment growth	in %	.	-12.6	-3.6	-4.4	-2.9	-2.9	-3.7
Wage growth (EUR basis)	in %	.	11.3	13.0	3.9	-3.2	12.9	11.2
Productivity growth	in %	.	-3.6	6.5	11.1	6.5	13.7	6.8
ULC growth (EUR basis)	in %	.	15.4	6.1	-6.5	-9.2	-0.7	4.1
Total exports to EU	in EUR mn	.	.	3846	5230	5797	6762	.
Total imports from EU	in EUR mn	.	.	4446	5347	5217	6160	.
Trade balance with EU	in EUR mn	.	.	-601	-117	581	602	.
Exports to the EU: Market shares	in %	.	.	0.74	0.91	0.92	0.85	.
SLOVENIA								
Industrial production (at current prices)	in SIT mn	.	809602	1868671	2077927	2165820	.	.
Industrial growth (at constant prices)	in %	.	-13.9	-2.6	4.5	0.2	7.1	1.6
Employment	in 1000	370	282	229	227	224	225	.
Employment growth	in %	-1.4	-10.1	-3.2	-0.8	-1.4	0.1	-3.7
Wage growth (EUR basis)	in %	.	-4.8	5.3	7.5	5.0	5.7	8.4
Productivity growth	in %	.	-4.2	0.7	5.3	1.6	7.0	5.5
ULC growth (EUR basis)	in %	.	-0.6	4.6	2.1	3.3	-1.2	2.7
Total exports to EU	in EUR mn	.	1549	4596	5132	5222	6072	.
Total imports from EU	in EUR mn	.	1323	5922	6318	6499	7569	.
Trade balance with EU	in EUR mn	.	226	-1326	-1186	-1277	-1497	.
Exports to the EU: Market shares	in %	.	.	0.88	0.89	0.83	0.76	.

Note: 1) 1993-1999.

EU: European Union (12), from 1997 European Union (15).

Bulgaria: 1989-1995: Total manufacturing excluding petroleum refineries.
Due to a statistical break in 1995/1996 no growth rates were calculated.

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: Enterprises with more than 20 employees, from 1999 enterprises with more than 5 persons.

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, from 1999 including mandatory premium for social security and all enterprises.

Romania: Net wages.

Slovak Republic: Enterprises with 25 and more employees, 1997 enterprises with 20 and more employees, from 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 Industrial Database.

Table A2

Textiles and textile products

Estimated ranges for Unit Labour Costs in 2000, Austria 1999 = 100[1)]

	Bulgaria	Czech Republic	Hungary	Poland	Romania	Slovak Republic	Slovenia
PPP for GDP (lower range)	30	41	38	46	33	57	85
PPP for fixed capital formation (upper range)	74	62	62	62	78	89	100

Note: 1) Defined as wages in EUR divided by productivity (measured as output at constant prices 1996 converted with EUR-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(15), 2000, 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	4.7	1.5	3.6	5.0	1.1	0.7	1.2
DB	**Textiles and textile products**	**29.0**	**6.7**	**6.3**	**11.2**	**36.8**	**8.5**	**8.8**
DC	Leather and leather products	5.1	0.9	1.8	1.1	12.3	4.0	1.6
DD	Wood and wood products	1.9	2.7	1.1	4.9	3.4	2.4	4.0
DE	Pulp, paper & paper products; publishing and printing	0.9	2.9	1.0	2.8	0.5	3.4	4.4
DF	Coke, refined petroleum products & nuclear fuel [1)]	1.9	1.2	1.3	2.0	0.4	3.5	0.0
DG	Chemicals, chemical products & man-made fibres	8.0	4.6	4.7	5.4	3.5	6.1	5.0
DH	Rubber and plastic products	1.0	4.8	2.4	3.1	1.2	2.6	3.8
DI	Other non-metallic mineral products	2.2	3.9	1.1	2.4	1.9	2.7	2.7
DJ	Basic metals and fabricated metal products	31.7	13.2	6.3	14.7	12.3	13.6	14.0
DK	Machinery and equipment n.e.c.	6.0	12.5	6.5	6.3	5.2	10.3	13.9
DL	Electrical and optical equipment	3.8	18.6	37.9	11.9	11.7	14.2	12.7
DM	Transport equipment	1.5	21.6	23.9	19.8	3.4	25.1	19.1
DN	Manufacturing n.e.c.	2.2	5.0	2.1	9.4	6.3	3.0	8.8

Source: Eurostat, WIIW calculations.

