Final Report

Part 1

The Textiles and Clothing Industries in an Enlarged Community and the Outlook in the Candidate States

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Contents

Part I

The Future of the Textile and Clothing Industries in an Enlarged Europe

1. Scope of analysis

This study analyses the current situation and the possible future of the textiles and clothing (T/C) industries in the new member states (NMS)[1] of the European Union and the candidate countries (CCs) for EU membership, Bulgaria, Romania and Turkey. Following the respective NACE rev. 1 CPA[2] classification, the 'textile and textile products' industry (DB) comprises two important sub-industries, the textile industry (NACE division 17) and the clothing industry (NACE division 18), which show many different characteristics and will thus be treated separately whenever possible. The major distinction is factor intensity. While the modern textile industry has become increasingly capital-intensive, the clothing industry is still very labour-intensive. Also, in the textile industry research and development is playing a significant role. The clothing industry on the other hand is characterised by a distinct value- added chain, which at the low end employs a large share of unskilled labour and at the upper end merges with high-skill business services such as design, marketing and distribution.

For a more detailed analysis of the T/C industry, the two sub-industries will be broken down further at the 3-digit NACE level or even beyond, depending on the availability of data.[3] The major sub-sectors of the textile industry in the NACE classification reflect the various stages of production, such as the production of textile fibres, textile weaving, the finishing of textiles and the production of textiles other than clothing. However, a certain part of the textile industry, namely the manufacture of knitted and crocheted articles (NACE 17.7), which comprises T-shirts, pullovers, etc. shows many characteristics of the clothing industry and thus for analytical purposes may be considered as a part of the latter.[4]

In the clothing industry, the lines are drawn according to the materials used: leather, fur and others. Therefore, most unconventionally, the largest sub-sector of the clothing industry by far is termed 'manufacture of *other* wearing apparel and accessories' (NACE 18.2). Nevertheless, in the text of this report we will refer to this group simply as 'wearing apparel'.

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[1] The ten new member states that have joined the EU on 1 May 2004 are the following: Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, the Slovak Republic and Slovenia.

[2] NACE: Nomenclature générale des Activités économiques dans les Communautés Européennes; CPA: Statistical Classification of Products by Activity in the European Economic Community.

[3] For a complete list of the 3-digit and 4-digit NACE sub-industries within the textile and textile products industry see Appendix 1, Classifications and Methodological Notes.

[4] See for instance European Commission (2004), Chapter 4: Textiles, clothing, leather and footwear, p. 81.

The first part of our analysis deals with the current situation of the T/C industry in the NMS and the CCs and is essentially descriptive. We present core data and key indicators of the industry, with regard to production, employment, productivity, investment and foreign trade, using the old member states (OMS) as a benchmark and assessing the role of the NMS in the enlarged EU (EU-25). The period covered is essentially 1997-2002. Because of its large size and special economic features, Turkey is analysed separately.

2. Relative position of the industry

The textile and clothing industry is an important part of the manufacturing industry in the NMS. In 2002, more than 50,000 enterprises produced textiles and clothing worth €12 billion and employed 624,000 people. The value added of the industry reached €5 billion, which came to 6% of total manufacturing value added and 1.2% of the combined GDP of these countries (see Table 1). The relative position of the T/C industry in the NMS is thus significantly higher than in the OMS, where the T/C industry only contributed 4% to manufacturing value added and 0.7% to GDP. The difference is even more pronounced when it comes to the industry's role as an employer: currently, in the NMS, about 12% of all manufacturing workers are employed in the T/C industry, compared with only 7% in the OMS, pointing to the relatively higher labour intensity and lower labour productivity in the NMS than in the OMS.

Assessing the position of the NMS' T/C industry in a fictive EU-25 for the years 2001-02 shows a slightly larger role for this industry than that of manufacturing on average, but a much higher relative role in employment. As shown in Table 1, the share of the NMS' T/C industry was 6% of production, 8% of value added and 26% of the employment of the EU-25 T/C industry. (The respective shares for total manufacturing were 5%, 6% and 17%.[5]) These figures point to a much lower labour productivity in the NMS with an enormous potential for restructuring and probably massive employment losses still ahead. The main reason the T/C industry in the NMS and the CCs is competitive despite its low labour productivity is the relatively low wage level prevailing in these countries, which is especially relevant for the labour-intensive segments of the T/C industry, as shown in our more detailed analysis below.

However, when comparing production levels in the old and new member states, one has to keep in mind the still-undervalued currencies and thus the lower price levels in the NMS. For this reason, it seems more appropriate to use purchasing power standards (PPS) instead of (market) exchange rates for converting production values (or value added) in a common currency (euro).

[5] See Eurostat, NewCronos, SBS.

Using PPS (for GDP) for conversion[6] results in much higher shares of the NMS in EU-25 T/C production and value added, reaching 11% and 14% respectively, which is approximately twice the shares mentioned before. The position of the NMS' T/C industry in an enlarged EU could thus be stronger than that suggested by calculations based on market exchange rates. Also, the huge productivity gap indicated by the much larger share the NMS' T/C industry has in employment than it has in production and value added may be smaller in real terms.

Regarding the two Eastern European candidate countries, Bulgaria and Romania, both are particularly specialised in textiles and clothing, due to the extremely low wages in these countries relative to the NMS. In 2002, the two countries together produced textiles & clothing worth around €3.5 billion and generated a value added of €1.3 billion with a workforce of 554,000 persons, which translates into a share of about 1.8% of EU-25 T/C production, 2% of the value added and 22% of EU-25 T/C employment in 2002, with Romania taking the lion's share. Given the heavily undervalued currency of these countries, using PPS as a converter instead of exchange rates increases production values enormously, reaching €10 billion (value added €3.7 billion), but the discrepancy between production shares and employment shares and thus the implicit productivity gaps remain huge.

In 2002, the ten NMS and the two CCs together had a share of 7.9% in EU-25 T/C production, 9.9% in value added and 46.7% in employment.[7] PPS-converted production would even give a 15.6% share (value added 19.8%) of the EU-25 figure. These results stress the important role of enlargement for the future of the T/C industry in the European Union.

[6] Source: Eurostat.

[7] If calculated as a percentage of a fictive 'EU-27', the employment share of the NMS plus the two candidate countries would reach 39% – in the case of production and employment, the share of Romania and Bulgaria is too small to change the results significantly compared to the EU-25.

Table 1

Overview of number of enterprises, production, value added and employment, 2002
Textiles and textile products (NACE DB)

	Number of enter-prises	Production[1] € million at exchange rates	Production[1] € million at PPS GDP	Production[1] % of manuf.	Production[1] % of EU-25 exch. r.	Production[1] % of EU-25 PPS GDP	Value added (2001)[1] € million at exchange rates	Value added (2001)[1] € million at PPS GDP	Value added (2001)[1] % of manuf.	Value added (2001)[1] % of GDP	Value added (2001)[1] % of EU-25 exch. rates	Value added (2001)[1] % of EU-25 PPS GDP	Employment[2] Thsd. persons	Employment[2] % of manuf.	Employment[2] % of EU-25
Cyprus	805 [3]	119	159.3	4.0	0.1	0.1	53	70.5	4.0	0.5	0.1	0.1	3.4 [4]	9.1	0.1
Czech Rep.	10,797 [3]	2,570	4,116	3.8	1.1	2.0	769	1,493	3.8	1.2	1.2	2.2	93.0	8.8	4.6
Estonia	540	377 [3]	741 [3]	11.3 [3]	0.2	0.4	140	275	11.3	2.3	0.2	0.4	23.6 [3]	19.6 [3]	1.0
Hungary	8,978	1,397	2,645	3.0	0.7	1.3	516	977	3.2	0.9	0.8	1.4	88.9	11.9	3.6
Latvia	581	259	538	7.2	0.1	0.3	177	379	8.6	2.1	0.3	0.6	24.0 [3]	16.3 [3]	1.0
Lithuania	1,489	983 [3]	2,245 [3]	15.5 [3]	0.5	1.1	229	524	15.5	1.7	0.4	0.8	59.8 [3]	25.7 [3]	2.4
Malta	249	195	353 [5]	7.5	0.1	0.2	72	353 [5]	7.5	1.8	0.1	0.5	3.5	11.0	0.1
Poland	28,016 [3]	4,865	9,209	4.3	2.5	4.4	2,518	4,766	4.0	1.2	4.0	7.0	253.1	11.4	10.2
Slovak Rep.	347	457	1,085	2.7	0.2	0.5	197	468	2.7	0.9	0.3	0.7	46.5	12.3	2.0
Slovenia	2,925 [3]	819	1,163	6.0	0.4	0.6	330	469	6.0	1.5	0.5	0.7	28.3	12.3	1.1
Bulgaria	4,363	907	2,745	9.9	0.5	1.3	269	814	8.7	1.8	0.4	1.2	161.2	28.1	6.1
Romania	7,500	2,572	7,366	8.0	1.3	3.5	997	2,856	7.2	2.2	1.6	4.2	393.0	24.7	14.5
NMS	**54,727**	**12,041**	**23,147**	**4.5**	**6.1**	**11.1**	**5,000**	**9,774**	**5.9**	**1.2**	**7.9**	**14.4**	**624.1**	**12.0**	**26.1**
NMS & CC-2	66,590	15,520	33,258	5.0	7.9	15.9	6,266	13,443	6.7	1.3	9.9	19.8	1,178.3	16.0	46.7
EU-15	177,000	185,380	185,380	3.8	93.9	88.9	58,110	58,110	4.0	0.7	92.1	85.6	1,832.6 [6]	6.7	73.9
EU-25	231,727	197,421	208,527	3.8	100.0	100.0	63,110	67,884	4.1	0.7	100.0	100.0	2,456.7	7.5	100.0

Notes: 1) at current prices; 2) employees; 3) 2001; 4) 2000; 5) World Bank Atlas; 6) persons employed.

Sources: WIIW Industrial Database; Panorama of Czech industry; Eurostat, NewCronos, SBS.

Table 1a

Overview: Textiles (NACE 17), 2002

	Number of enterprises	Production[1] € million at exchange rates	Production % of DB	Production % of manuf.	Production % of EU-25 exch. rates	Value added[2] € million at exchange rates	Value added % of DB	Value added % of manuf.	Value added % of EU-25 exch. Rates	Employment[3] Thsd. persons	Employment % of DB	Employment % of manuf.	Employment % of EU-25
Cyprus	153 [2]	36	30.7	1.2	0.0	14	27.4	1.6	0.0	0.8	24.6	2.2	0.1
Czech Rep.	2,435 [2]	1,877	73.0	3.3	1.6	524	68.2	3.5	1.4	64.7	56.1	6.1	5.3
Estonia	160	227 [2]	60.3 [2]	6.8 [2]	0.2	74	52.7	7.5	0.2	10.5 [2]	44.5 [2]	8.7	0.9
Hungary	2,788	557	39.8	1.2	0.5	192	37.2	1.7	0.5	28.5	32.1	3.8	2.3
Latvia	165	136	52.4 [2]	3.9 [2]	0.1	108	61.3	6.6	0.3	10.2 [2]	42.4 [2]	6.9	0.8
Lithuania	384	405 [2]	41.2 [2]	6.4 [2]	0.4	98	42.5	7.1	0.3	21.8 [2]	36.5 [2]	9.4	1.8
Malta	81	52	26.9	2.0	0.0	23	31.6	3.0	0.1	0.8 [2]	21.2 [2]	2.3	0.1
Poland	5,638 [2]	2,309	47.5	2.0	2.0	1,117	44.3	2.5	3.0	79.7	31.5	3.6	6.5
Slovak Rep.	136	253	55.3	1.5	0.2	88	44.6	2.2	0.2	19.4 [2]	39.1 [2]	5.1	1.6
Slovenia	943 [2]	604	73.8	4.4	0.5	182	55.1	4.5	0.5	13.8	48.6	6.0	1.1
Bulgaria	727	342	37.7	3.7	0.3	77	28.8	4.5	0.2	34.9 [2]	21.1 [2]	5.6	2.8
Romania	2,211	807	31.4	2.5	0.7	290	29.0	4.2	0.8	91.0	23.2	5.7	7.4
NMS	**12,883**	**6,456**	53.6	2.4	5.6	**2,419**	**48.4**	**2.8**	**6.4**	**250.1**	38.5	4.8	20.3
NMS & CC-2	15,821	7,606	49.0	2.5	6.6	2,786	44.5	3.0	7.4	376.0	31.1	5.1	30.6
EU-15	70,000	108,662	58.6	2.2	94.4	35,341	60.8	2.4	93.6	979.8 [4]	53.5	3.6	79.7
EU-25	82,883	115,118	58.3	2.2	100.0	37,760	59.8	2.5	100.0	1,229.8	49.6	3.8	100.0

Table 1b

Overview: Clothing (NACE 18), 2002

	Number of enterprises	Production[1] € million at exchange rates	Production % of DB	Production % of manuf.	Production % of EU-25 exch. rates	Value added[2] € million (exchange rates)	Value added % of DB	Value added % of manuf.	Value added % of EU-25	Employment[3] Thsd. persons	Employment % of DB	Employment % of . manuf.	Employment % of EU-25
Cyprus	652 [2]	82	69.3	2.8	0.1	38	72.8	4.1	0.2	2.6	75.4	6.9	0.2
Czech Rep.	8,362 [2]	693	27.0	1.2	0.8	244	31.8	1.6	1.0	50.5	43.9	4.8	4.0
Estonia	380	150 [2]	39.7 [2]	4.5 [2]	0.2	66	47.4	6.7	0.3	13.1 [2]	55.5 [2]	10.9 [2]	1.0
Hungary	6,190	841	60.2	1.8	1.0	324	62.8	2.8	1.3	60.3	67.9	8.1	4.8
Latvia	416	123 [2]	47.6 [2]	3.5 [2]	0.1	68	38.7	4.2	0.3	13.8 [2]	57.6 [2]	9.4 [2]	1.1
Lithuania	1,105	578 [2]	58.8 [2]	9.1 [2]	0.7	132	57.5	9.7	0.5	38.0 [2]	63.5 [2]	16.3 [2]	3.0
Malta	168	143	73.1	5.5	0.2	49	68.4	6.5	0.2	2.8 [2]	78.8 [2]	8.7	0.2
Poland	22,378 [2]	2,556	52.5	2.2	3.1	1,401	55.7	3.1	5.5	173.4	68.5	7.8	13.8
Slovak Rep.	211	220	48.0	1.3	0.3	109	55.4	2.8	0.4	30.2 [2]	60.9 [2]	8.0	2.4
Slovenia	1,982 [2]	215	26.2	1.6	0.3	148	44.9	3.7	0.6	14.5	51.4	6.3	1.2
Bulgaria	3,636	568	62.7	6.2	0.7	191	71.2	11.0	0.8	130.7 [2]	78.9	22.8	10.4
Romania	5,289	1,765	68.6	5.5	2.1	708	71.0	10.3	**2.8**	302.0	76.8	18.9	24.1
NMS	**41,844**	**5,600**	46.5	2.1	6.8	2,581	51.6	3.0	10.2	**399.2**	61.5	7.7	31.9
NMS & CC-2	45,480	7,933	51.1	2.6	9.6	3,480	55.5	3.7	13.7	831.9	68.9	11.3	66.4
EU-15	107,000	76,718	41.4	1.6	93.2	22,769	39.2	1.6	89.8	852.8 [4]	46.5	3.1	68.1
EU-25	148,844	82,318	41.7	1.6	100.0	25,350	40.2	1.6	100	1,252.0	50.4	3.8	100.0

Notes: 1) at current prices; 2) 2001; 3) employees; 4) persons employed.

Sources: WIIW Industrial Database; Panorama of Czech Industry; Eurostat, NewCronos, SBS.

2.1 Textiles versus the clothing industry

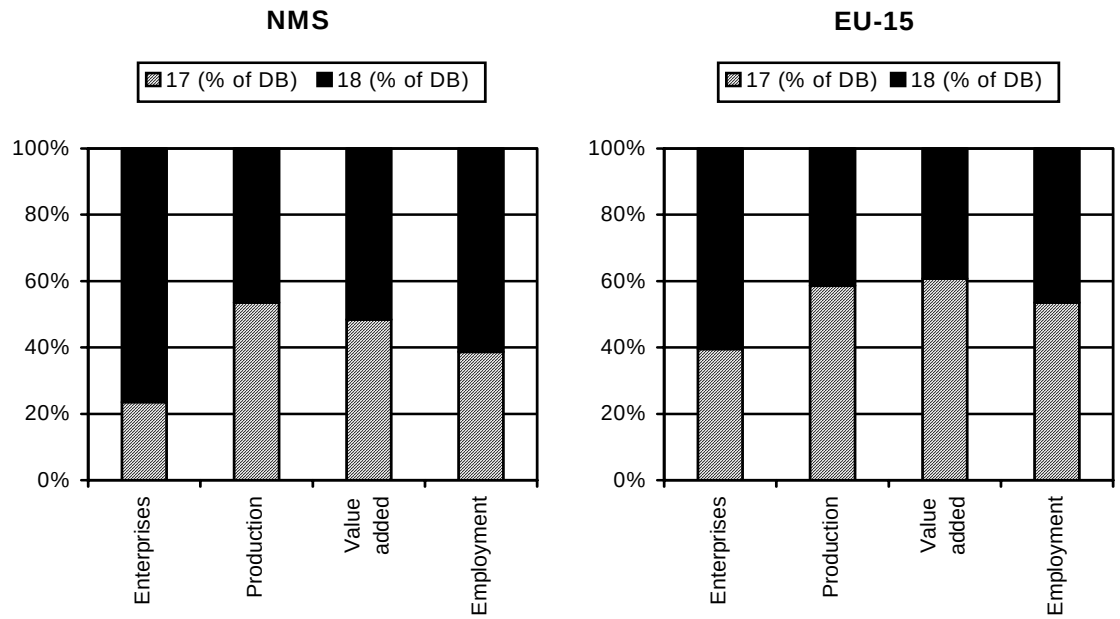
The clothing industry, being the more labour-intensive and less capital- or technology- intensive part of the T/C industry, is typically more prominent in the NMS, taking advantage of the relatively low labour costs there. In the NMS, 52% of the value added in the T/C industry came from clothing and 48% from textiles in 2002. These figures contrast sharply with the EU-15, where only 39% of the value added in the sector was produced by the clothing and 61% by the textile industry (see Tables 1a and 1b).

With regard to the number of enterprises and the number of employees, the NMS' overhang in the clothing industry is even more evident, indicating that on average clothes in the NMS are produced in smaller enterprises than in the OMS and that within the clothing industry the NMS specialise in the more labour-intensive stages of production while the EU-15 countries concentrate on less labour-intensive products (see Figure 1).

In Romania and Bulgaria, the proportional overweight of the clothing industry is extreme. With the clothing industry representing a share of more than 60% in production and more than 70% in the number of enterprises, value added and employment, the textile industry is only of marginal importance in these countries.

Figure 1

Relative position of the textiles (17) and clothing (18) industries in the old and new EU member states



Source: Tables 1a and 1b.

2.2 'Big' and 'small' T/C producers in the NMS

The largest producer of textiles and clothing among the NMS by far is Poland, with value added coming up to €2,518 million, which is equivalent to 50% of the NMS total. This is more than double the share of the next largest producers, namely the Czech Republic and Hungary with shares of 15% and 10% respectively. The combined shares of the three countries reached around 75% of value added and production and 70% of employment (see Table 1 and Figures 2a, 2b and 2c). The NMS thus show a relatively high concentration of the T/C industry in a few countries, closely linked to the size of their economies, underpinning the important role the T/C industry still plays in their domestic markets. In the OMS, the T/C industry is similarly concentrated in the four 'big' economies (Italy, the UK, Germany and France), which together took nearly the same share, namely 74%, in the value added of the EU-15 T/C industry in 2002.[8]

From the two south-eastern European candidate countries, Romania is the much larger T/C producer, with value added reaching approximately 16% of total value added generated in the NMS and candidate countries.

Comparing old and new member states at the level of individual countries, top-producer Poland generated a value added in size between that of Portugal (€2,568 million) and Belgium (€2,426 million), ranking seventh in a fictive EU-25 in 2001 (see Figure 3a). However, as has been mentioned already, the currencies of the NMS are still undervalued in terms of their purchasing power and thus the relative size of the T/C sector may be undervalued as well. Using purchasing power standards for conversion instead of exchange rates brings the value added in the Polish T/C industry up to €4,766 million, higher than that of Portugal (which is still considered an important T/C producer in the European context) and ranking directly behind Spain.

Nevertheless, as PPS for GDP are only a proxy for the relative price levels of the T/C industries in different countries (which may differ less because of the high degree of openness this sector has to international competition)[9] the truth may lie somewhere in the middle. The two other 'big' textile producers, the Czech Republic and Hungary, ranked 12th and 14th in the EU-25, if converted at exchange rates, but 9th and 13th if converted at PPS in 2001. All other NMS are minor T/C producers in an overall European context, as clearly demonstrated by Figure 3a.

[8] See EU Commission (2003a), Table 1. If Spain was included as well, this share would go up to 82%.

[9] From existing price comparisons at the sectoral level we know that substantial variations exist in relative prices across industries and that the pattern of variation is not the same in different countries (Monnikhof and van Ark, 2000).

Figure 2a

Textiles and textile products (DB)
Value added, 2002 (in %)
NMS-10=100

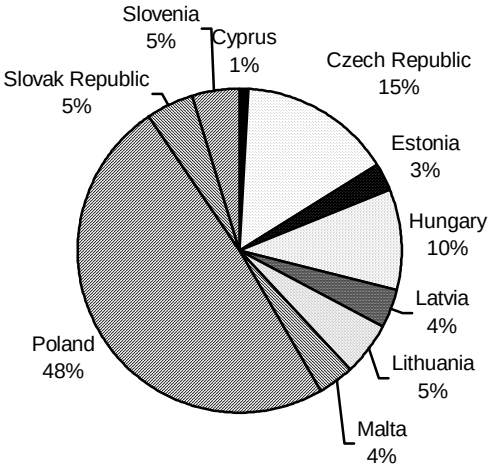


Figure 2b

Textiles and textile products (DB)
Production volume (at current prices), 2002 (in %)
NMS-10=100

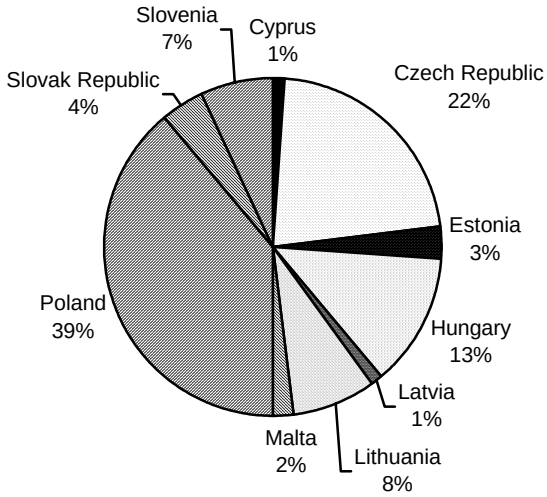
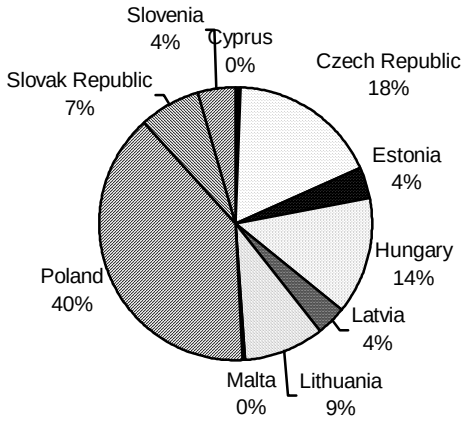


Figure 2c

Textiles and textile products industry (DB)

Employment, 2002 (in %) NMS-10=100

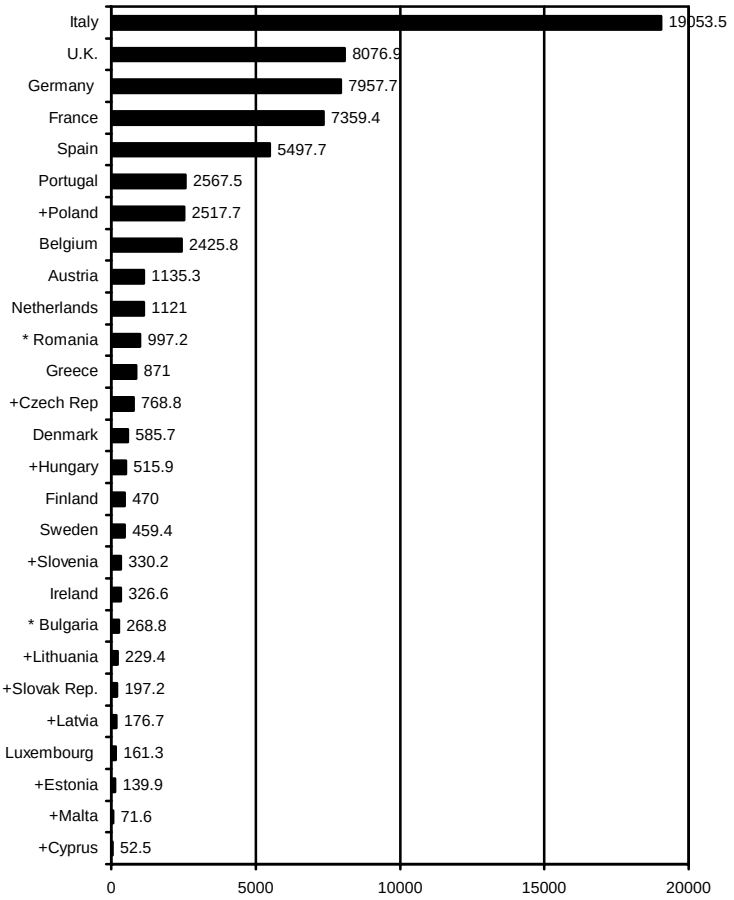


Source: Table 1.

Figure 3a

Textiles and textile products value added in the EU-27, 2001

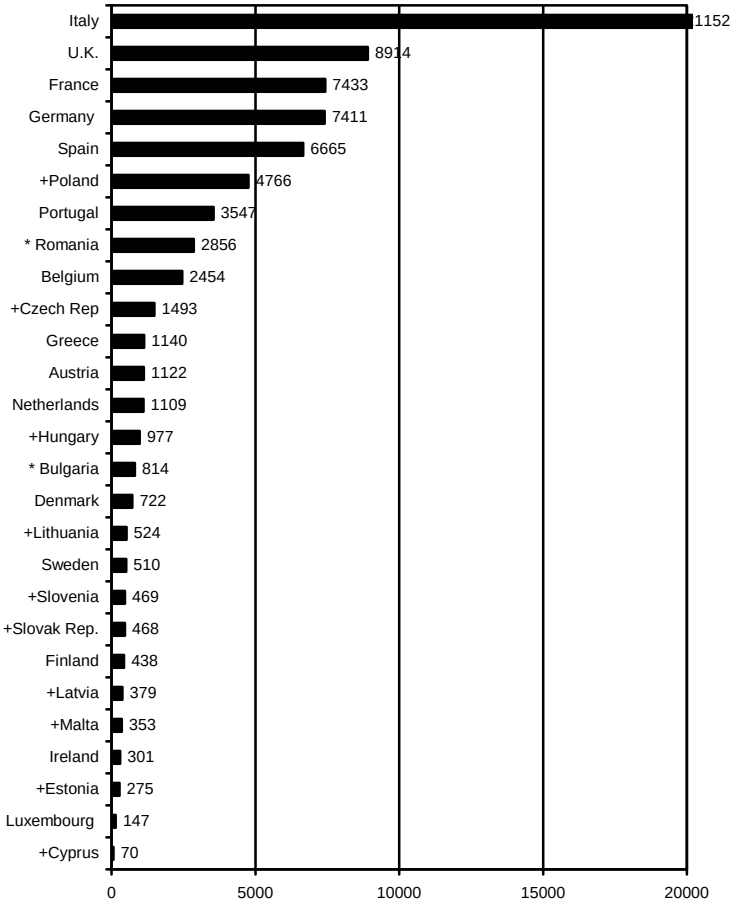
converted at market exchange rates (€ million)



Notes: + New member states; * candidate countries.
Sources: WIIW Industrial Database, Eurostat.

Figure 3b

Textiles and textile products value added in the EU-27, 2001 converted at PPS (€ million)



Notes: PPS refers to purchasing power standards for GDP.

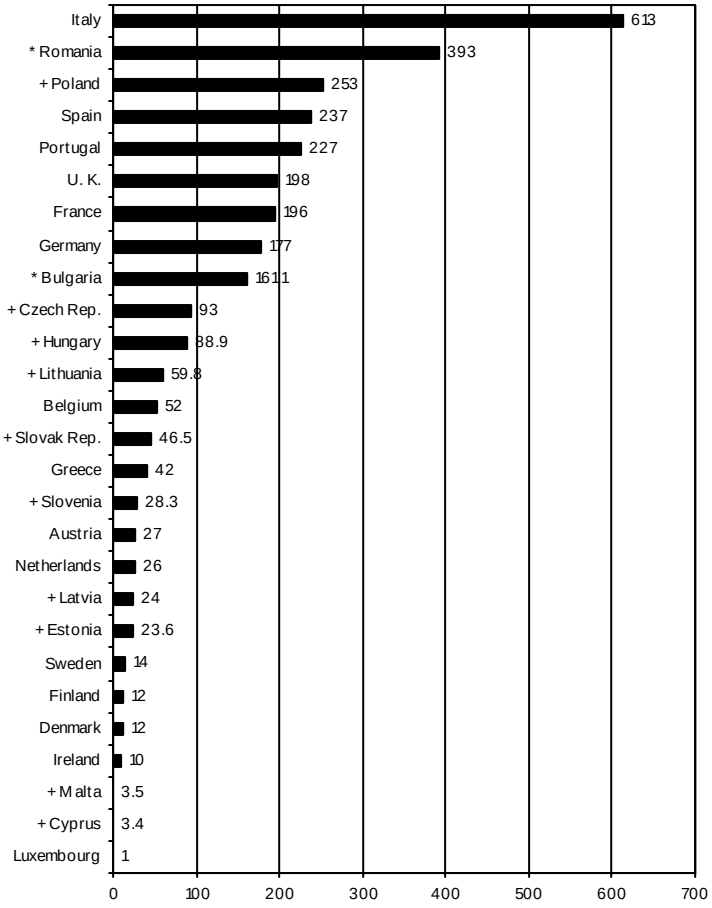
Sources: Eurostat, NewCronos, SBS.

For Romania and Bulgaria, both characterised by heavily undervalued currencies, the picture changes dramatically when using PPS instead of market exchange rates for conversion. In the latter case, Romania ranks 11th, behind such smaller T/C producers as Austria and the Netherlands. But when measured at PPS, Romania follows directly behind the most important European T/C producers, ranking 8th in a fictive EU-27. For Bulgaria, the difference in ranking is also large (ranking 15th compared with 20th), but its role in the overall European T/C industry is minor in both cases (see Figure 3b).

Figure 4

Persons employed in the textiles and textile products industry in the EU-27, 2001/2002

(thousand persons)



Notes: + New member states; * candidate countries.

Sources: WIIW Industrial Database, Eurostat.

2.3 The T/C industry as an important employer

As previously mentioned, the NMS' overall position with regard to T/C employment is far more prominent than in production. This is reflected in the individual NMS' ranking, which is typically higher in employment than in production within the EU-25.

Poland, the largest T/C employer among the NMS with 253,000 persons on the payroll, only ranks second to Italy (600,000), and higher than the other T/C heavyweights such as France, Germany and the UK, which all employ less than 200,000 persons. It is comparable to the two

southern European textile producers, Portugal and Spain, which each had about 230,000 workers employed in the textile and clothing industry in 2002[10] (see Figure 4).

But Romania has an even larger workforce than Poland, with 393,000 (!) employees in the T/C industry. The Czech Republic and Hungary, far below average in T/C production, are among the larger European T/C employers as well.

Our findings show that measured in absolute values, the larger economies are the more important producers of textiles and clothing in both the NMS and the OMS. But beyond that, a specialisation of certain countries in the T/C industry can be observed.

2.4 Specialisation in the T/C industry by individual NMS

Specialisation towards the T/C industry is typically driven by relatively low labour costs, but long-standing traditions and the establishment of cross-border production networks play a certain role as well.

Measured by the T/C industry's share in total manufacturing *production*, the NMS that have specialised the most in the field are the three Baltic countries and Malta. The T/C production shares reached 15.5% in Lithuania, 11.3% in Estonia, 7.2% in Latvia and 7.5% in Malta (see Table 1 and Table A2/1 in Appendix 2). Among the industrially more advanced NMS,[11] Slovenia shows a relatively high specialisation in this field (6.0%). In the Baltics, labour costs are comparatively low (see section 3.3, Tables 5a and 5b), and under the Soviet division of labour these countries were major suppliers of textiles and clothing to the Soviet Union. Slovenia, which has the highest wage level of all the NMS, has a long tradition in textiles and clothing as a supplier to former Yugoslavia, which is reflected in the relatively strong trade links with the countries belonging to former Yugoslavia up to now.[12] Moreover, Slovenia had already started cooperating with Western European companies while still a part of former Yugoslavia (e.g. doing outward processing for Paris-based Chanel), and like Malta it is taking advantage of its neighbouring location with Italy, home of the biggest textile and clothing producers in Europe. Slovenian companies have successfully established themselves as exporters in the higher

[10] Employment data for the NMS and OMS are not strictly comparable. Eurostat figures for employment ('persons employed') typically include self-employed persons, while data for the NMS are drawn from industrial statistics that include employees only. The share of the self-employed in the total number of persons employed typically ranges between 1% and 5% in the T/C industry in these countries; see Table A2/4e in Appendix 2.

[11] Comprising Cyprus, the Czech Republic, Hungary, Malta, the Slovak Republic, Slovenia (measured by 2003 GDP per capita converted at PPS as a percentage of EU-25 average > 50%; see Podkaminer, 2004, Table A/1).

[12] In 2002, the combined shares of T/C exports to Croatia, Serbia and Montenegro, Bosnia and Herzegovina and Macedonia came up to 20% of total Slovenian T/C exports.

segments of the clothing industry, as demonstrated in the section on foreign trade discussed below, but have been recently suffering from high wage levels.

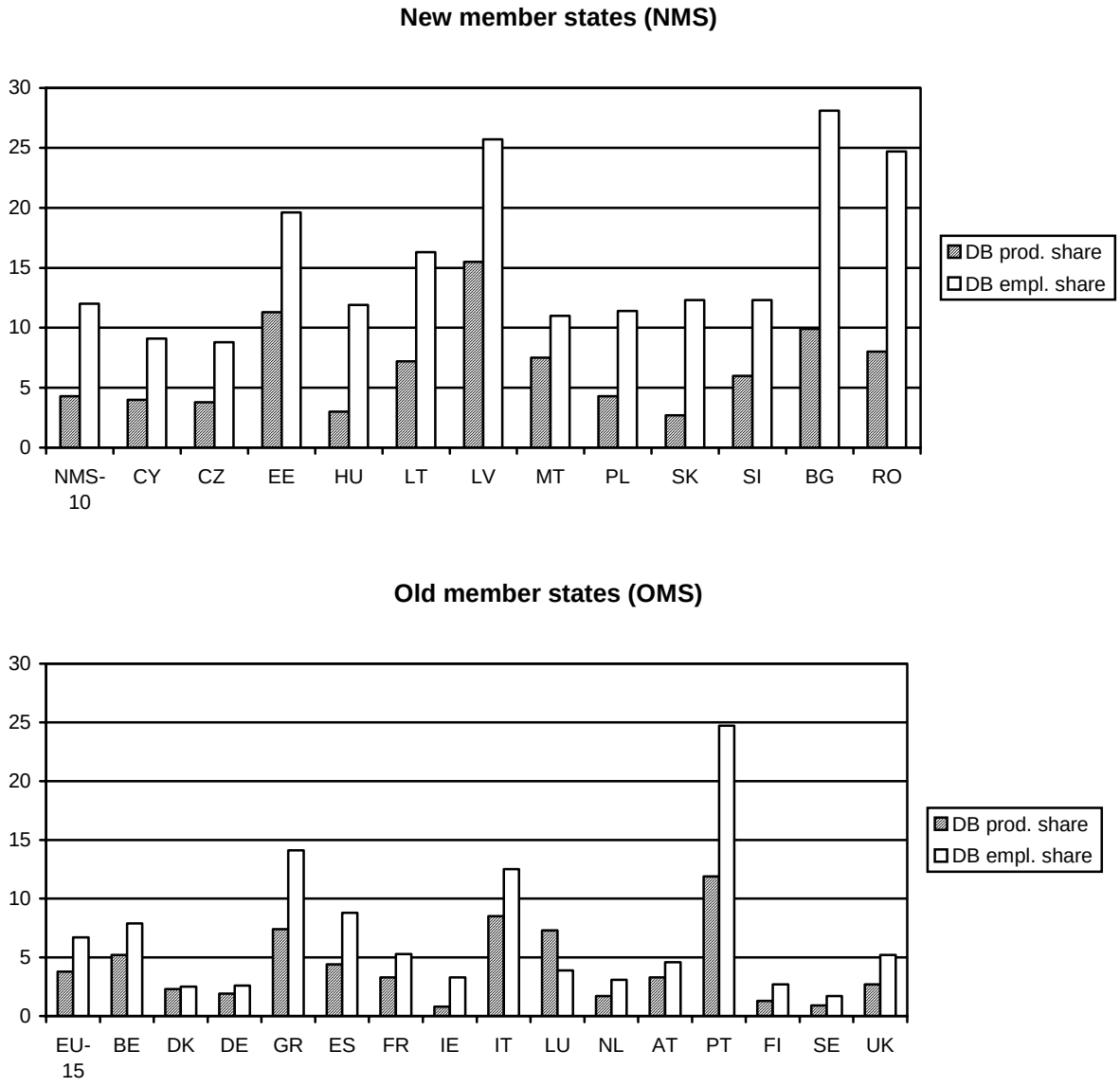
Employment shares show a similar pattern of specialisation across countries as production, reaching very high levels in Lithuania (26%), Estonia (20%) and Latvia (16%), make the T/C industry, together with the food industry, the most important employers in these countries (see Table 1 and Table A2/2 in Appendix 2). In Slovenia, which has a more diversified manufacturing sector, the labour force is less concentrated in the T/C sector than in the Baltics, but the employment share is still high (12.3%) ranking second to the metals industry (DJ, 16.2%), but is in a similar range as employment in the machinery industry (DK) as well as in the electrical and optical equipment industries (DL) (see Figure 5).

Also showing a strong specialisation in the T/C industry are the two CCs, Bulgaria and Romania. Notably, Bulgaria, which has a relatively smaller T/C industry, is more specialised in this field than Romania. Moreover, the discrepancies between production shares and employment shares are very high in these countries, due to the very low productivity of the T/C industry there. Also, specialisation in textiles is a rather recent phenomenon in Bulgaria and Romania, based on low wage costs rather than tradition and existing skills, and taking advantage of the relocation of production (for the outward processing trade) from higher wage countries that is coming out of the old as well as the new member countries. Both countries thus mainly operate in the low-price segment of the market. In 2002, T/C production shares reached 9.9% in Bulgaria and 8% in Romania, which is less than in Estonia and Lithuania but slightly higher than in Latvia and Slovenia. However, employment shares were the highest of all in Bulgaria (28%) and are also very high in Romania (25%), only surpassed by Lithuania. In both countries, the T/C sector is the largest employer by far, with all other industries showing employment shares of at least 10 percentage points less (see Table A2/2 in Appendix 2). Employment in the textile and clothing industry is thus crucial to the labour market of these countries.

Comparison with the OMS in 2002 reveals that among the countries with above-average T/C production shares, such as Portugal, Italy, Greece, Belgium, Luxembourg and Spain, only Portugal shows a similarly high degree of specialisation in textiles and clothing as the Baltic countries or Bulgaria and Romania. Slovenia is less specialised in the T/C industry than Italy and Greece on the production side, but compares well with these countries in employment shares.

Figure 5

Textiles and textile products (DB)
Production and employment share in total manufacturing, 2002



Sou

Sources: WIIW Industrial Database; Eurostat, NewCronos, SBS.

2.5 Development over time: Relative trends

During the first years of transition starting in 1989-90, all former socialist NMS experienced a severe transformational recession and the production of the T/C industry declined at average annual rates of 13 to 23% between 1989 and 1992, even more than the overall economy and manufacturing on average. On the domestic market, this development was due to the dramatic

fall in real incomes, resulting in declining demand for consumer goods of which the purchase can be easily deferred, but also as a consequence of the breakdown of domestic sales networks and growing competition from imports. On the export side, the collapse of the CMEA[13] market had a decisive, negative impact on the T/C sector.[14] The recession was mostly over around 1993 and the overall economy started to rebound in most transition countries,[15] although it was disrupted from time to time by 'post-transitional' financial and economic crises.[16] Apart from a few exceptions, in most NMS the T/C industry continued to lag behind development in the overall manufacturing sector, with a prolonged decline in some countries and production growth (although quite strong) staying below the manufacturing average in some others. But the exact pattern of development in the T/C industry has been very different across countries and over time. During the period 1997-2002 covered by our analysis, the picture is illustrated in Table 2.

Table 2

Textiles and textile products (DB)
Production growth (at constant prices 1999)[1)]

	Annual changes in %					Avg. annual changes		Growth differential [2)]
							Total manufacturing	in ppt
	1998	1999	2000	2001	2002	1997-02	1997-02	1997-02
Czech Republic	-1.3	-13.3	9.8	3.9	-1.4	-0.8	3.5	-4.3
Estonia	4.1	1.2	18.6	13.7	9.1	9.1	6.9	2.2
Hungary	15.1	9.8	13.1	1.5	-4.8	6.7	11.4	-4.7
Latvia	3.3	-5.3	10.5	3.5	0.5	2.4	4.0	-1.6
Lithuania	10.3	5.2	7.0	10.2	-0.5	6.4	5.9	0.5
Poland	2.6	-10.7	4.4	-2.9	6.0	-0.3	3.7	-4.0
Slovak Republic	-5.3	-11.9	5.0	9.6	3.9	0.0	6.5	-6.6
Slovenia	1.4	-7.0	4.3	-8.0	-12.5	-4.6	3.2	-7.8
Bulgaria	-4.4	-16.8	12.8	18.5	23.6	5.6	-0.9	6.5
Romania	-19.5	-8.8	21.7	11.3	7.5	1.3	1.0	0.4

Notes: 1) No constant price data were available for Cyprus or Malta; 2) the growth rate of textiles and textile products minus the growth rate of total manufacturing.

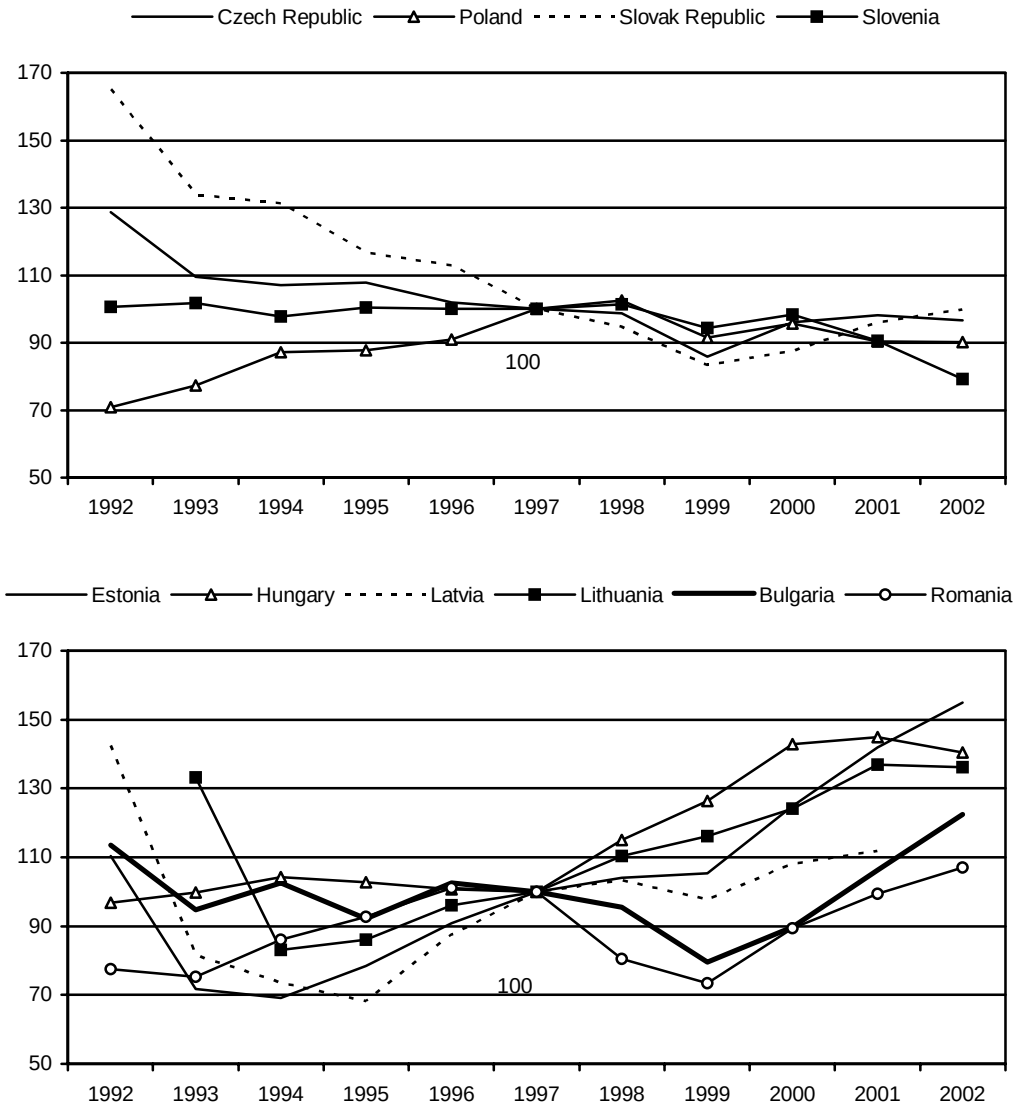
Source: WIIW Industrial Database.

T/C *production* in real terms (measured at constant prices) declined in the industrially more-advanced NMS, namely the Czech Republic, Poland and Slovenia (with the exception of Hungary), but typically increased in the industrially less-advanced countries, i.e. in the Baltics, Bulgaria and Romania. For Malta and Cyprus, neither production data at constant prices nor volume indices were available. In Hungary, the strong growth at the beginning of the period has

[13] CMEA refers to Council for Mutual Economic Assistance.
[14] See Hanzl (2002), p. 6.
[15] Slovenia and Poland were important exceptions to this pattern. In Slovenia, the economic downturn started well before 1989, connected to economic problems in former Yugoslavia and in Poland the upturn had already started in 1992.
[16] See Hanzl et al. (2002), p. 2.

started to level off recently (see Figure 6). T/C production increased fastest in Estonia, at an average annual rate of 9.1% (!), followed by Hungary and Lithuania with 6.7% and 6.4% respectively (Table 2). In Romania and Bulgaria, T/C production declined first, along with the overall economy, shaken by financial and economic crises as well as delayed restructuring, but has started to grow at two-digit rates from 2000. Notably, only in Bulgaria, Estonia, Lithuania and Romania have growth in the T/C industry outpaced that of manufacturing as a whole, indicating the *rising* specialisation of these countries in this field (see Table 2, growth differential).[17]

Figure 6 **Textiles and textile products (DB)**
Industrial production index (at constant prices 1999, national currency) 1997=100



Source: WIIW Industrial Database.

[17] If an industry grows faster (in real terms) than manufacturing on average, the share of this industry in total manufacturing (measured in constant prices) will rise per definition – see for instance Urban (1999).

T/C *employment* declined even faster than production in the industrially advanced NMS and also faster than in manufacturing on average. Labour shedding was particularly pronounced in the Polish T/C industry, with an average annual employment decline of 8.7%, leading to a loss of roughly 150,000 jobs between 1997 and 2002. In Hungary, employment declined annually by 2.6% despite an impressive average production growth of 6.7% (compare Tables 2 and 3 as well as Figure 7).

Only in the Baltic countries (as well as in Bulgaria and Romania) did a rise in T/C production go hand in hand with a rise in employment, although at a slower pace. The exception to this trend was Romania, where employment rose even faster than production.

Table A2/4c in Appendix 2 shows the number of persons employed, i.e. employees *and* self-employed persons in the T/C industry. Self-employed persons play a relative larger role in some countries, for instance reaching shares of about 5% in Bulgaria and Malta, than they do in others, for instance making up only 0.1% of all persons employed in Latvia and the Slovak Republic (see Table A2/4e). Hungary is an interesting case: between 2001 and 2002, the number of employees in the T/C industry decreased from 96,900 to 88,900. But in the same period, the number of the total persons employed in the industry increased from 97,300 to 104,300 (Table A2/4c), which means that there were 15,000 more persons self-employed in 2002 than in the previous year and there is some evidence that the rising number of self-employed individuals may be a consequence of the deliberate policy of entrepreneurs to force people out of employment contracts and sub-contract them as self-employed instead.

Table 3

Textiles and textile products (DB)
Number of employees
(thousand persons)

							Avg. annual change in %		Growth differential in ppt
								Total manuf.	
	1997	1998	1999	2000	2001	2002	1997-02	1997-02	1997-02
Cyprus	–	–	–	3.4	–	–	–	–	–
Czech Republic	116.0	113.0	107.0	102.0	101.0	93.0	-4.3	-1.9	-2.4
Estonia	22.8	22.1	22.0	22.0	23.6	–	0.9 [2)]	-1.4 [2)]	2.2 [2)]
Hungary	93.6	101.7	107.4	101.6	96.9	88.9	-2.6	1.0	-3.6
Latvia	23.2	24.4	23.0	23.4	24.0	–	0.7 [2)]	-0.9 [2)]	1.6 [2)]
Lithuania	55.4	58.9	58.6	57.8	59.8	–	1.9 [2)]	-2.1 [2)]	4.0 [2)]
Malta	–	–	3.6	3.5	3.5	–	–	–	–
Poland	400.5	386.7	333.4	307.6	282.0	253.1	-8.7	-4.7	-4.1
Slovak Republic	50.4	47.0	47.0	45.6	47.2	46.5	-1.5	-3.0	1.4
Slovenia	34.7	34.0	32.8	31.0	29.8	28.3	-4.0	0.0	-4.0
Bulgaria	128.2	133.0	129.7	133.4	149.5	161.1	4.7	-4.4	9.1
Romania	339.0	373.0	341.0	356.0	388.0	393.0	3.0	-4.7	7.7

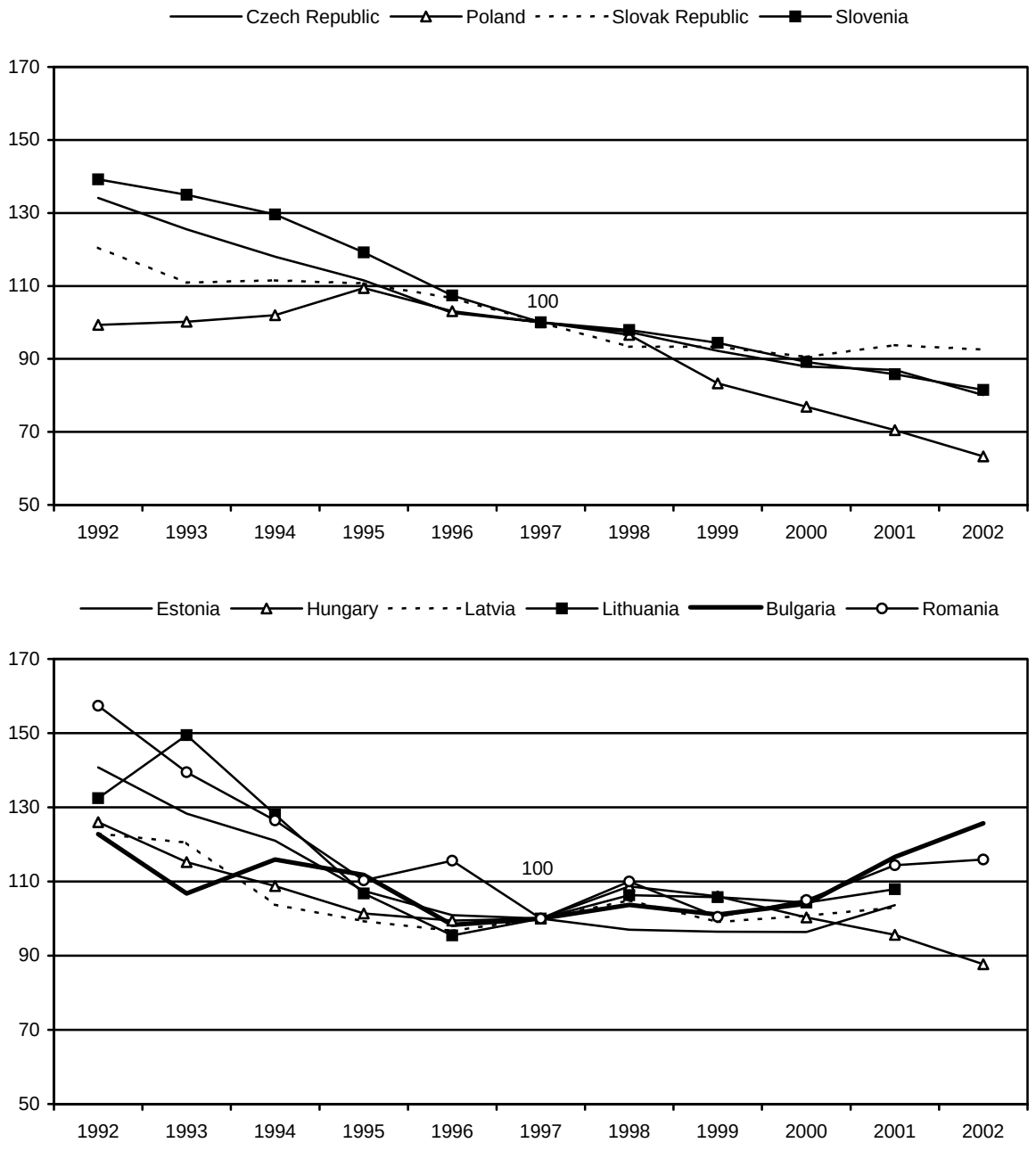
Notes: 1) Growth rate of textiles and textile products minus the growth rate of total manufacturing; 2) 1997-2001.

Source: WIIW Industrial Database; Cyprus and Malta: Eurostat, NewCronos SBS.

Figure 7

Textiles and textile products (DB)

Employment, 1997=100



Source: WIIW Industrial Database.

3. Labour productivity, wages and unit labour costs in the T/C industry

Labour productivity measures the efficiency of production in an industry and is determined by factors such as the capital intensity of production, the technology used, the skills of the labour force, the efficiency of management or a combination of both (over the business cycle, capacity utilisation plays a certain role as well). An improvement in labour productivity is regarded as a sign of successful restructuring and modernisation within an industry or a country.

Box 1
Definition of labour productivity, wages and unit labour costs (ULCs)

Labour productivity (LP) is defined as output (OUT) in real terms per employed person (EMP):

$$LP = OUT / EMP$$

Changes in labour productivity (dLP) can be approximated as:

$$dLP = dOUT – dEMP$$

Unit labour costs (ULCs) are defined as labour costs per unit of output. Labour costs are average gross wages plus indirect wage costs per person (W) multiplied by the number of persons employed (EMP):

$$ULC = (W * EMP) / OUT$$

Thus, unit labour costs may be rewritten as direct and indirect wage costs per person in relation to productivity:

$$ULC = W / (OUT / EMP) = W / LP$$

(For easier interpretation, ULCs are often expressed as labour costs as a *percentage* of output, i.e. ULC multiplied by a factor of 100):

$$ULC' = ULC*100 = (W * EMP)*100 / OUT = W*100 / LP$$

Accordingly, the change in unit labour costs (dULC) can be decomposed in the following way:

$$dULC = dW – dLP = dW-dOUT+dEMP$$

ULCs will rise (cost competitiveness and/or profitability will decline) when the labour cost increase is higher than the increase in productivity and vice versa. Productivity changes are determined by the relative growth of output and employment: for instance, LP will increase if output growth is faster than employment growth. At given labour costs, this will lower ULCs and increase the cost competitiveness/profitability of the respective industry.

For international comparisons, ULC may be calculated on the basis of wages converted into a common currency, e. g. euro, by the respective exchange rate ($ER_{NCU / EUR}$):

$$ULC_{eur} = (W / ER_{NCU/EUR}) / LP$$

And accordingly:

$$dULC_{eur} = dW - d\,ER_{NCU\,/\,EUR} - d\,LP$$

Currency appreciation will push up wages in euros and thus *cet. par.* ULC_{eur} as well, currency depreciation will lower wages in euros and thus reduce ULC_{eur} of the respective country.

Together with the wage level, labour productivity determines the labour costs per unit of output (ULCs), which are considered an important indicator of profitability and/or international competitiveness of an industry or a country.

3.1 Below-average productivity gains

When calculating labour productivity in this report, output is measured by production values (= gross output). To represent output in real terms, i.e. excluding the effect of price changes, production is valued at constant 1999 prices.[18] Employment is measured by the number of employees (excluding self-employed persons). Our choice was guided by the quality of data with respect to availability, comparability and reliability.[19] However, in Appendix 2, Tables A2/4a–4g, NMS' data for value added (at current prices) as well as for the number of persons employed (employees and self-employed persons) and labour productivity defined as value added (at current prices) per person employed are presented for selected years (available from the Eurostat database NewCronos, SBS) for comparison with other reports, building on that database.

As pointed out in Box 1, labour productivity will rise when output growth is faster than employment growth – but LP may also rise when both output and employment are falling, if employment is falling at a faster pace. *Ceteris paribus*, a rise in output will increase productivity, but a rise in employment will reduce it.

[18] Although value added is preferable from an analytical point of view as it measures the increment of value during the production process, there are various reasons why in practice output is often used for measuring productivity: output data are easier to collect from enterprises and therefore are more recent and generally more available. Output data are also considered more accurate, as they can be derived directly from the business accounts, while estimates play a bigger role when calculating value added, in particular at lower levels of aggregation. Usually, a company records what kind of products it has produced and what kind of inputs it has acquired during a certain period of time – but in their accounting systems inputs are often not matched with the respective outputs, which is a necessary condition for calculating value added, defined as output minus inputs. Also, a company usually records the quantities produced, which can be used to calculate production in real terms, that is excluding price movements which may inflate production values. This is particularly relevant in countries with high inflation rates and significant changes in the relative price structure, as characteristic for transition economies. From the distribution point of view, value added consists of 'wages and salaries' and the 'operating surplus'. As employment and wages tend to be more rigid than output, we may expect a higher fluctuation of value added over the business cycle than of output, making the former less reliable as a structural indicator.

[19] No output data at constant prices were available for Malta or Cyprus. Thus no labour productivity was calculated. But see Appendix 2, Table A2/4g for labour productivity calculated as value added (at current prices) per person employed.

Taking the example of production growth and employment growth in the textile and clothing industry in the NMS for the period 1997-2002, the resulting productivity changes are depicted in Figure 8. Here, the 100% line represents the situation in 1997. All points within this line indicate a lower index in 2002 than in 1997, which means a decline of the respective variable. All points outside the 100% line show a higher index in 2002 than in 1997 and thus an increase of the variable. In Estonia, for instance, production growth was very high (resulting in an index of 155 in 2002) and employment stayed roughly the same (see also Tables 2 and 3).

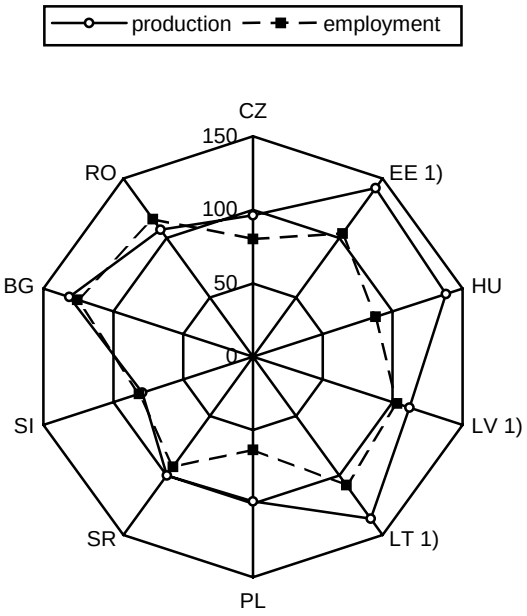
The difference reveals productivity growth, indicated by the distance between the production and the employment lines in Figure 8 (average *annual* changes of productivity for each NMS are given in Table 4). In Hungary, a similar high-productivity gain was caused by both a large increase in output and a fall in employment. Poland is a good example of a fall in both output *and* employment, but with an even stronger decline in employment, resulting in a productivity gain as well. Only in Romania was employment growth higher than production growth, leading to a significant decline in productivity in 1997-2002. In Slovenia, the decline in employment was less pronounced than in production, resulting in a (slight) decline of productivity.

Productivity growth along with output growth points to ‘active’ or ‘aggressive’ restructuring, including investment, innovation and/or moving up the value-added chain. On the other hand, productivity growth without production growth and resulting from labour shedding only is a sign of ‘passive’ or ‘defensive’ restructuring, as a reaction to increased competitive pressure. The first type of restructuring could be observed in Estonia, Hungary, Lithuania and to a certain extent in Latvia as well, while the second type prevailed in Poland and the Czech Republic.

Figure 8

Production, employment and the change of labour productivity in the T/C industry, 2002

(1997=100)



Note: 1) 2001.
Source: WIIW Industrial Database.

However, in all countries (except Poland), productivity development in the T/C industry was less favourable than in the manufacturing industry on average (see Table 4); for the same reason, productivity catch-up vis-à-vis the OMS was less pronounced than for manufacturing on average.[20] The negative productivity growth differential of the T/C industry with regard to total manufacturing was particularly pronounced in the case of Slovakia, pointing to a certain neglect of the sector with regard to restructuring. Yet T/C productivity growth also significantly lagged behind total manufacturing in Romania, which shows increasing specialisation in the sector and may be a consequence of a shift towards less productive sub-sectors in the industry (see the section on Romania below).

3.2 Low levels of productivity

T/C productivity below the manufacturing average

[20] Over the period 1995-2002, average labour productivity in manufacturing of the NMS rose by an impressive 8.7% per year, compared to only 2.2% in the EU-15 during the same period. Data on productivity growth by industry point to a faster catch-up of the NMS in the medium- and high-technology sectors (e.g. electrical equipment and transport equipment), while catch-up has been generally slower in the more labour-intensive sectors such as textiles and leather (see European Commission, 2003b, p. 140 and p. 143).

Labour productivity in the T/C industry is typically much lower than in overall manufacturing in both the NMS and OMS. With productivity growth in the NMS' T/C industry staying below the manufacturing average in 1997-2002, the gap has further widened over this period. In 2001, T/C labour productivity varied between 25% (in Hungary and the Slovak Republic) and more than 60% (in Estonia and Lithuania) of labour productivity in total manufacturing (see Table 4a).

Table 4

Textiles and clothing (DB)

a) Productivity, national currency units (NCU), at constant prices 1999, 1997-2002 [1)]

							In % of total manuf.	Avg. annual change	In % total manuf.	Growth differential [1) 2)]
	1997	1998	1999	2000	2001	2002	2001	97-02	97-02	97-02
Czech Rep.	642777	651264	596308	686842	720695	771732	48.0	3.7	5.6	-1.8
Estonia	175893	188701	191916	227818	241122	–	63.0	8.2 [3)]	9.1 [3)]	-0.9 [3)]
Hungary	2420711	2368153	2664674	3184369	3388924	3519443	25.5	9.5	10.3	-0.8
Latvia	5701	5613	5627	6109	6188	–	54.1	2.1 [3)]	4.3 [3)]	-2.2 [3)]
Lithuania	49563	51442	54388	59013	62853	–	65.9	6.1 [3)]	8.5 [3)]	-2.4 [3)]
Poland	46684	49620	51388	58138	61567	72682	37.7	9.3	8.8	0.5
Slovak Rep.	388397	394393	347549	375990	398264	419434	24.9	1.5	9.7	-8.2
Slovenia	4811707	4985996	4808260	5306018	5076155	4673112	48.5	-0.6	3.2	-3.7
Bulgaria	8655	7981	6809	7465	7892	9046	32.9	0.9	3.7	-2.8
Romania	91009045	66593605	66417302	77415449	79082748	83911729	32.9	-1.6	6.0	-7.6

Notes: 1) Production at constant prices 1999 / number of employees; 2) growth rate of textiles and textile products minus the growth rate of total manufacturing; 3) 1997-2001.

(Table 4 contd.)

b) Productivity comparison, conversion at PPS GDP, 2001

	Productivity at PPS GDP 2001	In % of EU-15 2001	Rank
Cyprus	51626	46.9	2
Czech Rep.	46523	42.3	3
Estonia	31413	28.6	6
Hungary	30779	28.0	8
Latvia	25150	22.9	9
Lithuania	37556	34.2	5
Malta	78863	71.7	1
Poland	31246	28.4	7
Slovak Rep.	21814	19.8	10
Slovenia	40869	37.2	4
Bulgaria	14510	13.2	12
Romania	15507	14.1	11
EU-15	109968		

Sources: WIIW Industrial Database; EU-15, Cyprus and Malta: Eurostat, NewCronos, SBS.

International comparison

As has been pointed out before, T/C employment in the NMS is much higher than output when compared to the OMS (Table 1). This implies a considerably lower labour productivity in the new member states compared with the EU-15. However, the exact size of this productivity gap is difficult to determine,[21] as cross-country comparison output data in national currencies have to be converted to a common currency, which implies serious problems at the level of individual industries (see Box 2).

As a 'second best' solution to the problem, we used purchasing power standards for total GDP (PPS GDP) to convert T/C production into euros, when comparing labour productivity in the NMS with the EU-15 average in the year 2001 (see Table 4b).

In 2001, productivity of the T/C industry was considerably lower than in the EU-15 in all NMS. The difference was least in the two Mediterranean NMS, reaching 72% in Malta and 47% in Cyprus, followed by the Czech Republic and Slovenia, with around 40% of the average EU-15 level. Lithuania and Estonia also showed relatively high productivity levels in the T/C industry. Bulgaria and Romania ranked lowest, producing an output of €15,000 per employee only, coming up to about 15% of the EU-15 level (see Table 4b).

[21] A huge amount literature exists on this subject, mainly dealing with the measurement of productivity differentials between the USA and Europe.

Box 2

T/C labour productivity in international comparison

International productivity level comparisons are hampered by the conversion of the national output data to a common currency, the result of which should reflect the *real* value of production in the countries compared. The use of market exchange rates is not appropriate for this purpose in particular for the NMS, whose currencies are still considered grossly undervalued and often fluctuate strongly. Alternative proxy converters are either purchasing power standards (PPS) or – much better at the level of individual industries – the so-called (branch-specific) 'unit value ratios' (UVR), which compare prices of representative products. Unfortunately, those exist for the past and for a few NMS only. UVR estimates (for the year 1996) are available only for the Czech Republic, Hungary and Poland relative to Germany from a research project jointly conducted by the WIIW and the University of Groningen (Monnikhof and van Ark, 2000).

3.3 Wages on the rise

Wage levels are significantly lower in the NMS than in the OMS, especially in the Central- and Eastern European countries. If converted into euros, using market exchange rates, wages in their T/C industries ranged between 14% (Slovakia) and 42% (Slovenia) of the EU-15 average in 2001. Slovenia had the highest wage level by far with annual gross wages of €7,952 (€662 per person per month) in 2002. Wages in Poland are also relatively high at an annual rate of €3,805 (€317 per person per month) compared with the other countries, where annual gross wages are hovering around €3,000 (€250 per person per month). Wages in Malta and Cyprus were only available for some years. These are higher than in the Central and Eastern European countries, reaching about €9,000 per year in Cyprus and €11,000 in Malta, but staying significantly below the EU average, rather comparable with the annual wage level in Portugal (€9,564).

In Bulgaria and Romania, the wages are very low, amounting to around €1,200 per year (€100 per person per month), which is less than half the wage level in Slovakia, the country with the lowest wages among the NMS (see Table 5a).

Table 5a

Textiles and clothing
Annual gross wages (in euros) 1997-2002

	1997	1998	1999	2000	2001	2002	In % of total manufacturing 2001	In % of EU-15 2001	Rank 2001
Cyprus	–	–	–	9474	–	–	70.9 [1)]	54.7	2
Czech Republic	2490	2696	2755	3126	3476	4026	69.9	20.1	5
Estonia	2351	2584	2591	2959	3202	–	81.1	18.5	6
Hungary	2147	2159	2258	2502	2899	3464	61.0	16.7	7
Latvia	2141	2213	2438	2790	2857	–	90.5	16.5	8
Lithuania	1829	1991	2160	2539	2666	–	87.2	15.4	9
Malta	–	–	9487	10956	11481	–	88.4	66.3	1
Poland	2326	2480	3019	3410	3926	3800	64.3	22.7	4
Slovak Republic	1945	2048	1994	2273	2424	2558	64.5	14.0	10
Slovenia	5867	6280	6500	6847	7240	7492	73.4	41.8	3
Bulgaria	612	760	810	900	952	1003	68.6	5.5	12
Romania	943	1106	998	1174	1235	1253	70.6	7.1	11
EU-15	–	–	–	–	17319	–	62.0	–	–

Note: 1) 2000.

Sources: WIIW Industrial Database; EU-15, Malta and Cyprus: Eurostat, NewCronos, SBS.

Table 5b

Total labour costs (in euros) 1997-2002

	1997	1998	1999	2000	2001	2002	In % of total manufacturing 2001	In % of EU-15 2001	In % of wages 2001
Cyprus	–	–	–	10985	–	–	71.3	49.3	115.9
Czech Republic	3436	3732	3817	4424	4843	5758	68.9	21.7	139.3
Estonia	2646	2995	3289	3651	3970	–	78.6	17.8	124.0
Hungary	3417	3414	3608	3939	4382	5236	61.0	19.7	151.1
Latvia	2645	2742	2978	3257	3303	–	88.3	14.8	115.6
Lithuania	2175	2413	2712	3016	3018	–	81.3	13.5	113.2
Malta	–	–	10603	11838	12694	–	90.2	57.0	110.6
Poland	3270	3489	4247	4067	4683	4533	64.1	21.0	119.3
Slovak Republic	2898	3318	2805	3296	3427	3640	65.3	15.4	141.4
Slovenia	8095	8694	9000	9480	10023	10372	74.8	45.0	138.4
Bulgaria	860	1114	1185	1267	1345	1418	69.3	6.0	141.3
Romania	1214	1478	1419	1715	1806	1831	68.4	8.1	146.3
EU-15	–	–	–	–	22282	–	62.4	–	128.7

Sources: WIIW Industrial Database; EU-15, Cyprus, Estonia, Latvia, Lithuania and Malta: Eurostat, NewCronos, SBS; for Estonia, Latvia and Lithuania see also Table A2/4f in Appendix 2.

As may be expected, T/C wages are higher in high-productivity countries than in low-productivity countries. Malta is the NMS with the highest wages as well as labour productivity, but there are some important exceptions. The Czech Republic and Lithuania show a much lower proportion of the EU-15 average in wages than in productivity, while in Slovenia and Cyprus the wage level is relatively higher than the productivity level compared to the EU-15 (see Tables 5a and 4b).

Thus, the first group of countries seems more cost-competitive in T/C production than the second. However, relatively higher wages, apart from being a cost factor, may also reflect higher average skill levels and/or a higher position in the value-added chain, which will be investigated in more detail for the individual countries.

Regarding their position in the domestic economy, labourers in the T/C industry (mostly women) are among the most poorly paid workers in manufacturing in all of the NMS, comparable to the leather & leather products industry only and in some countries also to the wood & wood products industry. However, in the Baltic countries, T/C workers are relatively well paid, with wages running up to 80-90% of the manufacturing average, while they are particularly low in Hungary, Poland and the Slovak Republic, only reaching 60-65% of the average.

Total labour costs

(Gross) wages as given in Table 5a do not include indirect wage costs, such as employers' contributions to social insurance or pension funds. But these contributions represent cost factors as well, and ideally should be included when making cost comparisons across countries (within the same country indirect wage costs are rather similar in the different industries). Nevertheless, the exact definition of total labour costs varies among countries, particularly before the NMS harmonised with EU standards. Further, exact figures depending on labour force surveys (LFS) are often available for selected years only and have to be interpolated for the years in between, which explains the relatively large differences in some cases between Table 5b (based on the WIIW Industrial Database) and Table A2/4f in Appendix 2, based on Eurostat data.

Indirect wage costs, adding up to 46% to direct wage costs, are typically higher in the Central and Eastern European countries than in the EU-15 (28%), with the important exception of the Baltic countries, where indirect wage costs reach around 15% in Latvia and Lithuania, similar to Cyprus and Malta (Table 5b).

Wage development

Over the period 1997-2002, wages in the textile industry (measured in national currency) increased on average very rapidly in all the NMS in line with the overall wage development to compensate for domestic inflation, which was considerably higher in these countries than in the OMS during that period. Average annual wage growth in the NMS ranged between 3.4% in Latvia and 14.2% in Hungary (see Table 6) and reached 38.7% in Romania.

Table 6

Textiles and textile products
Average annual growth rates, 1997-2002 (in %)

	Gross wages (NCU-based)		Gross wages (euro-based)		
	CPI deflated[1)]			Total manufacturing	Growth differential[2)]
	1997-02	1997-02	1997-02	1997-02	1997-02
Czech Republic	6.8	2.1	10.1	10.7	-0.6
Estonia	8.0 [3)]	2.5 [3)]	8.0 [3)]	9.6 [3)]	-1.5 [3)]
Hungary	14.2	4.1	11.0	12.1	-1.1
Latvia	3.4 [3)]	0.3 [3)]	7.5 [3)]	8.0 [3)]	-0.5 [3)]
Lithuania	3.7 [3)]	1.6 [3)]	9.9 [3)]	11.1 [3)]	-1.2 [3)]
Poland	7.1	-0.2	6.3	8.1	-1.8
Slovak Republic	8.1	0.2	5.6	7.1	-1.5
Slovenia	9.9	2.0	5.0	5.6	-0.6
Bulgaria	11.1	2.1	10.4	9.1	1.3
Romania	38.7	-1.6	5.8	7.9	-2.0

Notes: 1) Consumer price index; 2) growth rate of textiles and textile products minus the growth rate of total manufacturing in ppt; 3) 1997-2001.

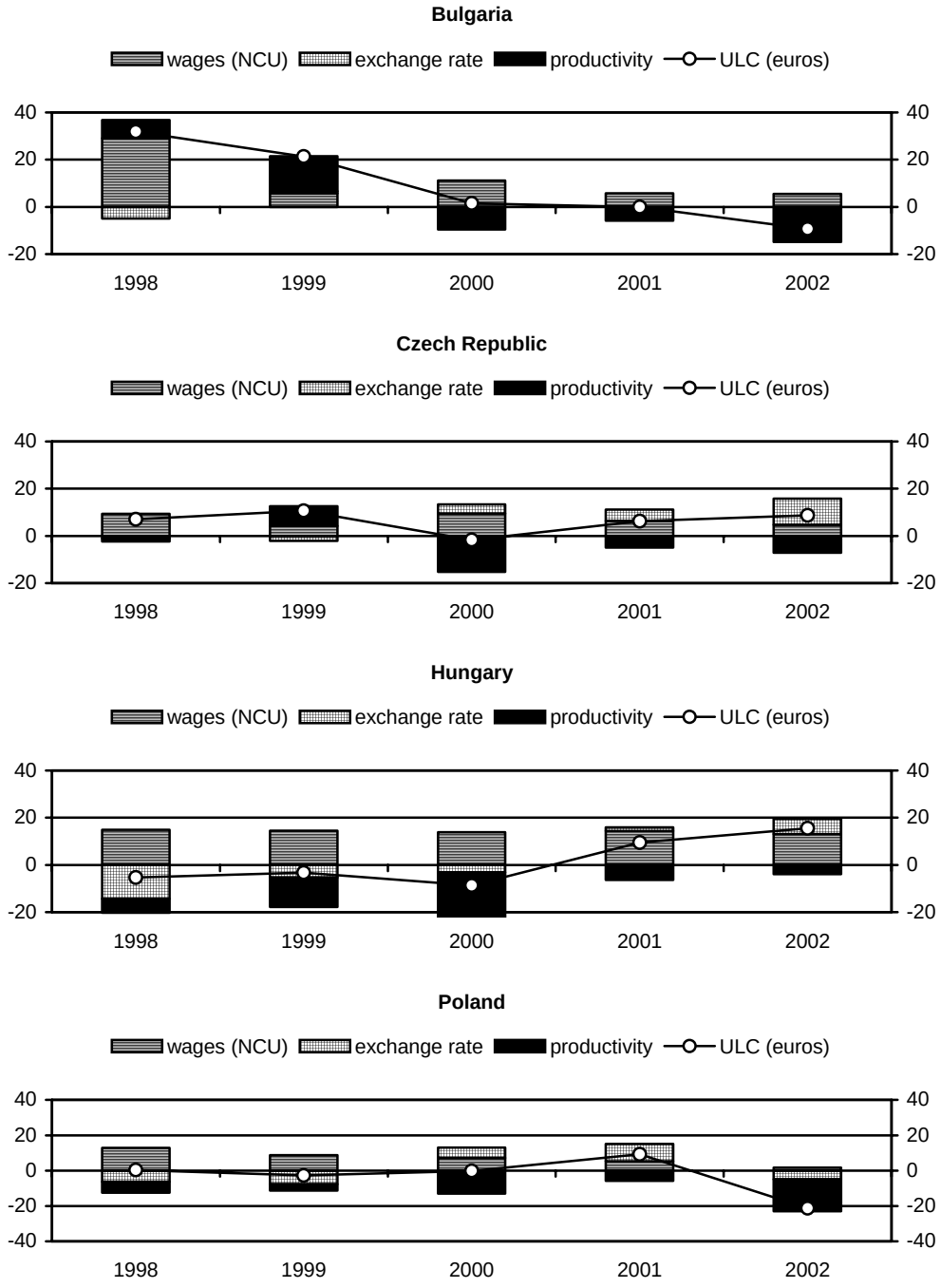
Sources: WIIW Industrial Database; for the CPI, the WIIW Annual Database was used.

But taking into account inflation, real wages deflated by the consumer price index (CPI) rose much slower, showing a very moderate 'catch-up' with the average EU-level (if at all), and even a decline in Poland and Romania. Wages converted in euros (at market exchange rates), which are most relevant for international competitiveness, rose less than wages in national currencies in many countries (Hungary, Poland, the Slovak Republic and Slovenia) over the period 1997-2002, due to currency *depreciation.* In Romania, euro wages in the T/C industry even declined despite the two-digit annual average increase of wages in the national currency, as mentioned above. Recently currency *appreciations* have pushed up euro wages in the Czech Republic, and to some extent in Hungary, Lithuania and Slovakia as well. The prevailing currency regime thus plays a significant role in the development of the cost-competitiveness of the T/C industry in individual countries.[22] Figure 9 shows the annual change of euro wages and their components (wages in national currency and exchange rates).

[22] In Latvia, since 1994, the exchange rate has been 'pegged' to the IMF's 'Special Drawing Rights', representing a basket of the most important world currencies including, of course, the US dollar. Lithuania (and Estonia) have adopted a so-called 'currency board system'. In Lithuania, which established its currency board system in 1994, the reference currency was the US dollar first but on 1 February 2002 the country switched to the euro. In Estonia, which introduced the system in 1992, the kroon (EEK) was linked to the German mark first and to the euro later (Hanzl et al., 2002, p. 13).

Figure 9

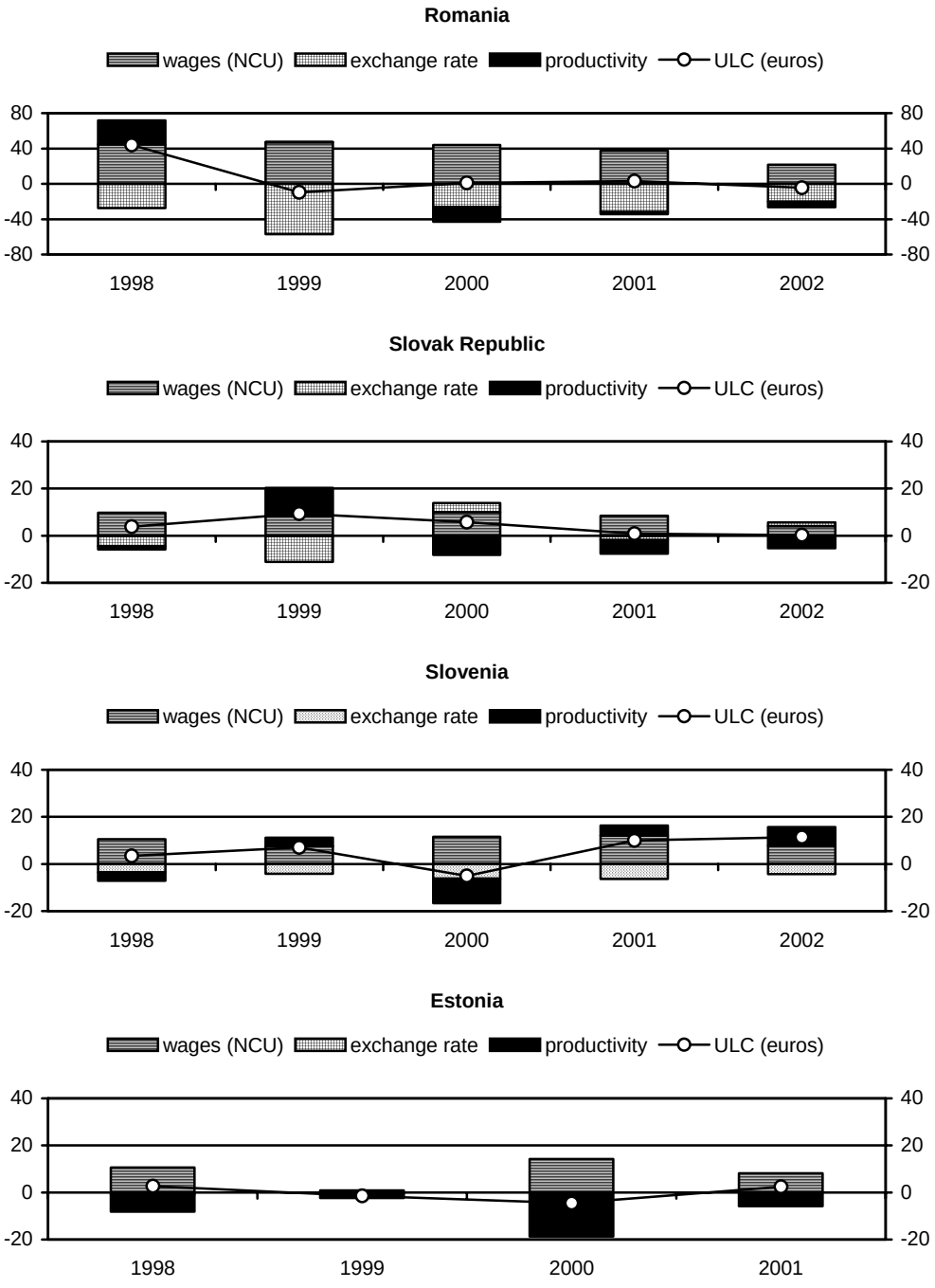
Textiles and textile products (DB)
$ULC_{cons(eur)}$, annual changes in percentages and their components*



* (Average annual wages in euros x number of employees/production at constant 1999 prices in NCU) x100.

(Figure 9 contd.)

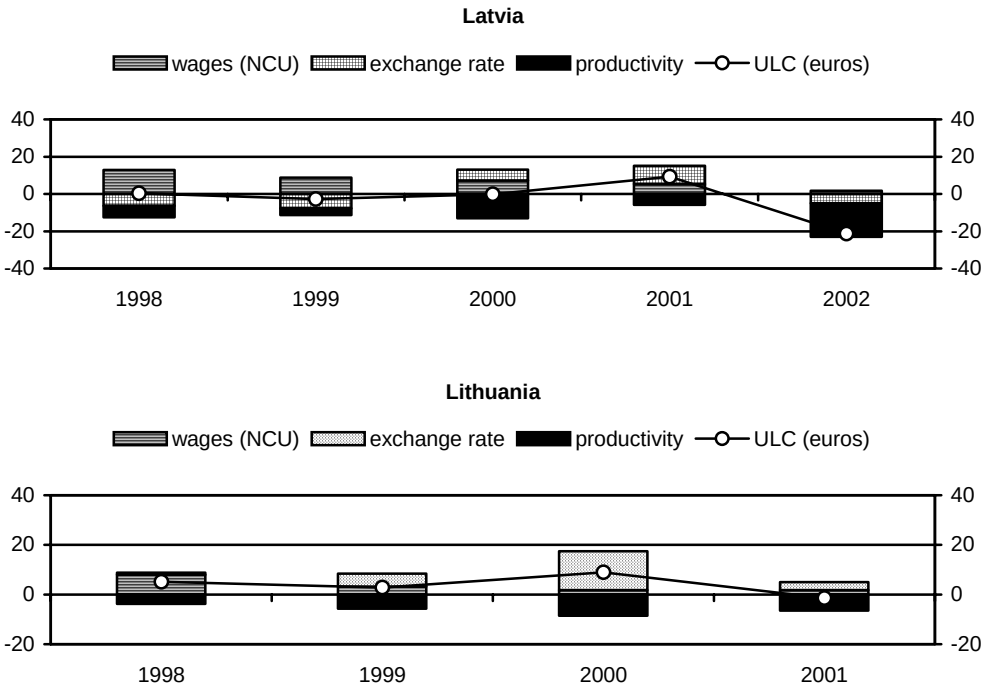
Textiles and textile products (DB)
$ULC_{cons(eur)}$, annual changes in percentages and their components*



* (Average annual wages in euros x number of employees/production at constant 1999 prices in NCU) x100.

(Figure 9 contd.)

Textiles and textile products (DB)
$ULC_{cons(eur)}$, annual changes in percentages and their components*



* (Average annual wages in euros x number of employees/production at constant 1999 prices in NCU) x100.
Source: own calculations using the WIIW Industrial Database.

3.4 Development of unit labour costs

Unit labour costs, defined as 'labour costs per unit of output' or as 'wages divided by productivity' (see Box 1 in section 2.5) show the combined effect of wages and productivity on costs. In 2002, the share of labour costs[23] as a percentage of output at current prices (ULC_{curr}) ranged between 20% and 25% in most NMS (see Table 7a). In all NMS, ULC_{curr} were significantly higher than in manufacturing on average, ranging from 141% in Estonia to 293% of the manufacturing average in the Slovak Republic, as a consequence of the high labour intensity and the relatively low labour productivity in the T/C sector, which is only partially compensated by below-average wage levels. With ULCs relatively high, the T/C sector is particularly sensitive towards changes in ULCs.

The changes in ULCs over time may be considered at *current* or at *constant* prices for output. Changes in unit labour costs measured at current output prices (ULC_{curr}) are considered as an

[23] Labour costs are measured as wages (excluding indirect wage costs) instead of total labour costs (including indirect labour costs) for reasons of data availability and better comparability across countries and over time. In 2001, total labour costs were about 40% higher than wages in most NMS, about 20% higher in Estonia and Poland and only about 15% higher than wages in Cyprus, Latvia and Lithuania. See Table 5a and section 4.3 on wages.

indicator of changing profitability, while ULCs measured at constant output prices (ULC_{cons}) are taken as an indicator of changing international competitiveness.

Measured at *constant* output prices, ULCs in the T/C sector have risen significantly in most NMS over the period 1997-2002, due to wage increases in the national currency outpacing the respective productivity gains. This kind of 'wage-trap' is a general problem in industries with below-average productivity growth. As wage increases in individual industries are largely determined by the overall wage increase depending on the average rise in productivity, industries with below-average productivity growth will typically show wage increases in excess of productivity.[24] In the countries where ULC_{cons} improved or deteriorated only slightly, productivity gains in the T/C industry were particularly high (Estonia and Poland) or wage increases (in national currency units) were relatively low (Lithuania and Latvia; compare Table 6, column 1 and Table 4a, column 1). Increases in ULC_{cons} were moderate, ranging between 3% and 7% per annum in the Czech Republic, Hungary and Slovakia and were extremely high in Slovenia, Bulgaria (10%) and Romania (41%). But currency depreciation largely compensated the competitive loss from high wage increases in national currency (see Table 7b, last column and Figure 9) in the latter group of countries in particular. With a few exceptions (Estonia, Hungary and Poland), the rise of ULC_{cons} in the T/C industry was also higher than in total manufacturing, pointing to a deterioration of international competitiveness in the T/C sector that goes beyond that of the manufacturing industry on average.

Box 3

Unit labour costs (ULCs) at current and at constant prices

$$ULC = (W * EMP)*100 / OUT = W*100 /LP$$

(For the formula and the exact definition of variables, see Box 1.)

Defined as labour costs (W *EMP) per *unit* of output (OUT), production should be measured in real terms, the same as in the case of labour productivity (LP). For comparisons over time, therefore, production should be measured at constant prices, excluding changes in production value solely due to price movements. ULCs rise, if wages rise faster than (real) productivity. This implies a deterioration of *international competitiveness.* (Assuming that the local producer is a price-taker, a higher share of the production value has to be spent on labour costs.)

[24] In sectors that are protected from international competition such as large parts of the services sector, the solution to the problem is price increases. But this strategy is not viable for industries open to foreign competition such as the T/C industry.

Yet in the domestic economy or in the case where the producer is a price-maker on the international market, wages that rise faster than (real) productivity will induce price increases, which may leave the share of labour costs in production (valued at current prices) constant and therefore *ULCs* measured at *current* prices will stay at the same level as before. ULCs at current prices will only rise if producers cannot fully pass on the rising labour costs in prices. Therefore, ULCs measured at current prices are often considered as an indicator of *profitability.* (In such instances where output is measured as value added instead of gross output, ULCs at current prices are simply the reverse of the profit-share.) However, at the aggregate level, changes in ULCs also reflect shifts in the structure of production from more to less labour-intensive production processes and vice versa (e.g. from clothing to textiles).

See for instance Hinze (1998), pp. 56–73.

Measured at *current* prices, ULCs increased considerably less or even declined in many countries, indicating that wage increases (in NCU) exceeding productivity gains could be passed on to prices (in NCU), and/or that the average labour intensity of production declined over the period 1997-2002 for reasons of restructuring. As a matter of fact, the proportion of labour costs in the T/C production value has declined in most NMS.

However, with regard to international competitiveness, especially from the point of view of the international investor, the change of wages measured in an international currency (euros or US$) relative to productivity growth (at constant prices) is relevant ($ULC_{conseur}$). This sort of unit labour costs, taking into account exchange rate movements as well, is shown in Table 7b, last column. In Figure 9, the annual changes of unit labour costs based on euro wages are decomposed in *wage increases in NCU*, *currency appreciation/depreciation* and *changes in productivity* for the individual NMS (see Box 1 for methodology). As can be seen in Figure 9, $ULC_{cons(eur)}$ may fluctuate strongly from year to year. Over the whole period 1997-2002, the increase of $ULC_{cons(eur)}$ typically ranged between 5% and 10% per annum, which points to a substantial cumulated loss of international cost-competitiveness by the T/C industry in the NMS (Poland and Estonia were the only countries to show an improvement of ULCs over the period as a whole). Given that low wage levels continue in the NMS, this may not be too serious when compared with the OMS. But this is less true for some countries that already have high unit labour costs (e.g. Slovenia), as well as for those with very low ULCs (Bulgaria and Romania), which are mainly competing with other low-wage T/C producers such as China and India in the international and domestic markets. Furthermore, different developments of $ULC_{cons(eur)}$ in the individual NMS will influence T/C relocation among the NMS

Table 7a

Textiles and textile products (DB)

Unit labour cost, national currency, at *current* prices (ULC_{curr}), 1997-2002*

	1997	1998	1999	2000	2001	2002	In % of total manuf. 2001	Annual change in % 1998	1999	2000	2001	2002	Avg. annual change in % **97-02**	Total manuf. 97-02	Growth differential [1] in ppt 97-02
Cyprus	–	–	–	22.86	24.72	25.95	146.8	–	–	–	8.1	5.0	**6.5** [2]	3.4 [2]	3.1 [2]
Czech Rep.	17.40	16.61	17.04	16.01	15.86	17.67	144.7	-4.5	2.6	-6.1	-0.9	11.4	**0.3**	-0.1	0.4
Estonia	21.08	20.70	21.12	18.66	20.04	–	141.3	-1.8	2.0	-11.6	7.4	–	**-1.3** [3]	-3.0 [3]	1.8 [3]
Hungary	22.34	21.58	21.43	19.20	19.94	22.03	245.9	-3.4	-4.3	-10.4	3.9	10.5	**-1.0**	0.7	-1.7
Latvia	24.91	25.31	27.00	25.21	24.38	–	171.1	1.6	6.7	-6.6	-3.3	–	**-0.5** [3]	-1.8 [3]	1.3 [3]
Lithuania	17.05	17.22	16.97	16.55	16.22	–	144.7	1.0	-1.5	-2.5	-2.0	–	**-1.2** [3]	-1.8 [3]	0.6 [3]
Malta	–	–	17.82	19.15	21.34	21.83	153.7	–	–	7.5	11.4	2.3	**7.0** [4]	1.8 [4]	5.2 [4]
Poland	20.28	19.98	24.84	23.05	22.65	19.77	177.8	-1.4	3.1	-7.2	-1.7	-12.7	**-4.2**	-0.4	-3.8
Slovak Rep.	25.33	24.93	25.32	26.80	26.87	26.05	293.2	-1.6	1.5	5.9	0.3	-3.1	**0.6**	-4.8	5.4
Slovenia	27.43	25.66	26.18	27.93	25.62	25.92	149.0	-6.5	2.0	6.7	-8.3	1.2	**-1.1**	-0.1	-1.0
Bulgaria	17.15	20.80	23.26	21.47	20.77	17.84	232.0	21.3	11.8	-7.7	-3.3	-14.1	**0.8**	-0.9	1.6
Romania	24.00	28.02	24.49	24.26	22.69	19.14	241.4	16.7	-12.6	-0.9	-6.5	-15.6	**-4.4**	-5.4	1.0
EU-15	–	–	–	–	15.75	–	–	–	–	–	–	–	–	–	–

* (Average annual wages in NCU x number of employees / production at current prices in NCU) x100.