Table A4

Developments in GDP and gross industrial production

real change in % against preceding year

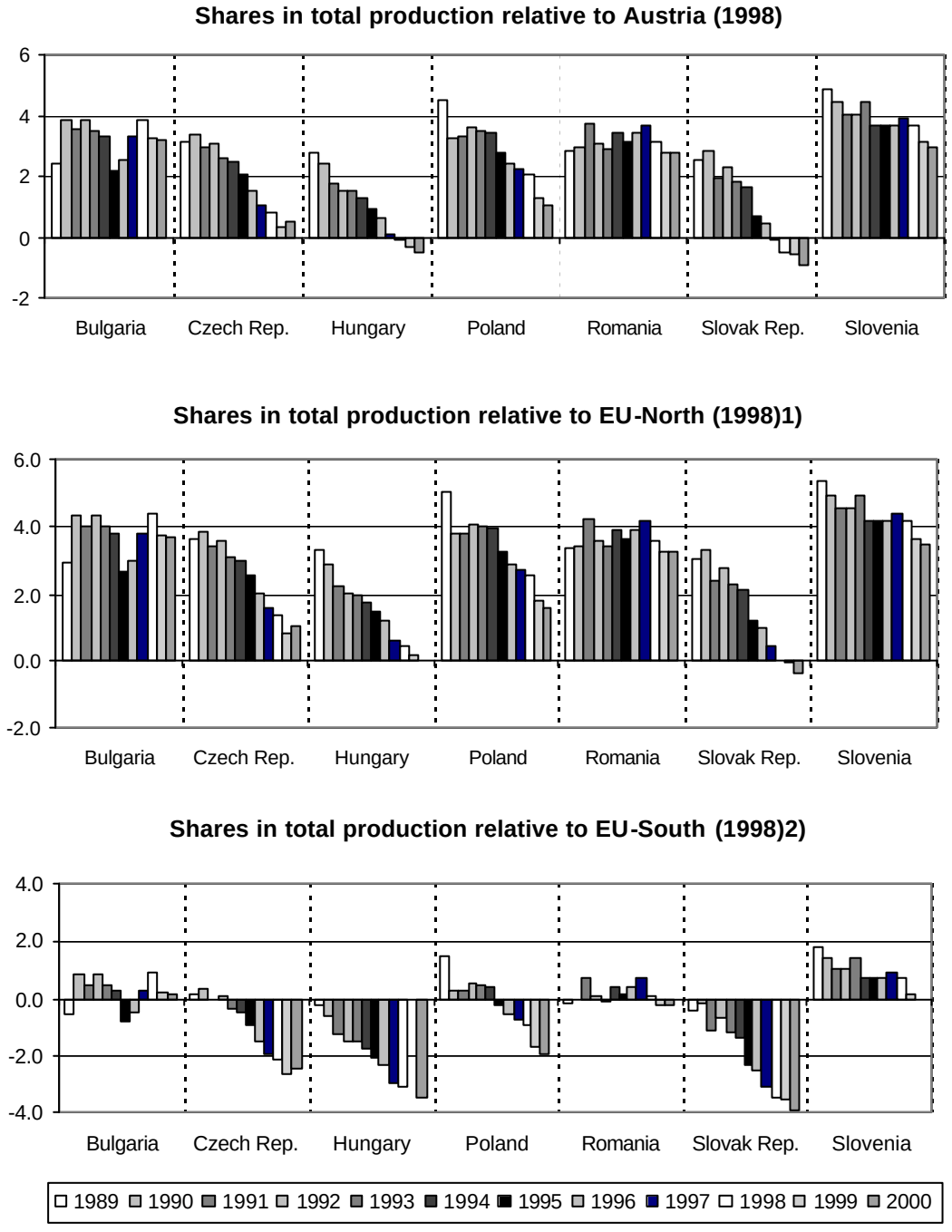
	Gross domestic product				Gross industrial production				
	2000	2001	2002 forecast	2003	2000	2001[1)]	2002 forecast	2003	2001 1990=100
Czech Republic	2.9	3.7	3	4	5.4	6.8	5	7	90
Hungary	5.2	4.0	3.8	4	18.6	4.1	5	9	158
Poland[2)]	4.0	1	0	2	7.2	0.0	0	2	172
Slovak Republic	2.2	3	3	4	9.1	5.0	5	6	97
Slovenia	4.6	3.4	3	4	6.2	2.9	3	4	92
Bulgaria	5.8	4.5	3	4	5.8	2	4	4	61
Romania	1.6	4	2	3	8.2	8	4	4	67

Notes: 1) Preliminary. - 2) Sales.