Table 7b

Unit labour costs, national currency, at constant 1999 prices (UL_{Ccons}), 1997-2002**

	1997	1998	1999	2000	2001	2002	In % of total manuf. 2001	1998	1999	2000	2001	2002	Avg. annual change in % **97-02**	Total manuf. 97-02	Growth differential [1] in ppt 97-02	$ULC_{cons(eur)}$ *** avg. Annual change in % 97-02
Czech Rep.	13.87	14.97	17.04	16.21	16.44	16.08	145.7	7.9	13.8	-4.9	1.4	-2.2	**3.0**	1.8	1.2	6.1
Estonia	20.95	21.61	21.12	20.32	20.78	–	128.8	3.2	-2.3	-3.8	2.2	–	**-0.2** [3]	0.3 [3]	-0.5 [3]	-0.2 [3]
Hungary	18.70	20.30	21.43	20.43	21.96	23.91	239.6	8.5	1.8	-4.7	7.5	8.9	**4.3**	4.6	-0.3	1.4
Latvia	24.69	26.07	27.03	25.58	25.98	–	167.4	5.6	3.7	-5.4	1.6	–	**1.3** [3]	-0.4 [3]	1.7 [3]	5.3 [3]
Lithuania	16.70	17.39	16.96	15.92	15.21	–	132.3	4.1	-2.4	-6.2	-4.4	–	**-2.3** [3]	-3.4 [3]	1.1 [3]	3.6 [3]
Poland	18.46	19.61	24.84	23.53	23.40	20.16	170.4	6.3	5.0	-5.3	-0.6	-13.8	**-2.0**	0.2	-2.1	-2.7
Slovak Rep.	19.04	20.57	25.32	25.75	26.36	26.05	259.0	8.0	23.1	1.7	2.4	-1.2	**6.5**	-0.1	6.6	4.0
Slovenia	21.99	23.46	26.18	26.46	30.98	36.27	151.4	6.7	11.6	1.1	17.1	17.1	**10.5**	7.1	3.4	5.6
Bulgaria	13.42	18.77	23.26	23.56	23.58	21.70	208.6	39.9	23.9	1.3	0.1	-8.0	**10.1**	5.8	4.3	9.4
Romania	8.38	16.59	24.49	30.25	40.65	46.66	202.6	97.9	47.6	23.5	34.4	14.8	**41.0**	33.3	7.6	7.6

** (Average annual wages in NCU x number of employees / production at constant 1999 prices in NCU) x100.
*** (Average annual wages in euros x number of employees / production at constant 1999 prices in NCU) x100.

Notes: 1) Growth rate of textiles and textile products minus the growth rate of total manufacturing; 2) 2001-2002; 3) 1997-2001; 4)1999-2002.

Sources: WIIW Industrial Database; EU-15: Eurostat, NewCronos, SBS.

3.5 T/C labour force in the NMS: large share of female employment, higher skill level than in the OMS

As already mentioned, labourers in the T/C industry are among the most poorly paid workers in manufacturing in all NMS but in the OMS as well. At the same time, the workforce in the T/C industry typically shows an above average share of female workers. Therefore, a decline in T/C employment affects women over-proportionately and may cause particular problems with regard to alternative employment opportunities, particular in remote regions.

The average share of female employment in the textile, clothing and leather industry combined (DB+DC) in the EU-25 was 64%, almost twice as high than in total manufacturing (35%) according to the EU Labour Force Survey (LFS) for 2002[25]. Notably, the share of women is typically higher in the NMS than in the OMS, in both the T/C industry and manufacturing as a whole, with female employment in the EU-15 reaching only 61% and 28% respectively (see Table 8). The NMS with the highest share of female employment in the T/C and leather industry were the Baltic countries: Estonia (82%), Latvia (85%), Lithuania (81%), the Slovak Republic (85%), Bulgaria (90%) and Romania (80-90%)[26]. The proportion of female workers was relatively low in Malta (63%) and Cyprus (65%) and in the Czech Republic and Slovenia (both 75%). Where separate information on the textile and the clothing industry was available, the clothing industry typically showed a higher share of female employment than textiles (see Chapter 4). Given that the majority of the workforce were women, it is perhaps unsurprising to find that there was also a higher propensity to engage *in part-time work*. Some 9% of those employed in the EU's textile sector worked part-time in 2002, compared to a manufacturing average of 7% (no details country by country are given)[27].

Although we do not have comparable data for all countries, the information available suggests that the skill level in the T/C industry, measured in terms of educational attainment, is significantly higher in the NMS than in the OMS. In the EU-15, 53% of the total employed in the T/C sector had lower secondary educational attainment level and just around 39% had upper secondary level educational qualifications, so that only 7% had tertiary (or university degree) level qualifications, classifying the industry a 'low skill' industry compared to manufacturing on average. In contrast, the share of total employed with only lower secondary education reached typically less than 30% in the NMS (e.g. Slovakia 10%, Lithuania 8%) and that with upper

[25] Source: Eurostat, presented in 'Statistics in focus,' 29/2004, Graph 7 (The original data were kindly supplied to us from Eurostat by Walter Sura.)
[26] The shares for Bulgaria and Romania are based on estimates of local industry experts, see Chapters 4.9 and 4.10
[27] Eurostat, Statistics in focus, p.5

secondary level education was higher than 60% in all NMS. The proportion of persons employed with tertiary education was particularly high in Estonia and Latvia (both 18%) and Lithuania (10%) putting the T/C industry with respect to this indicator at the level of the EU manufacturing industry on average (16%). The higher skill level should give the T/C industry in these countries a certain comparative advantage relative to the 'low-wage' OMS, in particular Portugal and Spain, where the share of total employed with only lower secondary education was as high as 92% and 78% in 2002[28]. This view is supported by local experts interviewed for our country reports, who often emphasized a 'high-skilled, qualified labour force' as one of the specific strengths of the T/C industry in their countries (see Chapter 4).

Table 8

Textiles and textile products (DB+DC)[1)]

Women employed as % of total employment , 2002

	T/C industry (DB+DC)	Manufacturing total (D)
Cyprus	65.2	35.4
Czech Rep.	75.0	37.6
Estonia	82.5	45.4
Hungary	80.0	39.2
Latria	85.3	36.2
Lithuania	81.3	45.3
Malta	63.0	28.3
Slovak Rep.	85.3	39.1
Slovenia	75.5	38.7
EU-25	**64.5**	**35.5**
EU-15	61.2	28.0

Note: 1) Including the leather industry (DC).- Poland not available.

Source: Eurostat, presented in 'Statstics in focus', 29/2004, Graph 7

3.6 T/C investment and foreign direct investment in the NMS

Investment in fixed assets is a necessary precondition and also a good indicator for restructuring and modernisation in a particular industry. Foreign direct investment is playing a special role in this respect.

Table 9 shows the amounts of investment made in the T/C industry for each NMS 1997-2002. Basically, the different size of investment in the individual countries reflects the relative size of the T/C industry in these countries. As demonstrated in Figure 10, the shares of the T/C industry in investment and in production cluster around the 45 degree line, indicating that they are of

[28] Source: Eurostat, presented in 'statistics in focus' 29/2004, pp.5 and 6

similar size. Thus, investment in the T/C industry can be considered to reach an 'average' level in most NMS. A certain deviation from this pattern was found for Latvia and Bulgaria with investment significantly higher than suggested by production shares.

Table 9
Gross investment in tangible goods (mn EUR)

Textle and textile products (DB)

	1997	1998	1999	2000	2001	2002
Cyprus	4.5	3.2	-	6.7	8.2	1.4
Czech Republic	162.7	171.1	160.0	-	184.6	-
Estonia	18.4	26.2	22.2	21.9	32.0	37.4
Hungary	-	-	81.1	74.8	77.9	85.5
Latria	12.0	16.3	28.8	18.8	39.6	27.3
Lithuania	34.5	29.3	30.0	35.7	59.0	31.7
Malta	-	-	9.7	10.6	11.2	6.6
Poland	269.9	272.0	245.6	191.2	210.8	-
Slovak Republic	50.0	39.6	17.0	26.3	37.6	33.7
Slovenia	2.8	0.9	47.2	45.1	48.4	-
Bulgaria	23.1	32.2	35.0	85.7	112.1	132.4
Romania	-	216.9	221.6	223.4	254.5	283.3

Textile industry (17)

	1997	1998	1999	2000	2001	2002
Cyprus	1.2	1.3	-	2.2	2.7	0.6
Czech Republic	130.7	150.2	115.7	-	161.8	-
Estonia	12.6	18.2	17.0	14.1	23.9	26.7
Hungary	-	-	45.5	42.6	34.3	43.4
Latria	7.2	11.5	22.5	12.3	29.1	20.1
Lithuania	27.6	20.0	15.7	19.8	37.4	16.9
Malta	-	-	7.8	7.9	7.8	4.8
Poland	159.5	165.7	128.9	114.0	133.6	-
Slovak Republic	37.2	26.2	7.9	13.7	23.3	24.7
Slovenia	2.4	0.9	38.2	36.2	40.1	-
Bulgaria	9.0	9.9	12.1	52.2	60.9	80.0
Romania	-	104.7	93.5	93.3	109.4	122.2

Clothing industry (18)

	1997	1998	1999	2000	2001	2002
Cyprus	3.3	1.9	-	4.5	5.5	0.8
Czech Republic	31.9	20.9	44.2	-	22.8	-
Estonia	5.8	8.0	5.2	7.7	8.0	10.7
Hungary	-	-	35.6	32.2	43.6	42.1
Latria	4.8	4.7	6.3	6.5	10.5	7.2
Lithuania	6.9	9.3	14.3	15.9	21.6	14.8
Malta	-	-	2.0	2.7	3.4	1.8
Poland	110.4	106.2	116.7	77.2	77.3	-
Slovak Republic	12.7	13.4	9.1	12.6	14.3	9.0
Slovenia	0.3	-	9.0	8.9	8.3	-
Bulgaria	14.1	22.3	22.9	33.4	51.2	52.5
Romania	-	112.2	128.0	130.1	145.1	161.1

Source: Eurostat, New Cronos SBS

Table 10

Gross investment in tangible goods per employee (EUR)

Textile and textile products (DB)

	1997	1998	1999	2000	2001	2002
Cyprus				1971		
Czech Rep.	1403	1514	1495		1828	
Estonia	808	1187	1010	997	1357	1502
Hungary			755	736	804	962
Latvia	516	669	1250	802	1653	1157
Lithuania	623	497	512	618	987	
Malta			2706	3017	3159	
Poland	674	703	737	622	748	
Slovak Rep.	993	843	362	577	797	725
Slovenia	81	26	1440	1455	1624	
Bulgaria	180	242	270	642	750	822
Romania		582	650	628	656	721
NMS average					**893**	
EU-15 average						**2430**

Textile industry (17)

	1997	1998	1999	2000	2001	2002
Cyprus				2273		
Czech Rep.	1544	1875	1557		2369	
Estonia	1643	2290	2267	1590	2230	2439
Hungary			1326	1278	1124	1522
Latvia	561	951	2183	1234	2836	2237
Lithuania	1112	811	727	1007	1783	
Malta			10627	11669	10400	
Poland	1091	1293	1189	1174	1513	
Slovak Rep.	1808	1451	466	787	1202	
Slovenia	158	58	2580	2565	2789	
Bulgaria	192	239	345	1634	1851	2290
Romania		747	786	837	1023	1238
NMS average					**1646**	
EU-15 average						**3213**

Table 10 Cont'd

Clothing industry (18)

	1997	1998	1999	2000	2001	2002
Cyprus				1820		
Czech Rep.	473	367	663		414	
Estonia	421	623	383	564	589	765
Hungary			487	472	657	698
Latvia	382	356	521	475	718	492
Lithuania						
Malta			702	952	1216	
Poland	434	411	519	367	399	
Slovak Rep.	445	477	311	418	474	
Slovenia	15		501	527	538	
Bulgaria	161	228	232	315	422	402
Romania		442	458	442	463	496
NMS average					**453**	
EU-15 average						**1556**

Source: Investment: Eurostat, New Cronos SBS; number of employees: wiiw Industrial Database; EU-15 average: European Commission (2003a), Table 1

Investment in the NMS is generally much lower than in the OMS. In 2001/2002 the NMS on average reached only 38% of the EU-15 level. However, investment per employee varies considerably across countries, with the highest amounts spent in Malta (above EU average) , the Czech Republic[29] Slovenia, Latvia and Estonia (see Table 10). With the exception of Malta, the textile industry, which is typically more capital-intensive than the clothing industry, is more prominent in these countries than in other NMS (Table 1a in Chapter 2). But Malta shows a very high investment per employee in both, the textile and the clothing industry, pointing to an overall strong modernisation drive in the industry. In Poland, Bulgaria and Romania investment per employee in the T/C industry was particularly low, in line with the relative high share of the clothing industry there. Average investment per employee reached EUR 1646 in the textile but only EUR 453 in the clothing industry in 2001 (Table 10).

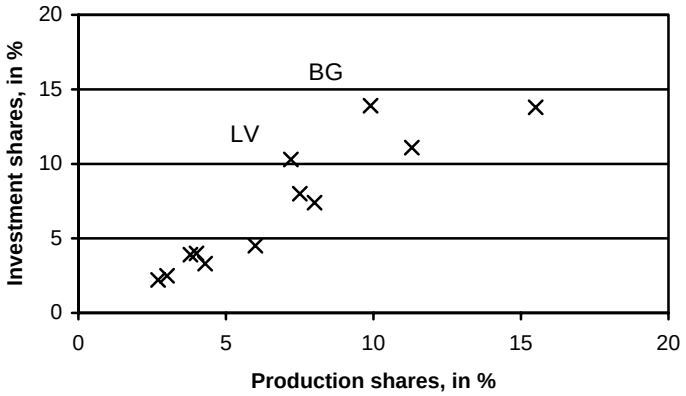
Compared to the OMS, the discrepancy was also more pronounced in the clothing industry coming up to 29% of the EU-15 level only, than in textiles reaching 51%. However, within the textile and the clothing industries, there are great variations as well. In the textile industry, Malta was again the by far most prominent investor in terms of expenditures per employee over the last couple of years, followed with a certain distance by Slovenia, Estonia, Latvia and probably the Czech Republic. Investment per employee was consistently low in Slovakia pointing to

[29] There are, however certain discrepancies between the investment data supplied by Eurostat and those of the Czech Ministry of Industry and Trade, who give much lower figures and also have a more pessimistic view on the development of investment over time, in particular in the Czech textile industry. See Chapter 4.8.

delayed restructuring and/or a neglect of the industry there. In the clothing industry, investment per employee varied less strongly. The most prominent investor was again Malta, followed by Estonia, Latvia, Hungary and Slovenia all showing above average investment per employee.

Figure 10

Investment and production shares 2001/2002



Source: Table 1 in this report and Eurostat, New Cronos SBS; own calculations

During the period 1997-2002, although fluctuating strongly from year to year, an overall increase of investment (at current prices) can be observed. The rise was dramatic in Slovenia but Bulgaria and the Baltic countries showed an impressive investment growth as well. Slovakia seems to be the only country where investment expenditures in the T/C industry is declining. In Slovenia, investment in both, the textiles and the clothing industry rose strongly, while in Bulgaria and Latvia investment in textiles was the driving force. In Lithuania, investment in the clothing industry seems to be the more dynamic part while in Estonia the distribution between the two sub-sectors was more or less equal (see Table 9).

Foreign direct investment is considered an important source of technology and know-how reinforcing restructuring and modernisation in the recipient industry. Also, due to their corporate linkages, foreign invested firms usually have better access to foreign markets and thus a higher propensity to export.

Table 11

Inward FDI stock of individual industries in % of total manufacturing, 2002

NACE code		Czech Republic	Estonia	Hungary	Latvia	Lithuania	Poland	Slovak Republic	Slovenia
DA	Food products; beverages and tobacco	11.9	20.6	16.1	25.2	38.3	21.8	13.2	4.4
DB	**Textiles and textile products**	**3.0**	**8.9**	**1.9**	**11.8**	**10.6**	**1.4**	**1.2**	**2.4**
DC	Leather and leather products	0.8	0.2	0.6	0.2	0.1	-	0.9	2.1
DD	Wood and wood products	1.3	13.4	1.1	20.4	4.0	11.6	1.3	0.5
DE	Pulp, paper & paper products, publishing & printing	6.1	7.8	3.4	4.2	3.3	-	5.2	15.3
DF	Coke, refined petroleum products & nuclear fuel	1.9	0.4	1.6	-	15.8	0.3	6.5	-
DG	Chemicals, chemical products and man-made fibres	7.2	8.0	12.5	9.1	5.5	12.4	6.4	32.1
DH	Rubber and plastic products	6.4	1.9	3.8	2.5	2.7	6.5	3.0	11.8
DI	Other non-metallic mineral products	12.8	15.5	4.4	8.0	5.2	-	4.7	5.1
DJ	Basic metals and fabricated metal products	9.1	5.4	4.7	9.6	1.9	5.3	40.4	6.2
DK	Machinery and equipment n.e.c.	5.5	2.2	5.5	4.5	0.9	3.0	4.5	9.4
DL	Electrical and optical equipment	14.2	7.0	19.9	2.5	6.9	3.3	5.5	7.4
DM	Transport equipment	17.4	3.4	23.8	0.7	3.9	13.9	5.4	3.2
DN	Manufacturing n.e.c.	2.3	5.4	0.7	1.2	1.0	-	1.7	0.3
	Other non-classified industries						20.4		
D	Manufacturing	100	100	100	100	100	100	100	100
D	Manufacturing in % of total FDI	35.5	18.8	45.8	15.2	29.3	35.8	36.5	43.3
DB	***share in total manufacturing production in %***	***3.8***	***11.3***	***3.0***	***7.2***	***15.5***	***4.3***	***2.7***	***6.0***

Remarks:
Czech Republic: equity capital, reinvested earnings, loans.
Hungary: equity capital and reinvested earnings.
Poland:: equity capital, reinvested earnings, loans.
Poland based on PAIZ data: equity capital, reinvested earnings gross; projects over USD 1 million capita.
Slovak Republic: equity capital, reinvested earnings - in the corporate sector.
Slovenia: equity capital, reinvested earnings, loans.
Estonia: equity capital, reinvested earnings, loans.
Latvia: equity capital, reinvested earnings, loans.
Lithuania: equity capital, reinvested earnings, loans.
Croatia: equity capital (cumulated inflows).

Source: National banks of respective countries according to international investment position (IIP). - DB share in total manufacturing production see Table 1 in this report.

In analysing foreign direct investment in the T/C industry, two different data sets were used. The one is based on the *stock of foreign direct investment* as reported by the national banks of the individual NMS (wiiw FDI Database). In this database, all NMS except Malta and Cyprus are included[30]. The second source of information refers to the nominal (or equity) capital of foreign invested enterprises (FIEs)[31], derived from a unique database built-up at wiiw in collaboration with the national statistical offices (wiw-FIE database). However, this database comprises Estonia, the Czech Republic, Hungary, Poland, the Slovak Republic and Slovenia only, but in addition to the FDI database, separate data for the textile and the clothing industry are given.

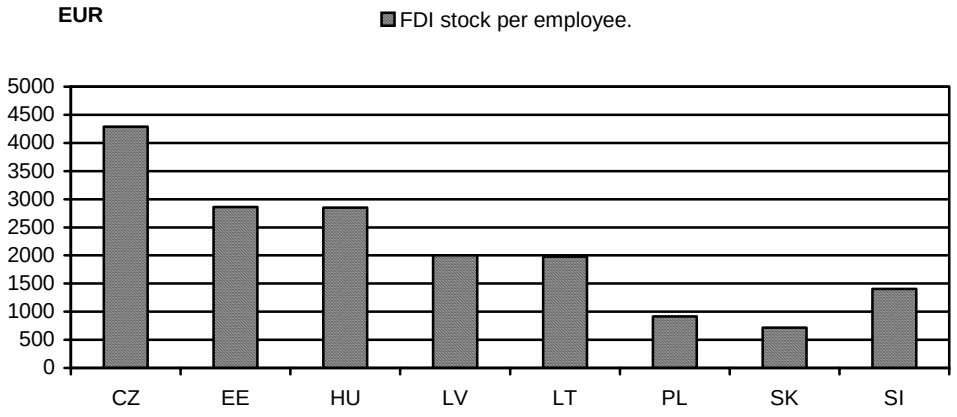
[30] Some information on foreign direct investment in Bulgaria and Romania, although in a more qualitative manner, can be found in Chapters 4.9 and 4.10

[31] Firms with any share of foreign ownership, including minority shares

Foreign direct investment stocks: The T/C industry in the NMS has not been a prominent target for foreign direct investment so far. The sector's shares in total manufacturing FDI are substantially lower than production shares in all NMS, except Latvia. In Hungary, for example, the FDI share of the T/C industry ran up to 1.9% in 2002, compared to a production share of 3% in the same year- see Table 11. In absolute terms, foreign direct investment was highest in the Czech, the Hungarian and the Polish T/C industry, due to the large size of the industry in these countries yet in terms of FDI stock per employee, Poland ranks relatively low and Estonia takes a prominent position (see Figure 11).

Figure 11

Textiles and textile products (DB), 2002



Sources: Tables 3 and 12 in this report

As regards the development of FDI over time, unfortunately no comparable data on *investment flows* were available at the level of the T/C industry for the NMS. But as a broad indicator, we may look at the development of the FDI stock over time: First of all, fluctuations from year to year are very strong, connected with the discretionary character of investments in general. When looking for general trends, a certain slowing-down of FDI activity can be observed in the years 2001 and/or 2002 in most countries. That has to be seen in the light of an overall scaling down of foreign direct investment activity in the NMS due to the phasing out of privatisation deals, but the economic slump in the OMS, the major source countries for FDI, as well. However, in some countries the stock of FDI has even declined in absolute terms (Estonia, Lithuania, Poland, Slovenia), pointing to a certain relocation of production in this field. The selected information available for 2003 suggests a certain stabilisation of the recent downward trend.

Table 12

Textile and textile products (DB)
Foreign direct investment stock 1998-2002 (mn EUR)

		1998	1999	2000	2001	2002	2003
Czech Rep.		197.8	203.6	314.8	390.5	399.1	-
	growth rate in %	-	2.9	54.6	24.0	2.2	-
Estonia		33.3	53.9	86.3	80.2	67.5	73.8
	growth rate in %	-	61.7	60.3	-7.1	-15.9	9.3
Hungary		159.5	205.0	225.8	232.0	253.2	-
	growth rate in %	-	28.6	10.1	2.7	9.1	-
Latvia		16.2	26.8	34.9	51.1	48.1	44.0
	growth rate in %	-	66.1	30.0	46.4	-5.9	-8.5
Lithuania		66.3	88.8	116.8	121.9	118.2	117.1
	growth rate in %	-	34.0	31.5	4.4	-3.0	-1.0
Poland		139.8	248.1	246.7	292.1	231.1	-
	growth rate in %	-	77.4	-0.6	18.4	-20.9	-
Slovak Rep.		11.2	23.1	24.3	29.0	33.4	36.6
	growth rate in %	-	105.7	5.2	19.4	15.2	9.6
Slovenia		27.8	35.7	54.9	34.8	42.1	45.9
	growth rate in %	-	28.5	53.7	-36.6	14.4	9.0

Remarks: See Table 11

Source: National banks of respective countries according to international investment position (IIP).

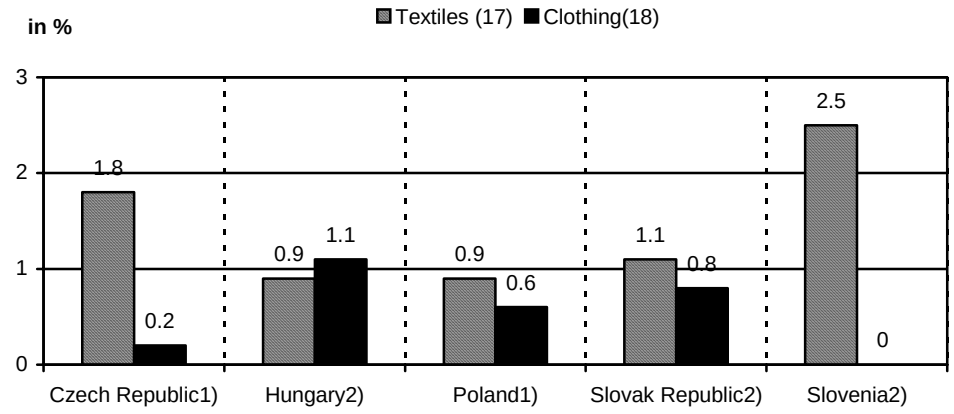
For selected , the wiiw FIE database, our second source of information, allows a separate analysis of foreign direct investment activity in the textiles and in the clothing industry on the one hand and of the degree of *foreign penetration* on the other.

Generally, FDI is higher in the textiles than in the clothing industry, due to the more capital-intensive character of the textile industry and other forms of international production co-operations (e.g. work contracts) playing an important role in the clothing industry. Only in Hungary, which has a relative large clothing industry, foreign direct investment in the clothing industry exceeded that in textiles in 2001 (see Figure 12).

Foreign penetration in the T/C industry, defined as the share of nominal capital of foreign invested enterprises in the nominal capital of all enterprises (FIE + others) was by far the highest in Hungary (60%), where foreign investment is very large in all industries, but reached a fairly high level in Estonia, the Slovak Republic and Romania as well. It was low in the Czech Republic and especially in Slovenia, where in contrast to Hungary foreign penetration is generally low in all manufacturing industries[32]. In line with the development of FDI stocks discussed above, foreign penetration has significantly increased between 1998 and 2000, but slowed down or declined thereafter (see Figure 13).

Figure 12

Distribution of foreign capital in the textile and in the clothing industry, 2001*



* Capital of foreign invested enterprises in the respective industry as percent of total capital of FIEs in manufacturing.
1) Equity capital. - 2) Nominal capital.

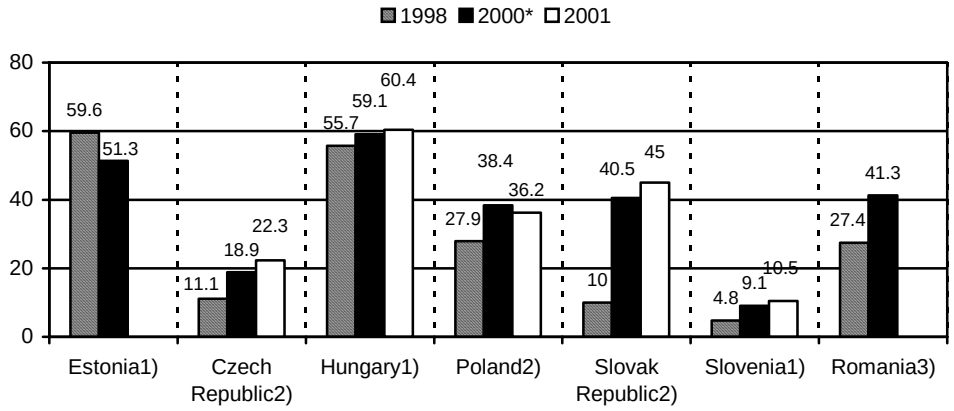
Source: wiiw FIE Database

[32] Foreign penetration in manufacturing as a whole was 68% in Hungary and only 25% in Slovenia in 2001 (wiiw FIE Database)

Figure 13

Foreign penetration of the sector

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



* Estonia 1999

Notes: 1) Nominal capital.- 2) Equity capital.- 3) Total assets

Source: wiiw FIE Database.

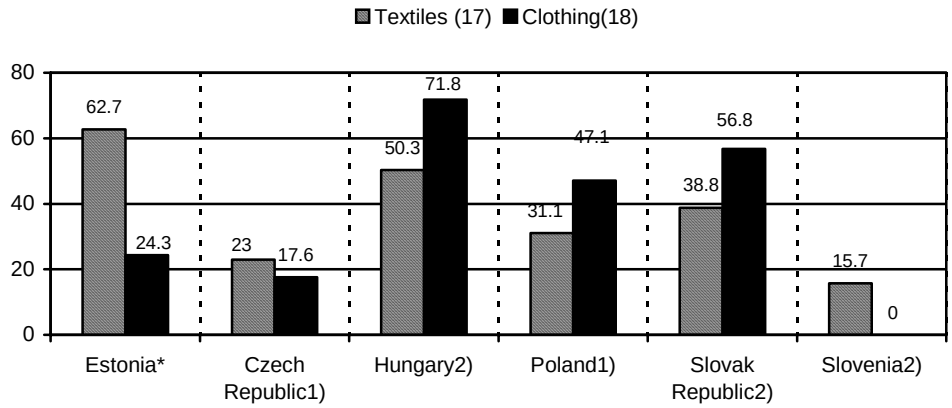
In Figure 14, foreign penetration is shown for the textile and the clothing industry separately. Notably, although FDI is smaller in absolute terms (and as a share of total) in the clothing industry than in textiles in all countries (except Hungary), foreign penetration in the clothing industry was very high and higher than in the textile industry, not only in Hungary (72%), but in the Slovak Republic (57%) and Poland (47%) as well. Given the often short-term character of foreign investment in this field, the clothing industry in these countries thus has become relatively vulnerable to a decline of international cost-competitiveness.

Figure 14

Textiles and textile products

Foreign penetration of individual industries 2001

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



*1999

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

Source: WIIW, FIE Database

More information on foreign direct investment country by country, although at a more qualitative level, also including information on important foreign enterprises, can be found in Chapter 4 below.

4. Detailed information on the T/C industry in the NMS – country by country

This section presents a more detailed analysis of the textiles and clothing (T/C) sector in the individual new member states (NMS) and the two south-eastern EU candidate countries, Bulgaria and Romania[33]. It contains the following information for each country (to the extent available) shown separately for the textile and the clothing industries:

- Structure in terms of company size, ownership, major companies and main products
- Regional concentration
- Modernisation/technology
- Investment/production capacities
- Inputs and factors of production
- Research & development
- Customer relations
- Support programmes
- Social and environmental issues.

The analysis of each country concludes with a view from local experts on the textile and the clothing industry within an enlarged EU.

Our detailed information is drawn from published and unpublished national statistical sources and reports by local collaborators. A list of important topics was prepared by WIIW and distributed to our collaborators in the individual countries. To elaborate on these topics, the collaborators were asked to contact experts from T/C enterprises, national employers' and employees' associations within the T/C industry and to conduct interviews. The findings were summarised and sent to WIIW in the form of a report (Appendix 3 lists the local collaborators, reports and interview partners, and important interview topics).

4.1 Estonia

Overview

[33] Cyprus and Malta were not included in the analysis of the individual NMS, as a recent study on the T/C sector in these countries is already available from PWC consulting (see: Smid (2002 and 2002a)

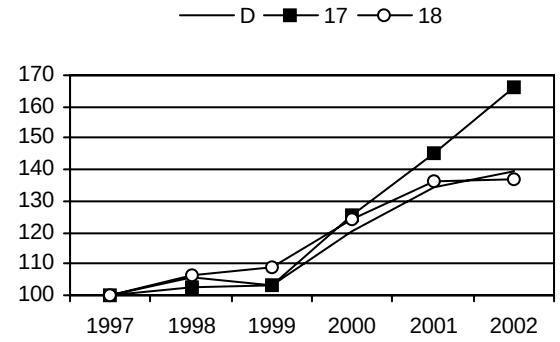
Estonia is one of the NMS most specialised in textiles and clothing, ranking second only to Lithuania, with the T/C industry holding an 11.3% share of total manufacturing production and nearly 20% of employment in 2002. However, owing to the relatively small size of its manufacturing sector, measured in absolute size (production converted at current exchange rates), the Estonian T/C industry only ranked 7th among the NMS (see Table 1 in section 2 of this report). Over the period 1997-2002, the Estonian T/C production grew at an annual average rate of 9.4%, the highest rate of all NMS and faster than manufacturing as a whole, mainly because of the dynamic expansion of the textile industry, indicating rising specialisation in this field (see Table 2 in section 2 and Figure 10).

Nevertheless, with a share of about 60% of total production, the textile industry is more prominent than clothing in Estonia, in contrast to neighbouring Lithuania. The production share of textiles is also much higher than in the NMS on average and more similar to the average share in the EU-15. Yet because of the more capital-intensive character of the textile industry, the clothing industry is the more important employer.

Figure 10

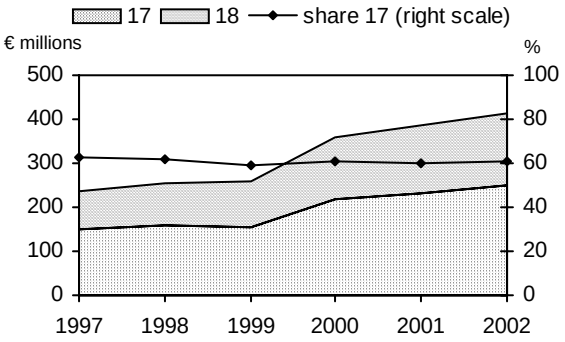
Estonia: Textiles and textile products

Industrial production index (const. prices 99, NCU), 1997=100



Source: WIIW Industrial Database.

production (at current prices) 17, 18



Source: Supporting Tables EE1 and EE5.

The Estonian textile industry

There were about 160 enterprises in the Estonian textile industry producing textiles worth €252 million in 2002 and employing around 10,000 persons. During the period 1997-2002, textile production increased very strongly and significantly faster than manufacturing on average (see Figure 10). Employment increased as well by about 3000 persons over this period (see Supporting Table EE1).

Industry structure: With regard to both production and employment, large enterprises (more than 250 employees) are dominant in the industry (see Supporting Table EE2). The textile industry belongs to the private sector. The share of private, foreign-owned enterprises is estimated to be 30 to 45%. The major textile companies are listed in Supporting Table EE3. The most important sub-sector in terms of the NACE rev. 1 classification is 'manufacture of made-up textile articles' (17.4). Detailed information is not available for all sub-sectors for reasons of confidentiality (see Supporting Table EE1). Geographically, large textile enterprises are located in the north-eastern (Narva town) and northern (Tallinn) regions.

Modernisation/technology: Restructuring and modernisation of the sector started together with ownership reform and the privatisation process*. A*lthough the speed of it has been slow*,* the average technological level in many enterprises is not much lower than in many EU countries. Several large enterprises have computer-controlled production processes. There are some examples of enterprises with ultra-modern technology, e.g. a sewing plant for knitted fabrics and garment manufacturing, equipped with CAD-CAM and an automatic spreader and cutter. There are no statistics about the age of machinery and equipment. A large proportion of old equipment has been replaced and different new technologies have been introduced, but there is some equipment that is older than 15 years. There is some production of 'technical textiles', e.g. special purpose textiles for vehicles. Some raw textiles are produced and exported by Estonian textile-industry enterprises for producing special-purpose textiles in other countries. Nearly 13% of enterprises (including six from the textile industry) among the members of the Estonian Clothing and Textile Association (94 enterprises) have ISO certification (mainly ISO 9001:2000; ISO 14001:1996) and/or O(e)ko-Tex -100 certification, but only three of them have both certificates.

Investment/production capacities: Annual investments in the textile industry have increased by nearly three times during 1996-2003 (see Supporting Table EE4) and constituted 9.5% of net sales of textiles in 2002 (an estimated 3.8% in 2003). Investments in the textile and clothing industries together per turnover was 7.1% in 2002, which is higher than on average in the EU (3.2% in 2002), although this decreased in 2003 (4.4% by estimations) on account of a decrease of investments in the textile industry (Estonian Clothing and Textile Industry, 2003). The process of catching-up with new technologies has taken place. The most significant factor has been the introduction of new foreign technologies and foreign direct investment (FDI). The inflow of FDI in the Estonian textile industry has been considerable and played a substantial role in raising the competitiveness of the sector. High demand for certain Estonian textile products (most notably hosiery; however, production of cotton textiles has decreased) calls for additional capacities and

further investment in technology and new equipment. The increase of competition in the textile market requires enterprises in Estonia to focus on more profitable products, which may cause a reduction of products that have lower productivity and value added (e.g. yarn).

Inputs and factors of production: All raw material inputs for the textile industry are imported (such as cotton, natural and man-made fibres as well as special fabrics)

Research & development: The Ministry of Economic Affairs and Communications has just started a new project that aims at strengthening cooperation among the ministries of the Estonian government on the one hand and the Estonian business membership organisations (BMOs) and labour unions on the other. The project is funded by the Danish government through the National Agency for Enterprise and Housing (www.ebst.dk, in Danish only). The project runs from December 2003 to October 2004. The link between industry and university research is weak.

Customer relations: There is an interaction between users and producers that is conducive to product innovation to some extent in the form of feedback – especially from foreign customers.

Support programmes: There are not any government support programmes specifically for the clothing and textile sector. Apart from a favourable business environment in the domestic market, support for infrastructure, training and retraining, support for exporters (including marketing research) would be useful.

Social and environmental issues: No large problems with the *Acquis Communautaire* are expected as legislation has been harmonised and the textile companies have already adjusted. Problems with undeclared work are decreasing together with improving social security regulations (pensions, insurance schemes, etc.), which have increased the interest of employees to engage in declared work. A survey including employees and unemployed persons (2001-02) has confirmed this trend. There is freedom to participate in workers associations and collective bargaining. In general, the rate of unionisation is low, reaching only 14% in 2002. In the textile industry, two large enterprises (with nearly 46% of the employees in the sector) have trade unions. Regarding vocational training, most workers have had on-the-job training conducted by internal specialists or those from vocational schools or training centres. Regarding programmes to support employability, employment safeguard plans or retraining programmes, no sectoral programmes exist, but some activities are taking place at the firm level, particularly among those with trade unions.

The Estonian textile industry within an enlarged EU as seen by local industry experts: The positive development of the Estonian textile industry depends on external demand. As primary

goods are a large share of exports, increasing competition from third (mainly Asian) countries requires Estonian enterprises to focus on more profitable products (which may cause a certain decline in production and sales). No specific threats or opportunities related to becoming a full EU member are seen. Yet the phasing out of the textile and clothing agreement (ATC) at the end of 2004 is expected to have a negative effect because of the rise in competition. Most vulnerable are textiles for clothing, thread and bath towels. However, there are some particular strengths of the Estonian textile industry such as close proximity to its main markets (Finland, Sweden, the UK, Germany, etc.), language proficiency, good business culture, longstanding cooperation experience with trading partners, political stability and low labour costs. Weaknesses include the shortage of skilled workers and specialists, the relatively low level of technology, few training opportunities and the above-mentioned high proportion of primary products.

The Estonian clothing industry

In 2002, there were 380 enterprises active in the Estonian clothing industry, producing apparel worth €161 million and employing around 14,000 persons. Over the period 1997-2002, clothing production increased strongly, roughly in line with total manufacturing, but developing less dynamically than the textile industry. Employment stayed more or less stable at the level of 1997, pointing to a significant increase in labour productivity (see Supporting Table EE5).

Industry structure: By size of enterprises, clothing is concentrated in SMEs (0-250 employees) employing two-thirds of all employees in the industry, producing 56% of output and 58% of value added (see Supporting Table EE6). The clothing industry belongs to the private sector. The share of private, foreign-owned enterprises is estimated to be 30 to 45%. The major clothing companies are listed in Supporting Table EE7. As usual, the dominant sub-sector in terms of the NACE rev.1 classification is the ‘manufacture of (other) wearing apparel and accessories’ (18.2), responsible for 98% of production. The clothing industry is less concentrated by location than the textile industry, although the largest clothing enterprises are located in larger towns or their surrounding counties: Tallinn, Pärnu and Narva, but also in smaller towns.

Modernisation/technology: The restructuring and modernisation of the industry started after market re-orientation and subcontracting by foreign partners. Today, a large number of enterprises are modernised. The technological level in many enterprises is not much lower than in EU countries. Several larger enterprises have computer-controlled production processes (CAD/CIM) and there are a number of enterprises using ‘best practice’. Most enterprises correspond through the Internet, a large number of enterprises use intranet (and/or extranet) and many have their own websites. Little use is still made of electronic data exchange (EDI) between

enterprises for purchase and sales transactions (Statistical Yearbook of Estonia, 2003), but the number of enterprises using EDI is increasing. Nearly 13% of enterprises (six firms from the clothing industry) among the members of the Estonian Clothing and Textile Association (94 enterprises) have ISO certification (mainly ISO 9001:2000; ISO 14001:1996) and/or O(e)ko-Tex -100 certification; only some of them (three) have both certificates. There are a number of other firms with certificates, but precise information is not available.

Investment/production capacities: Annual investments in the clothing industry have more than doubled during 1996-2003 (Supporting Table EE8) and constituted 3.8% of net sales in the clothing sector in 2002 (5.3% in 2003 by estimation). Foreign direct investment has played a substantial role, particularly in the case of introducing new technologies and know-how. There are some cases where the loan of technical equipment has played a role in the case of outward-processing trade (OPT), but not substantially. Regarding capacity utilisation, there are mainly seasonal excess capacities. However, employment is foreseen to decrease in the future.

Inputs and factors of production: The practice of larger clothing firms is that the main raw materials (fabrics) are bought from foreign wholesale agents but some materials (e.g. accessories and linen) are bought from domestic suppliers. But the share of foreign/domestic inputs is very different by sub-sectors. In any case, in a longer-term perspective, the supply of raw materials from Far Eastern suppliers will probably increase and a change in prices is expected. The infrastructure important for the clothing industry (such as roads) will develop and some support is expected from EU funds.

Research & development: The main partners for R&D are Tallinn University of Technology as well as some other institutions of research and education such as Adult Training Centre Teave, the Estonian Academy of Arts, the Tallinn Technical School of Light Industry, the Tallinn Centre of Industrial Education and the Tartu Vocational Education Centre. Cooperation in R&D is also taking place between producers and suppliers of services (e.g. design services). The Ministry of Economic Affairs and Communications has just started a new project, which aims at strengthening cooperation among the ministries of the Estonian government, as well as among Estonian business membership organisations and labour unions. The project is funded by the Danish government through the National Agency for Enterprise and Housing (www.ebst.dk, in Danish only). The project runs from December 2003 to October 2004.

Customer relations: Relations with the retail trade sector have significantly improved compared with the early stages of transition. Clothing firms did not emphasise large problems besides facing rising competition and the necessity to be flexible with regard to changes in the market. There are a number of well-known foreign clothing retailers in Estonia and their number is

increasing. But there are also domestic, own-branded retail chains, such as Monton, Klementi, Sangar and Bastion. There is a strong tendency towards concentration in the form of large supermarkets.

Support programmes: There are not any government support programmes specifically for the clothing and textile sector. Apart from a favourable business environment in the domestic market, support for infrastructure, training and retraining, support for exporters (including marketing research) would be useful.

Social and environmental issues: No large problems with the *Acquis Communautaire* are expected as legislation has already been harmonised. Problems with undeclared work are decreasing together with improving social security regulations (e.g. pensions and insurance schemes), which have increased the interest of employees to engage in declared work. A survey including employees and unemployed persons (2001-02) has confirmed this trend. There is freedom to participate in workers associations and collective bargaining. In Estonia, the rate of unionisation is generally low, reaching only 14% in 2002. In the clothing industry, few enterprises have trade unions. Regarding vocational training, most workers have had on-the-job training conducted by internal specialists or those from vocational schools. The training of sewers has also been largely supported by regional employment offices. Regarding programmes to support employability, employment safeguard plans and retraining programmes, there are no sectoral programmes but some activities are taking place at the firm level, particularly among those with trade unions, of which there are only a few. Ethical/green consumption trends are considered to have some impact on the industry.

The Estonian clothing industry within an enlarged EU as seen by local industry experts: Estonian clothing products are mostly competitive in foreign markets although market shares are rather small. Latvia and Lithuania are considered the main competitors. The further development of the Estonian clothing industry will be influenced by a number of circumstances: the cancellation of the textile and clothing agreement (ATC) import quotas, the liberalisation of the trade of textile products planned during new round of WTO negotiations and the new EU regulations regarding chemicals. The sub-sectors most vulnerable to the elimination of quotas will be shirts, hosiery and socks. The Ministry of Economic Affairs and Communications forecasts a decline of employment in the clothing industry until 2009 and re-orientation towards the products of higher quality and price (*Tööjõuvajaduse prognoos. Projekt 10.10.2003*). According to managers of clothing enterprises, product-related research and development will stay in Estonia, but production may be relocated to locations with lower production costs. However, there are some particular strengths of the Estonian clothing industry such as close proximity to its main markets

(Finland, Sweden, the UK, Germany, etc.), language proficiency, good business culture, longstanding cooperation experience with trading partners, political stability and quality of production. Notable weaknesses include the shortage of skilled workers and specialists, a relatively low level of technology, few training opportunities, the low popularity of the sector among young people and a large share of sub-contracting, although the latter is decreasing.

Supporting Tables

Table EE1

Estonia – Textile sector (17)

Gross output, in current prices (€ millions)

	1997	1998	1999	2000	2001	2002
17.1 Preparation and spinning of textile fibres	44.3	51.5	48.3	57.4	-	-
17.2 Textile weaving	51.6	52.9	44.1	50.9	-	-
17.3 Finishing of textiles	-	-	-	-	-	-
17.4 Manuf. of made-up textile articles, excl. apparel	33.4	35.0	37.3	66.2	56.1	84.4
17.5 Manuf. of other textiles	13.7	15.0	18.0	25.8	28.1	16.1
17.6 Manuf. of knitted and crocheted fabrics	-	-	-	-	-	-
17.7 Manuf. of knitted and crocheted articles	5.0	4.8	4.9	7.4	11.1	11.6
17 Manufacture of textiles	**147.9**	**159.2**	**152.7**	**219.4**	**231.7**	**251.2**
D Total manufacturing	2167.7	2385.1	2252.2	3097.8	3570.0	3922.4

Value added (€ millions)

	1997	1998	1999	2000	2001	2002
17.1 Preparation and spinning of textile fibres	.	.	.	14.6	-	-
17.2 Textile weaving	.	.	.	11.8	-	-
17.3 Finishing of textiles	.	.	.	-	-	-
17.4 Manuf. of made-up textile articles, excl. apparel	.	.	.	15.3	14.8	24.7
17.5 Manuf. of other textiles	.	.	.	5.7	6.5	4.8
17.6 Manuf. of knitted and crocheted fabrics	.	.	.	-	-	-
17.7 Manuf. of knitted and crocheted articles	.	.	.	2.8	4.0	4.1
17 Manufacture of textiles	**36.6**	**36.5**	**40.6**	**54.5**	**73.7**	**84.5**
D Total manufacturing	622.3	653.8	618.4	853.9	985.7	1136.3

Employment

	1997	1998	1999	2000	2001	2002
17.1 Preparation and spinning of textile fibres	1634	1766	1725	1828	-	-
17.2 Textile weaving	2000	2046	1765	1768	-	-
17.3 Finishing of textiles	-	-	-	-	-	-
17.4 Manuf. of made-up textile articles, excl. apparel	1924	2084	2089	2803	2134	2572
17.5 Manuf. of other textiles	1086	930	915	936	912	668
17.6 Manuf. of knitted and crocheted fabrics	-	-	-	-	-	-
17.7 Manuf. of knitted and crocheted articles	1023	1122	1005	898	1019	962
17 Manufacture of textiles	**7667**	**7948**	**7499**	**8868**	**10718**	**10946**
D Total manufacturing	125839	119443	114892	119373	122725	127114

ER	Exchange rate EEK/EURO (ECU)	15.670	15.783	15.647	15.647	15.647	15.647

Note: A dash (-) indicates that data cannot be published because of data protection (less than three enterprises in the group).

Source: Statistical Office of Estonia.

Table EE2

Size structure of the Estonian textile industry

	Small (0-20 employees)	Medium (20-250 employees)	Large (> 250 employees)
Production	3.9%	27.0%	69.0%
Value added	4.1%	25.0%	70.9%
Number of employees	7.0%	26.4%	66.7%

Source: Statistical Office of Estonia, quoted from Textile Report Estonia

Table EE3

The five most important companies (including foreign-invested) in the Estonian textile industry, 2003 (2002)

Name of the enterprise	Sales 2003 (in millions of national currency)	Sales (in €million)*	Number of staff	Location	Share of Exports (%)	Owner	Main activities (products)
Krenholm Group Ltd.	1116		4440	Narva	86	.	Cotton and mixed yarn, grey fabric, bleached, dyed, printed fabrics, etc.
Pärnu Linavabrik	516.3*		500-1000	Pärnu	…	.	Flax mill
Wendre Ltd	381.4		462	Vändra	90	.	Quilts, pillows, mattresses, non-wovens, etc.
Baltex 2000 Ltd.	305.0		700	Tallinn	94	.	Cotton yarn, grey cotton and linen fabrics
Toom Tekstiil	262.0*		…	Viljandi	…	.	Quilts, pillows, mattresses, bed linen, bedcovers, non-wovens

Note: Alignment of enterprises by sales amount is true for first five enterprises, the information for ranking other firms is not available; €1 = 15.6466 EEK; … indicates that data is not available; * 2002.

Sources: Information Guide of the Estonian Clothing and Textile Association, 2004; TOP 100 Estonia's Leading Enterprises, Äripäev, November, 2003.

Table EE4

Investment in the Estonian textile industry 1995-2003, million EEK

	1996	1997	1998	1999	2000	2001	2002	2003
Textile	55.5	197.4	286.3	266.4	221.0	374.2	381.5	162.9

Sources: Estonian Clothing and Textile Industry in 2003, Estonian Clothing and Textile Association, May 2004.

Table EE5

Estonia – Clothing sector (18)

Gross output, in current prices, (€ millions)

		1997	1998	1999	2000	2001	2002
18.1	Manufacture of leather clothes	-	-	-	-	-	-
18.2	Manufacture of other wearing apparel and accessories	88.0	97.7	105.6	136.1	154.0	158.1
18.3	Dressing and dyeing of fur, manufacture of articles of fur	-	-	-	-	-	-
18	**Wearing apparel; dressing and dyeing of fur**	**88.0**	**97.7**	**105.6**	**141.3**	**156.4**	**161.2**
D	Total manufacturing	2167.7	2385.1	2252.2	3097.8	3570.0	3922.4

Value added (€ millions)

		1997	1998	1999	2000	2001	2002
18.1	Manufacture of leather clothes	.	.	.	-	-	-
18.2	Manufacture of other wearing apparel and accessories	.	.	.	59.6	65.2	69.4
18.3	Dressing and dyeing of fur, manufacture of articles of fur	.	.	.	-	-	-
18	**Wearing apparel; dressing and dyeing of fur**	**36.6**	**44.6**	**49.2**	**60.7**	**66.3**	**70.6**
D	Total manufacturing	622.3	653.8	618.4	853.9	985.7	1136.3

Employment

		1997	1998	1999	2000	2001	2002
18.1	Manufacture of leather clothes	-	-	-	-	-	-
18.2	Manufacture of other wearing apparel and accessories	13784	12837	13564	13399	13323	13785
18.3	Dressing and dyeing of fur, manufacture of articles of fur	-	-	-	-	-	-
18	**Wearing apparel; dressing and dyeing of fur**	**13784**	**12837**	**13564**	**13663**	**13580**	**13995**
D	Total manufacturing	125839	119443	114892	119373	122725	127114
ER	Exchange rate EEK/EURO (ECU)	15.670	15.783	15.647	15.647	15.647	15.647

Note: A dash (-) indicates that data cannot be published because of data protection (less than three enterprises in the group).

Source: Statistical Office of Estonia.

Table EE6

Size structure in the Estonian clothing industry

	Small (0-20 employees)	Medium (20-250 employees)	Large (> 250 employees)
Production	16.6%	39.5%	43.9%
Value added	12.3%	45.8%	41.9%
Number of employees	.	.	33.3%

Source: Statistical Office of Estonia, quoted from Clothing Report Estonia.

Table EE7

The five most important companies (including foreign-invested) in the Estonian clothing industry 2003 (2002)

Name of the enterprise	Sales (in millions of national currency)	Sales (in €million)*	Number of employees	Location	Share of Exports (%)	Owner-ship	Main activities (products)
Baltica Ltd	497	31.8	735	Tallinn	75	.	Men's and women's coordinates
Marat Ltd	…	…	1016	Tallinn	90	.	Underwear and leisure wear of knitted fabrics
Sangar Ltd	181.2	11.6	701	Tartu	78	.	Men's shirts, women's blouses, leisure wear
Klementi Ltd	133.6	8.5	487	Tallinn	61	.	Women's coats, jackets, trousers, skirts, blouses and dresses
Ilves-Extra Ltd	117.5	7.5	445	Tartu	85	.	Sports- and leisure wear; Gore-tex garments, headgear

Note: Alignment of enterprises by sales amount is true for first five enterprises, the information for ranking other firms is not available; 1EURO=15.6466 EEK; … indicates that data is not available.

Source: Information Guide of the Estonian Clothing and Textile Association, 2004; TOP 100 Estonia's Leading Enterprises, Äripäev, November, 2003; quoted from Clothing Report Estonia.

Table EE8

Investments in the Estonian clothing sector 1995-2003, million EEK

	1996	1997	1998	1999	2000	2001	2002	2003
Clothing	64.6	91.5	126.4	80.7	121.2	125.9	118.1	149.2

Source: Estonian Clothing and Textile Industry in 2003, Estonian Clothing and Textile Association, May 2004.

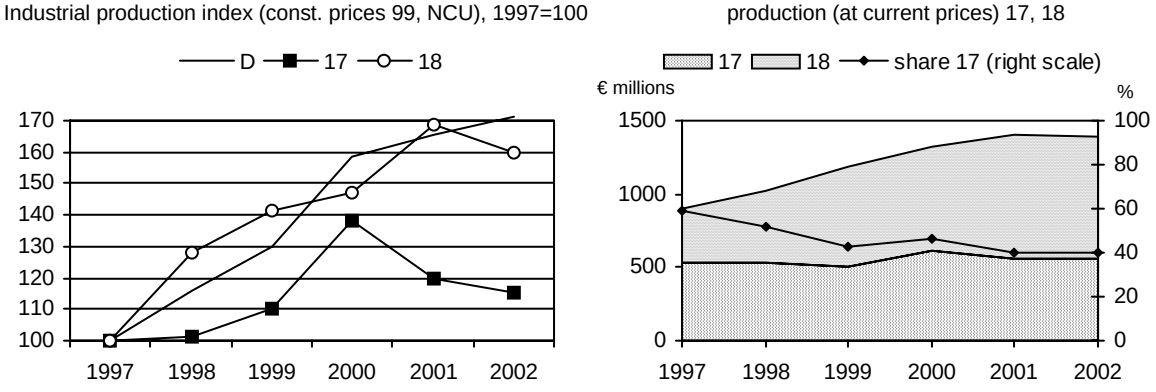
4.2 Hungary

Overview

The Hungarian T/C industry plays a relatively small role in the domestic economy and is considered a declining industry. Its share in total manufacturing production reached 3% in 2002 only, but employment is still important with a share of 12%. In absolute size, measured as production converted at current exchange rates, the Hungarian T/C industry ranks third among all NMS (see Table 1 in section 2). After expanding very rapidly at the beginning of the period 1997-2002, the Hungarian T/C industry has shown a dramatic slowdown since 2001. The slowdown is mainly attributable to internal, sector-specific factors that have reduced competitiveness, such as increased wage and social contribution costs resulting from the statutory increase of minimum wages and a reduction in export incomes owing to appreciation of the national currency (HUF). Many companies did not manage to offset the deterioration of their competitiveness and are either scaling down or going out of business: among the companies in foreign ownership, many have stopped production and relocated to other countries. Within the T/C industry, *clothing* is relatively more important than *textiles*, reaching a share of 60% of total T/C production in 2002, which is much higher than in the EU-15, but also higher than in the NMS on average – and with the clothing sector expanding faster than textiles, its share has significantly increased since 1997 (see Figure 11).

Figure 11

Hungary: Textiles and textile products



Source: WIIW Industrial Database.

Source: Supporting Tables HU1 and HU4.

The Hungarian textile industry

There were about 2800 enterprises in the Hungarian textile industry producing textiles worth €557 million in 2002 and employing 28,500 persons. Over the whole period 1997-2002, the textile industry grew only slightly and significantly less than total manufacturing. More than 10,000 jobs were lost during that period.

Industry structure: There are a large number of very small enterprises in the Hungarian textile industry. However, 50% production and employment comes from large enterprises (more than 250 employees – see Supporting Table HU2). Private ownership prevails in the sector (96.4%); the share of foreign capital is very high, reaching 58.7% of the subscribed capital in 2002. The major companies are listed in Supporting Table HU3. The most important sub-sector in terms of the NACE rev. 1 classification is 'manufacture of made-up textile articles, exc. apparel' (17.4), reaching 30% of total textile production, followed by 'preparation and spinning of textile fibres' (17.1) and 'manufacture of other textiles' (17.5) (see Supporting Table HU1). There is no significant regional concentration, but there are certain regions where the concentration of businesses involved in the textile industry is higher than the national average or where more employees are employed within the textile industry than elsewhere, such as: Budapest és Pest county (Central Hungary), Győr-Moson-Sopron, Vas and Zala counties (Western Transdanubia and Győr) and Csongrád és Békés counties (Southern Great Plain) – the latter of which are among the least-developed regions of Hungary. Based on experience, although a region may be more industrialised, textile industry workers invariably face difficulties in finding a new job (owing to lack of special qualifications, age factors or lack of other knowledge).

Modernisation/technology: The sector's overall technological level is probably average, but some foreign-invested companies have the most modern equipment. Restructuring and modernisation of the sector is considered to be average to advanced, however, the industry is still making little use of information technology. The average age of machinery and equipment is estimated to be eight to ten years. There is no significant production of 'technical textiles', i.e. special-purpose textiles such as fireproof fabrics, textiles for medical use, vehicles or packaging.[34] Roughly 30% of companies may have some of ISO certification.

Investment/production capacities: Investment activity to adjust to modern requirements of machinery and equipment over the last five years was considered moderately sufficient. Yet

[34] It should be mentioned that Eybl Hungaria Kft., which manufactures interiors and seat covers for passenger cars and currently employs 350 persons, announced early June this year a large-scale development plan extending until 2008 covering the extension of its operating premises and the scope of its activities. With a €9 million investment they plan to create 600 new jobs (operating premises: Vas and Zala counties – Nagykanizsa, Lenti, Körmend).

investment volumes, as from 1997, fell behind the previous year's level in each consecutive year. Figures for 2002 show that the cumulated investment value of the textile and clothing industry amounted to 22% of registered capital (of which the proportion of machines and equipment was 9%, meaning that primarily construction investments were made); this figure only slightly exceeds depreciation (19.5%). According to some experts' estimates, investment in the textile industry came up to two-thirds and in the clothing industry to one-third of the total T/C sector. Foreign direct investment plays a key role in modernisation. Capacity utilisation is estimated at 60%. It is expected that capacity will continue to regress.

Inputs and factors of production: The raw material used for production is imported. Hungarian production relies on cheap labour; however, this competitive advantage has significantly eroded due to the increase in wages over the course of the past two years. Currently, the industry is facing a shortage of specialists. There are only 10 to 20 textile-industry university students graduating as qualified industry experts each year. As a declining sector, the textile industry is not popular among young university graduates. The starting salary is way below average (70% of the industry average). In many cases, the sector needs to lure young graduates from other countries. There is also a shortage of low-skilled workers. There is no longer a need for medium-level textile industry vocational training or qualifications. Vocational schools specialising in the textile industry are gradually phasing out and the textile technology faculty at the Technical University has also been discontinued. In the opinion of experts, vocational and specialised training has to be renewed, as this is the only way to stop the decline of the professional culture. No considerable change is expected to take place after Hungary's accession to the EU.

Research & development: Research has diminished at the company level, and if still present, is rather isolated, such as that undertaken by the individual companies that also produce their own products (e.g. illuminated border stripe). Collaboration between companies is not typical and industry-university links are limited.

Customer relations: There is no significant user-producer interaction that leads to innovation in the industry.

Support programmes: The sector has not received any special state support in the course of the past 20 years. The sector may only benefit from general and publicly available tenders (e.g. investment incentives, research & development, regional development plans and special support for small- and medium-sized enterprises). At the same time, the tendering possibilities of businesses active in the textile industry are largely limited by strict tender conditions (e.g. the minimum support amount tends to be too high; companies face difficulties in coming up with the contribution required from them for the tender; the devaluation of the HUF has resulted in loss-

making operations, which in turn forces companies out of the circle of potential bidders; further, companies cannot commit to subsequent financing). Our experience shows that the current tendering system (conforming to EU standards) primarily favours viable companies that could develop and invest even without any support or assistance. Support is expected to increase after accession, with respect to tenders invited under the National Development Plan that enable the use of support made available by EU structural funds. Supportive industrial policy would be welcome.

Social and environmental issues: Owing to the shortage of capital and low wages, problems may arise with the environmental regulations and employment legislation of the *Acquis Communautaire*. The share of female employment is especially high (90%). The share of part-time employment is 13% (sometimes companies favour part-time employment to avoid charges associated with full-time employment). There is a problem with undeclared work, but there is no quantitative information. There is the freedom to participate in workers associations and collective bargaining. There are employment safeguard plans to some extent. Vocational training is provided by the Hungarian Society of Textile Technology and Science (TMTE). According to the parties concerned, labour unions and interest groups are left alone in solving the problems. Sectoral and employee lobbies are much weaker than elsewhere in the EU. In other EU member states, the crisis experienced by the sector was probably much lighter thanks to the strength of such advocacy activities. Trade and advocacy organisations of the sectors made attempts to improve the situation – using as their main argument the fact that these sectors still represent an important proportion of overall employment – but usually to no avail. In 2002, following the strong pressure by employee and employer advocacy organisations, the minister of employment and labour established an inter-ministerial committee to find a comprehensive and complex solution, in collaboration with textile and clothing industry trade organisations, on how to overcome the crisis affecting the textile, the clothing and the shoe manufacturing industries. The minister has appointed the Ministry of Economics and Transport to manage the committee; representatives of both the Finance Ministry and the Employment and Labour Ministry have participated in the committee's work. The Ministry of Economics and Transport completed its proposal in 2003, but the proposal has not been submitted to the Parliament; it was returned for revision and has since been taken off the agenda completely.

The Hungarian textile industry within an enlarged EU as seen by local industry experts: The industry is not considered competitive on the world market. The main competitors mentioned were: Romania, Bulgaria, the Ukraine and Turkey. There are some strengths, such as the culture of the profession, but the industry is lagging behind in product structure and innovation

and there is a gradual decline of the quality of vocational training. With EU membership, Hungary's largest export market will be easier to access, but competition will grow and new competitive members will also join it. Cheap, under-invoiced imports from the Far East are a huge problem for the sector. As from 1 May 2004, in line with EU regulations, import conditions have become stricter compared with the former Hungarian practice, which affected the industry favourably. With the phasing out of the textile and clothing agreement (ATC) at the end of 2004, additional and profound negative impacts are foreseeable. A change in product structure, the speeding up of innovation, the renewal of technology and vocational training, and dynamic internal changes would be needed for development. It is notable that businesses do not even participate in trend presentations that could be attended free of charge. The low level of willingness to cooperate between companies further hinders progress so they cannot take advantage of the opportunities that could result from joint activities.

The Hungarian clothing industry

In 2002, there were more than 6000 enterprises active in the Hungarian clothing industry, producing apparel worth €841 million and employing around 60,000 persons. During the period 1997-2002, the clothing industry developed very well up to the year 2001. Its success was founded on wage-work to a large extent, based on the fact that wage-work contracts were already established with Western European producers in the 1970s and 1980s. Beginning with 2001, the international competitiveness of the sector deteriorated significantly due to high wage increases as well as currency appreciation, and as a consequence production and employment declined in absolute terms (see Figure 11 and Supporting Table HU4). In Hungary, the textile and clothing industries are generally treated together, i.e. often joint analyses are prepared for the two sectors and frequently the statistical data provided for the sector are indicated jointly – therefore, it was often not possible to find sector-specific information on the topics discussed below. To avoid duplication, we will refer to the section on the textile industry instead.

Industry structure: The Hungarian clothing industry is characterised by a large number of very small enterprises. Yet nearly half of production and employment comes from large enterprises (more than 250 employees – see Supporting Table HU5). Privatisation is nearly completed (99%). The share of foreign capital, as in most sectors in Hungary, is very high, reaching 53.2% of the subscribed capital in 2002. The major companies are listed in Supporting Table HU6. As usual, the largest sub-sector in terms of the NACE rev. 1 classification is the 'manufacture of (other) wearing apparel and accessories' (18.2), which is responsible for 98% of production. There is no significant regional concentration, but there are certain regions where the

concentration of businesses involved in the textile industry is higher than the national average or where more employees are employed within the textile industry than elsewhere, such as: Budapest és Pest county (Central Hungary), Hajdú-Bihar, Szabolcs-Szatmár-Bereg counties (Northern Great Plain, Debrecen and Nyíregyháza), Vas and Zala counties (Western Transdanubia, Szombathely and Szentgotthárd) and Békés counties (Southern Great Plain, Békéscsaba and Szeghalom). The latter are among the least-developed regions. However, based on experience, although a region may be more industrialised, textile industry workers invariably face difficulties in finding a new job (owing to lack of special qualifications, age factors or lack of other knowledge).

Modernisation/technology: The Hungarian clothing industry focuses on wage-work requiring highly specialised activities. This means that Hungarian companies check the pattern and the model and do the serial production; in many cases they also take care of the selection of the necessary fittings (e.g. selection of glue or shoulder pad). In order to maintain their competitiveness, some large wage-work companies have already started to relocate the production of large series (over 500 pieces) to Romania where production costs are 30% lower. Giving a rough estimate, 10% of the activities in the Hungarian clothing industry may be classified as ‘assembly’, 70% as original equipment manufacturing (OEM) and 20% as original design manufacturing (ODM). Original brand manufacturing (OBM) is virtually non-existent. There has been no significant advancement in the value-added chain over the last five years, only a few companies use CAD/CIM systems, the use of electronic data interchange between suppliers and retailers is rather limited and roughly 25 to 30% of the businesses operating in the sector have some kind of ISO certification.

Investment/production capacities: For investment, see the discussion on the textile industry. According to some expert’s estimates, investment in the clothing industry represents only one-third of the total investment made in the two industries together. Foreign investment plays a key role in modernisation, especially with regard to work organisation and more modern technologies and machinery – mainly in sub-industries 18.22 and 18.23. The loan of technical equipment also plays a substantial and increasing role. This is especially important for Hungarian sub-contractors in the high-quality field. Capacity utilisation is estimated at 60 to 70%. It is expected that capacity will continue to regress.

Inputs and factors of production: Fabrics used for production are imported, while part of the trimmings and accessories can be purchased domestically. Hungarian clothing production relies on cheap labour; however, this competitive advantage has significantly eroded due to the increase in wages over the course of the past two years. In Hungary, the clothing industry’s

professional culture is traditionally of a high level, but the succession to the skilled workforce is problematic. Because of the lack of interest, vocational training for the industry has practically ceased, especially at the basic and intermediary levels.

Research & development: There is training in fashion design at the University of Industrial Arts, which is very popular. Graduate fashion designers (five to ten each year) try to build a career on their own and they usually do not join a clothing industry company. This also reflects the mentality of both the companies and the fashion designers. In 2003, the Hungarian Fashion Institute was fully and completely wound up. Companies, regardless of their size, are not very interested in obtaining up-to-date information on the profession. They are keener to obtain up-to-date technical information; however, fashion industry-related information is not sought after.

Customer relations: Mounting pressure from the retail sector in terms of timeliness and delivery can be observed over the last five years, which calls for organisational development and a more intense use of IT equipment along with more efficient logistics. There are already many foreign retailers in Hungary. There are only a few domestic own-brand retail chains for men's apparel (Griff Gentleman and Roland), women's apparel (Miju), baby clothes (Kenguru Gold) and sportswear (Budmill). No changes are expected with accession. Requirements are the same from local and foreign retailers.

Support programmes: See the previous discussion on the Hungarian textile industry.

Social and environmental issues: These are very similar to those in the Hungarian textile industry, in the previous section.

The Hungarian clothing industry within an enlarged EU as seen by local industry experts: The situation of the Hungarian clothing industry is seen to be very similar to that of the textile industry, as discussed in the previous section.

Supporting Tables Hungary

Table HU1

Hungary – Textile sector (17)

Gross output, in current prices (€ millions) 1)

		1997	1998	1999	2000	2001	2002
17.1	Preparation and spinning of textile fibres	234.9	215.3	95.3	105.3	108.0	114.5
17.2	Textile weaving	220.3	237.5	94.7	88.5	72.4	83.0
17.3	Finishing of textiles	74.1	75.3	30.3	26.0	26.5	25.0
17.4	Manuf. of made-up textile articles, excl. apparel	.	.	128.1	224.3	185.7	172.4
17.5	Manuf. of other textiles	.	.	102.1	119.8	120.6	107.1
17.6	Manuf. of knitted and crocheted fabrics	.	.	18.0	22.7	21.2	14.0
17.7	Manuf. of knitted and crocheted articles	.	.	34.9	30.9	25.7	40.5
17	**Manufacture of textiles**	**529.4**	**528.1**	**503.4**	**617.6**	**559.9**	**556.6**
D	Total manufacturing	24640.2	27453.1	32727.7	40474.8	44134.8	47093.8

Gross value added (€ millions) 2)

		1997	1998	1999	2000	2001	2002
17.1	Preparation and spinning of textile fibres	.	.	.	.	.	.
17.2	Textile weaving	.	.	.	.	.	.
17.3	Finishing of textiles	.	.	.	.	.	.
17.4	Manuf. of made-up textile articles, excl. apparel	.	.	.	.	.	.
17.5	Manuf. of other textiles	.	.	.	.	.	.
17.6	Manuf. of knitted and crocheted fabrics	.	.	.	.	.	.
17.7	Manuf. of knitted and crocheted articles	.	.	.	.	.	.
17	**Manufacture of textiles**	**246.0**	**235.6**	**230.0**	**235.1**	**257.0**	**.**
D	Total manufacturing	35822.2	36822.4	41385.3	44157.3	50999.8	.

Employment 3)

		1997	1998	1999	2000	2001	2002
17.1	Preparation and spinning of textile fibres	15040	6566	3833	4017	4234	4076
17.2	Textile weaving	15259	5467	6565	5611	4333	4192
17.3	Finishing of textiles	8521	2482	839	873	900	716
17.4	Manuf. of made-up textile articles, excl. apparel		13322	11998	12484	11272	8973
17.5	Manuf. of other textiles		4271	5808	5460	5334	5348
17.6	Manuf. of knitted and crocheted fabrics		522	1325	1282	1282	958
17.7	Manuf. of knitted and crocheted articles		3813	3955	3607	3174	4249
17	**Manufacture of textiles**	**38820**	**36443**	**34323**	**33334**	**30529**	**28512**
D	Total manufacturing	636883	733852	742899	752934	752644	746963
ER	Exchange rate HUF/EURO (ECU)	210.93	240.98	240.98	260.04	256.68	242.97

Sources: 1) Yearbook of Industrial and Construction Statistics 1997-2002/Tab 2.13., Tab 2.15;

2) Statistical Yearbook of Hungary 2002/Tab 19.22;

3) Yearbook of Industrial and Construction Statistics 1997-2002/Tab 2.26.

Table HU2

Size structure in the Hungarian textile industry, 2002

	Small (0-20 employees)*	Medium (20-250 employees)*	Large (> 250 employees)*
Number of enterprises	93.4%	5.8%	0.8%
Production	4.5%	45.5%	50.0%
Number of employees	7.0%	43.5%	49.5%

Source: Textile Report Hungary.

Table HU3

The 16 most important companies (including foreign-invested) in the Hungarian textile industry, 2002

Name of the enterprise	Sales (in millions of national currency)	Sales (in €million)*	Number of employees	Location	Share of Exports (%)	Ownership (state, foreign, private)	Main activities	Main products
Coats Magyarország Kft.	7500	30.9	1100	Nagyatád	90	English	1716	Sewing thread and yarn
Pannon-Flax Rt.	4200	17.3	616	Győr	70	Hungarian	1725	Linen-type weaving
Eybl Pannonia Kft.	4000	16.5	1345	Jánosháza, Nagykanizsa, Lenti	100	Austrian	174	Technical textile, products for automobile industry
Gardénia Rt.	3000	12.3	110	Győr	65	Hungarian	1711, 174	Cotton-type fibres, curtain
Maya Rt.	2798	11.5	168	Budapest	100	German	1721	Cotton-type weaving
Hungaro-Len Rt.	2500	10.3	305	Komárom	50	Hungarian	1716	Sewing linen thread and yarn
Leonell Kft.	2400	9.9	450	Győr	50	Hungarian	1721	Cotton-type weaving
Albertfalvai Cérnázó Kft.	2300	9.5	100	Budapest	60	Hungarian	1716, 172	Sewing thread and yarn, cotton-type weaving
Eurotex Kft.	2161	8.9	720	Komádi	100	English	174, 177	Knitted products
Kaposfil Kft.	2066	8.5	474	Kaposvár	90	English	1711	Cotton-type fibres
Colortex Kft.	2000	8.1	200	Budapest	55	Hungarian	1721, 174	Cotton-type weaving, towel, bed linen
Vossen Hungaria Kft.	1550	6.4	210	Szentgotthárd	90	Austrian	1721, 174	Cotton-type weaving, towel
Lurotex Kft.	1500	6.4	250	Szentgotthárd	100	Italian	1721	Cotton-type weaving
Heavytex Szövő Rt.	1322	5.4	146	Szeged	60	Hungarian	1721, 174	Cotton-type weaving, technical textile
Csárda-Tex Kft.	1000	4.1	75	Csárdaszállás	65	Hungarian	171	Cotton-type fibres
EUROHOD Kft.	1000	4.1	100	Hódmezővásárhely	70	Hungarian	1772	Knitted products

Notes: *Annual average rates, 2002=243 Ft/EURO.

Source: Textile Report Hungary.

Table HU4

Hungary – Clothing sector (18)

Gross output, in current prices (€ millions) 1)

		1997	1998	1999	2000	2001	2002
18.1	Manufacture of leather clothes	17.2	10.8	9.6	10.3	15.2	13.3
18.2	Manufacture of other wearing apparel and accessories	347.7	474.1	671.5	695.4	833.3	824.9
18.3	Dressing and dyeing of fur, manufacture of articles of fur	4.7	4.2	2.7	0.9	1.1	2.6
18	**Wearing apparel; dressing and dyeing of fur**	**369.6**	**489.1**	**683.8**	**706.6**	**849.5**	**840.7**
D	Total manufacturing	24640.2	27453.1	32727.7	40474.8	44134.8	47093.8

Gross value added (€ millions) 2)

		1997	1998	1999	2000	2001	2002
18.1	Manufacture of leather clothes	.	.	.	.	.	.
18.2	Manufacture of other wearing apparel and accessories	.	.	.	.	.	.
18.3	Dressing and dyeing of fur, manufacture of articles of fur	.	.	.	.	.	.
18	**Wearing apparel; dressing and dyeing of fur**	**297.4**	**333.1**	**376.1**	**353.0**	**405.3**	**.**
D	Total manufacturing	35822.2	36822.4	41385.3	44157.3	50999.8	.

Employment 3)

		1997	1998	1999	2000	2001	2002
18.1	Manufacture of leather clothes	2175	1150	1302	1219	1334	1378
18.2	Manufacture of other wearing apparel and accessories	52045	71966	71407	66855	64909	58833
18.3	Dressing and dyeing of fur, manufacture of articles of fur	515	492	335	196	142	136
18	**Wearing apparel; dressing and dyeing of fur**	**54735**	**73608**	**73044**	**68270**	**66385**	**60347**
D	Total manufacturing	636883	733852	742899	752934	752644	746963
ER	Exchange rate HUF/EURO (ECU).	210.93	240.98	240.98	260.04	256.68	242.97

Sources: 1) Yearbook of Industrial and Construction Statistics 1997-2002/Tab 2.13., Tab 2.15;

2) Statistical Yearbook of Hungary 2002/Tab 19.22;

3) Yearbook of Industrial and Construction Statistics 1997-2002/Tab 2.26.

Table HU5

Size structure of the Hungarian clothing industry 2002

	Small (0-20 employees)*	Medium (20-250 employees)*	Large (> 250 employees)*
Number of enterprises	93.0%	6.3%	0.7%
Production	3.0%	47.5%	49.5%
Number of employees	7.3%	45.4%	47.3%

Source: Textile Report Hungary.

Table HU6

The 12 most important companies (including foreign-invested) in the Hungarian clothing industry 2002

Name of the enterprise	Sales (in millions of national currency)	Sales (in €million)*	Number of employees	Location	Share of Exports (%)	Ownership (state, foreign, private)	Main activities	Main products
Levi Strauss Magyarország Kft.	10,150	41.7	580	Kiskunhalas	80	American	1822	Women's and men's outerwear
Felina Hungaria Kft.	4,547	18.7	528	Szeghalom	80	Swiss	1823	Women's underwear
Styl Ruhágyár Rt.	4,275	17.6	1650	Szombathely	90	German	1822	Women's and men's outerwear
BERWIN Rt.	3,500	14.4	1650	Nyíregyháza, Vásárosnamény, Várpalota	80	English	1822	Men's outerwear
BUDMIL Rt.	2,453	10.1	104	Budapest	50	Hungarian	1824	Sportswear
Herukon Rt.	1,580	6.5	770	Sátoraljaújhely	90	Hungarian	1822	Women's outerwear
UNICON Rt.	1,540	6.4	920	Békéscsaba, Orosháza, Bácsalmás	80	Hungarian	1822	Women's outerwear
Sariana Rt.	1,043	4.3	99	Szentgotthárd	90	Swiss	1823	Women's outerwear
Kenguru Gold Kft.	1,000	4.1	300	Budapest	40	Hungarian	1824	Baby cloths
Elegant Design Modell Rt.	900	3.7	100	Budapest	100	French	1822	Women's outerwear
Jeanette Ruházati Rt.	813	3.3	1956	Budapest, Tiszafüred, Ózd	80	Hungarian	1822	Women's and men's outerwear
BERIV Ruhaipari Rt.	800	3.3	271	Berettyóújfalu	85	Hungarian	1822	Women's outerwear

Notes: *Annual average rates, 2002=243 Ft/EURO.

Source: Clothing Report Hungary.

4.3 Latvia

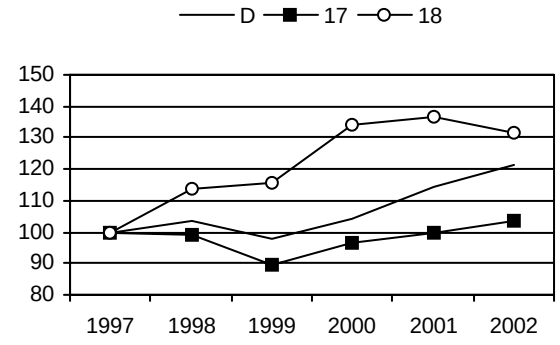
Overview

Specialisation in textiles and clothing in Latvia is less pronounced than in the two other Baltic countries, but the shares of the T/C industry in total manufacturing and employment reached 7% and 16% respectively in 2002, which was significantly higher than in the NMS on average. In absolute size, measured as production converted at current exchange rates, the Latvian T/C ranks 8th among the NMS, as only Malta and Cyprus have an even smaller T/C industry (see Table 1 in section 2). Over the period 1997-2002, T/C production in Latvia grew rather slowly (2.4% p.a.) and less dynamically than manufacturing on average, indicating declining specialisation in this field (see Table 2 in section 2 and Figure 12). Within the T/C industry, the textile industry has a higher share of production than the clothing industry, but with the clothing industry developing more dynamically than textiles the gap has declined throughout the period 1997-2002 (Figure 12). Also, owing to the typically more labour-intensive character of the clothing industry, its share of employment is much higher than in production and also higher than that of the textile industry in 2002.

Figure 12

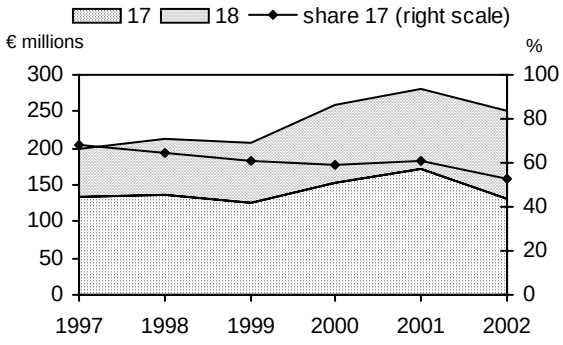
Latvia: Textiles and textile products

Industrial production index (const. prices 99, NCU), 1997=100



Source: WIIW Industrial Database.

production (at current prices) 17, 18



Source: Supporting Tables LV1 and LV4.

The Latvian textile industry

There were 165 enterprises in the Latvian textile industry producing textiles worth roughly €130 million and employing about 10,000 persons in 2002. Over the period 1997-2002, textile production stagnated in real terms: although the sector showed a decline in the beginning, a

certain recovery has become apparent during the last couple of years. However, employment in the textile industry fell by 30% (3,800 persons – see Supporting Table LV1).

Industry structure: Most of the Latvian textile companies are SMEs, out of which very small enterprises (fewer than nine employees) have a share of 32%. Only 9% are counted as large enterprises (see Supporting Table LV2). The sector is fully privatised. About 50% of firms are owned by foreign investors. The major textile companies are listed in Supporting Table LV3. Regional concentration of the industry has been gradually moving out of Riga. According to the Association of Textile and Clothing Industries in 2002, 49.9% of the textile industry (by production output) was located in Riga. By number of enterprises Riga has a leading position, although some concentration of the textile industry is in Jelgava and Liepāja. We cannot discuss the relevant concentration of the textile industry in the rest of Latvia, as it is consists of individual enterprises (although some are large, for example in Valmiera). People who lose their job in the textile industry may turn to the state social guarantee system and particularly to the state employment service, which is responsible for unemployment. There is no particular employment programme for the textile industry. With the introduction of EU structural funds, the retraining system for the unemployed will be changed and it may even be an opportunity to initiate a support programme for those who lost jobs in the textile industry.

Modernisation/technology: It is estimated that 85% of equipment has been modernised in the textile industry over the last decade. Practically all enterprises use information technology and the largest companies are very competitive in the use of IT. The industry produces several special-purpose fabrics (see Supporting Table LV3). For instance Valmieras Stika šķiedra produces E-type glass fibre fabrics for thermal- and electro-insulation, specific high temperature-resistant silica glass fibre fabrics and non-wovens such as needled and stitch-bonded mats. Latvian textile firms are becoming increasingly better at signalling the true value of their output to their customers by obtaining internationally recognised quality certificates. Some 10% have ISO certification and more than 50% have O(e)k0-Tex 100 certification. So far, CE-certification has not been possible to obtain in Latvia.

Investment/production capacities: According to the Latvian Association of Textile Industry, during the last five years the domestic and foreign-owned textile and clothing producers of Latvia together have invested more than 30 million lats in new equipment. However, investments in the textile industry are insufficient. In 2002 and 2003 there was no new FDI. The approximate evaluation of the investment deficit in the textile industry is around €100 million. Unfortunately there is no hope for new investments. FDI would be particularly welcome in the flax industry.

Generally, the industry is well-balanced in terms of production capacity and sales. The future forecasts about production capacity are ambiguous. Most probably capacity will be reduced.

Inputs and factors of production: There are no special advantages in terms of raw material supply, but there is a good infrastructure including transport as well as a cost-efficient and skilled labour force. Latvia practically does not have or produce its own raw materials for the textile industry. Raw material is imported from EU countries as well as Uzbekistan, Australia, Russia and Ukraine. There is local raw material for instant flax fibres in small quantities. As the local raw material is of rather high quality, producers prefer to sell it as raw material to EU countries for a higher price. Yet locally made raw materials are used in the local textile handcraft sector. Over the course of time, inputs have been developed and balanced so that the industry is competitive. After accession, the raw material supply will remain the same, as well as the infrastructure. It is expected that labour costs will increase as well as some utility costs such as energy and water.

Research & development: There is little specific research activity in the textile industry and the industry-university research link in the textile industry is very limited in terms of technology R&D. Also, there is poor cooperation between textile firms and firms in other industries for research and development. Some cooperation does exist between metalworking firms and wood processing firms.

Customer relations: Only about 8% of the industry's output remains in the local market. The rest is exported. There is not a significant local user-producer interaction that could lead to innovation of the industry.

Support programmes: There are no special government support programmes relevant for the textile industry in particular. After accession, EU structural funds will be available for SMEs respectively for infrastructure development, human resource development, innovation, etc. Recently a discussion has started at association and ministerial levels to prepare a comprehensive plan to revitalise the flax industry as it has been a traditional branch in south-eastern Latvia.

Social and environmental issues: No problems with the *Acquis Communautaire* are expected as companies comply with the *Acquis* already. The share of female employment is approximately 90%. There is no problem with undeclared work. In all larger enterprises, employees sign a collective work agreement with a trade union. The trade union is rather powerful in such firms. As usual, trade unions exist in locally owned enterprises, but not in foreign-invested ones. Vocational training in companies is available. Usually training is provided by vocational training centres, but may also be organised as separate courses in professional schools. Latvia has a

well-developed designer training system. The Latvian Academy of Arts is multi-functional and offers high quality classical education. The designers can learn textile printing, weaving and other printing methods. There are programmes to support employability, employment safeguard plans and retraining programmes at a certain (average) level for the industry but those programmes may be reduced in the future.

The Latvian textile industry within an enlarged EU as seen by local industry experts: The Latvian textile sector, which is already strongly export-oriented, still has considerable potential for expansion in both Western and Eastern markets. More than 90% of all output is exported and about 83% of all exports go to countries of the European Union and as a result most of the companies conform to the high quality requirements set by customers in the EU. For some companies (e.g. Lauma), the market in the Commonwealth of Independent States (CIS) still plays an important role. From an overall point of view, the sector is seen to have good development potential for the next eight to ten years. Among the particular strengths of the sector mentioned are the following: short lead times and reliable deliveries, proven ability to produce goods with high added value, a skilled, flexible and cost-efficient workforce, well-educated and experienced engineers, developed design capabilities, a strong and motivated top management, brand names that are recognised in the Baltic states and the CIS, substantial experience of working with the CIS countries, quality certificates and modern production equipment. There are, however, some weaknesses as well, such as the low level of brand recognition in the EU, the limited use of opportunities offered by the Internet, some old and inadequate production premises, the absence of a diversified customer base and insufficient working capital. Notably, a clear development concept of the textile industry in Latvia has been worked out, which includes the following main priorities:

1. Increasing the production of fine cotton yarn with Nm 120 – 200 and light cotton fabrics;
2. Production of fire-resistant fabrics from wool and blended wool to be used by the furniture industry, hotels and producers of personal protective equipment;
3. Development of yarn production from wool and blended wool to be used in knitwear production; introduction of the newest finishing techniques in knitwear production;
4. Development of the flax sector by increasing production of flax fabrics and other articles (ropes, strings, etc.) for technical purposes; and
5. Further improvement of industrial design capabilities by establishing a design incubator with the aim of making the articles created by Latvian designers appear in the collections of the largest multinational textile companies.

As regards the future of the Latvian textile industry, the following opportunities and threats were mentioned: *Opportunities* include further penetration of the EU market, expansion into new markets and a possible return to the CIS market, penetration of the domestic market, concentration on activities with higher value added and the outsourcing of non-core activities. *Threats* include wages growing faster than productivity, rising competition from countries with lower labour costs and increasing energy tariffs.

The Latvian clothing industry

In 2002, there were 416 enterprises active in the clothing sector in Latvia, producing apparel worth around €120 million and employing about 14,000 persons. Over the period 1997-2002, clothing production grew strongly and significantly faster than manufacturing and the textile industry as well. Contrary to most other NMS, employment in the clothing industry also increased, by nearly 2,000 persons (see Supporting Table LV4). All this points to Latvia's increasing specialisation in this field.

Industry structure: Most of the Latvian clothing industries are SMEs, out of which very small enterprises (fewer than nine employees) have a share of 31%. Only 6% are large enterprises (see Supporting Table LV5). The sector is fully privatised. About 50% of firms are owned by foreign investors. The major clothing companies are listed in Supporting Table LV6. Regional concentration of the industry has been gradually moving out of Riga. According to the Association of Textile and Clothing Industries, Riga was the location of 49.9% of the textile and clothing industry in 2002. Out of the top ten clothing companies, five are located in Riga, while the rest are in different towns throughout Latvia. The industry's concentration outside of Riga has accumulated in such cities as Jelgava, Tukums, Daugavpils and Liepāja. There are no employment programmes for the clothing industry in particular. For general support schemes, see the section on the Latvian textile industry.

Modernisation/technology: Value added in the clothing industry has increased over the past five to six years, moving basically to original equipment manufacturing (OEM) and original design manufacturing (ODM) and in some cases to own-brand marketing. In 2003, the shares in terms of value added of the industry were estimated as follows: assembly (10%), OEM (45-55%), ODM (25-35%) and original brand manufacturing OBM (10%). Many clothing companies in Latvia emphasise the important role of its own art of fashion and art of design potential/capacity. It is estimated that about 50% of the clothing industry has been modernised over the past ten years. Today there are enterprises with the latest equipment and machinery and at the same time companies with outdated equipment. In some cases this refers to foreign-owned companies that

do assembly for OEM in Latvia. They use old machinery that is ten or more years old that has been transferred from enterprises that have been closed down in EU countries. The use of information technology (e.g. CAD/CIM) is probably at an average level. Nevertheless, the major clothing enterprises are all taking advantage of IT. Electronic data interchange between suppliers and retailers is still moderate. With regard to certification (ISO, CE-certification, O(e)ko-Tex Standard), many companies started with Oeko-Tex certificates (more than 50% have it) but only a few have ISO 9000 certificates (e.g. GRIF and Specapģērbs). In Latvia CE-certification is not possible to obtain.

Investment/production capacities: Investment activity over the last five years has been insufficient. During 2002 and 2003, foreign investors practically did not increase the amount of investment in the existing joint ventures and no new foreign-owned companies were founded. Meanwhile domestically owned clothing producers have made some investments in new equipment, mainly focusing on design facilities. Many clothing companies, in particular the largest ones, are located in premises built during Soviet times. Today most of these premises are more than 25 years old and require large investments in maintenance and renovation. At the moment there is not a relevant excess of capacity, but the situation is expected to change. Experts think that the industry will decrease by 30% in next five years.

*Inputs and factors of production: A*pproximately 20% of the raw material inputs for sewing companies are produced in Latvia. Especially foreign-owned sewing companies in Latvia choose raw material deliveries from Asia that are often less costly, but also of low quality. On average, local raw material prices reach 75% of those produced in the EU but are higher than those produced in Asia. The Latvian clothing industry needs a much greater variety of textile fabrics than it can produce, but those it produces are very competitive in terms of quality. Traditionally, Latvia has a well-educated and experienced labour force. The majority of engineers and technologists have undergraduate degrees from Riga Technical University or other universities in the former Soviet Union, which provided high-quality technical education. This education combined with substantial practical experience in the industry enables them to find creative solutions to most production problems and to become easily acquainted with new state-of-the-art technologies and new types of equipment. They also have strong design capabilities. Except for prices on some inputs (e.g. energy), there are no relevant changes expected after accession to EU.