Source: WIIW (January 2002).

Figure A1

Textiles and textile products
Shares of CEECs (at constant prices 1996) relative to other countries

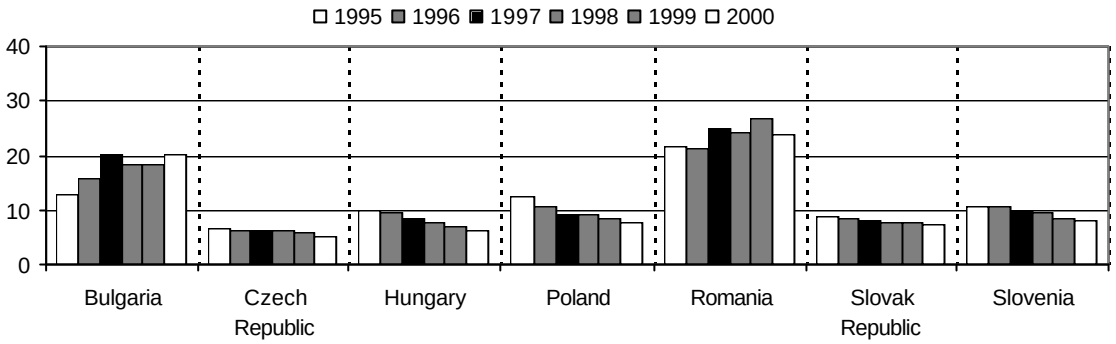


Notes: 1) Including UK, France, Germany and Belgium.- 2) Including Greece, Portugal, Spain.
Source: WIIW Industrial Database, Eurostat.

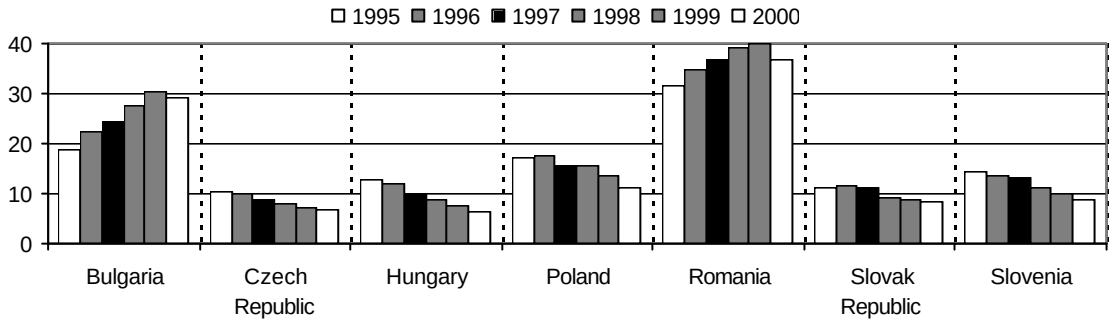
Figure A2

Textiles and textile products

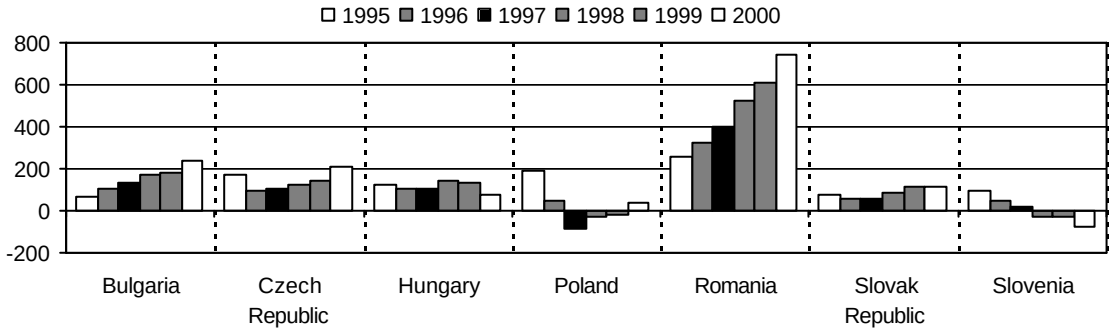
Share in manufacturing exports to the EU(15), in %