Research & development: Latvia has a well-developed designer training system. The Latvian Academy of Art is multi-functional and offers high-quality classical education. The designers can learn textile printing, weaving and other printing methods and take classes in drawing, painting

and composition. Thus, similar to production workers, the designers are also mostly multi-skilled and can easily combine a variety of techniques in the clothes they design. To familiarise themselves with the newest trends in the industry, the designers of all companies regularly attend exhibitions and fashion shows in France, Italy and other countries. Companies possess strong design capabilities. Local design facilities are developed by sewing companies such as Vēlme, Rīgas drēbnieks and others. Some cooperation in R&D between clothing firms and firms in other industries such as the medical industry, sports industry, rescue and metalworking industries does exist although only to a very limited extent.

Customer relations: Some of the local companies maintain their own retail chains to reduce the bargaining power of retailers. The increasing number of foreign retail chains is considered a reason for the declining market shares of local producers in the domestic market. Yet for producers it is often easier to work with foreign retailers, because payment is usually made immediately after delivery, while domestic retailers sometimes require deferred payment (after a product is sold). During the last five years the pressure of the retail sector on producers has become stronger in terms of prices and conditions of contracts (retailers), but not with respect to delivery time. Nevertheless, the geographical proximity to main markets ensures that deliveries are made in time. Some sewing companies offer delivery lead times as short as two weeks for small orders.

Support programmes: There are no special government support programmes for the clothing industry in Latvia. After accession, EU structural funds will be available for SMEs, infrastructure development, human resource development, innovation projects, etc. Considering the expected contraction of the clothing industry in the future, an integrated action plan would be important to minimise the negative consequences for employees and the economy as a whole.

Social and environmental issues: No problems with the *Acquis Communautaire* are expected as companies comply with the *Acquis* already. The share of female employment is 92%. Undeclared work is no problem in the industry. There is freedom to participate in workers associations and collective bargaining. Vocational training is usually provided by vocational training centres, but it may also be organised as separate courses in professional schools. There are programmes to support employability, employment safeguard plans and retraining programmes at a certain (average) level for the industry, which are going to be reduced and thus may not meet future needs.

The Latvian clothing industry within an enlarged EU as seen by local industry experts: The clothing industry of Latvia was globally competitive in the past and is seen to remain competitive in the foreseeable future, based on the high quality of production. Clothing companies have not

yet exhausted all possibilities to develop activities with higher value added, such as design. At the same time, labour-intensive activities will inevitably be shifted to countries with lower labour costs such as Russia, Belarus or Ukraine. Most of the strengths and weaknesses as well as the opportunities and threats mentioned for the textile industry in Latvia are valid for the clothing industry as well. A threat particularly relevant for the clothing industry is competition from Southeast Asian countries as well as other countries having strong labour cost advantages compared to Latvia. Most vulnerable are sewing companies, whose competitiveness almost entirely depends on wage rates expressed in dollars and the ability to meet delivery deadlines. As a result of this competition, some activities with lower value added such as the sewing of T-shirts have already been abandoned by most Latvian companies.[35]

Further, Latvian clothing companies are worried about the phasing out of the textile and clothing agreement at the end of 2004, doing away with existing import quotas for clothing, e.g. from China. This will stimulate stronger competition in the sector, especially among small- and medium-sized enterprises. But the minister of economy in Latvia is considering means to support the competitiveness of domestic producers rather than to maintain protective quotas; government officials are doubtful as to whether the new situation will indeed have a negative effect on the domestic clothing industry as Latvia has already experienced the free movement of goods coming from China, for instance. One may argue, however, that although Latvia did not impose import quotas on Chinese goods, there was a customs duty of 20%. The tariff rate applied by the EU to Chinese clothing and textile products after quota suspension will only be 8% to 12% on average. Moreover, as the EU market until now has been rather protected from Chinese clothing, it was easier for Latvian producers to penetrate the EU market. When the imports of Chinese products to the EU are no longer restricted, Latvian suppliers may lose market shares.

[35] There is, however, the example of the Swedish owners of the company Anastasija who decided to move sewing to Russia and the Ukraine in order to save labour costs, but they quickly came back because the quality of the products was unsatisfactory.

Supporting Tables Latvia

Table LV1

Latvia – Textile sector (17)

Gross output, in current prices (€ millions)

		1997	1998	1999	2000	2001	2002
17.1	Preparation and spinning of textile fibres	16.9	47.2	41.4	49.5	50.3	18.3
17.2	Textile weaving	19.2	23.8	28.1	31.4	35.4	34.7
17.3	Finishing of textiles	-	-	-	-	-	-
17.4	Manuf. of made-up textile articles, excl. apparel	16.8	19.3	22.4	27.6	30.0	17.0
17.5	Manuf. of other textiles	40.3	29.9	3.5	5.1	5.8	13.0
17.6	Manuf. of knitted and crocheted fabrics	-	-	-	-	-	-
17.7	Manuf. of knitted and crocheted articles	40.9	11.3	8.2	9.2	11.2	28.7
17	*sum 17.1, 17.2, 17.4, 17.5, 17.7*	*134.0*	*131.5*	*103.6*	*122.7*	*132.7*	*111.7*
17	**Manufacture of textiles**	**134.9**	**136.8**	**126.7**	**153.5**	**170.2**	**131.0**
D	Total manufacturing	2302.7	2434.7	2305.9	2829.8	3263.0	3487.3

Employment

		1997	1998	1999	2000	2001	2002
17.1	Preparation and spinning of textile fibres	1219	3926	3806	3354	3667	1742
17.2	Textile weaving	2014	1934	1858	1853	1701	1570
17.3	Finishing of textiles	2	93	48	23	166	192
17.4	Manuf. of made-up textile articles, excl. apparel	1510	1371	1624	1820	1563	1060
17.5	Manuf. of other textiles	2587	2526	565	554	618	979
17.6	Manuf. of knitted and crocheted fabrics	20	21	1172	1227	1364	655
17.7	Manuf. of knitted and crocheted articles	5472	2225	1233	1136	1181	2788
17	**Manufacture of textiles**	**12824**	**12096**	**10306**	**9967**	**10260**	**8986**
D	Total manufacturing	162179	161275	135882	146307	146564	149302
ER	Exchange rate LVL/EURO (ECU)	0.6574	0.6614	0.6237	0.5601	0.5627	0.5826

Notes: A dash (-) indicates that in compliance with the Law on Statistics, data on the kinds of products and industries are not published if there are less than four enterprises operating or if one of the enterprises holds a dominant position.

Source: Quarterly survey of institutions and enterprises.

Table LV2

Size structure in the Latvian textile industry

	Micro (0-9 employees)*	Small (10-49 employees)*	Medium (50-249 employees)*	Large (> 250 employees)*
Number of enterprises	32%	30%	27%	9%

Source: Central Statistical Bureau of Latvian, from Latvian Textile Report.

Table LV3

The ten most important companies (including foreign-invested) in the Latvian textile industry (1 Lats = €1,538)

		2002			2003						
		Net sales (millions of lats)	Net sales (€ millions)	Share of Export (%)	Net sales (millions of lats)	Net sales (€ millions)	Share of Export (%)	Employees	Location	Ownership	Products
1	AS Lauma	19.3	29.7	89.5	19.7	30.4	80.9	1377	Liepāja	LV	*Materials for ladies lingerie sewing (63%)* Knitted ribbons, elastic knitting and lace, embroidered cloths and basic knitted garments. *Ladies lingerie (32%)* Bras, briefs, bodies, half bodices and camisoles, as well as sets of underwear are produced in a range of colours *Medical articles (3%)* Anti-radiculitis belts and elastic bandages *Textile fabrics (2%)*
2	A/S Valmieras stikla šķiedra	17.9	27.6	98.5	19.8	30.5	97.7	979	Valmiera	D	E-glass fibre single yarns E-glass fibre plied yarns E-glass fibre roving E-glass fibre fabrics for thermal- and electro insulation Specific high temperature resistant Silica glass fibre fabrics E-glass fibre reinforcing nettings Non-wovens, e.g. needled and stitch-bonded mats Currently JSC Valmieras stikla šķiedra produces more than 500 products.
3	A/S Ogre	14.2	21.9	90.5	9.1	14.0	74.8	1129	Ogre	LV	Yarn of pure wool, fashion yarn, blend wool (wool/acrylic, wool/nylon and wool/polyester) the range of yarn – Nm 2/60-2/15.4. Knitted fabric, knitwear garments, outer knitwear garments for women, men and children. Regular, half-regular (panel) garments and also cut-and-sew garments from fabric made on the circular knitting machines can be produced.
4	A/S Rimako	9.1	14.1	85.8	8.7	13.4	73.5	700	Rīga	LV	Cotton, flax and mixed fibres articles: Terry towels of different sizes and designs - plain dyed, jacquard, special design for sauna, shower, bathroom and beach. Kitchen towels - terry, waffle, half or pure flax. Tablecloths - cotton, mixed with viscose and polyester. Terry bathrobes for men, women, children - plain dyed, printed, jacquard with embroidery and appliqué. Fashion: bed sheets, curtains of different fabrics. Blankets - cotton, acrylic or mixed. Decorative fabrics - woven, printed.

Table LV3 contd.

(Table LV3 contd.)

5	A/S Rita	5.3	8.1	91.6	6.3	9.7	94.2	513	Rīga	LV	Children's knitted wear (linen, T-shirts, pullovers, casual look garments) Junior's knitted wear (linen, T-shirts, pullovers, casual look garments) Ladies' knitted wear (cotton pullovers, casual look garments, linen) Men's knitted wear (linen, T-shirts, cotton pullovers, polo)
6	A/S Juglas manufaktūra	5.7	8.8	86.3	5.0	7.7	80.1	446	Rīga	LV	Fine counts yarn, combed yarn, ring spun yarn and small quantities of OE yarn. Yarn can be waxed, single and twisted.
7	SIA New Rosme	4.7	7.3	94.3	5.6	8.6	95.4	571	Rīga	SWE	Ladies lingerie, corsets
8	SIA Mežroze	3.2	5.0	90.5	5.0	7.7	93.8	174	Rīga	LV	Bed linen (50%), cotton fabrics (45%) fabrics of mixed fibres (5%).
9	SIA Aurora baltica	2.0	3.2	57.4	2.9	4.5	62.6	337	Rīga	LV	Wide range of hosiery for the whole family including pantyhose – sheer and opaque, stockings, knee-highs, socks and foot slips for ladies, socks for men, tights, knee-highs and socks for newborn, children and youngsters. Different types of sports hosiery and socks for hunters, socks for hospitals, anti-varicose pantyhose and knee-highs, skin protective socks with antibacterial effect, panty hose for pregnant women.
10	SIA Juglas audums	0.6	1.0	73.2	3.7	5.7	77.9	208	Rīga	LV	Weaving fabrics

Notes: [1-2] It must be mentioned that companies fit in both codes NACE 17 and 18, but as textiles (17) comprise more than 70% of output, the enterprises are listed as textile companies. The main output of clothing for these mentioned companies is ladies underwear.

1 Lats = €1,538).

Table LV4

Latvia – Clothing sector (18)

		Gross output, in current prices (€ millions)					
		1997	**1998**	**1999**	**2000**	**2001**	**2002**
18.1	Manufacture of leather clothes	0.1	0.4	0.5	0.5	0.5	0.6
18.2	Manufacture of other wearing apparel and accessories	63.2	75.5	80.3	104.9	110.1	117.8
18.3	Dressing and dyeing of fur, manufacture of articles of fur	0.8	0.6	0.3	0.4	0.6	0.7
18	**Wearing apparel; dressing and dyeing of fur**	**64.0**	**76.5**	**81.1**	**105.8**	**111.2**	**119.1**
D	Total manufacturing	2302.7	2434.7	2305.9	2829.8	3263.0	3487.3
		Employment					
		1997	**1998**	**1999**	**2000**	**2001**	**2002**
18.1	Manufacture of leather clothes	28	75	107	60	36	34
18.2	Manufacture of other wearing apparel and accessories	12372	12900	11777	13525	14505	14538
18.3	Dressing and dyeing of fur, manufacture of articles of fur	179	245	219	105	79	71
18	**Wearing apparel; dressing and dyeing of fur**	**12579**	**13220**	**12103**	**13690**	**14620**	**14643**
D	Total manufacturing	162179	161275	135882	146307	146564	149302
ER	Exchange rate LVL/EURO (ECU)	0.6574	0.6614	0.6237	0.5601	0.5627	0.5826

Source: Quarterly survey of institutions and enterprises.

Table LV5

Size structure in the Latvian clothing industry

	Micro (0-9 employees)*	Small (10-49 employees)*	Medium (50-249 employees)*	Large (> 250 employees)*
Number of enterprises	31%	42%	21%	6%

Source: Central Statistical Bureau of Latvia, from Latvian Clothing Report.

Table LV6

The ten most important companies (including foreign-invested) 2003 (2002) in the clothing industry (1 Lats = €1,538)

		2002			2003				Location	Ownership	Products
		Net sales (millions of lats)	Net sales (€ millions)	Share of Export (%)	Net sales (millions of lats)	Net sales (€ millions)	Share of Export (%)	Employees			
1	SIA Snickers Produktion	6.6	10.1	99.8	8.9	13.8	99.8	172	Tukums	Swedish company Snickers Europe AB	Work clothing. Main types of output are trousers, jackets and one-piece garments, which account 90% of the net sales.
2	A/S Rīgas drēbnieks	2.4	3.7	84.1	2.2	3.5	88.0	785	Rīga	LV	Ladies fashion, ladies outwear, men's fashion and working garments.
3	SIA Anastasija	1.5	2.3	100	1.6	2.4	–	811	Rīga	LV/SWE	Women's overcoats, trousers, shorts, jackets, blouses, dresses; jerseys, shirts; underwear; women's, men's and children's shirts
4	SIA Solutions	2.0	3.0	100	2.9	4.5	98.3	39	Rīga	LV	Ladies fashion, ladies outwear, men's fashion and working garments
5	SIA F-Tex	1.8	2.7	100	1.4	2.1	100	16	Jelgava	LV/UK	Women and children's jackets, trousers, suits, blouses, shirts and shirts-blouses
6	SIA Godske Latvian Textile	1.6	2.4	98.3	1.3	2.0	98.0	83	Piņķi	DK	Men's and women's outerwear
7	SIA Neja & Ko	1.6	2.5	0	1.4	2.2	0	123	Rīga	LV	Articles for different departments of the Ministry of Interior of Latvia (firemen, border guards and prison guards, army).
8	SIA KKR	1.5	2.4	100	2.6	4.1	100	694	Rīga	LV	Men's trousers
9	SIA EK AUCE	0.9	1.4	90.8	0.9	1.5	95.9	350	Auce	LV/DK	Underwear, knitted outwear for men, women and children, various styles of socks and tights, rainwear clothes, special waterproof clothes for firemen and fishermen, udder supports for cows and socks for dogs.
10	SIA Gefa-Latvia	0.7	1.1	100	0.9	1.5	100	392	Jēkabpils	Swedish company Gefa	Men's trousers; women's and children's dresses, skirts, trousers

Source: Association of Textile and Clothing Industry.

4.4. Lithuania

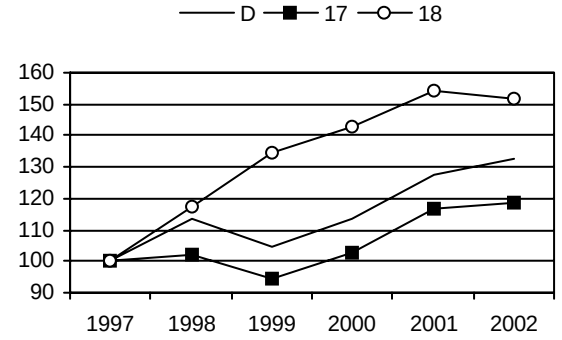
Overview

Lithuania is the country most specialised in textiles and clothing among all the NMS, with the T/C industry holding a share of 15.5% in total manufacturing production and 25.7% in employment in 2001-02. In absolute size, measured as production (converted at current exchange rates), the Lithuanian T/C industry ranked 4th among the NMS (see Table 1 in section 2). Over the period 1997-2002, T/C production grew at an average rate of 6.4%, one of the highest rates in the NMS and faster than manufacturing as a whole, indicating rising specialisation in this field (see Table 2 in section 2). Within the T/C industry, *clothing* is relatively more important than *textiles*, reaching a share of 59% in total T/C production in 2002, which is much higher than in the EU-15, but also higher than in the NMS on average – and with the clothing sector expanding faster than textiles, its share has significantly increased over the last couple of years (see Figure 13).

Figure 13

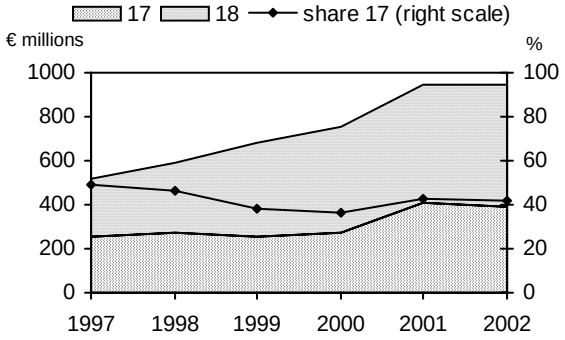
Lithuania: Textiles and textile products

Industrial production index (const. prices 99, NCU), 1997=100



Source: WIIW Industrial Database.

production (at current prices) 17, 18



Source: Supporting Tables LT1 and LT3.

The Lithuanian textile industry

There were about 400 enterprises in the Lithuanian textile industry producing textiles roughly worth €400 million in 2002 and employing around 20,000 persons. In the period 1997-2002, textile production increased significantly, but slightly less than manufacturing on average (see Figure 13). Nevertheless, employment fell by about 3,800 persons, but relatively less than in manufacturing as a whole (see Supporting Table LT1).

Industry structure: Most of the Lithuanian textile companies are small- and medium-sized enterprises, with 86.9% of them having less than 200 employees. Yet more than half of the production (employment) takes place in large enterprises, as typical for the industry in general (see Supporting Table LT2). The major companies are: Lelija, Utenos Trikotazas and Audimas. These are all private companies involved in both textile and clothing production. The major sub-sectors in terms of the NACE rev. 1 classification are 'textile weaving' (17.2), 'manufacture of made-up textile articles, exc. apparel' (17.4) and 'manufacture of knitted and crocheted articles' (17.7 – see Supporting Table L1). In terms of products, the main items are: cotton, knitted outerwear and flax-type fibres produce. There is no significant regional concentration of the textile industry in Lithuania.

Modernisation/technology: Restructuring of the industry is proceeding. This is especially true for 20 to 30 year-old firms that continuously upgrade. New firms, such as Scandinavian companies are also being established that are fully modern.

Investment/production capacities: There is no satisfactory quantitative information on past investment in the sector. Experts believe, however, that there are opportunities for further investment.

Research & development: There are institutions, notably the Kaunas Tekstile Institute, that are involved in R&D. Scandinavian specialists have started to investigate issues such as the movement of manufacturing from Lithuania to Belarus. Other research looked at competition from China, but did not find this to be a major threat.

Customer relations: These are based first on the certification of enterprises through the ISO 2000 and the ISO 14000 programmes. Enterprises also participate in international trade shows and a large trade exhibition in Lithuania every September. This helps firms learn about their customers at the same time as showing their products.

Support programmes: There is no direct support from government. However, there are confederations and these cooperate to some extent with the Ministry for Economy. The Lithuanian Economic Development Agency (a sub-unit of the ministry) has done much work seeking investment for Lithuanian industry in general. There may be some positive impacts from joining the EU. In particular there may be more support for social partnership; collective agreements are currently at a very low level in Lithuania.

Social and environmental issues: No particular problems are foreseen for the Lithuanian textile sector to comply with the *Acquis Communautaire*. Many companies have already gone further since environmental issues are also covered by ISO 14000 certification. As in other countries,

the share of female employment is high, reaching 70 to 80%. Concerning undeclared work, the government has ratcheted up the war on undeclared income. Nevertheless, the large unemployment levels in towns have resulted in workers being willing to work extra hours. The education of workers depends on the individual policy of each company. The unions provide social education and some instruction on raising qualifications. The labour exchange also organises three-month qualification courses. Unions from other countries, e.g. Belgium, provide specialists to share experiences. A current problem is the decline of applicants at professional schools.

The Lithuanian textile industry within an enlarged EU as seen by local industry experts: The Lithuanian textile industry is considered competitive enough to hold its position in the EU in the eyes of the experts interviewed (see list in Appendix 3). Quality is regarded as sufficiently high and the labour force is well-qualified. The main competitors in the future will be India and China. This competition will be particularly difficult for firms without their own brand. A possible solution to improve the competitiveness of Lithuanian firms could be to strengthen their position by merger.

The Lithuanian clothing industry

There were about 1,100 enterprises in the Lithuanian clothing industry, producing clothing worth €553 million in 2002 and employing around 34,000 persons in 2001. Over the period 1997-2002, clothing production rose very rapidly and considerably faster than manufacturing on average (see Figure 13). In contrast to most other NMS, employment also increased significantly, by nearly 10,000 persons (see Supporting Table LT3).

Industry structure: As typical for the industry in other countries as well, a very large number of Lithuanian clothing companies are small- and medium-sized enterprises, with 88.9% of them having less than 200 employees. Yet more than half of the production (employment) takes place in large enterprises (see Supporting Table LT4). There are no specific problems for SMEs in the sector, but no government support either. The major companies are Lelija, Utenos Trikotazas and Audimas. These are all private companies involved in both textile and clothing production. As usual, the largest sub-sector in terms of the NACE rev. 1 classification is the ‘manufacture of (other) wearing apparel and accessories’ (18.2). The main products are: trousers, overalls, breeches, shorts, and women’s and girls’ blouses. There is no significant regional concentration of the clothing industry in Lithuania.

Modernisation/technology: Restructuring of the sector and modernisation is proceeding. This is especially true for 20 to 30 year-old firms that continuously upgrade.

Investment/production capacities: There is no satisfactory information on past investment in the sector. Nevertheless, experts believe that there are opportunities for further investment.

Research & development: There are institutions, notably the Kaunas Tekstile Institute, that are involved in R&D. Research has looked at economic issues, such as the movement of production to Belarus or China.

Customer relations: These are based first on the certification of enterprises through the ISO 2000 and the ISO 14000 programmes. Enterprises also participate in international trade shows and a large trade exhibition in Lithuania every September, which helps the firms to learn about their customers at the same time as showing their products.

Support programmes: There is no direct support from the government. The Lithuanian Economic Development Agency (a sub-unit of the ministry) has, however, done much work seeking investment in the Lithuanian industry in general. There may be some positive impact from joining the EU. In particular there may be more support for social partnership; collective agreements are currently at a very low level in Lithuania.

Social and environmental issues: No particular problems are foreseen for the Lithuanian clothing industry to comply with the *Acquis Communautaire*. Many companies have already gone further since environmental issues are also covered by ISO 14000 certification. As in other countries, the share of female employment is high, reaching 70 to 80%. With regard to undeclared work, the government has ratcheted up the war on undeclared income. Meanwhile, the large unemployment levels in towns have resulted in workers being willing to work extra hours. The education of workers depends on the individual policy of each company. The union provides social education and some instruction on raising qualifications. Unions from other countries, e.g. Belgium, provide specialists to share experiences. The labour exchange also organises three-month qualification courses. Yet there is a problem with the reduction of applicants at professional schools.

The Lithuanian clothing industry within an enlarged EU as seen by the local industry experts: The Lithuanian clothing industry is considered competitive enough to hold its position within the EU in the eyes of the experts interviewed (see list in Appendix 3). Quality is regarded as sufficiently high and the labour force is well-qualified. The main competitors in the future will be India and China. This competition will be particularly difficult for clothing manufacturers without their own brand. Those firms who produce to order rather than making their own collections of

apparel will likely lose out in this new competitive situation. A possible solution to improve the competitiveness of Lithuanian firms could be to strengthen their position by merger.

Supporting Tables Lithuania

Table LT1

Lithuania – Textile sector (17)

Gross output, in current prices (€ millions) 1)

		1997	1998	1999	2000	2001	2002
17.1	Preparation and spinning of textile fibres	18.4	37.9	14.4	17.7	26.1	36.1
17.2	Textile weaving	125.3	132.6	146.8	146.9	158.9	189.6
17.3	Finishing of textiles	1.1	2.9	0.9	1.7	1.6	0.3
17.4	Manuf. of made-up textile articles, excl. apparel	3.3	5.2	8.1	20.0	40.7	75.4
17.5	Manuf. of other textiles	9.4	21.5	28.1	6.7	76.9	13.3
17.6	Manuf. of knitted and crocheted fabrics	5.2	7.5	5.0	8.8	9.3	7.5
17.7	Manuf. of knitted and crocheted articles	68.3	67.8	54.9	69.3	89.9	70.2
17	**Manufacture of textiles**	**256.1**	**275.4**	**258.0**	**271.2**	**405.2**	**393.0**
D	Total manufacturing	4282.1	4474.9	4355.2	5763.6	6448.7	6328.6

Value added (€ millions) 2)

		1997	1998	1999	2000	2001	2002
17.1	Preparation and spinning of textile fibres	.	.	.	5	6.9	.
17.2	Textile weaving	.	.	.	46.4	42.1	.
17.3	Finishing of textiles	.	.	.	0.3	0.3	.
17.4	Manuf. of made-up textile articles, excl. apparel	.	.	.	6.7	8.4	.
17.5	Manuf. of other textiles	.	.	.	9.3	3.4	.
17.6	Manuf. of knitted and crocheted fabrics	.	.	.	2.7	2.5	.
17.7	Manuf. of knitted and crocheted articles	.	.	.	26.4	34	.
17	**Manufacture of textiles**	**84.3**	**95.0**	**56.7**	**97.0**	**97.5**	.
D	Total manufacturing	1002.8	1057.3	938.5	1261.7	1365.6	.

Employment 1)

		1997	1998	1999	2000	2001	2002
17.1	Preparation and spinning of textile fibres	682	2761	1993	1841	2130	.
17.2	Textile weaving	12668	12671	12313	10419	9762	.
17.3	Finishing of textiles	144	287	113	56	36	.
17.4	Manuf. of made-up textile articles, excl. apparel	453	631	651	1229	1553	.
17.5	Manuf. of other textiles	732	1014	717	324	751	.
17.6	Manuf. of knitted and crocheted fabrics	417	437	315	620	739	.
17.7	Manuf. of knitted and crocheted articles	7270	6853	5479	5180	6010	.
17	**Manufacture of textiles**	**24822**	**24654**	**21581**	**19669**	**20981**	**.**
D	Total manufacturing 3)	294400	288300	265700	254000	243200	260600
ER	exchange rate LTL/EURO (ECU)	4.5272	4.4924	4.2712	3.6990	3.5849	3.4605

Sources: 1) Industry, Statistics Lithuania, Vilnius, various years (1997-2001);

2) Eurostat, NewCronos, SBS;

3) Lithuanian Statistical Yearbook 2002, Statistics Lithuania, 2002, Vilnius.

Table LT2

Size structure in the Lithuanian textile industry

	Small (0-19 employees)*	Medium (20-199 employees)*	Large (> 200 employees)*
Production	2.5%	32%	65.5%
Number of employees	2.5%	30.7%	66.8%

Source: Lithuanian Textile Report.

Table LT3

Lithuania – Clothing sector (18)

Gross output, in current prices (€ millions) 1)

		1997	1998	1999	2000	2001	2002
18.1	Manufacture of leather clothes	0.1	0.0	0.0	0.0	0.0	0.6
18.2	Manufacture of other wearing apparel and accessories	250.1	311.4	414.3	470.5	532.0	539.8
18.3	Dressing and dyeing of fur, manufacture of articles of fur	15.6	5.0	5.9	9.9	11.6	12.7
18	**Wearing apparel; dressing and dyeing of fur**	**265.7**	**316.4**	**420.1**	**480.4**	**543.6**	**553.0**
D	Total manufacturing	4282.1	4474.9	4355.2	5763.6	6448.7	6328.6

Value added (€ millions) 2)

		1997	1998	1999	2000	2001	2002
18.1	Manufacture of leather clothes	.	.	.	0.2	0.9	.
18.2	Manufacture of other wearing apparel and accessories	.	.	.	119.1	131.3	.
18.3	Dressing and dyeing of fur, manufacture of articles of fur	.	.	.	0.2	0.0	.
18	**Wearing apparel; dressing and dyeing of fur**	**66.1**	**75.3**	**86.5**	**119.4**	**131.9**	**.**
D	Total manufacturing	1002.8	1057.3	938.5	1261.7	1365.6	.

Employment 1)

		1997	1998	1999	2000	2001	2002
18.1	Manufacture of leather clothes	42	0	0	0	0	.
18.2	Manufacture of other wearing apparel and accessories	22652	27053	28580	30039	33361	.
18.3	Dressing and dyeing of fur, manufacture of articles of fur	1587	993	803	498	483	.
18	**Wearing apparel; dressing and dyeing of fur**	**24281**	**28046**	**29383**	**30537**	**33844**	**.**
D	Total manufacturing 3)	294400	288300	265700	254000	243200	260600
ER	exchange rate LTL/EURO (ECU)	4.5272	4.4924	4.2712	3.6990	3.5849	3.4605

Sources: 1) Industry, Statistics Lithuania, Vilnius, various years (1997-2001);

2) Eurostat, NewCronos, SBS;

3) Lithuanian Statistical Yearbook 2002, Statistics Lithuania, 2002, Vilnius.

Table LT4

Size structure in the Lithuanian clothing industry

	Small (0-19 employees)*	Medium (20-200 employees)*	Large (> 200 employees)*
Production	2.1%	33.6%	64.3%
Number of employees	2.2%	44.6%	53.2%

Source: Clothing Report Lithuania.

4.5. Poland

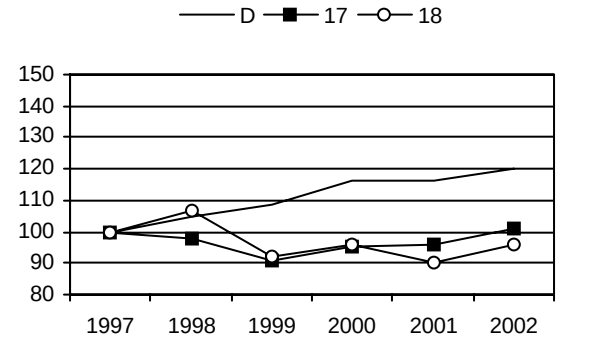
Overview

Poland is the country with the largest T/C production of all the NMS. The value added of the industry is comparable to that of Portugal if converted at current exchange rates (€2,518 million) and significantly higher (approaching that of Spain) if measured at purchasing power standards (PPS) (see Figures 3a and 3b in section 2). The role of the industry within the domestic economy is relatively small, with production reaching a share in total manufacturing of only 4.3% in 2002. Over the period 1997-2002, T/C production (measured at constant prices) declined slightly, owing to a significant fall in production in 1999 while total manufacturing expanded at an average rate of 3.7% (see Table 2 in section 2), pointing to a relative deterioration in the competitiveness of the Polish T/C industry. Within the T/C industry, in contrast to the EU-15 and the NMS on average, the production of *clothing* is higher than that of *textiles*, although not to a large extent. The relative shares remained roughly constant over the period 1997-2002 (see Figure 14). But because of the more labour-intensive character of the clothing industry, employment in the clothing industry is more than double that of the textile industry (see Supporting Table PL1).

Figure 14

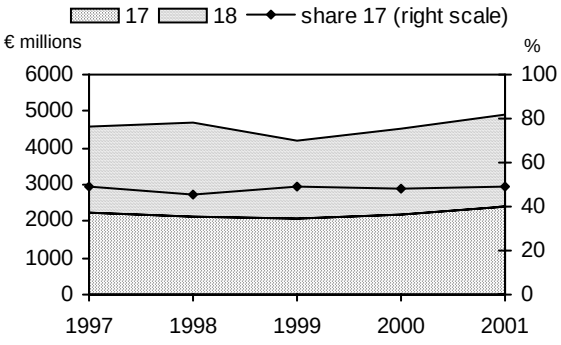
Poland: Textiles and textile products

Industrial production index (const. prices 99, NCU), 1997=100



Source: WIIW Industrial Database.

production (at current prices) 17, 18



Source: Supporting Tables PL1 and PL4.

The Polish textile industry

There were about 5,600 enterprises in the Polish textile industry producing textiles worth €2300 million in 2002 and employing about 80,000 persons. Over the period 1997-2002, the textile industry more or less stagnated (see Figure 14) and employment fell dramatically from 146,200

in 1997 to 79,700 in 2002, accounting for more than 10% of the jobs lost in the Polish manufacturing industry over that period (see Supporting Table PL1).

Industry structure: With regard to both production and employment, large enterprises (more than 250 employees) are dominant in the industry (see Supporting Table PL2). The Polish textile industry is mainly private (95%), of which 15 to 20% of firms are foreign-owned. The major textile companies are listed in Supporting Table PL3. In the past, there was a significant degree of spatial concentration of the Polish textile industry; however, in recent years, this has diminished. The two traditional centres were Bielsko Biała and Łódź: Bielsko Biała was the traditional centre of the wool industry, whereas Łódź was the centre of the cotton industry. It is also worth mentioning one eastern region with centres in Białystok and Wasilków, and a Lower Silesian region including such centres as Bielawa, Wałbrzych, Dzierżoniów, Kowary, and Kamienna Góra. Nevertheless, textile factories can be found everywhere in Poland (e.g. Kętrzyn, Szczecin and Zielona Góra). Given the huge employment losses in the industry, the question of alternative employment opportunities and regional or other support programmes is in the air. It has been a common view among policy-makers since 1990 that the Polish textile industry has no future but there are no assistance programmes for this industry. Thus, local governments will be forced to deal with the problems of restructuring and its effects on local labour markets by assisting in the creation of new employment opportunities in other industries. But it is impossible to generalise about trends in this area (where new employment opportunities are appearing), aside from the general trend observed in the Polish economy since the beginning of the transition (the shift from manufacturing to services).

Modernisation/technology: Some parts of the Polish textile industry can be considered to be advanced in the restructuring and modernisation process, whereas others can be said to have reached an intermediate stage of progress in this area. Some factories (usually small ones) still produce goods using antiquated equipment; however, old machines (between 10 and 20 years-old) do not necessarily mean poor products (sometimes better quality products are produced using old machines than new ones). Nevertheless, the firms producing goods in this manner will need to modernise in the course of the next few years in order to meet the demands of the market. Similarly, the use of information technology is somewhat differentiated, with some firms using the best technology available and others being somewhat less advanced. This is often related to the sub-industry; in some, extensive IT usage is practically universal, whereas in others it is rather limited. In general, the best situation is observed in firms with heavy investment spending, as is most often the case in firms producing: a) fabrics from synthetic fibres; b) knit goods; and c) darning thread (in the case of the latter two groups, these firms are usually making

up for many years of under-investment in the past). ISO 9000 certification is much more common than ISO 14000 certification (similarly, O(e)ko-Tex Standards are rather rare). CE certification is just beginning, as a consequence of Poland's accession to the EU on 1 May, so it would be difficult to estimate how widespread it is. Polish technical textiles are not well known; however, Poland produces some world-class technical textiles. In Łódź, for example, a material is produced that is used to replace vein tissues in medical treatments (i.e. artificial veins); similarly, Łódź is also the source of a material that can be used to make synthetic components that replace parts of the skull. Other technical textiles are produced, though not on a large scale; however, they are not well known, and too little is done to promote them on world markets.

Investment/production capacities: Generally, the extent of investment activity to adjust to modern requirements in terms of machinery and equipment in the last five years could be described as barely sufficient. New machines and technology are being introduced most often by medium-sized and large enterprises. There is no excess capacity in the industry and the situation in the market is stable; it is unlikely that capacity will expand significantly in the foreseeable future.

Inputs and factors of production: Practically all inputs are imported, even wool, which used to be produced in Poland. Flax used to be produced locally as well; it is now imported from France. Hemp also used to be produced in Poland and is now imported. Most textiles are now made from polypropylene (polyester), the components of which are imported from the West. Most of the suppliers, however, are Polish. Early in the Polish transition firms appeared that specialised in the import of various inputs, e.g. acrylics from Belarus or other inputs from India. There is no system of trade agents such as exists in Germany, nor do foreign suppliers have a significant share of the Polish market. Infrastructure was a problem until recently; while roads are still often of poor quality, goods can now be delivered everywhere. Polish labour costs are very low, which is a considerable advantage in comparison with the West. In addition, Polish employees are highly skilled – in some cases more so than in Western Europe – and there is a long history of textile production in Poland. Yet for several years now there have been no investments in training, and if this continues, the Polish industry will soon find itself suffering from a lack of skilled workers. In fact, to some extent, such shortages are already appearing. In the Polish press one can read advertisements about job vacancies in the clothing and textile industries – all of them for highly skilled specialists (e.g. spinning machine technicians). It is questionable whether accession to the EU will change anything in this regard. One of the problems with the industry is excessive vertical integration in many companies; it would often be more efficient to break these units up into smaller companies specialising in various phases of the production process.

Research & development: R&D is carried out by specialised institutes and by institutions of higher learning (such as polytechnic institutes). Very little R&D is carried out by textile firms. Foreign-owned firms in the industry also tend not to have their own R&D staff, but rather contract out for such services. There are government grants from the Polish State Scientific Research Committee (KBN), which support R&D activity in the industry. The cost of R&D is generally too high for an individual firm, and while it would be profitable for firms to pool their resources, creating R&D consortia for given projects, we do not observe this in Poland. Cooperation between the research sector and textile industry is more developed than in the case of the clothing industry. Even here, however, it consists mostly of rather routine testing, e.g. tests of raw materials and products. University research tends to be theoretical, rather divorced from practice and the needs of the market. Of course this research is useful as it may affect product development several years in the future. But there is too little cooperation of the kind that would allow for the transfer of knowledge and technology from the research sector to the industry. Cooperation between textile firms and firms from other industries is limited largely to cooperation with machine producers. Machine producers are eager to cooperate with textile producers by allowing them to use new product lines in return for advice and recommendations about possible improvements that could be made.

Customer and supplier relations: Textile firms in Poland do not cooperate with their suppliers to improve the latter's products or processes. Their relationships are of an 'arm's-length', contractual nature, and if a firm is dissatisfied with its supplier's products, it simply switches to another supplier. Similarly, relations of firms with their customers almost always have an exclusively distant, commercial character. Cooperation with other firms in the area of product quality and design is practically unheard of.

Support programmes: There are no governmental support programs for the textile industry in Poland. Some time ago the industry had negotiated a government programme of low-interest investment loans; but this programme was not brought on-line due to Poland's fiscal crisis and the consequent lack of government funds. Regional development programmes do not take the textile industry into account either. EU assistance is available for small- and medium-sized enterprises. Though it is questionable whether the available monies will be absorbed. As a result of Poland's accession, there will be more assistance funds available for training and consulting services, but this is less crucial for the industry than investment finance. According to one of the industry experts interviewed, Poland and the other member countries would benefit from a trade policy that would counter what he feels to be dumping by producers from the Far East; however, he said that it is difficult to conceive how such a policy could be formulated (within the framework

of WTO rules and more general EU trade policy). Support should, in his opinion, be targeted towards investment. Phare 2002 and 2003 included investment subsidy funds for SMEs, but the production of synthetic textiles was excluded from assistance (along with other areas such as agriculture, fishing, food processing, coal mining and steel production). Industry experts made no predictions concerning the availability of EU structural funds to assist the textile industry.

Social and environmental issues: The best Polish firms in this industry have been operating in accordance with EU standards for many years. Others that are less competitive and rely on antiquated production technology may have problems in adopting EU norms, especially in the area of environmental protection. Polish labour law is harmonised with EU labour regulations, and industry experts say that Polish labour law is respected in Polish firms in the textile industry (the trade unionist interviewed said that while labour law is generally respected, violations can be found in small firms; he also said that violations of workplace health and safety regulations are widespread, especially among small firms). One of the experts interviewed stated that the share of women employed in the textile industry is not as high as in the clothing industry, but it is very high (although he could not provide figures). The most serious problem in the area of working conditions is the extent of temporary work contracts (although this is not as widespread as in the clothing industry), which give workers fewer benefits and much less protection. There is no significant problem with illegal employment or a grey economy in this industry (in contrast to the clothing industry). Employers in the industry are generally hostile to unionisation and collective bargaining; often they see the unions as playing an exclusively destructive role, while employees on the other hand have little trust in employers. Employee training is almost non-existent, and as mentioned above, this is gradually leading to shortages of skilled workers in the industry. Employment restructuring has tended to leave only the most skilled employees in industry firms. Measures for protection and retraining of employees such as programmes supporting employability, job protection plans, information and consultation, etc., are absent or exist only to a small extent.

The Polish textile industry within an enlarged EU as seen by local industry experts: Polish textiles are cost-competitive on European markets, according to the industry expert interviewed. However, competition in this industry is increasingly with the Far East, where costs are much lower. This constitutes a serious threat to the industry. Competition from nearer eastern neighbours such as Belarus and Ukraine is also increasing. The strengths of the Polish industry lie in its human capital and low costs; but it is doubtful that Polish firms in this industry will continue to be able to compete on a cost basis with countries further east. The weaknesses include a low rate of investment, a low rate of replacement of human capital (through training)

and industrial relations that could be improved. Accession to the EU will make it easier for Polish producers to sell on EU markets, according to one of the industry experts interviewed. Moreover, owing to cost advantages many Western European producers may decide to contract out to Polish manufacturers. Polish producers will also be able to join with their Western European counterparts in lobbying and searching for solutions to common problems such as the phasing out of the textile and clothing agreement (ATC) at the end of 2004, which could lead to a flood of imports from very low-cost Far Eastern producers, especially China.

The Polish clothing industry

In 2002, there were more than 22,000 enterprises active in the Polish clothing industry, producing apparel worth €2,556 million and employing more than 170,000 persons. Over the period 1997-2002, the production of the clothing industry slightly declined (in real terms), because of a major slump in 1999. Employment declined dramatically from 254,000 in 1997 to 173,400 in 2002.

Industry structure: With regard to both production and employment, SMEs (enterprises with fewer than 250 employees) are dominant in the industry (see Supporting Table PL5). The Polish clothing industry is largely private (90 to 95%), of which 25 to 30% of companies are foreign-owned – a higher percentage than in the textile industry. The major clothing companies are listed in Supporting Table PL6. The Polish clothing industry is concentrated in a few regions, the most important of which is Łódź (owing to, among other things, the history of the textile industry in that city). There are also important concentrations around Poznań, Wrocław and Kraków. The north-eastern region of Warmia and Mazury is also an important centre for this industry. The clothing industry is less concentrated geographically than the textile industry because it is characterised by lower entry costs. Given the huge employment losses in the industry, the question of *alternative employment opportunities and regional or other support programmes is very relevant*. It is difficult for people who have worked all of their lives in this industry to retrain, and restructuring of the clothing industry has resulted in the growth of the grey sector. Łódź in particular is surrounded by smaller cities dominated by the grey sector and short-series production. According to one of the industry experts interviewed, retraining efforts that focus on middle-aged persons are not very effective, but great efforts should be directed towards the training and retraining of young people.

Modernisation/technology: Within the value added chain, the Polish clothing industry is concentrated at the very low end (assembly) on the one hand, and the high end (original brand

manufacturing, OBM) on the other, according to experts in the industry. Automation of the clothing industry (CAD/CIM) is quite advanced – fewer medium-sized and large producers practice manual cutting, sewing, etc. (though among very small producers these methods are still often used). In addition to size, another factor differentiating firms with respect to the use of IT is the development of own brand production: the more a firm focuses on this (as opposed to outward-processing trade or original equipment manufacturing), the more extensive is its use of IT. Electronic data exchange is used only by the biggest and best producers; but even here the scope of such applications is limited, mainly to the building of sales networks. Among medium-sized and large firms ISO certification (especially the 9000 and 12000 series) is widespread; it is rare, however, among small producers. Many firms manufacturing protective apparel have CE certificates, although O(e)ko-Tex 100 is still rare in Poland.

Investment/production capacities: Generally, the Polish clothing industry is characterised by insufficient investment activity. Outward-processing trade (OPT) or original equipment manufacturing (OEM) activity has not been profitable given recent exchange-rate trends, and as a result firms specialised in that sort of activity have no funds available for investment and machines are antiquated. Financing is an important problem: while small firms can obtain some support from EU assistance, larger firms cannot (their only opportunities for investment assistance are connected with environmental protection, and investments of this kind are rare in the clothing industry). The industry is lobbying the Ministry of Economy and Labour for greater access of large clothing firms to such assistance. Producers who cooperate with Western firms also enjoy certain forms of assistance from them in the area of investments in new machinery, although it is impossible to describe this in any meaningful, quantitative way. Naturally, such assistance is greatest in cases where Western firms have actually invested in Polish ones (foreign direct investment, FDI). There is no excess capacity in the industry currently, but according to the industry expert interviewed, large producers can be expected to expand their capacity in the foreseeable future (which is not the case for small producers).

Inputs and factors of production: There are no serious problems in this area. Inputs are available and can be brought to any place in Poland in the course of one day. Many inputs are imported, especially by enterprises producing through either OPT or OEM arrangements. The high quality and low cost of Polish workers constitute a great competitive advantage for the industry, although lack of training is a serious problem. The industry is already experiencing a shortage of highly skilled blue-collar workers (despite a high rate of unemployment among unskilled workers). Nevertheless, it is notable that designers are not in shortage.

Research & development: There are no formal design institutes in Poland. There are clothing and textile R&D institutes, but these deal with other areas. According to the industry experts interviewed, the lack of R&D in the industry is a problem.

Customer relations: The retail market in Poland is increasingly competitive, and while several years ago there were problems with the timeliness of deliveries, these problems have vanished. In contrast to the situation in the food retail sector (where foreign hypermarkets are changing the structure of the market significantly), no significant process of concentration of the Polish clothing retail sector seems to be underway. EU accession is unlikely to bring any changes in this area, as foreign chains have been opening operations in Poland for years now. Polish producers can be expected to develop more of their own chains as well. Large international retail chains such as H&M and Marks & Spencer have been entering the Polish market for some time. Small Polish-owned chains do not, however, appear to be losing ground, as the foreign presence is limited to the very largest urban conglomerations in Poland (and is only creating difficulties for small stores in such areas). For example, while the Spanish chain Zara (with 1,580 shops worldwide) has four stores in Poland and H&M has recently opened stores in Warsaw, Polish producers and Polish stores are still the only ones supplying the vast majority of consumers in the country (Troll, for example, has 89 stores throughout the country and Reserved has 54). Moreover, Polish producers are starting to open their own retail outlets more frequently. Redan, with its Top Secret brand, has recently opened five boutiques. At the time of writing, some openings currently planned by Polish producers are:

- *Bytom* – opening stores in Berlin, Poznań, Katowice and Gdańsk;
- *KAN* (Tatuum brand) – opening two stores in Poland; and
- *LPP* – opening a chain called *CROPP.*

Support programmes: There are no governmental support programmes for the clothing industry in Poland. Yet firms in the industry will be able to benefit from horizontal measures for small- and medium-sized enterprises. As for large firms, they could theoretically benefit from loans for investments in environmental protection, but that is largely irrelevant for this industry. Regional development plans do not contain any special provisions relating to the clothing industry. One of the industry experts interviewed suggested that if support measures were to be introduced, the most important area would be brand promotion. Brand is becoming a more important source of value – whereas production is being carried out more frequently outside Poland (in Asia, for example). Polish firms are beginning to sell own-brand products in Western Europe, but with new brand names that do not sound Polish (e.g. Vistula's Lantier brand), and this is where the

future lies. It is important to distinguish between OPT or OEM production on the one hand and production that is focused on the development of own brands and sales networks. Assistance funds could be made available for investment in production equipment and quality improvement for firms concentrating on OPT and OEM, whereas firms building their own brands and sales networks should be targeted for assistance in the areas of marketing and promotion.

Social and environmental issues: Adjustment to the *Acquis Communautaire* is generally not a significant problem for Polish clothing firms, since the role of OPT or OEM arrangements in their production has ensured that they have been producing in accordance with EU standards for many years. Some of the largest firms have some difficulties in the area of environmental protection; however, EU structural fund assistance will allow them to make the investments needed to overcome these problems. Workplace health and safety were problems 10 to 15 years ago; but according to the experts interviewed, this is no longer the case (however the trade unionist interviewed said that while labour law is generally respected, violations can be found in small firms, and violations of workplace health and safety regulations are widespread – again, especially among small firms). Female employment has a very high share of total employment in the clothing industry, typically ranging from 70 to 90%.

The main labour market issue in the Polish clothing industry is the seasonal nature of production in this industry. This is currently a subject of discussion with the Ministry of Economy in the Light Industry Section of the Tripartite Commission. The high seasons for clothing production are June-October and November-March; the time between these periods are characterised by low levels of activity in which it is difficult to find work for many employees. The industry is working to find a solution to this problem that will be good for both employers and employees. According to the industry expert interviewed, illegal employment is not a problem in (legally registered) clothing firms, but there is a problem in the industry with grey-sector activity (i.e. illegal employment in unregistered businesses), which undermines the competitiveness of small enterprises that operate legitimately. The trade unionist interviewed said that no one knows the real extent of grey employment, but the unions believe it to be very high, even in small registered firms. According to the industry expert interviewed, the attitudes of trade unionists are improving: they more often think in terms of what is good for their firms and the industry and not simply making demands for increased wages and benefits. Unionisation is, however, largely limited to large firms. As in the textile industry, employers are not favourably disposed to unions or to collective bargaining. According to the trade unionist interviewed, employers often demand the nullification of such collective agreements as do exist, threatening layoffs if the unions do not agree; these demands, he said, are always met. Measures for the protection and retraining of

employees such as programmes supporting employability, job protection plans, information and consultation, etc., are absent or only exist to a small extent.

The Polish clothing industry within an enlarged EU as seen by local industry experts: Small firms in the Polish clothing industry may have significant difficulties competing with low-cost producers from Asia. Medium-sized firms may be able to compete in EU markets if they are able to ensure the modernity of their production and management. The largest producers are already competing successfully in EU markets. The strengths of the Polish clothing industry are the combination of high quality, low-cost products and the skilled workforce. The main weakness is the poor state of physical capital. The weak points of the industry are centred in its small firms. The end of customs clearance (and the associated waiting times) along the EU's border represents a significant decline in transport costs. Apart from this, Poland's accession has not brought special opportunities or threats. The phase-out of the textile and clothing agreement may cause a serious problem in the form of a flood of cheap imports from Asia (especially China). The problem will be less serious if these are low-quality products, but in time one can expect the quality of Asian products to improve, and then the threat will become more serious.

Supporting Tables Poland

Table PL1

Poland – Textile sector (17)

		Output (sold production), in current prices (€ millions)					
		1997	**1998**	**1999**	**2000**	**2001**	**2002**
17.1	Preparation and spinning of textile fibres	.	.	.	.	.	312.1 [1)]
17.2	Textile weaving	.	.	.	.	.	454.8 [1)]
17.3	Finishing of textiles	.	.	.	.	.	103.5 [1)]
17.4	Manuf. of made-up textile articles, excl. apparel	.	.	.	.	.	292.3 [1)]
17.5	Manuf. of other textiles	.	.	.	.	.	742.9 [1)]
17.6	Manuf. of knitted and crocheted fabrics	.	.	.	.	.	175.9 [1)]
17.7	Manuf. of knitted and crocheted articles	.	.	.	.	.	203.2 [1)]
17	*Sum of 17.1 -17-7*	.	.	.	.	.	*2284.8* [1)]
17	**Manufacture of textiles**	**2255.5**	**2130.4**	**2055.3**	**2184.4**	**2420.2**	**2309.2** [2)]
D	Total manufacturing	80913.5	85362.9	85084.0	102783.5	113024.5	113912.1 [2)]

(Table PL1 contd.)

Value added (€ millions)

		1997	1998	1999	2000	2001	2002
17.1	Preparation and spinning of textile fibres	.	.	.	.	.	102.9 [1]
17.2	Textile weaving	.	.	.	.	.	123.9 [1]
17.3	Finishing of textiles	.	.	.	.	.	27.2 [1]
17.4	Manuf. of made-up textile articles, excl. apparel	.	.	.	.	.	90.7 [1]
17.5	Manuf. of other textiles	.	.	.	.	.	209.4 [1]
17.6	Manuf. of knitted and crocheted fabrics	.	.	.	.	.	52.6 [1]
17.7	Manuf. of knitted and crocheted articles	.	.	.	.	.	69.5 [1]
17	**Manufacture of textiles**	**616.8**	**.**	**.**	**787.0**	**856.5**	**676.1** [1]
D	Total manufacturing	.	.	.	.	.	.

Employment

		1997	1998	1999	2000	2001	2002
17.1	Preparation and spinning of textile fibres	.	.	.	.	.	11081 [1]
17.2	Textile weaving	.	.	.	.	.	15093 [1]
17.3	Finishing of textiles	.	.	.	.	.	3263 [1]
17.4	Manuf. of made-up textile articles, excl. apparel	.	.	.	.	.	11333 [1]
17.5	Manuf. of other textiles	.	.	.	.	.	11858 [1]
17.6	Manuf. of knitted and crocheted fabrics	.	.	.	.	.	3971 [1]
17.7	Manuf. of knitted and crocheted articles	.	.	.	.	.	9866 [1]
17	*Sum of 17.1 -17-7*	.	.	.	.	.	*66465* [1]
17	**Manufacture of textiles**	**146200**	**128200**	**108400**	**97100**	**88300**	**79700** [2]
D	Total manufacturing	2820900	2800700	2611400	2467100	2358600	2220800 [2]
ER	Exchange rate PLN/EURO (ECU)	3.7055	3.9231	4.2270	4.0110	3.6685	3.8557

Notes: 1) Enterprises employing over nine persons only. 2) All enterprises.

Sources: WIIW Industrial database, 2002 data on employment and gross output – Central Statistical Office; 2002 data on value added – own calculations based on Central Statistical Office.

Table PL2

Size structure in the Polish textile industry

	Small (1-100 employees)	Medium (101-250 employees)	Large (> 250 employees)
Production	13.6%	22.9%	63.4%
Number of employees	13.1%	28.6.8%	58.3%

Source: Central Statistical Office, Poland; quoted from Textile Report Poland.

Table PL3

Ten of the most important companies (including foreign-invested) in the Polish textile industry 2003 (2002)

Name of the enterprise	Sales (in millions of PLN)	Sales (in €millions)*	No. of staff	Location	Share of Exports (%)	Ownership (state, foreign, private)	Main activities (products)
Toruńskie Zakłady Materiałów Opatrunkowych	1,156.4	251.4.	1497	Toruń	40	Private	Bandages
Elana	574.5	124.8	2427	Toruń	.	Private	Polyester fibres
Stilon	478.1	103.9	1485	Gorzów Wielkopolski	.	Foreign	Textile fibres
Wistil	449.3	97.6	5186	Kalisz	.	Private	Synthetic fabrics,
Adriana	306.1	66.5	1598	Kijewo Królewskie	.	Private	Fabrics for furniture upholstery
Lentex	173.9	37.8	991	Lubliniec	.	State / private	Carpets, fibres
Vesuvius	143.9	31.2	410	Skawina	.	Foreign	Thermo-insulation fibres
Bielbaw	121.7	26.4		Bielawa	.	Private	Fabrics
Novita	104.9	22.8	496	Zielona Góra	.	Private	Carpets, technical fibres
Agnella	102.6	22.3	520	Białystok	.	Private	Carpets

Note: * €1 = 4.6 PLN.

Source: Ranking 1500 najlepszych przedsiębiorstw, Rzeczpospolita, 9 October 2003, from Polish Textile Report.

Table PL4

Poland – Clothing sector (18)

		Output (sold production), in current prices (€ millions)					
		1997	**1998**	**1999**	**2000**	**2001**	**2002**
18.1	Manufacture of leather clothes	.	.	.	.	.	15.1 [1)]
18.2	Manufacture of other wearing apparel and accessories	.	.	.	.	.	1350.9 [1)]
18.3	Dressing and dyeing of fur, manufacture of articles of fur	.	.	.	.	.	13.0 [1)]
18	*Sum of 18.1 -18-3*	.	.	.	.	.	*1379.1* [1)]
18	**Wearing apparel; dressing and dyeing of fur**	**2337.4**	**2585.4**	**2123.7**	**2366.5**	**2468.1**	**2556.1** [2)]
D	Total manufacturing	80913.5	85362.9	85084.0	102783.5	113024.5	113912.1 [2)]

Value added (€ millions)

		1997	1998	1999	2000	2001	2002
18.1	Manufacture of leather clothes	.	.	.	.	.	15.1 [1]
18.2	Manufacture of other wearing apparel and accessories	.	.	.	.	.	1350.9 [1]
18.3	Dressing and dyeing of fur, manufacture of articles of fur	.	.	.	.	.	13.0 [1]
18	**Wearing apparel; dressing and dyeing of fur**	**4348.5**	**.**	**.**	**6018.4**	**5808.1**	**1392.1** [1]
D	Total manufacturing	.	.	.	.	.	.

Employment

		1997	1998	1999	2000	2001	2002
18.1	Manufacture of leather clothes	.	.	.	.	.	952 [1]
18.2	Manufacture of other wearing apparel and accessories	.	.	.	.	.	94408 [1]
18.3	Dressing and dyeing of fur, manufacture of articles of fur	.	.	.	.	.	689 [1]
18	*Sum of 18.1 -18-3*	.	.	.	.	.	*96049* [1]
18	**Wearing apparel; dressing and dyeing of fur**	**254300**	**258500**	**225000**	**210500**	**193700**	**173400** [2]
D	Total manufacturing	2820900	2800700	2611400	2467100	2358600	2220800 [2]
ER	Exchange rate PLN/EURO (ECU)	3.7055	3.9231	4.2270	4.0110	3.6685	3.8557

Notes: 1) Enterprises employing over nine persons only. 2) All enterprises.

Sources: WIIW Industrial database, 2002 data on employment and gross output – Central Statistical Office; 2002 data on value added – own calculations based on Central Statistical Office.

Table PL5

Size structure in the Polish clothing industry

	Small (1-100 employees)	Medium (101-250 employees)	Large (> 250 employees)
Production	25.2%	30.7.9%	44.1%
Number of employees	25.6%	34.1.8%	40.3%

Source: Central Statistical Office, Poland; quoted from the Clothing Report Poland.

Table PL6

Six of the most important companies (including foreign-invested) in the Polish clothing industry, 2003 (2002)

Name of the enterprise	Sales (in millions of PLN)	Sales (in €millions)*	No. of staff	Location	Share of Exports (%)	Ownership (state, foreign, private)	Main activities (products)
VF Polska	340.0	73.9	1500	Łódź	.	Foreign	
LPP	261.6	56.8	386	Gdańsk	.	Polish / foreign	Clothing design & distribution
Levi Strauss Poland	198.3	43.1	800	Warsaw	.	Foreign	Clothing (primarily jeans)
Big Star Limited	162.1	35.2	416	Kalisz	.		Clothing (primarily jeans)
Vistula	122.0	26.5	1380	Kraków	.	Private	Suits, jackets
Wólczanka	86.0	18.7		Łódź	58	Private	Shirts

Note: * €1 = 4.6 PLN.

Source: Ranking 1500 najlepszych przedsiębiorstw, Rzeczpospolita, 9 October 2003; Regional concentration in the Polish clothing industry.

4.6 Slovak Republic

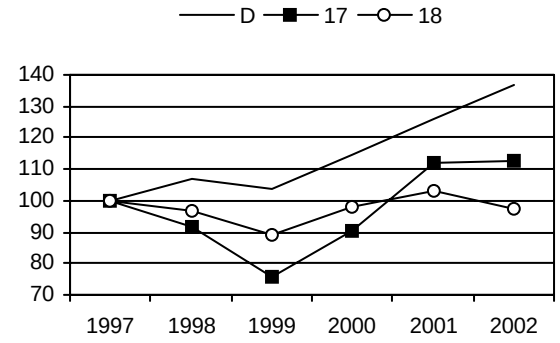
Overview

The Slovak T/C industry is of minor importance in the domestic economy with the smallest share in total manufacturing production (2.7%) of all the NMS. With regard to employment, however, the industry is relatively more important, showing an employment share of 12% (similar to other NMS), which is a clear sign of low productivity. In absolute size, production (converted at current exchange rates) ranked 6th among the NMS. Over the period 1997-2002, T/C production more or less stagnated, with significantly less development than manufacturing on average. Within the T/C industry, the *textile* industry is more prominent than the *clothing* industry with regard to production, taking a share of 55.3% in 2002, but the clothing industry is the larger employer.

Figure 15

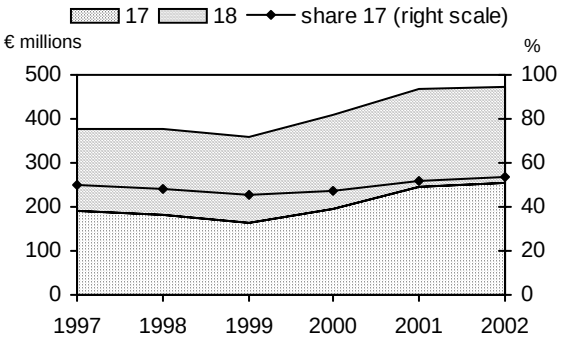
Slovak Republic: Textiles and textile products

Industrial production index (const. prices 99, NCU), 1997=100



Source: WIIW Industrial Database.

production (at current prices) 17, 18



Source: Supporting Tables SK1 and SK3.

The Slovak textile industry

There were only 136 enterprises in the Slovak textile industry producing textiles worth about €250 million in 2002 and employing around 20,000 persons. In the period 1997-2002, textile production rose only slowly and less than manufacturing on average (see Figure 15) and employment remained more or less constant. Notably, the development was very uneven across the different sub-industries. While, for instance, employment in ‘preparation and spinning of textile fibres’ (17.1) declined strongly in line with a significant drop in output, employment and output in the ‘manufacture of made-up textile articles exc. apparel’ and ‘manufacture of other textiles’ rose significantly (Supporting Table SK1).

Industry structure: Large enterprises are dominant in the Slovak textile industry – for the detailed size structure see Supporting Table SK2. The industry is fully privatised and mainly domestically owned with only two foreign knitting companies. The major companies are listed in Supporting Table SK3. The most important sub-sector in terms of the NACE rev.1 classification is 'textile weaving' (17.2) – see Supporting Table SK1. There is a certain regional concentration of the industry observed in Levice, Liptovský Mikuláš and Ružomberok. When jobs in the textile industry are lost, the creation of new jobs is very limited. Regional programmes including assistance are therefore highly welcomed.

Modernisation/technology: The process of restructuring and modernisation has probably reached an average level in the industry, with information technology only used to some extent. Machinery and equipment is very old, on average over 15 years. There is, however, a significant production of technical textiles for the car industry, manufactured mainly in the form of inward processing. Five companies were reported to have some kind of international certification (ISO, CE-certification or O(e)ko-Tex Standard).

Investment/production capacities: Investment activity is considered insufficient. Yet there are excess capacities in the industry and a further reduction of capacities is expected in the future.

Inputs and factors of production: Apart from artificial fibres (limited product assortment), all materials are imported. Specific advantages in Slovakia are mainly the cheap labour costs. But after EU accession the demand for inward processing (wage labour) is expected to decrease and companies fear that they will not be able to finance complete production from their own sources.

Research & development: There are no relevant R&D activities in the sector.

Customer relations: There is considerable user-producer interaction with domestic customers taking the form of formal cooperation with regard to innovation in the industry. Nevertheless, relations with export customers are only of a commercial nature.

Support programmes: There are no government support programmes whatsoever for the industry. No significant changes are expected after EU accession in this regard; however, as with the clothing industry, the textile industry needs regional financial support. Measures suggested to support the textile industry include: trade policy, industrial policy and regional policy (local, central government, and/or EU-level).

Social and environmental issues: No problems with fulfilling the *Acquis Communautaire* are expected. The share of female employment is typically larger than in the industry on average, although no exact data for the textile industry alone were provided. For the T/C sector as a

whole, the share of female employment was 85% compared with 39% in total manufacturing in 2002.[36] There do not appear to be problems with undeclared work in the Slovak textile industry. There is freedom to participate in workers' associations and collective bargaining. Vocational training is largely limited to retraining initiatives. Programmes to support the employability of workers and procedures involving information and consultation of workers exist, although to a limited degree. Employment safeguard plans are more widespread, probably to an average degree.

The Slovak textile industry within an enlarged EU as seen by local industry experts. The experts interviewed think that the Slovak textile industry will *not* become or remain globally competitive. Its current strength is low labour costs. China and India were mentioned as the main future competitors. There are no specific threats or opportunities seen for the industry after EU accession. However, the future investment necessary to adjust to the *Acquis* in the textile industry will depend to some extent on the new regulations in registration, evaluation and authorization of chemical substances (REACH) currently under preparation in the EU.The phasing out of the textile and clothing agreement (ATC) at the end of 2004 is expected to have a significant negative impact on the Slovak textile industry.

The Slovak clothing industry

In 2002, there were about 200 clothing enterprises in Slovakia producing apparel worth €220 million and employing about 30,000 persons. Over the period 1997-2002, the clothing industry stagnated more or less (in real terms) with significantly less development than manufacturing on average – which showed an impressive average annual growth rate of 6.5% over the same period (see Figure 15). The employment level in the clothing industry stayed at a fairly constant level as well (see SK4).

Industry structure: About half of the production (value added) is generated by large enterprises (more than 250 employees) and the other half from small- and medium-sized enterprises, but the latter employ more than 70% of the workforce, with very small enterprises taking the lion's share (50%), pointing to very low labour productivity (see Supporting Table SK5). The industry is fully privatised and mainly domestically owned. Only two foreign companies are registered with the Association of Clothing and Textile Companies (ATOP). But there are some companies, both domestic and foreign, outside ATOP. The major companies are listed in Supporting Table SK6.

[36] This data comes from the textile industry in the EU, Eurostat, Statistics in focus, 29/2004 Graph 7. The background data were kindly supplied by the author, Walter Sura.

A significant regional concentration of the industry can be observed, which in centred around the areas of Prešov (Eastern Slovakia), Trenčín, Púchov and Žilina.

Modernisation/technology: The industry is positioned at the lower end of the value-added chain. The estimated shares in 2002 for the various stages of production are as follows: A-assembly (35%), original equipment manufacturing (40%), original design manufacturing (15%) and original brand manufacturing (10%). Modernisation in the Slovak clothing industry has been delayed and the use of information technology (CAD/CIM) is still limited (five companies). Only seven to ten companies have some kind of international certification (ISO, CE-certification or O(e)ko-Tex Standard).

Investment/production capacities: Investment activity is considered insufficient in the clothing industry. Yet there are excess capacities and a further reduction of capacities is expected in the future. Foreign direct investment plays some role in confection from fibre (men's and women's garments).

Inputs and factors of production: Existing advantages are mainly in the area of low labour costs (together with the Baltic countries, Slovakia has the lowest labour costs among the NMS – see Tables 5a and 5b in section 3). Meanwhile, rising energy prices and appreciation of the Slovak koruna exert significant pressure on the competitiveness of Slovak companies in international markets. The shift of production capacities and/or the conclusion of outward-processing contracts with partners in other low-wage countries (especially Ukraine or Belarus) is becoming a tool to counter this pressure. With EU accession, demand for inward processing (wage-labour) is expected to decrease and companies fear that they will not be able to finance complete production from their own sources. Most material inputs are imported; only around 15% come from domestic suppliers.

Research & development: There are no research or training institutes that focus on design and creativity in Slovakia.

Customer relations: Many foreign retailers are already in the Slovak market and their share is rising. Nevertheless, there is no significant concentration or rising pressure on producers observed on the Slovak side. Some clothing industry firms have established domestic-branded retail chains.

Support programmes: No government support programmes for the industry can be found and no significant changes are expected after accession in this regard, although the clothing industry will need regional financial support.

Social and environmental issues: No problems with fulfilling the *Acquis Communautaire* are expected. The share of female employment is typically large, reaching as much as 85%. The estimated share of part-time employment is very low at 2%. There do not seem to be problems with undeclared work in the Slovak clothing industry. There is freedom to participate in workers' associations and collective bargaining. Vocational training is limited to retraining initiatives. Programmes to support the employability of workers and procedures involving information and consultation of workers exist, although to a limited degree. Employment safeguard plans are more common, probably to an average degree.

The Slovak clothing industry within an enlarged EU as seen by local industry experts. The experts interviewed think that the Slovak clothing industry will become or remain globally competitive although a certain decline of production is expected. Its particular strengths are the following: low labour costs combined with the high quality of labour, the long-standing textile tradition in the region and the close proximity to EU markets. On the negative side, a decline of inward processing and the problem of financing production were mentioned. China is seen as the main competitor of the future. The phasing out of the textile and clothing agreement is expected to have negative effects on the industry with producers and suppliers from the Far East (China) penetrating the global market even more aggressively.

Overall, it is expected that regions with lower economic activity will suffer most, mainly those that are not interesting to foreign investors (in Central and Eastern Slovakia).

Supporting Tables Slovak Republic

Table SK1

The Slovak Republic – Textile sector (17)

Gross output, in current prices (€ millions)

		1997	1998	1999	2000	2001	2002
17.1	Preparation and spinning of textile fibres	25.4	22.7	16.0	9.2	12.4	17.0
17.2	Textile weaving	111.1	110.1	99.3	105.4	114.6	111.1
17.3	Finishing of textiles	-	-	-	-	-	-
17.4	Manuf. of made-up textile articles, excl. apparel	13.7	16.1	18.3	21.2	22.7	24.5
17.5	Manuf. of other textiles	2.5	6.4	5.3	6.4	13.0	17.2
17.6	Manuf. of knitted and crocheted fabrics	-	-	-	-	-	-
17.7	Manuf. of knitted and crocheted articles	45.5	34.9	34.0	41.2	65.7	76.3
17	*Sum of 17.1, 17.2, 17.4, 17.5, 17.7*	*198.2*	*190.3*	*173.0*	*183.4*	*228.4*	*246.0*
17	**Manufacture of textiles**	**188.8**	**182.7**	**164.3**	**194.6**	**243.3**	**252.9**

Value added (€ millions)

		1997	1998	1999	2000	2001	2002
17.1	Preparation and spinning of textile fibres	5.4	4.5	5.2	2.5	3.2	3.4
17.2	Textile weaving	33.6	34.5	33.7	34.2	37.3	35.5
17.3	Finishing of textiles	-	-	-	-	-	-
17.4	Manuf. of made-up textile articles, excl. apparel	3.9	6.2	7.8	9.4	10.0	11.7
17.5	Manuf. of other textiles	1.4	2.6	1.4	2.0	2.9	4.4
17.6	Manuf. of knitted and crocheted fabrics	-	-	-	-	-	-
17.7	Manuf. of knitted and crocheted articles	19.6	16.1	15.2	19.2	30.7	35.3
17	*Sum of 17.1, 17.2, 17.4, 17.5, 17.7*	*63.8*	*63.9*	*63.4*	*67.3*	*84.1*	*90.3*

Employment

		1997	1998	1999	2000	2001	2002
17.1	Preparation and spinning of textile fibres	2343	2164	1304	694	754	768
17.2	Textile weaving	8307	7789	7467	7158	6578	5883
17.3	Finishing of textiles	-	-	-	-	-	-
17.4	Manuf. of made-up textile articles, excl. apparel	1318	1599	2186	2356	2330	2296
17.5	Manuf. of other textiles	595	955	614	670	770	752
17.6	Manuf. of knitted and crocheted fabrics	-	-	-	-	-	-
17.7	Manuf. of knitted and crocheted articles	7718	5551	5106	5485	7915	8402
17	*Sum of 17.1, 17.2, 17.4, 17.5, 17.7*	*20281*	*18058*	*16677*	*16363*	*18347*	*18101*
17	**Manufacture of textiles**	**20571**	**18057**	**16970**	**17398**	**19387**	**.**
ER	Exchange rate SKK/EURO (ECU)	38.010	39.600	44.120	42.589	43.309	42.699

Note: A dash (-) indicates that data cannot be published for reasons of data protection.

Sources: Statistical Office of the Slovak Republic; 17: Eurostat, NewCronos, SBS.

Table SK2

Size structure in the Slovak textile industry

	Small (0-20 employees)	Medium (20-250 employees)	Large (> 250 employees)
Production	10.9%	30.9%	58.2%
Value added	14.2%	34.3%	51.4%
Number of employees	22.0%	31.8%	45.1%

Source: Slovak Textile Report.

Table SK3

The ten most important companies (including foreign-invested) in the Slovak textile industry, 2003

Name of the enterprise	Sales (in thous. SKK)	Sales (in € thous.)*	Number of employees	Location	Share of Exports (%)	Ownership (state, foreign, private)	Main activities (products)
MERINA a.s.	885 426	21335,57	1 052	M.R. Štefánika 379/19, 911 69 Trenčín	63,88	Private	Wool weaving
MAYTEX a.s.	676 760	16307,47	864	1. mája 1207, 031 17 Liptovský Mikuláš	50,68	Private	Silk/filament weaving
LEVITEX a.s.	580 209	13980,94	537	Ku Bratke 5, 934 80 Levice	29,44	Private	Cotton weaving
TEXICOM a.s.	552 419	13311,30	959	Textilná 23, 034 01 Ružomberok	38,13	Private	Cotton weaving
TATRASVIT SVIT - SOCKS a.s.	473 151	11401,23	1 115	Mierová 1, 059 21 Svit	77,87	Private	Knitting
TWISTA s.r.o.	405 309	9766,48	154	Chemlonská 1, 066 01 Humenné	97,56	Foreign	Twisting
GEMTEX a.s.	380 698	9173,45	682	Štítnická 25, 048 01 Rožňava	99,26	Foreign	Textile
TYTEX SLOVAKIA s.r.o.	338 046	8145,69	171	Chemlonská 1, 066 01 Humenné	99,90	Foreign	Knitting
SLOVENKA a.s.	313 327	7550,05	1 051	Strieborné námestie 3, 975 67 Banská Bystrica	49,61	Private	Knitting
TEXILAN s.r.o.	209 469	5047,45	270	Hattalova 4, 831 03 Bratislava	37,76	Private	Cotton weaving

Source: Slovak Textile Report.

Table SK4

The Slovak Republic – Clothing sector (18)

Gross output, in current prices (€ millions)

	1997	1998	1999	2000	2001	2002
18.1 Manufacture of leather clothes	-	-	-	-	-	-
18.2 Manufacture of other wearing apparel and accessories	188.5	194.3	189.7	204.4	211.8	212.5
18.3 Dressing and dyeing of fur, manufacture of articles of fur	5.7	4.9	4.5	-	-	-
18 Wearing apparel; dressing and dyeing of fur	**190.1**	**194.1**	**194.8**	**213.4**	**225.8**	**219.5**

Value added (€ millions)

	1997	1998	1999	2000	2001	2002
18.1 Manufacture of leather clothes	-	-	-	-	94945.0	100336.0
18.2 Manufacture of other wearing apparel and accessories	91.2	97.1	97.2	106.5	107.9	110.2
18.3 Dressing and dyeing of fur, manufacture of articles of fur	1.9	1.8	1.2	-	-	-

		Employment					
		1997	**1998**	**1999**	**2000**	**2001**	**2002**
18.1	Manufacture of leather clothes	-	-	-	-	472	463
18.2	Manufacture of other wearing apparel and accessories	28290	27970	27810	28330	27966	27553
18.3	Dressing and dyeing of fur, manufacture of articles of fur	423	399	379	-	-	-
18	**Wearing apparel; dressing and dyeing of fur**	**28526**	**28077**	**29270**	**30142**	**30174**	**.**
ER	Exchange rate SKK/EURO (ECU)	38.010	39.600	44.120	42.589	43.309	42.699

Note: A dash (-) indicates that data cannot be published for reasons of data protection.

Sources: Statistical Office of the Slovak Republic; Statistical Office of the Slovak Republic; 18: Eurostat, NewCronos, SBS.

Table SK5

Size structure in the Slovak clothing industry, 2002

	Small (0-20 employees)*	Medium (20-250 employees)*	Large (> 250 employees)*
Production	2,000	3,200	5,500
Value added	1,000	1,400	2,200
Number of employees	13 000	5 900	8 200

Source: Slovak Clothing Report.

Table SK6

The ten most important companies (including foreign-invested) in the Slovak clothing industry, 2003

Name of the enterprise	Sales (in thous. SKK)	Sales (in € thous.)*	Number of staff	Location	Share of Exports (%)	Ownership (state, foreign, private)	Main activities (products)
OZETA, a.s. (Ozeta Neo)	1 658 000	39951,81	3 664	Veľkomoravská 9, 911 05 Trenčín	74,31	Private	Men's wear
MAKYTA a.s.	1 106 030	26651,33	2 818	1.mája 882/46, 020 25 Púchov	74,82	Private	Women's wear
ZEKON, a.s.	500 000	12048,19	900	Štefana Tučeka 23, 071 01 Michalovce	n/a	Private	Leisure and working wear
OZKN a.s.	305 431	7359,78	875	Masarykova 22, 081 93 Prešov	77,71	Private	Sportswear
SARIANA Slovensko, s.r.o.	300 000	7228,92	320	Královská 824/8, 927 01 Šaľa	n/a	Foreign**	Clothing
SVIK s.r.o.	231 568	5579,95	898	Bardejovská 747, 089 01 Svidník	100,35	Foreign***	Men's wear
ODEVA s.r.o.	223 786	5392,43	602	kpt. Nálepku č. 4, 082 71 Lipany	52,49	Private	Clothing
VZOR v.d.	179 881	4334,48	657	Lihoveckého 1805, 960 22 Zvolen	70,88	Private	Women's wear
OZEX s.r.o.	170 751	4114,48	83	Masarykova 22/A, 080 01 Prešov	82,81	Private	Clothing
GEMOR FASHION s.r.o.	168 416	4058,22	227	Košická 44, 080 01 Prešov	88,48	Foreign****	Men's wear

Notes: * €1 = 41.5 SKK; ** Sariana GmbH (Austria) – 100%; *** Mediconf S.p.A (Italy) – 96.3%; ****Manderley Fashion B.V. (Netherlands) – 81.3%.

Source: Slovak Clothing Report.

4.7 Slovenia

Overview

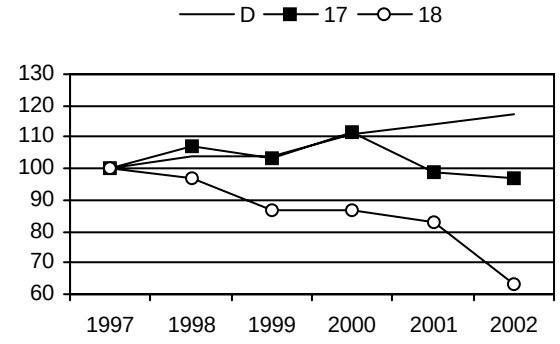
Slovenia is over-proportionately specialised in the T/C industry, especially if taking into account its comparatively advanced economy and the high wage level relative to the other NMS. As previously mentioned, the country had a long tradition as a supplier of T/C to the Yugoslav market and had already started cooperating with Western European companies while still a part of former Yugoslavia. In 2002, the share of the T/C industry in Slovenia reached 6% of total manufacturing production and 12.3% in employment. In absolute size, measured as production converted at current exchange rates, the Slovenian T/C industry ranked 5th among the NMS (see Table 1 in section 2). However, during the period 1997-2002, T/C production declined significantly at an average annual rate of 4.6%, pointing to serious problems and a process of downward adjustment of the industry.

Within the T/C industry, the *textile* industry is far more important than the *clothing* industry. With textiles reaching more than 70% of total T/C production, Slovenia follows the pattern of the advanced EU-15 countries rather than that typical for the NMS. Nevertheless, owing to the more labour-intensive character of the clothing industry, more than half of the T/C workers in Slovenia are employed in the clothing industry (see Tables 1a and 1b in section 2). Also, the decline of production (in real terms) was less pronounced in textiles than in clothing and thus the share of the textile industry has increased considerably since 1997 (see Figure 16).

Figure 16

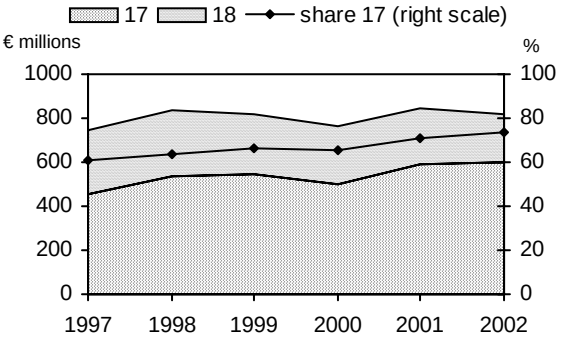
Slovenia: Textiles and textile products

Industrial production index (const. prices 99, NCU), 1997=100



Source: WIIW Industrial Database.

production (at current prices) 17, 18



Source: Supporting Tables SI1 and SI4.

The Slovenian textile industry

There were about 940 enterprises in the Slovenian textile industry producing textiles worth €600 million in 2002 and employing nearly 14,000 persons. In the period 1997-2002, textile production in (real terms) declined, while overall manufacturing expanded in Slovenia. But the textile industry did much better than the clothing industry and the share of textiles in T/C production increased from 60 to 74%. Employment in the textile industry declined too, with the exception of one important sub-sector, namely 'manufacture of made-up textile articles, excl. apparel' (17.4), pointing to successful restructuring in this field (see Figure 16 and Supporting Table SI1).

Industry structure: Most (90%) of the Slovenian textile enterprises are small- and medium-sized (see Supporting Table SI2). Privatisation has been partially completed, but one has to keep in mind that the system of 'labour-self-management' Slovenia has inherited from its past as a part of Yugoslavia is different from the system of 'state-owned' enterprises that prevailed in the other NMS before transition. Foreign ownership is generally small in Slovenia owing to a rather cautious attitude towards Foreign direct investment (FDI) in the country and is therefore of minor importance in the textile sector as well. One important foreign investor (Italian) to be mentioned is the Gruppo Bonazzi. The major textile companies are listed in Supporting Table SI3. There is no significant regional concentration, but there are certain regions where the concentration of businesses involved in the textile industry is higher than the national average, such as in the northwest of Slovenia including the Ljubljana region.

The largest sub-sectors in terms of the NACE rev.1 classification is 'manufacture of made-up textile articles exc. apparel' (17.4), accounting for two-thirds of total production in the sector. It has also been the fastest growing segment of the textile industry over the last five years. Other important sub-sectors are 'manufacture of other textiles' (17.5) and 'textile weaving' (17.2), with production shares of 9% and 7% respectively.

Modernisation/technology: The restructuring process of the sector is considered to be at an intermediate stage. However, in some companies, the technology used is very advanced.

Investment/production capacities: Investment activity is considered insufficient to adjust to the modern requirements in terms of machinery and equipment in the last five years – the main problem being access to finance. Yet there is a problem with excess capacity and a further decrease of textile production is expected in the near future.

Inputs and factors of production: Rising labour costs is a problem seriously threatening the competitiveness of the industry.

Social and environmental issues: No specific problems to comply with the *Acquis Communautaire* with regard to environmental protection or labour laws were mentioned. The share of female employment in the textile industry is about 70%. The educational level is only slightly lower than in the manufacturing industry on average: 6.5% of employees have a post-secondary degree, 2% have a secondary degree, one-third are qualified and one-third are non-qualified workers.

The Slovenian textile industry within an enlarged EU as seen by local experts: The industry is highly specialised. The strong export orientation makes the sector heavily dependent on global competitiveness and trends. Rising labour costs and insufficient investment are eroding existing competitive advantages. Declining competitiveness on the global and domestic markets is urging the industry to adopt new strategies in the direction of raising quality, introducing local trademarks and further rationalisation. But from an overall point of view, the prospects of the industry are seen as poor and a further decrease of textile production in Slovenia is expected in the future. Basically, the textile industry in Slovenia is sharing similar problems as in the old member states.

The Slovenian clothing industry

There were about 2,000 clothing companies in Slovenia producing apparel worth €215 million and employing 14,500 persons in 2002.[37] Over the period 1997-2002, clothing production declined dramatically (in real terms) and much faster than the textile industry in Slovenia (see Figure 16). About 5,000 jobs were lost in the same period (see Supporting Table SI4).

Industry structure: About 95% of all clothing enterprises in Slovenia are small and only less than 3% can be classified as large enterprises (see Supporting Table SI5). Privatisation has been partially completed, but one has to keep in mind that the system of 'labour-self-management' Slovenia has inherited from its past as a part of Yugoslavia is different from the system of 'state-owned' enterprises that prevailed in the other NMS before transition. Although foreign direct investment (FDI) in Slovenia is generally small, owing to a rather cautious attitude towards FDI, the development of the majority of clothing companies is connected in one way or another to foreign business partners (the Slovenian clothing industry exports around 50% of its production). One important foreign investor to be mentioned is Escada.

[37] According to Eurostat, NewCronos, SBS. Notably, data for the Slovenian manufacturing industry differ very strongly depending on the respective source.

There is no significant regional concentration in the clothing industry, but there are more large clothing companies in the east of Slovenia, including the Maribor area. The major clothing companies in Slovenia are listed in Supporting Table SI6.

As usual, the largest sub-sector in terms of the NACE rev.1 classification is 'manufacture of wearing apparel and accessories' (18.2), while the share of products from leather and fur is less than 2% (see Supporting Table SI4). Important product groups are women's wear and men's wear.

Modernisation/technology: Regarding the position in the value-added chain, the Slovenian clothing industry is mainly engaged in original equipment manufacturing (OEM). Over the last five years, a process of upgrading can be observed and there are attempts to develop own-brand names. Outward processing ('wage-work') performed by Slovenian companies is gradually decreasing while outward processing from Slovenia to lower-wage countries is now considered a viable option for the industry.

Investment/production capacities: Investment activity is considered insufficient to adjust to modern requirements in terms of machinery and equipment over the last five years – a major problem being access to finance.

Inputs and factors of production: The industry is highly dependent on material imports. With the clothing industry being relatively more labour intensive, rising labour costs are threatening the cost-competitiveness of the clothing industry even more than that of the textile industry.

Support programmes: The process of de-industrialisation is highly prevalent in the clothing industry, reflected in a substantial decrease of employment – by more than 25% in the period 1997-2002 (see Table SI4), which additionally declined by 11.8% in 2003. As the difficulties in the clothing industry are also reflected in billions of losses over the last few years, the government is providing financial support to the industry for restructuring.

Social and environmental issues: No specific problems of complying with the *Acquis Communautaire* are expected. The share of female employment is higher than in the textile industry and reaches 85%. The educational level is lower compared with the textile industry and manufacturing on average: only 3.9% employees have a post-secondary degree, 15% have a secondary degree, 40% are qualified workers and 37% are semi-qualified or non-qualified workers.

The Slovenian clothing industry within an enlarged EU as seen by local experts: Because of the small domestic market, the Slovenian clothing industry is very export-oriented and in the past Slovenian companies have successfully established themselves as producers in the higher segments of the clothing industry. But rising wages are affecting the clothing industry even

worse than the textile industry. A reduction of labour costs is not feasible as already one-third of employees only earn minimum wages. Instead, the industry is urged to adopt new strategies in the direction of raising quality, introducing local trademarks and further rationalisation. Originally a target for outward-processing trade (OPT), Slovenian clothing producers are now on the way to using OPT as a means to bring down their own costs. However, business results in the recent past were not satisfactory, showing a worsening financial situation, increasing losses, decreasing production and employment. As an overall assessment, the future prospects of the Slovenian clothing industry are viewed as poor. Basically, the clothing industry in Slovenia is sharing similar problems as in the old member states.

Supporting Tables Slovenia

Table SI1
Slovenia – Textile sector (17)

Gross output, in current prices (€ millions)

		1997	1998	1999	2000	2001	2002 [1)]
17.1	Preparation and spinning of textile fibres	47.8	55.5	46.0	54.0	57.7	57.1
17.2	Textile weaving	92.2	95.5	83.0	83.8	80.7	79.3
17.3	Finishing of textiles	40.7	42.0	47.2	56.3	69.4	71.8
17.4	Manuf. of made-up textile articles, excl. apparel	177.0	241.8	288.2	560.4	792.1	717.3
17.5	Manuf. of other textiles	81.2	91.2	88.1	89.9	93.7	95.4
17.6	Manuf. of knitted and crocheted fabrics	7.9	7.7	7.1	0.0	0.0	6.4
17.7	Manuf. of knitted and crocheted articles	70.2	71.6	63.9	66.3	65.2	59.3
17	*Sum 17.1 -17.7*	*516.9*	*605.2*	*623.5*	*910.7*	*1158.7*	*1086.7*
17	**Manufacture of textiles**	**453.4**	**532.7**	**543.8**	**498.5**	**593.9**	**604.0**
D	Total manufacturing	10364.9	11155.5	11145.4	12591.3	13018.4	13699.1

Employment

		1997	1998	1999	2000	2001	2002
17.1	Preparation and spinning of textile fibres	1388	1300	1081	1037	1075	1203
17.2	Textile weaving	3053	3015	3123	2533	2368	1929
17.3	Finishing of textiles	543	562	588	664	666	640
17.4	Manuf. of made-up textile articles, excl. apparel	3775	4220	3776	4393	4620	4408
17.5	Manuf. of other textiles	2216	2165	2062	2000	1985	1737
17.6	Manuf. of knitted and crocheted fabrics	151	127	111	0	0	96
17.7	Manuf. of knitted and crocheted articles	3063	2932	2361	2344	2119	2178
17	*Sum 17.1-17.7*	*14189*	*14321*	*13102*	*12971*	*12833*	*12191*
17	**Manufacture of textiles**	**15193**	**15492**	**14808**	**14111**	**14379**	**13775**
D	Total manufacturing	229202	227358	224218	224529	226877	229559
ER	Exchange rate SIT/EURO (ECU)	180.399	186.270	193.625	205.032	217.185	226.224

Note: 1) Gross output from sales.

Sources: AJPES Agency for public records and statistics; SORS Statistical Office of RS, ZAP/M; 17, WIIW Industrial database.

Table SI2

Size structure in the Slovenian textile industry

	Total	Small	Medium	Large
Number of enterprises	100 %	83.3%	7.1%	9.6%

Source: AJPES Agency for public records and statistics, from Slovenian Textile Report.

Table SI3

The ten most important companies in the Slovenian textile industry, 2002

	Name of company	Location		Activity
1	PREVENT	Slovenj Gradec	17.40	Car seat coating, working clothes, gloves
2	AQUASAVA D.O.O. KRANJ	Kranj	17.21	Finishing; cotton-spinning, cotton-weaving
3	TOSAMA D.D.	Domžale	17.54	Textile; non-woven products – sanitary material
4	BETI METLIKA, D.D.	Metlika	17.72	Knitwear; throw and preparation silk, synthetic; knitted and crocheted fabrics; underwear
5	POLZELA, D.D.	Polzela	17.71	Hosiery - knitted and crocheted
6	PREDILNICA LITIJA D.D.	Litija	17.10	Spinning – cotton and cotton-type yarn, yarn made of synthetic fibres, flax and blends
7	SVILANIT D.D.	Kamnik	17.40	Household linen, cotton-weaving, finishing of textiles
8	TEKSTINA D.D. AJDOVŠČINA	Ajdovščina	17.20	Weaving; spinning cotton-type fibres, finishing
9	BETI PREJA D.O.O.METLIKA	Preja	17.10	Spinning; processing and dyeing of all kinds of PA and PES synthetic yarns
10	FILC D.D. MENGEŠ	Mengeš	17.53	Non-wovens for building, automotive, furniture industry and filtration

Sources: Slovenian Textile Report and www.rumenestrani.com, from Slovenian Clothing Report.

Table SI4

Slovenia – Clothing sector (18)

Gross output, in current prices (€ millions)

		1997	1998	1999	2000	2001	2002 [1)]
18.1	Manufacture of leather clothes	3.87	3.94	2.80	2.96	4.17	4.40
18.2	Manufacture of other wearing apparel and accessories	300.39	301.81	282.86	277.86	277.70	252.01
18.3	Dressing and dyeing of fur, manufacture of articles of fur	0.15	0.00	0.01	0.05	0.01	0.01
18	*Sum 18.1-18.3*	*304.41*	*305.74*	*285.67*	*280.86*	*281.88*	*256.41*
18	**Wearing apparel; dressing and dyeing of fur**	**289.65**	**299.30**	**270.33**	**261.16**	**248.32**	**214.50**
D	Total manufacturing	10364.9	11155.5	11145.4	12591.3	13018.4	13699.1

Employment

		1997	1998	1999	2000	2001	2002
18.1	Manufacture of leather clothes	500	418	294	183	223	338
18.2	Manufacture of other wearing apparel and accessories	15776	15104	14817	13235	12140	11297
18.3	Dressing and dyeing of fur, manufacture of articles of fur	71	61	87	95	118	39
18	*Sum 18.1-18.3*	*16347*	*15583*	*15198*	*13513*	*12481*	*11674*
18	**Wearing apparel; dressing and dyeing of fur**	**19547**	**18502**	**17976**	**16875**	**15419**	**14547**
D	Total manufacturing	229202	227358	224218	224529	226877	229559
ER	Exchange rate SIT/EURO (ECU)	180.399	186.270	193.625	205.032	217.185	226.224

Note: 1) Gross output from sales.