Share in manufacturing imports from the EU(15), in %



CEECs' trade balance with the EU(15), EUR million



Source: Eurostat, WIIW calculations

WIIW Industrial Database Eastern Europe

Patterns of industrial development and restructuring at a glance

This unique annual database reveals transition progress through shifts in industrial structures by manufacturing branch. The database covers 14 CEE manufacturing industries (even more detailed data are available for selected countries), consistent under 2-digit NACE classifications that facilitate comparisons over time, across countries and with Western Europe.

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Topics covered:

Industrial production (current prices), national currency million
Production structure (current prices), manufacturing = 100
Industrial production (constant prices), national currency million
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 (EUR)
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 (EUR), annual growth rates in %
Unit Labour Costs (USD), annual growth rates in %
Unit Labour Costs EUR, Austria = 100
Exports to the EU, 1000 EUR
Imports from the EU, 1000 EUR
Foreign trade with the EU, Balance, 1000 EUR

WIIW Industrial Database Eastern Europe

Tables contained in the database:

	By NACE industries (available for all countries)		Dimension
C+D+E	Industry total		
C	Mining and quarrying		
D	Manufacturing total		Countries X 1990-2001
	DA	Food products; beverages and tobacco	Countries X 1990-2001
	DB	Textiles and textile products	Countries X 1990-2001
	DC	Leather and leather products	Countries X 1990-2001
	DD	Wood and wood products	Countries X 1990-2001
	DE	Pulp, paper & paper products, publishing & printing	Countries X 1990-2001
	DF	Coke, refined petroleum products & nuclear fuel	Countries X 1990-2001
	DG	Chemicals, chemical products and man-made fibres	Countries X 1990-2001
	DH	Rubber and plastic products	Countries X 1990-2001
	DI	Other non-metallic mineral products	Countries X 1990-2001
	DJ	Basic metals and fabricated metal products	Countries X 1990-2001
	DK	Machinery and equipment n.e.c.	Countries X 1990-2001
	DL	Electrical and optical equipment	Countries X 1990-2001
	DM	Transport Equipment	Countries X 1990-2001
	DN	Manufacturing n.e.c.	Countries X 1990-2001
E	Electricity, gas, steam and water supply		Countries X 1990-2001

By detailed NACE industries
(available for Hungary, Poland, Romania and Slovenia; foreign trade for all countries)

D	Manufacturing total	
	15	Food products and beverages
	16	Tobacco products
	17	Textiles
	18	Wearing apparel; dressing and dyeing of fur
	19	Tanning and dressing of leather; related articles
	20	Wood and products of wood and cork
	21	Pulp, paper and paper products
	22	Publishing, printing and reproduction of recorded media
	23	Coke, refined petroleum products, nuclear fuel
	24	Chemicals and chemical products
	25	Rubber and plastic products
	26	Other non-metallic mineral products
	27	Basic metals
	28	Fabricated metal products, except machinery and equipment
	29	Machinery and equipment
	30	Office, accounting and computing machinery
	31	Electrical machinery and apparatus
	32	Radio, TV & communication equipment and apparatus
	33	Medical, precision, optical instruments, watches and clocks
	34	Motor vehicles, trailers and semi-trailers
	35	Other transport equipment
	36	Furniture; manufacturing n.e.c.
	37	Recycling

By country	Dimension
Czech Republic	NACE X 1990-2001
Hungary	NACE X 1990-2001
Poland	NACE X 1990-2001
Romania	NACE X 1990-2001
Slovak Republic	NACE X 1990-2001
Slovenia	NACE X 1990-2001
Bulgaria	NACE X 1990-2001

By year	Dimension
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
1999	NACE X Countries
2000	NACE X Countries
2001	NACE X Countries

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