Sources: AJPES Agency for public records and statistics; SORS Statistical Office of RS, ZAP/M; 18, D WIIW Industrial database.

Table SI5

Size structure in the Slovenian clothing industry

	Total	Small	Medium	Large
Number of enterprises	100%	94.7%	2.7%	2.8%

Source: AJPES Agency of the RS for public records and statistics, from Slovenian Clothing Report.

Table SI6

The nine most important clothing companies in the Slovenian clothing industry, 2002

	Name of company	Location		Activity
1	MURA D.D.	Murska Sobota	18.22	Women's wear, men's wear
2	LISCA D.D. SEVNICA	Sevnica	18.23	Underwear, bathing suits, blouses
3	LABOD NOVO MESTO D.D.	Novo Mesto	18.22	Women's wear, men's wear
4	KOMET METLIKA D.D.	Metlika	18.23	Underwear
5	PIK D.D.	Maribor	18.23	Underwear, workwear, women's wear, men's wear
6	KROJ, D.D.	Škofja Loka	18.22	Women's wear
7	GORENJSKA OBLAČILA D.D. KRANJ	Kranj	18.22	Women's wear: jackets, coats, dresses
8	ASKOT D.O.O.	Ptuj	18.24	Young Fashion - sportswear
9	LOHNKO INŽENIRING D.O.O. LJUBLJANA	Ljubljana	18.24	Wearing apparel

Sources: Slovenian Clothing Report and www.rumenestrani.com, from Slovenian Clothing Report.

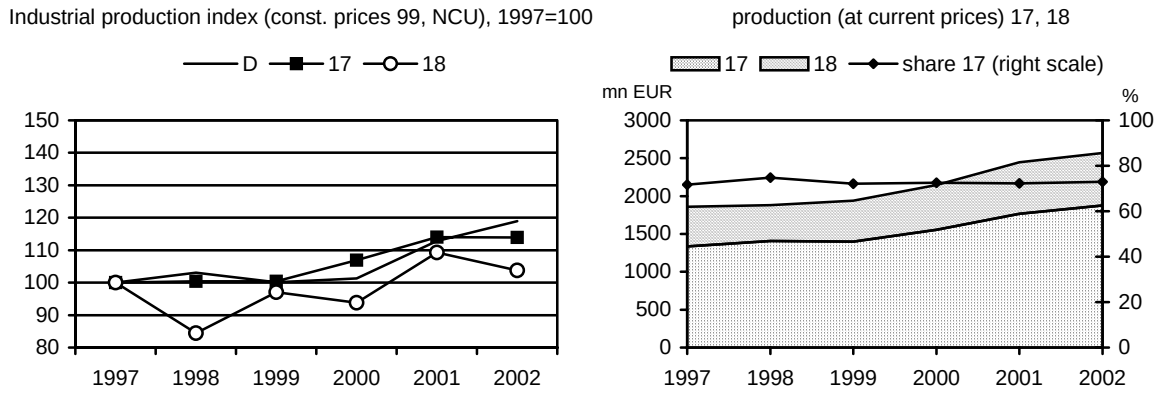
4.8 Czech Republic[38]

Overview

The Czech Republic is the second largest producer of textiles and clothing among the NMS after Poland. Nevertheless, production made up only 1.1% of total EU-25 T/C production if converted at market exchange rates and 2% if converted at PPS in 2002. Within the domestic economy, the T/C industry does not play a prominent role, with basic metals, electrical and optical equipment and transport equipment being the dominant industries in the Czech Republic. In 2002, the T/C industry was holding a share of 3.8% in total manufacturing production and about 9% in employment, slightly below the NMS on average and comparable to Hungary and Poland. Over the period 1997-2002, production (at constant prices) fluctuated heavily and on average declined slightly contrary to manufacturing as a whole which expanded at an annual average rate of 3.5% (see Tables 1 and 2 in Chapter 2 of this report). Within the T/C industry, the textile industry plays a dominant role with a share of 73% in production and 56% in employment, much higher than in the NMS on average and even higher than in the EU-15 countries (See Table 1).

Figure 17

Czech Republic: Textiles and textile products



Source: wiiw Industrial Database

[38] This section is largely based on the detailed analysis of the T/C industry in the ‚Panorama of Czech Industry 2003, published by the Czech Ministry of Industry and Trade, see: Ministry of Industry and Trade (2004) in the Bibliography

The Czech textile industry

There exist more than 2400 textile enterprises in the Czech Republic, producing textiles worth EUR 1877 mn and employing about 65 000 persons in 2002. During the period 1997-2002, textile production (at constant prices) increased moderately but less than manufacturing on average (see Figure 22). The decline in 2002 was mainly a consequence of suspended production due to the heavy floods striking the country in summer of that year.
Yet employment declined significantly, by 20 000 persons (-25%), pointing to a strong rise in labour productivity (see Supporting Table CZ1).

Industry structure: The most important part of production is realised in large enterprises with 250 and more employees, corresponding to the fact that the textile industry is a rather capital and technology intensive industry. In 2002, the share of this group of enterprises in sales was about 64%, (see Supporting Table CZ2). Privatisation of the sector is completed. The major textile & clothing companies are listed in Table CZ3[39]. Foreign investment plays a significant role in the sector, the most prominent foreign invested companies being the following: Toray Textiles Central Europe, Pegas DS, Schoeller Litvínov, Nová Mosilana, Velveta, Juta, Veba textile factories, Pegas –NT, Nejdek wool-teasel, Ideal Automotive bor. The biggest sub-sector in terms of NACE rev.1 classification is ‘’textile weaving’ (17.2) accounting for 43% of receipts from sales, followed by ‘manufacturing of other textiles’ (17.5) and ‘manufacture of made-up textile articles, except apparel (17.4). A significant regional concentration of production can be observed in Hradec Králové region, Pardubice region, South Moravian region but to a lesser extent in the Ústí nad Labem and Liberec regions as well.

Modernisation / Technology: Investment is considered too low to meet the needs for restructuring, due to the lack of capital. There is however, a considerable production of technology intensive goods, such as technical textiles (included in ‘NACE 17.4: ‘manufacture of made-up textile articles, except apparel’) which is enjoying a considerable demand on the EU market. However, the share of outward processing trade OPT), leaving the domestically generated value added relatively low, is still high, reaching 37% of the industry’s turnover in 2002. The highest share of OPT in turnover was reached in ‘finishing of textiles’ (17.3) and ‘made-up textile articles, except apparel’ (17.4.).

Investment / production capacities: Investment (at constant prices) is moderate and declining since 1998 in spite of the need for restructuring and innovation of production (see Supplementary Table CZ4). It is considered insufficient and does not even cover simple

[39] No separate listing of textile and clothing enterprises was available, partly due to the mixed character of some enterprises.

reproduction of the basic equipment. The investment activity is also low when compared with the EU-15 countries. Investment activity increased slightly in 2002. The unsatisfactory investment in the textile industry is one of the reasons for its lagging behind in productivity. Foreign direct investment plays an important role for the development of the industry. In 2002, there were 45 enterprises with 100 and more employees under foreign control.

Inputs and factors of production: Of the fibres used in the textile industry, 90% are imported (98% of natural fibres and 80% of chemical fibres). Also, a considerable part of other material inputs and accessories is imported as a consequence of OPT. Labour costs in the Czech Republic are relatively high compared to the other NMS, but reached still only about 20% of the average EU-15 level in 2001. Notably, over the period 2000-2002, appreciation of the Czech koruna has reduced prices of imported raw materials (e.g. cotton) but raised labour costs in terms of euro significantly (see Figure 9 in Chapter 3 of this report).

Support programmes: There exist support programmes for R&D and assistance is provided for small and medium sized enterprises. In 2002, on top of these measures, a 'Sector Operational Programme' (SOP) was launched, supporting research in non-standard production of new kinds of fibre mixtures, using indigenous renewable raw materials. A programme: 'Development of production groups utilizing indigenous renewable resources' was also published.

Research & development: In 2002, 4 companies with 7 projects were participating in the industrial research and development programmes assisted by the state. Among the production groups, there is a certain R&D group in the cotton industry only, which submits basic information about the development of machinery, equipment and technology, prepares research and takes orders for industrial development. This activity is provided by the 'Research Institute of the Cotton Industry' (Výzkumný ustav bavlnářský), Joint –Stocks Co. in Ústí nad Orlicí and by Inotex, Joint Stocks Co. Dvůr Králové nad Labem.

Acquis Communautaire: The three specific EU directives in force in the textile and clothing industry's field, namely the Directive 96/74/EC on textile names as amended by Directive 97/37/EC ('Textile Names Directive'), the Directive 96/73/EC on certain methods for the quantitative analysis of binary textile fibre mixtures and the Directive 73/44/EEC on the approximation of the laws of the Member States relating to the quantitative analysis of ternary fibre mixtures ('Testing Methods Directives') are adopted since 1999. On 1st July 2003, the Law No. 76/2002 on integrated prevention and pollution control and on integrated register of pollution ('Law on integrated prevention') entered into force. The textile manufacturers are also listed in point 6.2 : 'Factories for initial preparation (washing, bleaching etc.) or colouring of fibres and textiles with a manufacturing capacity of more than 10 tons daily'. By this law, the EU Directive

No. 96/61/EC on Integrated Prevention and Pollution Control (IPPC) has been implemented. According to the law, for the manufacturers concerned, all licenses for operation of their plants were terminated. Based on their application, new so called 'integrated' licenses will be issued. On 1st January 2003, a new regulation No. 554/2002 of the Ministry of Environment Protection (MEP) entered into force, in which the model of application for issuing an integrated license is determined.

Notably, the new regulation on registration, evaluation and authorisation of chemical substances (REACH) currently under preparation in the EU will have significant consequences for the textile industry as well.

The Czech textile industry within an Enlarged Europe - concluding remarks

In the past, the Czech Republic has been a net exporter of textiles to the world and the EU and it holds a significant share in world exports of textiles However, recently this surplus has declined as the industry is getting under increased pressure from competition of other important textile suppliers (e.g. China), as a consequence of the enhanced liberalization of the trade with textile products and rising wages in euro and in US-dollar terms[40]. At the same time, investment in modernization and restructuring towards higher value added products is low and the share of outward processing trade remains high. There are, however, certain strength of the Czech textile industry as well, such as the still relative low costs compared to the OMS, proximity to advanced markets, long-lasting tradition and skills and the existence of a qualified workforce.

Accession of the Czech Republic to the EU on 1 May 2004 brought an extension of import quotas for several products of the textile and clothing industry from non-member countries as part of the common external trade policy, enhancing competition on the domestic market. Furthermore, on 31 December 2004 the Agreement on Textiles and Clothing (ATC) will be phasing out and all existing quotas for textile and clothing products from third countries as far as they are members of the World Trade Organisation (WTO) will be removed. For almost half of the products of the Czech textile and clothing industry this may bring further aggravation of competition, mainly from Asian producers and in particular for less sophisticated standard products, namely from cotton and mixture with cotton.

[40] The liberalization process of the trade in textiles commenced in 1995 with the implementation of the Agreement on Textiles and Clothing (ATC) in the framework of the World Trade Organisation (WTO) and will be completed with 31 December 2004 – see below. As regards cost competitiveness, according to the 'Meliand International (no 6/2003), in 2002, the wage level in the Czech textile industry reached 19% of the US wage level, while the lowest costs were realized in Bangladesh and Pakistan, coming up to 2% of US wages only (Ministry of Industry and Trade (2004), p. 81).

To meet these challenges and taking into account that the Czech labour cost advantages may be considered short to medium term only, more investment in modernization of production and higher emphasis on R&D and innovation would be necessary. Basically, in order to survive, the Czech industry should follow the example of the OMS and move-up the valued added chain for instance by specializing in high-tech niche products, while still enjoying its (temporary) labour cost advantages. But the question remains open, whether there will be enough investment (domestic and/or foreign) available for this purpose, given the fact that the performance of the sector has been deteriorating lately and that other NMS have similar strength as the Czech Republic but lower wages and may also have reached a more advanced stage of modernization. And thus they may have better short to medium term prospects in an enlarged Europe.

The situation in the industry also demands changes of the industrial policy of the Czech Republic in such a way that it would better reflect the needs of the industry after accession. In particular, it is necessary to adjust the criteria for the use of public and EU structural funds assistance in a way, that it would be available for textile enterprises – in particular small and medium sized enterprises which form a substantial part of the industry and probably need the most support for survival. It should help them to get involved in R&D activities and innovation, to get access to information & communication technologies and to apply the best practice available.

The Czech clothing industry

There exist about 8400 clothing enterprises in the Czech Republic, the largest number among the NMS after Poland (including the two candidate countries Bulgaria and Romania). In 2002, these enterprises produced apparel worth EUR mn 693 and employed 50 000 persons. During the period 1997-2002, the clothing production (at constant prices) hovered around the level of 1997, with a worse performance in the beginning of the period than later, except in 2002, when the disastrous summer floods of that year had a negative impact on the output of the clothing industry as well (see Figure 22). The number of employees in the clothing industry is declining strongly since 2000, influenced by the enhancement of minimum wages (wages in the clothing industry are the lowest in manufacturing). The number of jobs lost between 2002 and 1997 was 17 000 (-25%).The employment decline was much more pronounced than in the manufacturing industry on average (see Supporting Table CZ5 and Table 3 in Chapter 2).

Industry structure: The size structure of enterprises in the Czech clothing is exactly the reverse of that in the textile industry: two thirds of the production is supplied by small and medium enterprises - half of which are very small ‘micro’ enterprises with less than 9 employees- and

one third is produced by large enterprises (more than 250 employees) – see Supporting Table CZ6. Privatisation of the sector has been completed. The major textile and clothing companies are listed in Table CZ3. There are some foreign investors in the clothing industry but co-operation agreements (OPT) play the dominant role. As usual, the by far biggest sub-sector in terms of NACE rev.1 classification is the 'manufacture of (other) wearing apparel and accessories' (18.2), accounting for 97% of production in 2002 (see Supporting Table CZ5). There is a significant regional concentration in the South Moravian region accounting for 16% of the industry's sales. Other typical regions for the clothing industry are the following: Olomouc, Vysočina (Highland), South Bohemia and Moravia-Silesia. (South Moravia is also an important production location for the textile industry).

Modernisation / technology: A major characteristic for the Czech clothing industry is the still high share of outward processing trade. OPT, including the cost of material, reached approximately 60.6% of exports and 40% of the turnover in the industry in 2002. This had a negative impact on the creation of own models, the planning of production and other activities connected with more sophisticated parts of products. However, compared to 1997, the shares have declined significantly (see Supporting Table CZ7), indicating a certain moving-up in the value added chain of the Czech clothing industry. Yet this may be a kind of forced restructuring as wage costs in the Czech clothing industry went up considerably due to currency appreciation.

Investment / production capacities: The amount of investment in the Czech clothing industry is unsatisfactory and is considered the major reason why the industry is lagging behind the OMS in terms of productivity. Based on data for 2001 we also find that it were mainly the very large companies with more than 1000 employees which invested considerably in machinery and equipment. In 2002, investment in the Czech clothing industry declined significantly and was the lowest since 1997, due to a decline of overall growth, a recession in the world economy and exchange rate effects (see Supporting Table CZ7).

Foreign direct investment plays a less important role than in the textile industry, as OPT characteristic for the clothing industry is based on work contracts and other forms of foreign co-operation rather. But the stock of foreign direct investment has increased significantly since 1997. Notably, foreign invested companies are better equipped with machinery and therefore they are more productive: In 2002, companies under foreign control with 100 and more employees generated CZK 229 000 (EUR 7448) of value added per person employed while other enterprises in the clothing industry reached 171 000 CZK (EUR 5566) only, which was also affected by OPT.

Inputs and other factors of production: In certain product groups, especially in the important 'manufacture of (other) wearing apparel and accessories' (18.2), the share of materials with foreign origin is steadily growing. The reason behind is that for the overwhelming part of assortments the domestic manufacturers are not able to satisfy the requirements of the final customer in terms of quality. Notably, the use of materials from new kinds of fibres ('high tech' fibres) and textiles subject to special treatments resulting in high wear comfort is still very limited in the Czech clothing industry.

Labour costs, playing a very important role in the clothing industry and for OPT in particular, are still low compared to the OMS reaching only about 20% of the average EU-15 level in 2001, but are relatively high compared to the other NMS. Notably, over the period 2000-2002, appreciation of the Czech koruna has reduced prices of imported inputs, but has raised labour costs in terms of euro significantly (see Figure 9 in Chapter 3 of this report).

Research & development: The expenditure for research and development in the branch is not satisfactory. The only research institute in the field of clothing manufacturing was disbanded and any other organization providing systematic industrial research and development does not exist.

Customer relations: A specific feature of the Czech clothing industry is the high level of cooperation with external customers particularly from the OMS, as typical for outward processing.

Social and environmental issues, *Acquis Communautaire:* There is the feeling that increased requirements on business ethics and the compliance with the EU labour, health and safety regulations after accession may have a negative impact on the competitiveness of Czech clothing producers on external markets. For further issues regarding the Acquis see section on the Czech textile industry above.

The Czech clothing industry within an Enlarged Europe - concluding remarks

In the past, the Czech Republic has been a net exporter of clothing to the world as well as the EU and clothing has a top position in Czech exports to the EU-15.The high positive balance is partly due to the fact that imports of basic materials for inward processing are mostly included under 'textiles' (CPA 17). However, recently the sectoral surplus has declined with the industry getting under increasing pressure from competition of other important clothing suppliers (e.g.

China) [41], as a consequence of the enhanced liberalization of the trade with textile products and rising wages in euro / US-dollar terms[42]. On the export side, the decline of OPT which is most sensitive to cost increases has not been adequately substituted, among others due to the lack of high quality products for demanding advanced markets which again is a consequence of insufficient investment and R&D in the industry. After EU accession, more FDI associated with modern machinery and equipment is expected but whether these hopes will become true is doubtful. Wages in the Czech clothing industry are still low compared to the OMS but are relatively high compared to the other NMS and in particular compared to the low wage developing countries in Asia[43]. There are, however certain strengths of the Czech clothing industry such as proximity to advanced markets, a long experience in production cooperation with clients from the OMS, good quality of products and the existence of a qualified and adaptive workforce. Also, new opportunities after EU accession will include a better protection against unfair trade protection from third countries and the possibility, mainly for SMEs, to participate in EU programmes and to utilize Structural Funds assistance. On the negative side, competition is expected to increase and domestic producers will have to meet the increased requirements with regard to business ethics and the regulations in the field of labour rights, safety of work and health protection which may raise their costs. Accession has further brought an increase of import quotas for several products of the textile and clothing industry from non-member countries as part of the common external trade policy, enhancing competition on the domestic market.

Furthermore, on 31 December 2004 the Agreement on Textiles and Clothing (ATC) will be phasing out and all existing quotas for textile and clothing products from third countries as far as they are members of the World Trade Organisation (WTO) will be removed. For almost half of the products of the Czech textile and clothing industry this will bring additional competition, mainly from Asian producers and in particular for less sophisticated standard products, namely from cotton and mixture with cotton.

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[41] In 2002, the most important source for Czech (direct) clothing imports was China reaching a share of 24 % in total, whereby the net balance in trade was - 3.8 bn CZK (-128 mn EUR).

[42] The liberalization process of the trade in textiles commenced in 1995 with the implementation of the Agreement on Textiles and Clothing (ATC) within the framework of the World Trade Organisation (WTO) and will be completed on 31 December 2004 – see below.

[43] According to the 'Meliand International (no 6/2003), in 2002, the wage level in the Czech textile industry reached 19% of the US wage level, while the lowest costs were realized in Bangladesh and Pakistan, coming up to 2% of US wages only (Panorama of Czech Industry 2003. p. 81).

In the light of these challenges and taking into account the fact that Czech labour cost advantages are probably a short to medium-term advantage only, enhanced restructuring and modernization oriented on design, innovations and creativity will be necessary. The production must move up the value added chain and shift to the manufacture of wearing apparel of higher quality and of products for specific use (sports, workwear for demanding operations etc) which will imply the enhanced use of new chemical fibres and fibre mixtures (‘high-tech’ fibres). Implementation of up-to-date information and communication technologies is a must for the industry and better conditions for easier access of small and medium enterprises taking the major share in the industry should be considered. Without effective implementation of these measures, the future of the Czech clothing industry in an enlarged Europe will look rather gloomy. But the question is, whether there will be enough investment (domestic and/or foreign) available. Anyhow, employment in the clothing industry will continue to decline as a consequence of further concentration in the industry and the drive to enhance labour productivity.

Supporting Tables Czech Republic

Table CZ1

Czech Republic - Textile sector (17)

		1997	1998	1999	2000	2001	2002 [1)]
	Gross output (receipts from sales), in current prices (mn EUR)						
17.1	Preparation and spinning of textile fibres	162.5	125.2	138.7	193.6	205.2	204.5
17.2	Textile weaving	572.3	710.3	627.3	701.8	795.9	801.2
17.3	Finishing of textiles	80.4	66.3	113.4	112.5	122.2	127.6
17.4	Manuf. of made-up textile articles, exc. apparel	84.8	106.5	103.7	149.5	190.9	251.3
17.5	Manuf. of other textiles	291.5	268.6	275.8	265.2	316.9	367.7
17.6	Manuf. of knitted and crocheted fabrics	29.8	26.3	38.0	34.9	25.8	25.2
17.7	Manuf. of knitted and crocheted articles	113.1	102.9	100.9	99.2	107.4	99.3
17	**Manufacture of textiles**	**1334.4**	**1406.0**	**1397.8**	**1556.8**	**1764.3**	**1876.8**
	Value added (mn EUR)						
17.1	Preparation and spinning of textile fibres	49.1	38.1	39.8	58.3	59.3	57.4
17.2	Textile weaving	173.8	211.5	187.8	197.4	226.0	225.8
17.3	Finishing of textiles	24.1	20.9	29.6	36.3	37.8	40.2
17.4	Manuf. of made-up textile articles, excl. apparel	28.2	34.9	30.7	43.4	57.6	71.5
17.5	Manuf. of other textiles	93.5	82.7	89.7	76.6	89.5	106.1
17.6	Manuf. of knitted and crocheted fabrics	8.1	7.0	9.9	8.4	6.8	7.1
17.7	Manuf. of knitted and crocheted articles	44.9	40.7	37.6	36.6	42.2	35.6
17	**Manufacture of textiles**	**421.8**	**435.8**	**425.0**	**456.9**	**519.3**	**543.7**
	Employment						
17.1	Preparation and spinning of textile fibres	9853	7212	6969	7663	7284	6993
17.2	Textile weaving	33045	37454	31638	26929	26910	24865
17.3	Finishing of textiles	4695	2953	4370	4777	4497	4380
17.4	Manuf. of made-up textile articles, excl. apparel	6628	9387	7408	8464	8883	9017
17.5	Manuf. of other textiles	15560	12199	11777	11531	11351	10931
17.6	Manuf. of knitted and crochettd fabrics	1920	1278	1697	1064	907	827
17.7	Manuf. of knitted and crocheted articles	12928	9631	10439	8431	8475	7644
17	**Manufacture of textiles**	**84629**	**80114**	**74298**	**68859**	**68307**	**64657**
ER	Exchange rate CZK/EUR (ECU)	35.801	36.164	36.882	35.610	34.083	30.812

Note: 1) Constant prices of 2000.

Source: Panorama of Czech Industry 2003

Table CZ2

Size structure in the Czech textile industry 2002

	Micro (0-9)	Small (10-50)	Medium (50-250)	Large(>250)
Sales	5.5%	**5.4%**	**24.4%**	**64.6%**
Value added	**4.9%**	**5.8%**	**27.0%**	**62.3%**
Number of employees	**7.6%**	**8.3%**	**24.4%**	**59.7**

Source: Panorama of Czech Industry 2003, p.67

Table CZ3

Top 15 Companies in Textile & Clothing Industry in the Czech Republic*

Company	Sales (in mn CZK)	Sales (in mn EUR)	Number of Employees	Location	Share of Exports	Main Activities
Oděvní podnik, a.s.	2838.37	90.10	5724	Prostějov	65.0 %	Men's, women's and boys' clothing
Gumotex, a. s.	1906.00	60.50	1520	Břeclav	48.6 %	Finishing services of clothing
Nová Mosilana, a. s.	1846.72	58.62	960	Brno	96.0 %	Yarn of combed wool or fine animal hair, Woven fabrics of combed wool, Woven fabrics of synthetic staple fibres
SLEZAN Frýdek-Místek a.s.	1675.00	53.17	1829	Frýdek-Místek	72.0 %	Dyeing; woven fabrics of cotton, flax, artificial filament yarn and synthetic staple fibres; printing of woven fabrics
VELVETA a.s.	1523.24	48.35	1290	Varnsdorf	84.0 %	Dyeing, bleaching, printing and finishing of woven fabrics; women's and girls'/ men's and boys' clothes
Technolen technický textil a. s.	1446.26	45.91	766	Lomnice nad Popelkou	80.0 %	Tents (incl. caravan awnings); Polyvinil chloride depositional sail-cloth; Textile hosepiping and similar textile tubing; Woven fabrics of synthetic and artificial filament yarns
SCHOELLER LITVÍNOV k.s.	1344.00	42.66	757	Litvínov	80.0 %	All kinds of yarn
TIBA, a. s.	1303.95	41.39	1739	Dvůr Králové nad Labem	61.0 %	Dyeing, bleaching, printing and finishing of woven fabrics; furniture, linen, yarns
VEBA, textilní závody a.s.	1190.0	37.77	1530	Broumov	84,7 %	Bed linen and Table linen; Finishing services of clothing; Woven fabrics of cotton; dyeing and bleaching of woven fabrics
TEXLEN, a. s.	1038.15	32.95	1100	Trutnov	65.0 %	Dyeing, bleaching and printing; woven fabrics of all kind; Finishing services of clothing; linen production
JITKA, a.s.	902.43	28.64	850	Jindřichův Hradec	71.24 %	Woven fabrics of cotton; Dyeing; Cotton yarn; men's and boys'/ women's and girls' clothing
LANEX a.s. Bolatice	758.45	24.07	804	Bolatice	78.9 %	Articles of twine, cordage, rope or cables;
PERLA, bavlnářské závody, a.s.	744.05	23.62	1388	Ústí nad Orlicí	67.2 %	Dyeing of cotton yarn; Cotton yarn; Knitted/crocheted hosiery & footwear; Woven fabrics of cotton of different coloured yarns
OTAVAN TŘEBOŇ a.s.	738.36	23.44	1440	Třeboň II	61.31 %	Men's and boys'/ women's and girls' clothing
MILETA a.s.	714.13	22.67	1390	Hořice	66.0 %	Bed linen and Table linen; Finishing services of clothing; Woven fabrics of cotton; dyeing and bleaching of woven fabrics

* latest year available

Source: Association of Textile-Clothing-Leather industry (Asociace Textilniho-Odevniho-Kozedelneho prumyslu, ATOK); http://www.atok.cz/katoen/content.asp

Table CZ4

Development of tangible and intangible investments 1997-2002 in the Czech textile industry (mn CZ)

	1997	1998	1999	2000	2001	2002
Total investment, curr. Prices	4763	5055	4777	4366	4070	4089
Machinery and equipment	3277	3635	2689	2332	3142	2827
Total investment, cons. prices	4088	4272	3891	3429	3394	3384
….Machinery and equipment	2976	3277	2412	2090	2826	2630

Source: Panorama of Czech Industry 2003, p. 79

Table CZ5

Czech Republic - Clothing sector (18)

Gross output (receipts from sales), in current prices, (mn EUR)

		1997	1998	1999	2000	2001	2002 [1)]
18.1	Manufacture of leather clothes	10.8	11.3	11.0	13.5	14.3	5.0
18.2	Manufacture of other wearing apparel and accessories	492.9	445.7	519.1	560.2	649.3	671.2
18.3	Dressing and dyeing of fur, manuf. of articles of fur	23.1	16.9	10.5	14.1	16.7	16.7
18	**Wearing apparel; dressing and dyeing of fur**	**526.7**	**473.9**	**540.7**	**587.8**	**680.3**	**692.9**

Value added (mn EUR)

		1997	1998	1999	2000	2001	2002
18.1	Manufacture of leather clothes	3.4	4.3	3.2	5.0	2.6	1.5
18.2	Manufacture of other wearing apparel and accessories	187.0	194.2	216.8	240.4	205.6	185.6
18.3	Dressing and dyeing of fur, manuf. of fur	4.8	4.7	2.7	6.0	4.0	4.2
18	**Wearing apparel; dressing and dyeing of fur**	**195.2**	**203.2**	**222.7**	**251.4**	**212.2**	**191.3**

Employment

		1997	1998	1999	2000	2001	2002
18.1	Manufacture of leather clothes	1066	1027	1340	1164	803	287
18.2	Manufacture of other wearing apparel and accessories	64345	54585	64061	61476	53330	49318
18.3	Dressing and dyeing of fur, manuf. of fur	1960	1274	1301	1501	897	914
18	**Wearing apparel; dressing and dyeing of fur**	**67371**	**56886**	**66702**	**64141**	**55030**	**50519**
ER	Exchange rate CZK/EUR (ECU)	35.801	36.164	36.882	35.610	34.083	30.812

Note: 1) Constant prices 2000.

Source: Panorama of Czech Industry 2003

Table CZ6

Size structure in the Czech clothing industry 2002

	Micro (0-9)	Small (10-50)	Medium (50-250)	Large(>250)
Sales	32.4%	16.3%	18.4%	33.0%
Value added	6.5%	24.2%	29.9%	39.3%
Number of employees	22.5%	22.5%	23.7%	31.3%

Source: Panorama of Czech Industry 2003, p.67

Table CZ 7

The role of outward processing (OP) in the Czech clothing industry

Share of OP in turnover	57.2%	51.7%	46.2%	40.2%
Share of OP in exports	74.9%	70.7%	65.2%	60.5%

Table CZ8

Development of tangible and intangible investments 1997-2002 in the Czech textile industry (mn CZ)

	1997	**1998**	**1999**	**2000**	**2001**	**2002**
Total investment, curr. prices	825	592	480	545	990	387
Machinery and equipment	508	277	307	343	727	257
Total investment, cons. prices	508	277	307	343	727	257
….Machinery and equipment	461	250	275	307	653	240

Source: Panorama of Czech Industry 2003, p. 97

4.9 Bulgaria

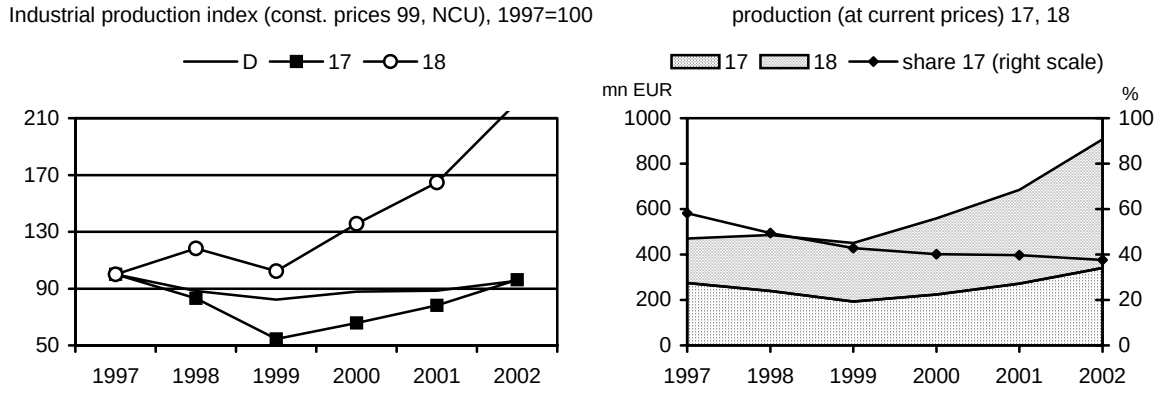
Overview

Bulgaria is not a member of the European Union yet but has the status of a candidate country (CC). However, the accession process is fairly advanced.

The T/C industry plays a relative important role within the domestic economy, reaching a share of around 10% in manufacturing production and nearly 30% in employment in 2002. Taking the EU-25 as a yardstick, the Bulgarian T/C industry comes up to 0.5% of total EU-25 production if output value is converted at current exchange rates (EUR 907 mn) and 1.3% if measured in purchasing power standards (PPS; EUR 2745 mn). With regard to individual NMS, Bulgarian compares well with the size of the T/C industry in Lithuania and Slovenia (ranking 4th and 5th among the NMS) and that of Hungary (ranking 3rd), if PPS are used for conversion (see Table 1 in Chapter 2 of this report). Over the period 1997-2002, the Bulgarian T/C production (at constant prices) rose at an annual average rate of 5.6%, while total manufacturing production stagnated, indicating rising specialisation of Bulgaria in this field (see Table 2 in Chapter 2). However, this was due to the dynamic development of the clothing industry mainly, with textile production hovering around the 1997 level (see Figure 23). Accordingly, the share of clothing in total T/C production increased considerably reaching 62% in 2002, which is much higher than in the EU-15 on average and also higher than in the NMS, except in Cyprus and Malta.

Figure 18

Bulgaria: Textiles and textile products



Source: wiiw Industrial Database

The Bulgarian textile industry

There exist about 730 enterprises in the Bulgarian textile industry producing textiles worth EUR 341 mn and employing about 35000 persons. During the period 1997-2002, the textile production stagnated (in real terms) and employment dropped considerably by about 25%; about 12000 jobs got lost (see Supporting Table BG1). With the clothing industry expanding very fast, the share of textiles in total T/C production (at current prices) declined significantly from 58% to 38% (see Figure 18).

Industry structure: Unlike in the clothing industry, enterprises are typically large, but no exact figures were available. The industry is 100% private. There are foreign investors – for instance Marland International (Ireland), Maser (Turkey), Salvadori (Italia) and Miroglio (Italia)[44]. However, no exact percentage of foreign invested enterprises in total was available. The 10 top textile companies are listed in Supporting Table BG2. The by far main sub-industry according to NACE rev.1 classification is 'textile weaving' (17.2), followed by 'manufacture of knitted and crocheted articles (17.7) and 'preparation and spinning of textile fibres' (17.1 – see Supporting Table BG1). There is no significant regional concentration of the industry, however it is located in the big cities rather (Sofia, Plovdiv, Russe, Sliven, Kazanlak, Yambol, Varna and Burgas). Alternative employment opportunities mentioned for workers losing their job in the textile industry are the following: In cities like Burgas and Varna, people could find employment in tourism (home servicing). Existing retraining courses are usually again oriented to the sector: i.e. from the textile to the tailoring or shoe-making industry. Other opportunities for alternative employment can hardly be found.

Modernization / Technology: Restructuring and modernisation is considered to have reached a medium level; the industry is making some use of information technology. (IT is used for instance in the following companies: Katex-Kazanlak, Maritzateh-Plovdiv, Aglika-Tvarditza, Dunavska Koprina-Russe, Miroglio-Sliven.) However, machinery and equipment is generally old, typically older than 10 or even 15 years. Examples for companies with more modern equipment are: Miroglio –Sliven, and Yana-Burgas. There are only a few enterprises producing 'technical textiles' (e.g. packaging fabrics, fireproof fabrics), most of which are manufactured by order. There are no precise data, but no more than 20 firms have ISO certificates. Few firms have O(e)ko-Tex 100 certification (for example, Sunnytex-Mezdra).

[44] Miroglio Bulgaria AD the group's local subsidiary, has established five production units: a dyeing/printing factory based in Elin Pelin responsible for the production of rayon-based fabrics, cotton and polyester; a wool factory and a weaving factory based in Sliven, a spinning/twisting factory located in Nova Zagora

Investment / production capacities: Investment in the industry over the last 5 years is considered moderately sufficient to adjust to modern requirements Most investments are directed to the production of ready-made clothes and also concentrated on the production of woollen textiles and printing. There is a certain catching-up with new technologies in textile designe, in the finishing of textiles and in some companies complete systems for machine control have been introduced. Foreign direct investment plays a decisive role in the modernisation process. The Italian Miroglio Group is one of the largest foreign investors. Since entering the market in 1998, it's four production units combined employ roughly 1000 persons and approximately USD 250 mn have been invested in the sphere of silk and cotton manufacturing and in the finishing. Another prominent foreign investor is the German company Pirin Tex Ltd. Upon entering the Bulgarian market in 1993 through the creation of a local affiliate, Rollmann & Partner Fashion Managements Ltd, Pirin Tex has invested close to USD 19 mn in Bulgaria. With its two production facilities employing some 2000 workers, Pirin Tex serves as one of the largest employers in southwestern Bulgaria. Moreover, in operating a nation-wide chain of retail outlets under the brand name 'Rollman,' Pirin Tex hopes to strengthen its presence on the local market. Approximately USD 100 thousand have been invested in Bulgarian-Turkish joint ventures in Svilengrad and Kardjali.

There are quite a few excess capacities, but they are obsolete, rusty or plundered and are not operational. In the old days, 550 million meter of cloth were manufactured in Bulgaria while now some 35-50 million meter, or less than one tenth are produced.

Inputs and factors of production: Material inputs are mainly imported. Prices of local inputs are competitive and local quality is good, but quantities are not sufficient, There is not enough natural cotton, silk, wool, and men-made fibres are also short in supply. (Earlier there was a production of up to 26 000 tons of cotton, while the need was 40 000 tons, but now only 1500-2000 tons are produced). Imports come from Greece, Turkey and from some former Soviet Republics like Kazakhstan Uzbekistan etc. Yarns are imported mainly from Portugal, Italy and Turkey. The sole local manufacturer is Velbujd, but it does not get enough raw materials from Bulana-Neftochim in Burgas; the Yambolen-Yambol, and Vidlo-Vidin enterprises have been closed down. No rise in the local production of raw materials is expected for the near future. There exists no pedigree farm stock, because the emphasis has been laid on the production of meat, and that genetic stock will be hard to restore. The infrastructure does not raise any problems; there are enough resources like water and energy, the transport communications are considered good. The workforce and the average staff are skilled; however, management quality is sometimes low.

Research & development: Currently there is no research activity in the industry. Both, the so-called “bases for development and industrial transfer” with authorised laboratories, setting standards and maintaining contacts with almost all European countries and the Textiles Institute in Sofia are no longer in existence. There is a small laboratory with the Higher Institute of Chemical Engineering, but no standardisation of products is done which is considered a stumbling stone for the industry and for the consumers. Research co-operation between different enterprises and industry-university links are very weak.

Customer relations: There is virtually no cooperation between producers and domestic customers in Bulgaria which may have an impact on innovation in the industry, but there is a close cooperation with export customers in this respect.

Support programmes: The Ministry of Economics has started drafting a programme. There may be regional initiatives in some municipalities – for instance, to provide a site for construction etc., but they are not essential. The Small and Medium-Sized Enterprises Agency is responsible for programmes targeting SMEs, but so far no substantial results have been noted: if some small enterprises do get financing, it is at very hard conditions. A number of measures were suggested by the experts interviewed to support the ailing textile industry in Bulgaria: improvement of the business climate in general; inclusion of light industries in the sectors enjoying certain preferences; zero VAT for all firms in the T/C industry to do away with the shadow economy; alleviation of import quotas for raw materials; state subsidies for the industry which is an important employer/exporter in the economy. After EU accession, greater support is expected with regard to illegal imports damaging the industry and the abolition of preferences for certain raw materials thus providing more competitive conditions in this field. Finally, the Bulgarian Association of Textile and Clothing (BATEC) may request the cooperation of EU structures to exert pressure on the Bulgarian government to adopt supportive measures for the industry.

Social and environmental issues: Regarding the Acquis Communautaire, environmental regulations, occupational health and safety requirements and employment legislation will be important for the industry, with a special emphasis on environmental issues in the dying and finishing of textiles. However, no evaluation has been made of the necessary investments.

The share of female employment in the industry is very high, probably close to 90%. Working conditions are varying widely. However, the biggest companies are domestically owned and conditions there are quite hard and deteriorating. Nominally there is a freedom of workers association and collective bargaining, although in practice, the collective bodies are relatively weak. Regarding vocational training, a few secondary vocational schools exist. There are some

programmes to support employability of workers, but no employment safeguard plans and retraining programmes are known in the industry.

The Bulgarian textile industry within an Enlarged Europe as seen by local industry experts:

Unfortunately, no clear distinction between the textile and the clothing industry was made by the experts interviewed. However, for the T/C sector as a whole it was felt that it would remain internationally competitive if appropriate measures were taken. A specific weakness of the textile industry was seen in the fact that there are not enough enterprises for subsequent processing. There is a great number of enterprises manufacturing raw fabrics, but there are no enterprises for dying, finishing and design. On the positive side there are the very high skills of the workers and executives, the comprehensive training and longstanding traditions. Portugal, Spain and to some extent also Poland and the Czech Republic are seen the main competitors in the future, along with the old rivals: China (for all fabrics) and Turkey, India, Pakistan (for cotton). Specific threats / opportunities after becoming an EU member mentioned were the following: more competition; wages and prices may go up and certain orders / markets may get lost. On the positive side, improvement of the infrastructure, possibilities for swifter transportation and more investment are expected. For the export to EU member countries, intermediaries could be avoided and direct contacts established, saving costs for the producers. The phasing out of the Agreement on Textiles and Clothing (ATC) at the end of 2004 is seen to have considerably negative consequences for the industry and therefore the Bulgarian Association of Textile and Clothing (BATEC), together with representatives of other European countries, has signed a letter that the existing quotas should be frozen until 2010.

Regarding the individual sub-industries, the cotton industry is considered to have the best chance, because it has a long-standing tradition. Second comes the silk industry, because recently a new ‘cluster strategy ’ including production from silkworm, over silk cloth to silk clothing has been started. However, when the ATC quotas are dropped, silk from China can penetrate the market uninhibited and it is not clear yet whether the strategy is still viable.

The Bulgarian clothing industry

In 2002, there were about 3600 enterprises active in the Bulgarian clothing industry producing apparel worth EUR 566 mn and employing about 130 000 persons. The industry is the largest employer in Bulgaria, with a share of more than 20% in total manufacturing employment – this is a much higher share than in the NMS and also higher than in Romania. Over the period 1997-2002, the clothing production increased rapidly while manufacturing on average and the textile industry declined slightly. Employment expanded strongly as well in contrast to most NMS, showing increasing specialisation of Bulgaria in this field (see Figure 23 and Supporting Table BG3).

Industry structure: Historically, the Bulgarian clothing industry is dominated by small and medium-sized family enterprises. SMEs are estimated to account for around two-thirds of sales in the industry, but no exact statistical data were given. Nearly 100% of the firms are privately owned, Intendantsko Obsluzhvane [Commissarit] is the only company of which the state is a major owner. Foreign ownership is gaining importance. Examples for large foreign investors are: Hainer & Peter Roesler (Germany), Rollmann (Germany), Brandex (Netherlands). The share of foreign owned enterprises in total is estimated 8%- 10% (there are, however, problems regarding the statistical data). The 10 major Bulgarian clothing companies are listed in Supporting Table BG4. As usual, the dominant sub-sector in terms of NACE rev.1 classification is the 'manufacture of (other) wearing apparel and accessories' (18.2), accounting for more than 98% of production. There is no significant regional concentration of the clothing industry in Bulgaria, but there exist some kind of 'centers', e.g. Rousse, with a significant number of tailoring (and textile) firms. In Plovdiv and the regions of Pazardjik and Panagyurishte there is also a clustering of firms; in Blagoevgrad region many Greek investors can be found; in the Rhodopes and Kãrdjali there is also a greater concentration of mostly Turkish investors and there is a considerable number of firms also in Pleven, Vidin and Varna. In the Rhodopes and in Blagoevgrad the textile and tailoring industries are the sole opportunities for women and their families, because of the difficult transportation and commuting.

Modernization / Technology: The majority of the Bulgarian clothing enterprises is engaged in Original Equipment Manufacturing (OEM; 55%), i.e providing the products according to the specifications of the customer, who is selling the products under its own brand name, 25% are doing assembly only. Very few companies produce further up the value added chain (see Supporting Table BG5). A considerable percentage of medium and large companies is taking advantage of information technology. Most of the firms have no internal designers; they use patterns and specifications received by e-mail from customers. Electronic data interchange

between suppliers and retailers is limited to companies being also retailers[45]. International certifications and standardisation (ISO, CE-certification, O(e)ko-Tex Standard) are still rare in the Bulgarian clothing industry[46]. The firms working with materials supplied by the customers do not need such certificates. Certification is mostly requested from tailoring enterprises with a foreign partner, if the latter is demanding it.

Investment / production capacities: During the last years, the industry has expanded very fast and most companies were trying to extend and diversify production, using their own funds or bank loans. The extent of investment was considered 'moderately sufficient' by the experts interviewed. Foreign direct investment played a substantial role in the sector, e.g. Miroglio – Sliven, Rollmann – Sandanski. However, there exist excess capacities – but an operative reserve of at least 20-30% percent is a must in the industry. There are, however, machines which have not been used for years, but they account for only 1%.

Inputs and factors of production: Agriculture has been ruined, and consequently there are no raw materials (cotton, wool, silk) for potentially high quality output. There is also a shortage in the production of fabrics due to the lack of investments. Bulgarian firms are thus forced to import to a large extent. However, low-cost labour, skilled workers and specialists are easily available, due to a long tradition and a great number of vocational training schools in the country. Regarding infrastructure, there exist certain problems with local transport, mostly for small firms in the mountainous regions. After EU accession, improvement of the infrastructure including transportation, more investment and easier access to high-tech fabrics are expected.

Research & development: Training for the clothing industry is provided at the Technical University in Sofia, the New Bulgarian University, Sofia, the Academy of Fine Arts, a number of private educational establishments and vocational schools of tailoring. There is a close cooperation with the IT industry (software firms) to improve production processes, accounting, stock keeping etc.

Customer relations: There is a significantly rising pressure from the retail sector in the last five years in terms of timeliness and terms of delivery as well as prices. This could result in the closing- down of certain companies and an even more limited use of local suppliers, being less reliable. In export trade, there is still the problem of intermediaries, which is costly but is supposed to become obsolete after EU accession. Notably, the national clothing retailers exert a greater pressure on prices, but the foreign clothing retailers are extremely demanding as regards

[45] The Ruen company used to have an electronic information network in its shops in the country, but now it is not known whether there is such a practice.
[46] Just a few firms have been indicated: Moesia - Pleven, Rila Stil - Sofia, Albena – Dobrich, Druzhba Stil – Varna, Sevlievo, Vitex – Troyan, Katex – Kazanluk

deadlines. There is no significant process of concentration in the retail sector yet, but the situation is difficult to asses due to the large share of the shadow economy which combined with illegal imports poses a great problem to the clothing industry. There are only few specialised foreign clothing retailers present in Bulgaria at present, but their number is increasing and they are supported by the Bulgarian government as foreign investors. Clothing is also sold in foreign multiple retail chains such as Metro and Billa. There exist a few domestic own-branded retail chains, such as Rila Stil and some other bigger manufacturers, but not many. After EU accession, better safeguards against illegal imports and retailers are expected.

Support programmes: There are certain government programmes although very limited and on an individual basis and information is scarce – probably the best informed body in this respect is the Association of Apparel and Textile Exporters in Bulgaria (AATEB). Currently a strategy for the sector is developed by the Ministry of Economics together with foreign consultants (German Agency for Technical Cooperation, GTZ) There is also special support for SMEs offered by the Agency for Small and Medium-Sized Enterprises, but this does not have great effects either. Further on, there are possibilities via the European programmes ISPA and PHARE; here the problem for local firms is, how to defend their business projects as there is great corruption locally and nationally. More support for the sector with regard to technical up-grading, innovation and training is expected in the future. Supportive measures suggested by the experts interviewed include the following: fighting the shadow economy, extension of existing import quotas (ATC quotas); special support for technology and innovation; promotion of (regional) clusters; public finance for vocational training (there is a particular need for the training of middle tier managers).

Social and environmental issues: No large problems with regard to the Acquis Communautaire are expected as most firms comply already, but some will have to invest to improve working conditions.

Working conditions are differing widely. Generally, conditions have worsened during the past few years, although starting from a fairly high level. In some foreign invested enterprises, conditions are exemplary (e.g. Miroglio); negative examples are mostly companies belonging to the shadow economy where garages, former farming premises, etc. are used as workshops[47]. A particular problem are enforced working hours. There exist modern norms for flexible working time, but

[47] Notably, within the Confederation of Trade Unions in Bulgaria, representatives of the sub-organisation for the textile and tailoring industry have started a campaign in 1998, for the defence of human, labour and social rights, for working conditions, labour contracts, labour remuneration and the rest of the international labour standards. Regular checks are made together with the regional labour inspectorates. A lot of violations are found and prescriptions are made, but many owners pay the penalty fees and continue in the same way. Some owners introduce little corrections.

they are violated and distorted, especially in companies employing between 20 and 50 workers, but also in big enterprises when they have urgent orders to fulfil.

Approximately 90% of the employees are women. There is part-time employment, but not on a large scale and typical for the shadow economy and smaller enterprises. Undeclared work is a big problem in the industry. Wherever workers are organised in trade unions, they have labour contracts. But in the shadow economy approximately 70% of those employed do not have labour contracts, and if, they are based on minimum wages and insurance thresholds.

Nominally there is a freedom of workers association and collective bargaining and where there is a trade union, up to 90% of the enterprises have concluded collective labour contracts. In the rest of the enterprises, without trade unions (mostly enterprises in the shadow economy but others as well) collective bargaining is out of question. Also, in practice, the collective bodies are relatively weak and no efforts are spared from the side of the entrepreneurs to fend off unionisation. Regarding vocational training, there is some training, but rather incidental at the level of individual companies and not the way it was 15 years ago when it was regulated by the Ministry of Education. In Sofia there is a high school for textiles, clothing, leather and furs, but there is a shortage of resources. Some training is undertaken in organisations with government support, like, for instance, the ‘national union of cooperatives of the disabled’. Subsidies have also been received from the EU, machines have been purchased and personnel has been trained locally. Regarding programmes to support employability, employment safeguard plans, procedures involving information & consultation of workers and retraining programmes, only the latter two are relevant in practice. The kind of information policy is largely depending on the individual enterprise.

The Bulgarian clothing industry within an enlarged Europe as seen by local industry experts:

Based on exports, mainly to the EU, the future of the Bulgarian clothing industry is seen rather bright: Production volumes will continue to expand and competitiveness will further improve. Particular strength of the industry are the very low labour costs and the skilled manpower leading to a combination of good quality and reasonable prices. Relative closeness to the EU market is an advantage for express orders. Closeness to Turkey as the major supplier of fabrics saves costs. There are, however, a few weaknesses as well. One is the lagging behind of domestic up-stream activities such as the supply of local raw materials, spinning, weaving, finishing etc. another is the still strong dependence of the industry on ‘intermediaries’ for

export[48]. Difficulties arise also from tariff and non-tariff barriers on the side of its neighbours, Turkey and Romania. The main competitors mentioned are the following: After Bulgaria's accession, it will be the countries of the region which have not yet become members of the EU: Moldova, Belarus, Serbia. Turkey and Romania will remain rivals, as will Tunisia and Morocco. Poland, the Czech Republic, Slovenia, Croatia were mentioned as well and China will remain the biggest competitor of all. Specific threats / opportunities after becoming an EU member include more competition and probably some problems to comply with the Acquis, requiring additional investments which may go beyond the financial capabilities of some firms, forcing them to close down. Wages and prices may go up and certain orders / markets may get lost. On the other hand, the following positive changes are expected: improvement of the infrastructure, possibilities for swifter transportation, more investment, better access to high-tech fabrics. In the export to the member countries, intermediaries could be avoided and direct contacts established, saving costs for the producers. The phasing out of the Agreement on Textiles and Clothing (ATC) end of 2004 is expected to have considerably negative impact on the Bulgarian clothing industry and therefore it is requested that its operation be extended by a few more years. Particularly threatened are the products with a low value added such as knitwear, and simple ladies' and gentlemen's ready-to-wear. Products of medium and higher quality, the small, almost boutique series, ladies' and gentlemen's suits, the thicker overcoats, i.e. products which require precision workmanship will have the best chance.

[48] Connected to this is the problem of inter-firm indebtedness. To give an example: There is an order for exports to Germany: the deadlines and other requirements of the contract are fulfilled, but on receiving the ordered goods, the intermediaries refuse to pay or pay part of the whole amount due, using all kinds of excuses thus causing serious financial difficulties for the producer.

Supporting Tables Bulgaria

Table BG1

Bulgaria - Textile sector (17)

Gross output, in current prices (mn EUR)

		1997	1998	1999	2000	2001	2002
17.1	Preparation and spinning of textile fibres	53.7	40.5	31.2	47.5	55.5	60.1
17.2	Textile weaving	166.7	139.4	101.5	101.8	120.4	142.0
17.3	Finishing of textiles	0.0	0.0	0.1	0.1	0.4	1.5
17.4	Manuf. of made-up textile articles, except. apparel	3.9	7.8	12.3	16.8	24.4	24.8
17.5	Manuf. of other textiles	21.0	21.3	18.4	20.3	19.9	24.7
17.6	Manuf. of knitted and crocheted fabrics	2.0	1.4	1.7	2.1	2.3	3.3
17.7	Manuf. of knitted and crocheted articles	26.6	29.4	27.9	36.0	49.3	84.5
17	**Manufacture of textiles**	**274.0**	**239.9**	**193.1**	**224.5**	**272.2**	**340.9**

Employment

		1997	1998	1999	2000	2001	2002
17.1	Preparation and spinning of textile fibres	7476	6230	5585	5320	5336	4428
17.2	Textile weaving	26730	22619	16595	13682	12599	12707
17.3	Finishing of textiles	21	24	21	42	137	161
17.4	Manuf. of made-up textile articles, except. apparel	1522	2166	2589	3052	3349	2928
17.5	Manuf. of other textiles	4101	3634	3154	2735	2471	2567
17.6	Manuf. of knitted and crocheted fabrics	777	258	590	484	434	344
17.7	Manuf. of knitted and crocheted articles	6154	6578	6572	6625	8568	11798
17	**Manufacture of textiles**	**46781**	**41509**	**35106**	**31940**	**32894**	**34933**
ER	Exchange rate BGN/EUR (ECU)	1.8958	1.9723	1.9558	1.9558	1.9558	1.9558

Source: National Statistical Institute

Table BG2

The 10 most important companies (including foreign invested) in the Bulgarian textile industry*

Name of the enterprise	Sales (in mn national currency)	Sales (in mn euro)*	Number of employees	Location	Owner-ship	Main activities (products)
Miroglio (2002)	84.576	43.239	750	Sliven	F	wool / viscose / silk spinning & weaving; and twisting;
Decotex (2003)	24.177	12.360	1 020	Sliven	..	good quality carpets
Katex (2003)	22. 584	11.5462	1 770	Kazanluk	P	production of :worsted fabrics - 100% wool & wool / polyester blends; stretch qualities with lycra; woollen fabrics 100% wool & wool/polyamide blends
Yana (2001)	22.211	11.3557	1354	Bourgas	..	producing carded and combed cotton yarns, form tex 15 to tex 40
Strumatex (2001)n	16.780	8.578	444	Blagoev-grad	..	Produtuin and finishing of cotton fabrics and cotton mixtures; confectioning of working, specialized and sports clothes
Iris (2001)	16. 765	8.571	396	Rousse	..	Cotton and mixed fabrics; jeanswear; workwear
Vratitza Ltd.(2003)	15.479	7.913	916	Vratza	P	Production of yarns, raw and finished fabrics, ready-made articles (bed linen and items, designed for kitchen interior);100%cotton and cotton/polyester blend
Bulgaria-K (2003)	14.161	7.239	633	Kazanluk	..	Cotton, polyester, polyester silk, sewing threads
Velbujd (2003)	13.886	7.099	1 102	Kyustendil	P	Acrylic – spinning
Belotex-95 (2003)	13.458	6.880	535	Zlatograd	P	Cotton – weaving ; cotton – finishing and printing

* Latest year available

Notes: Exchange rate used: BG/EUR: 1.956.- F= foreign; P = private.- .. no information

Sources: Bulgarian Enterprises Information System (BEIS), http://www.bic.bia-bg.com/profiles/; July 2004 and Textile Report

Table BG3

Bulgaria - Clothing sector (18)

		Gross output, in current prices (mn EUR)					
		1997	**1998**	**1999**	**2000**	**2001**	**2002**
18.1	Manufacture of leather clothes	3.8	3.2	3.3	3.1	4.8	2.5
18.2	Manufacture of other wearing apparel and accessories	184.2	238.0	250.2	325.5	401.1	557.0
18.3	Dressing and dyeing of fur, manufacture of articles of fur	8.7	4.7	4.5	5.6	7.1	6.8
18	**Wearing apparel; dressing and dyeing of fur**	**196.7**	**245.9**	**258.1**	**334.2**	**413.0**	**566.4**
		Employment					
		1997	**1998**	**1999**	**2000**	**2001**	**2002**
18.1	Manufacture of leather clothes	858	811	717	727	833	428
18.2	Manufacture of other wearing apparel and accessories	85434	95902	97283	104447	119793	129594
18.3	Dressing and dyeing of fur, manufacture of articles of fur	1351	1079	869	761	772	721
18	**Wearing apparel; dressing and dyeing of fur**	**87643**	**97792**	**98869**	**105935**	**121398**	**130743**
ER	Exchange rate BGN/EUR (ECU)	1.8958	1.9723	1.9558	1.9558	1.9558	1.9558

Source: National Statistical Institute

Table BG 4

The 10 most important companies (including foreign invested) in the Bulgarian clothing industry*

Name of the enterprise	Sales (in mn national currency)	Sales (in mn euro)	Number of employees	Location	Owner-ship	Main activities (products)
Brilliant Invest AD (2002)[1)]	51.689	26.425	207	Plovdiv	F	Men's and ladies's wear
Albena Style (2002)	20.71	10.587	1500	Dobrich	P	Men's and ladies's wear
Rollmann-Pirin Tex (2001)	17.228	8.8077	2036	Gotze Delchev	F	Men's and ladies' wear
Maia (2001)	16.47	8.4202	109	Pleven	..	Leather clothing..
Creations (2003)	13.216	6.7566		Gabrovo	..	..
Kontex Drouzhba (2002)	12.31	6.2934	18	Varna	..	Men's and ladies' wear
Vida Style (2001)	10.782	5.5122	1684	Vidin	..	Men's and ladies' wear..
Mizia 96 (2003)	10.745	5.4933	996	Pleven	..	..
Druzhba-style (2003)	9.498	4.8558	1800	Varna	P	..
Struma Style (2001)	9.108	4.6564	411	Blagoevgrad	..	Men's and ladies' wear, working wear, casual wear

* Latest year available

Notes: 1) The Brilliant group has two further important production sites: Brilliant – Sofia (Sofia, sales EUR 7.5 mn) and Brilliant – Tarnovgrad (Veliko Tarnova, sales EUR 2.7 in 2001) http://brillyant-bg.com.- Exchange rate used: BG/EUR: 1.956.- F= foreign; P = private.- .. no information

Sources: Bulgarian Enterprises Information System (BEIS), http://www.bic.bia-bg.com/profiles/; July 2004 and Clothing Report Bulgaria

Table BG5

Estimated* shares of companies engaged in the following activities 2002

Assembly	OEM	ODM	OBM
25 %	*55 %*	*5 %*	*5 % **

*By the estimation of the experts

Note: OEM: Original equipment manufacturing.- ODM: Original Design Manufacturing.- OBM: Original Brand Manufacturing

Source: Clothing Report Bulgaria

4.10 Romania

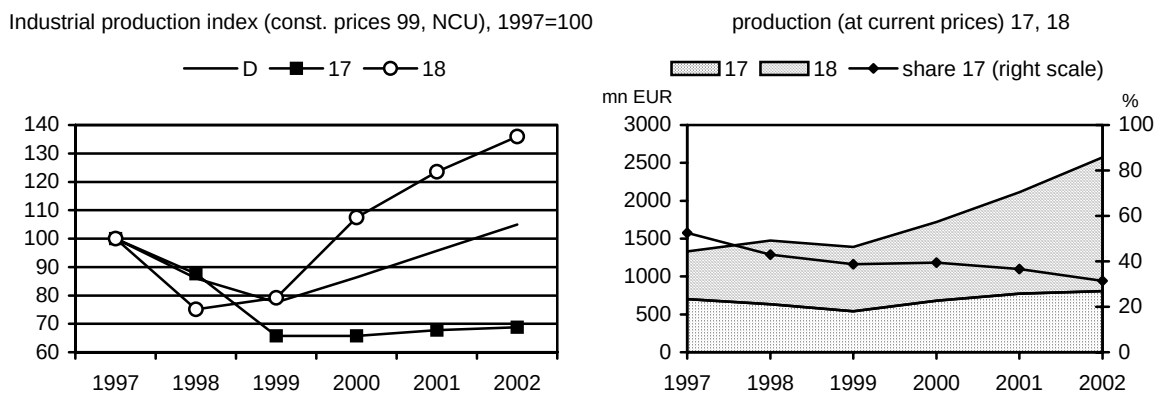
Overview

Romania is not a member of the European Union yet but has the status of a candidate country (CC). However, the accession process is fairly advanced.

In 2002, the T/C industry had a share of 8% in manufacturing production and 25% in employment, indicating a very strong specialisation of Romania in this field but less than neighbouring Bulgaria. Taking the EU-25 as a yardstick, the Romanian T/C industry comes up to 1.3% of total EU-25 production if output value is converted at current exchange rates (EUR 2572 mn) and reaches 3.5% if measured at purchasing power standards for GDP (PPSGDP; EUR 7366 mn). Thus, converted at current exchange rates, the T/C industry in Romania is of a similar size as in the Czech Republic (ranking 2nd among the NMS), but converted at PPS it comes closer to Poland, the by far biggest T/C producer of the NMS (see Table 1 in Chapter 2 of this report). Over the period 1997-2002, the Romanian T/C production (at constant prices) grew at an annual average rate of 1.3%, slightly faster than manufacturing on average. However, the relative slow average growth of the T/C industry is due to a decline of production in the beginning of the period in line with the slump of the overall economy, while 2-digit growth rates prevailed from 1999 onwards pointing to a dynamic development and rising specialisation of Romania in this field lately. However, this was due to the dynamic development of the clothing industry solely, while the textile industry declined. Accordingly, the share of clothing in total T/C production increased considerably, reaching 69% in 2002, which is much higher than in the EU-15 on average and also higher than in the NMS, except in Cyprus and Malta (see Figure 24).

Figure 19

Romania: Textiles and textile products



Source: wiiw Industrial Database

The Romanian textile industry

There were about 2200 textile enterprises producing textiles worth EUR 830 mn and employing nearly 100 000 persons in 2002 . During the period 1997-2002, the textile production (in real terms) declined significantly and employment dropped dramatically by 38%, with more than 60 000 textile workers losing their jobs of which about 80% were females. However, the major decline took place until 1999 and production (in real terms) stagnated more or less thereafter (see Figure 24 and Supporting Table RO1).

Industry structure: There is a very large number of micro enterprises (1-9 employees) active in the Romanian textile industry (68%) while small and medium sized enterprises (10-250 employees) have a share of 27% and large enterprises (> 250 employees) account for 5% only (see Supporting Table RO2). Privatisation is nearly completed with only 31 state companies left. The major Romanian textile companies are listed in Supporting Table RO3.

The most important sub-sector in terms of NACE rev.1 classification is ‘manufacture of knitted and crocheted articles’ (17.7), sometimes classified as a part of the clothing industry rather – which explains the relatively high share of subcontracting in the Romanian textile industry (over 26% of the whole textile production) . The next important sub-sectors are ‘textile weaving’ (17.2) and ‘preparation and spinning of textile fibres’ (17.1; see Supporting Table RO1). A list of main products and quantities produced 1997-2002 is given in Supporting Table RO4, which shows a particular strong decline in the production of cotton and cotton type yarns, flax/hemp yarns, woollen fabrics, flax / hemp fabrics and silk fabrics. Textile companies are spread practically over all regions, but the most important ones are located in the cities: Bucharest, Piatra Neamt, Buzau, Bacau, Botosani, Iasi, Sibiu etc.

Modernization / Technology: The process of restructuring and modernisation is still in the beginning. Often, the quality and availability of production capacities are not line with market requirements due to outdated equipment and a lack of capital for raw materials and new machinery. The degree of automation is generally low, it is at a more advanced stage in the dyeing and finishing sectors. However, over the last decade, investments for restructuring and modernisation of production have increased.

Investment / production capacities: During the period 1997-2002, investment in the textile industry was moderate and roughly in line with investment activity in the Romanian manufacturing industry on average. Cumulated investment came up to EUR 350 mn which gives a share of 3.3 % of total manufacturing investment, similar to the share of the textile industry in manufacturing production during this period. However, in 2002, an over-proportionate

investment activity could be observed (see Supporting Table RO5). Due to the only moderate investments and the capital intensive character of the industry, the degree of renewal in production equipment was only 29% for yarns and 32% for fabrics.

Inputs and factors of production: Approximately 55% of raw material inputs come from domestic production. Labour costs are very low, coming up to only about 8% of the average EU-level in 2002, far lower than in the NMS but comparable to Bulgaria. Because of the long-standing tradition of the textile industry in Romania, the workforce is highly skilled.

Research & development: Activities take place within governmental institutions, at universities and at enterprise level. According to the Statistical Yearbook of Romania, R&D expenditure for the textile, clothing leather and footwear enterprises combined came up to BGN 20867 mn (about EUR 668 000) in 2002, most of which was staff expenditure and less than 2% was capital expenditure. The number of persons engaged in R&D (measured in full time equivalents) was about 300.

Support programmes: There exists a public-private-partnership project (PPP) together with the German Agency for Technical Cooperation (GTZ) and TrenHanf AG, Berlin, which is supporting the Romanian hemp and linen production because of the special importance of this sector.

Social and environmental issues, Acquis Communautaire: In 2001-2002, all EU Directives for the free circulation of goods were adopted, also the following directives:

- Directive 96/74/EC on textile names as amended by Directive 97/37/EC ('Textile Names Directive')
- Directive 96/73/EC on certain methods for the quantitative analysis of binary textile fibre mixtures and the Directive 73/44/EEC on the approximation of the laws of the Member States relating to the quantitative analysis of ternary fibre mixtures ('Testing Methods Directives')

Regarding the adoption of the EU standards in the field of textile goods, there is a technical Committee which administrates a list of standards at the European and international level (ISO, EN). All of these 160 standards, have been transposed in the Romanian standards (SR).

The Romanian textile industry within an enlarged Europe as seen by local industry experts:

The textile industry in Romania is based on exports on the one hand and on the large domestic market on the other, absorbing an important part of the textile production both for final use and

intermediate inputs for the clothing industry. Thus, the future position of the industry will depend on the development of the domestic economy as well as on the industry's competitiveness on international markets, in particular the EU-market. Particular strengths of the industry are low labour costs and a skilled workforce and the large part of locally produced raw materials. Weaknesses to be mentioned are the delayed restructuring and the heavy concentration on low-value added 'knitted and crocheted articles' and sub-contracting.

With respect to the future development of the Romanian textile industry, dynamic increases (higher than the branch average) are foreseen in the area of linen – hemp and woolen fabrics, which produce a better added value. Some targets for future development are:

- To achieve environmentally friendly production technologies
- to update the spinning and weaving equipments
- to increase the R&D activities, aiming at a re-launch of the textile industry
- to improving the system of professional training taking account of new technologies

The strategic objective mentioned by the local experts is an annual growth rate of the textile production (in value terms) of 3% for the period 2004-2007. The consequences of the 'Agreement on Textiles and Clothing' (ATC) phasing-out end of 2004, as seen by the experts interviewed, are the following: As Romania has no quotas for exports to the EU, there will be no direct impact of the quota removal at the end of 2004 on the Romanian textile industry. However, an indirect negative impact can be expected from the removal of quotas for Asian countries increasing the competition among suppliers on the world market, including the EU market.

The Romanian clothing industry

In 2002, there were nearly 5300 enterprises active in the Romanian clothing industry, producing apparel worth EUR 1527 mn and employing around 325 000 persons . Over the period 1997-2002, the clothing production (in real terms) Increased strongly, considerably faster than manufacturing as a whole and in sharp contrast to the falling output of the textile industry. Employment rose as well and nearly 100 000 new jobs were created in the industry (see Supporting Table RO6)

Industry structure: In the Romanian clothing industry 'micro' enterprises (1-9 employees) are predominant. But rather untypical, their share of 58% is lower than in the textile industry (68%). Small and medium sized enterprises (10-250 employees) account for 38.2% and large

enterprises for less than 4% of the total number of enterprises (see Supporting Table RO7). Notwithstanding the large number of companies, the 20 most important ones produce 10.6% of total turnover and employ 13.7% of the workforce. Privatisation in the clothing industry is nearly complete: 99.5% of all enterprises are private. The most important clothing enterprises are listed in Supporting Table RO8. As usual, the dominant sub-sector in terms of NACE rev.1 classification is the 'manufacture of (other) wearing apparel and accessories (18.2), responsible for around 98% of the production in the sector (see Supporting Table RO6). There is no significant regional concentration in the Romanian clothing industry as the industry is spread all over the country, including rural and economically backward regions. However, main production sites are the following: Bucharest, Ploiesti, Arad, Satu-Mare, Bacau, Iasi, Alba Iulia.

Modernization/ Technology: The restructuring process is on its way with considerable investment put in the modernisation of machinery and equipment over the last few years. Yet, the implementation of CAD / CIM systems is still very limited because of high costs – especially small and medium sized companies cannot afford to buy new, modern control systems. Some of them use second hand equipments and the small family companies don't use it at all. However, in the majority of recently founded enterprises with foreign direct investment (mainly coming from EU countries), modern equipment and electronic systems are used.

Investment / production capacities: During the period 1997-2002, investment in absolute terms was higher than in the textile industry (EUR 530 mn) and the share in total manufacturing investment was slightly higher than the clothing industry's share in manufacturing production. Taking into account the relatively low capita-intensity of the industry, this points to above average investment activity in the Romanian clothing industry over the last couple of years. Accordingly, the degree of renewal of production equipment was estimated 88% in 2002. Capacity utilisation in the industry is constantly high (95%) and capacities are expected to be increased further.

Inputs and factors of production: The very low labour costs reaching only about 8% of the average EU-level in 2002, far lower than in the NMS but comparable to Bulgaria are of particular advantage for the very labour-intensive clothing industry. Because of the long-standing tradition of the clothing industry in Romania, the labour force is highly skilled as well.

Research & development: Information is provided for textiles, clothing, leather and footwear industries combined only; see section on textiles above.

Customer relations: In 2002, the number of retail enterprises in the textile, clothing, leather and footwear sector was 5230. Most of the clothing products processed for European companies are

not distributed on the Romanian market. The domestic market is mainly supplied by the micro enterprises and some small companies which produce under their own brand. There is no process of concentration in the clothing retail sector to be observed yet – the number of retail stores is rather increasing, with more and more international groups entering the Romanian market such as: Naf-Naf, Bennetton, Stefanel, Steilmann, Kookai and Mango.

Social and environmental issues / Acquis Communautaire: Many Romanian norms concerning labour, environmental and consumer protection are compatible with the Acquis Communautaire. In 2000-2002, the following EU directives relevant for the clothing industry were adopted:

- Directive 96/74/EC regarding the marking of textiles, completed with the Directive 97/37/EC regarding the name of fibre composition and labeling of textile products;
- Directives 96/73/EC and 73/44/EEC regarding the quantitative analysis of binary and ternary mixture of textile fibres

All clothing products exported to the EU market must have a quality certification (e.g. ASRA – SRACK), which confirms that the quality corresponds EU standards. There exist 192 standards in Romania relevant for the clothing industry of which 25 were harmonized until the end of 2002, corresponding to international certifications such as ISO standards etc. The share of female employment in the Romanian clothing industry was about 90% in 2002.

The Romanian clothing industry within an enlarged Europe as seen by local industry experts:

The clothing industry is a traditional industry in Romania and a priority sector for exports with the home market playing an important role as well. Thus the future position of the industry will depend largely on its competitiveness on international markets, above all the EU market, but the development of the domestic economy as well. Currently, Romania is among the 15 biggest exporters of apparel worldwide and ranks third as a source for extra-EU clothing imports (after China and Turkey) and it is the largest supplier among the East and Central European countries on the EU market. Romania is seen to enjoy medium to long-term competitive advantage as compared to other countries, such as:

- low labour costs
- geographical proximity to the EU market (which absorbs more than 90% of the Romanian clothing exports);
- a stable investment environment

- large number of experienced companies
- up-coming high-quality production capacities, especially for classical garments
- highly qualified work force which is reflected in high product quality and fast delivery
- absence of quotas and duty free access to the EU market

A certain weakness is the high proportion of assembly (inward processing trade) in the clothing production, which makes up 80%-85% of exports. It generates low value added for the domestic economy and induces massive imports of intermediate products and accessories. However, due to the mentioned advantages, Romania will most probably maintain her position as one of the main clothing supplier on the EU market. But in the medium term, inward processing trade will decline as a consequence of restructuring and development of the industry on the one hand and rising labour costs on the other, which will lead to a relocation of production to lower wage countries. The main objectives formulated by the Romanian government for the future development of the clothing industry are the following: increasing competitiveness, diversification of the production and export structures, maintaining the position on the EU market plus regaining some other markets (e.g. Russia). In this regard, the following measures were proposed: extended implementation of international standards; development and support of SMEs, promotion of investments and improved legislation in that field; stimulation of R&D and design activities at enterprise level.

The consequences for the clothing industry of the ‘Agreement on Textiles and Clothing’ (ATC) phasing-out end of 2004 as seen by the experts interviewed, were the same as for the textile industry: Because Romania has no quotas for exports to the EU, there will be no direct impact of the quota removal at the end of 2004 on the Romanian textile industry. However, indirect negative impacts can be expected from the removal of quotas for Asian countries increasing the competition among suppliers on the world market, including the EU market.

Supporting Tables Romania

Table RO1

Romania - Textile sector (17)

Gross output, in current prices (mn EUR)

	1997	1998	1999	2000	2001	2002
17.1 Preparation and spinning of textile fibres	.	.	.	129.8	149.9	158.6
17.2 Textile weaving	.	.	.	216.9	218.8	201.4
17.3 Finishing of textiles	.	.	.	10.8	15.3	34.4
17.4 Manuf. of made-up textile articles, exc. Apparel	.	.	.	38.6	65.1	106.3
17.5 Manuf. of other textiles	.	.	.	88.1	72.6	79.9
17.6 Manuf. of knitted and crocheted fabrics	.	.	.	0.9	3.6	5.9
17.7 Manuf. of knitted and crocheted articles	.	.	.	189.7	233.7	244.1
17 Manufacture of textiles	**735.3**	**677.0**	**557.3**	**674.6**	**759.0**	**830.6**
D Total manufacturing	21336.0	19939.2	16437.7	20620.2	23321.7	25499.5

Value added (mn EUR)

	1997	1998	1999	2000	2001	2002
17.1 Preparation and spinning of textile fibres	.	.	.	37.4	37.9	.
17.2 Textile weaving	.	.	.	81.5	75.6	.
17.3 Finishing of textiles	.	.	.	4.5	7.3	.
17.4 Manuf. of made-up textile articles, exc.. apparel	.	.	.	15.2	27.1	.
17.5 Manuf. of other textiles	.	.	.	29.8	28.3	.
17.6 Manuf. of knitted and crocheted fabrics	.	.	.	0.3	2.0	.
17.7 Manuf. of knitted and crocheted articles	.	.	.	93.5	111.4	.
17 Manufacture of textiles	**282.3**	**265.4**	**230.2**	**289.5**	**289.5**	**.**
D Total manufacturing	6743.7	6303.1	5478.9	6433.1	6879.6	.

Employment [1)]

	1997	1998	1999	2000	2001	2002
17.1 Preparation and spinning of textile fibres	.	.	.	13051	11773	11148
17.2 Textile weaving	.	.	.	35610	30884	25374
17.3 Finishing of textiles	.	.	.	936	1434	2987
17.4 Manuf. of made-up textile articles, exc.. apparel	.	.	.	11246	11468	11065
17.5 Manuf. of other textiles	.	.	.	12492	10813	9750
17.6 Manuf. of knitted and crocheted fabrics	.	.	.	252	522	649
17.7 Manuf. of knitted and crocheted articles	.	.	.	37859	40084	37727
17 Manufacture of textiles	**160234**	**140094**	**118909**	**111446**	**106978**	**98700**
D Total manufacturing	2295330	2137848	1994470	1835416	1802045	1772876

Note: 1) Persons employed.

Sources: Eurostat, New Cronos SBS; enter CC; preli CC;

Table RO2

Size and structure of the Romanian Textiles Industry 2002

	Micro (1-9 employees)	Small (10-49 employees)*	Medium (50-250 employees)*	Large (> 250 employees)*
Number of enterprises	68.0%	16.3%	10.4%	5.3%

Source: Textile Report Romania

Table RO3

The most important Romanian textiles companies 2002

Name of the enterprise	Location City/County	Sales (in bn national currency)	Sales (in mn EUR)*)	Number of employees	Main activities	Type of cooperation	Product groups	Export markets
RIFIL S.A.	Savinesti /Neamt	1620	51.9	508	Spinning	FOB/full business	Chemical yarns	USA, PL, E, I, IL, CY
FILATURA BUZAU S.A.	Buzau/ Buzau	200	6.4	350	Spinning	Subcontracting	Yarns	D, I, B, IL
POBAC S.A.	Bacau/ Bacau	175	5.6	1017	Spinning, weaving, textile finishing	FOB/full business, own collection	Carded wool type yarns and fabrics	GB, D, S, DK, USA, CND
FIRMELBO S.A.	Botosani/ Botosani	644	20.6	600	Spinning, textile finishing	Subcontracting, full business	Combed wool type yarns	TR, GR
FIBA S.A.	Balotesti/ Ilfov	28	0.9	180	Spinning, weaving, textile finishing	Subcontracting, full business, own collection	Hemp yarns	I
S.C. DOROBANTU	Ploiesti/ Prahova	366	11.7	1500	Spinning, weaving, textile finishing	FOB/full business, own collection	Yarns	GB, D, E, I, B, USA, CND, RO
TEXTILA DACIA	Bucuresti	207	6.6	76	Weaving, textile finishing, cutting, sewing, pressing	Subcontracting, full business, own collection	Yarns and fabrics	D, A, I, F
STOFE BUHUSI	Buhusi/ Bacau	77	2.5	700	Spinning, weaving	Subcontracting, full business, own collection	Fabrics	GB, USA, D, B, IRL
IASITEX	Iasi/Iasi	403	12.9	2200	Spinning, weaving, textile finishing, cutting, sewing, pressing	Subcontracting, full business	Cotton type yarns, fabrics, drapery, curtains, bed linen	RO, USA, CND, D
MARATEX	Baja Mare/ Maramures	339	10.9	1020	Spinning, weaving, finishing	Subcontracting, full business, own collection	Cotton type yarns and fabrics	D
CARPATEX	Brasov/ Brasov	323	10.4	1200	Spinning, weaving, finishing, sewing	Subcontracting, full business, own collection	Carded wool type yarns and fabrics, women's wear	D, GB, B, I, S, USA
LIBERTATEA	Sibiu/ Sibiu	123	3.9	792	Spinning, weaving, finishing	Full business, own collection	Combed wool type yarns and fabrics	B, D, I, E, IL, RO
MATASEA ROMANA	Cisnadie/ Sibiu	76	2.4	268	Weaving	Subcontracting, full business, own collection	Silk type fabrics	S, USA, D

Table RO4

Production of the main textile products in Romania

	measure unit	1997	1998	1999	2000	2001	2002
Cotton and cotton type yarns	thousand tones	43	36	28	27	29	28
Woolen and woolen type yarns	thousand tones	28	20	17	19	10	21
Flax and hemp yarns and flax and hemp type yarns	thousand tones	5	5	4	4	4	3
Fabrics	million m^2	276	240	200	194	200	204
- cotton	million m^2	173	170	143	145	154	160
- woolen	million m^2	34	22	18	13	17	14
- flax, hemp, jute, of which:	million m^2	17	8	7	5	4	4
thin fabrics	million m^2	9	6	5	3	2	2
- silk	million m^2	52	40	32	31	25	26
Unwoven fabrics	million m^2	15	17	13	11	14	14

Source: Romanian Statistical Yearbook, 2003; from Textile Report Romania

Table RO5

Investment in the Romanian textile and clothing industries 1997-2002

	1997	1998	1999	2000	2001	2002	Sum
Total manufacturing, mn EUR	1625.5	1787.9	1510.5	1601.9	2126.0	1930.0	10582.3
Textile industry, mn EUR	47.4	40.7	51.0	51.7	67.6	91.5	349.9
Share in total manufacturing in %	2.9	2.3	3.4	3.2	3.2	4.7	529.0
Clothing industry, mn EUR	58.7	68.3	83.3	97.1	107.8	113.8	3.3
share in total manufacturing in %	3.6	3.8	5.5	6.1	5.1	5.9	5.0

Source: Statistical Yearbook – Romania 2003, own calculations

Table RO 6

Romania - Clothing sector (18)

Gross output, in current prices (mn EUR)

	1997	1998	1999	2000	2001	2002
18.1 Manufacture of leather clothes	.	.	.	16.7	19.9	20.5
18.2 Manufacture of other wearing apparel and accessories	.	.	.	1045.7	1265.0	1493.2
18.3 Dressing and dyeing of fur, manufacture of articles of fur	.	.	.	11.3	14.7	13.1
18 Wearing apparel; dressing and dyeing of fur	**637.3**	**843.9**	**876.6**	**1073.7**	**1299.6**	**1526.8**
D Total manufacturing	21336.0	19939.2	16437.7	20620.2	23321.7	25499.5

Value added (mn EUR)

	1997	1998	1999	2000	2001	2002
18.1 Manufacture of leather clothes	.	.	.	8.0	9.0	.
18.2 Manufacture of other wearing apparel and accessories	.	.	.	624.6	692.8	.
18.3 Dressing and dyeing of fur, manufacture of articles of fur	.	.	.	5.3	6.0	.
18 Wearing apparel; dressing and dyeing of fur	**375.3**	**504.5**	**513.3**	**637.9**	**707.7**	**.**
D Total manufacturing	6743.7	6303.1	5478.9	6433.1	6879.6	.

Employment [1)]

	1997	1998	1999	2000	2001	2002
18.1 Manufacture of leather clothes	.	.	.	3419	3381	3900
18.2 Manufacture of other wearing apparel and accessories	.	.	.	288626	307833	319335
18.3 Dressing and dyeing of fur, manufacture of articles of fur	.	.	.	2209	2043	1632
18 Wearing apparel; dressing and dyeing of fur	231136	254052	279482	294254	313257	324867
D Total manufacturing	2295330	2137848	1994470	1835416	1802045	1772876

Note: 1) Persons employed.

Sources: Eurostat, New Cronos SBS; enter CC; preli CC;

Table RO7

Size and structure of the Romania clothing industry 2002

	Micro (1-9 employees)	Small (10-49 employees)	Medium (50-250 employees)	Large (> 250 employees)
Number of enterprises	58.0%	22.5.%	1%	3.8%

Source: Clothing Report Romania

Table RO8

The most important Romania clothing companies in 2002

Name of the enterprise	Location City/County	Sales (in bn national currency)	Sales (in mn EUR)*)	Number of employees	Main activities	Type of cooperation	Product groups	Export markets
TEXTILA ARDELEANA	Satu Mare/ Satu Mare	459	14.7	900	Weaving, textile finishing, sewing, pressing	Subcontracting, FOB/full business, own collection	Knitwear	D, S, B, USA, DK
VASTEX	Vaslui/ Vaslui	272	8.7	1300	Spinning, weaving, cutting, sewing, pressing	Subcontracting	Cotton type yarns, fabrics, bed linen, women's wear, work wear	D, S, B
TRICOTTON	Panciu/ Vrancea	51	1.6	700	Knitting, cutting, sewing	Subcontracting, full business, own collection	Silk type knitwear	B, I, D, CND, NL, F, P
EUROFORM MILENIUM	Bucuresti	163	5.2	800	Cutting, sewing, pressing	Subcontracting	Women's wear	GB
PANDORA PROD.	Focsani/ Vrancea	142	4.5	1000	Cutting, sewing, pressing	Subcontracting	Women's wear	EU
ARECA	Bucuresti	121	3.9	870	Cutting, sewing, pressing	Subcontracting, full business, own collection	Women's wear, men's wear, work wear	GB, I, B, NL
INCOM VRANCO	Focsani/Vrancea	243	7.8	890	Cutting, sewing, embroidery	Subcontracting	Men's, children's wear	I, D, USA
ROSKA CONF	Focsani/ Vrancea	383	12.3	2000	Cutting, sewing, special finishing	Subcontracting, full business	Women, men, children's wear	B, I, E, GB, NL
MANITOBA TEX.	Arad/Arad	160	5.1	207	Cutting, special finishing, embroidery	Subcontracting, full business, own collection	Sports and leisure wear	D
INTERNATIONAL CONF	Bucuresti	133	4.3	1250	Cutting, sewing, embroidery	Subcontracting, full business	Women and men's wear	D, I, B, GB, NL, USA
MONDOSTAR	Sibiu/ Sibiu	125	4.0	1200	Cutting, sewing, embroidery	Subcontracting	Women and men's wear	D
FRANCESCA INDUSTRIES	Pitesti/ Arges	119	3.8	850	Cutting, sewing, pressing	Subcontracting	Women's wear	GB, B
MODEXIM	Craiova/ Dolj	107	3.4	1450	Cutting, sewing, pressing	Subcontracting, full business, own collection	Women's wear	D
MAREMOD	Bucuresti	87	2.8	200	Cutting, sewing, pressing	Subcontracting, full business, own collection	Women and men's wear	D
CERTIMPEX	Focsani/ Vrancea	51	1.6	286	Cutting, sewing, pressing	Subcontracting	Women, men, children' wear and sports wear	I, D, B
STEILMANN MODEXIM	Craiova/ Dolj	…	…	420	Cutting, sewing, pressing	Subcontracting, full business, own collection	Women's wear	D
STEILMANN ROMANIA	Bucuresti	…	…	1450	Cutting, sewing, pressing	Subcontracting, full business, own collection	Women's wear	D

*) 1 euro = 31.200 lei (2002)

Source: 1. Romanian Ministry of Finance.-2. Romanian Chamber of Commerce.-3. Catalogue of the Romanian textile & clothing companies, 2002 ; from Clothing Report Romania.

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APPENDIX 1
Classifications and methodological notes

Manufacture of textiles and textile products (DB)
(According to the NACE Rev. 1 Classification)[49]

17 Manufacture of textiles

17.1 Preparation and spinning of textile fibres
- 17.11 Preparation and spinning of cotton-type fibres
- 17.12 Preparation and spinning of woollen-type fibres
- 17.13 Preparation and spinning of worsted-type fibres
- 17.14 Preparation and spinning of flax-type fibres
- 17.15 Throwing and preparation of silk, including from noils, and throwing and texturing of synthetic or artificial filament yarns
- 17.16 Manufacture of sewing threads
- 17.17 Preparation and spinning of other textile fibres

17.2 Textile weaving
- 17.21 Cotton-type weaving
- 17.22 Woollen-type weaving
- 17.23 Worsted-type weaving
- 17.24 Silk-type weaving
- 17.25 Other textile weaving

17.3 Finishing of textiles
- 17.30 Finishing of textiles

17.4 Manufacture of made-up textile articles, except apparel
- 17.40 Manufacture of made-up textile articles, except apparel

17.5 Manufacture of other textiles
- 17.51 Manufacture of carpets and rugs
- 17.52 Manufacture of cordage, rope, twine and netting
- 17.53 Manufacture of non-wovens and articles made from non-wovens, except apparel
- 17.54 Manufacture of other textiles n.e.c.

17.6 Manufacture of knitted and crocheted fabrics
- 17.60 Manufacture of knitted and crocheted fabrics

17.7 Manufacture of knitted and crocheted articles
- 17.71 Manufacture of knitted and crocheted hosiery
- 17.72 Manufacture of knitted and crocheted pullovers, cardigans and similar articles

[49] Statistical classification of economic activities in the European Communities (Nomenclature générale des Activités économiques dans les Communautés Européennes).

18 Manufacture of wearing apparel; dressing and dyeing of fur

18.1 Manufacture of leather clothes

18.10 Manufacture of leather clothes

18.2 Manufacture of other wearing apparel and accessories

18.21 Manufacture of workwear
18.22 Manufacture of other outerwear
18.23 Manufacture of underwear
18.24 Manufacture of other wearing apparel and accessories n.e.c.

18.3 Dressing and dyeing of fur; manufacture of articles of fur

18.30 Dressing and dyeing of fur; manufacture of articles of fur

APPENDIX 2

Table A2/1

Production shares of individual industries in total manufacturing

(at current prices), 2002 (in %)

		Czech Republic	Estonia[1)]	Hungary	Latvia[2)]	Lithuania[3)]
D	Manufacturing total	100.0	100.0	100.0	100.0	100.0
DA	Food products; beverages and tobacco	13.5	21.2	13.8	28.1	22.7
DB	**Textiles and textile products**	**3.8**	**11.3**	**3.0**	**7.2**	**15.5**
DC	Leather and leather products	0.4	1.3	0.6	0.1	0.9
DD	Wood and wood products	2.0	14.0	1.2	21.2	5.8
DE	Pulp, paper & prod.; publishing & printing	4.4	7.4	4.1	6.8	4.7
DF	Coke, refined petroleum products & nuclear fuel	2.8	–	3.7	–	21.8
DG	Chemicals, chemical products & man-made fibres	5.7	5.1	5.8	3.2	4.7
DH	Rubber and plastic products	5.3	3.7	3.9	2.5	3.1
DI	Other non-metallic mineral products	5.8	4.7	2.6	3.8	3.0
DJ	Basic metals and fabricated metal products	13.9	8.1	7.5	3.8	2.6
DK	Machinery and equipment n.e.c.	7.0	3.1	5.8	3.0	2.6
DL	Electrical and optical equipment	14.9	7.0	30.7	2.9	6.6
DM	Transport equipment	16.9	4.0	15.8	3.5	2.1
DN	Manufacturing n.e.c.	3.6	9.2	1.5	14.0	4.0

		Poland	Slovak Republic	Slovenia	Bulgaria	Romania
D	Manufacturing total	100.0	100.0	100.0	100.0	100.0
DA	Food products; beverages and tobacco	24.7	12.5	12.8	21.2	18.4
DB	**Textiles and textile products**	**4.3**	**2.7**	**6.0**	**9.9**	**8.0**
DC	Leather and leather products	0.8	1.4	1.6	1.2	2.1
DD	Wood and wood products	3.7	1.5	2.8	2.0	3.3
DE	Pulp, paper & prod.; publishing & printing	7.2	5.9	7.4	4.7	3.2
DF	Coke, refined petroleum products & nuclear fuel	4.8	8.0	0.1	15.8	14.2
DG	Chemicals, chemical products & man-made fibres	7.1	6.3	11.0	8.4	7.0
DH	Rubber and plastic products	5.3	4.4	4.7	2.7	2.4
DI	Other non-metallic mineral products	5.5	4.7	4.4	4.8	4.0
DJ	Basic metals and fabricated metal products	10.6	16.2	13.0	12.8	18.6
DK	Machinery and equipment n.e.c.	5.2	6.3	11.3	7.5	4.6
DL	Electrical and optical equipment	7.4	8.6	9.4	5.5	4.1
DM	Transport equipment	8.4	18.3	10.4	1.7	6.1
DN	Manufacturing n.e.c.	4.9	3.1	5.0	2.2	4.1

Notes: 1) Coke, refined petroleum products & nuclear fuel (DF) included in manufacturing n.e.c. (DN); year 2001.
2) DA without tobacco products (16), DJ without basic metals (27), DL without office machinery (30) and medical instruments (33); extra share for the ISIC groups 16,27,30,33 and 23 (coke) accounting for 7.8%; 3) food, beverages (without tobacco); year 2001.

Source: WIIW Industrial Database 0604.

APPENDIX 2
Table A2/2

Employment shares of individual industries in total manufacturing

2002 (in %)

		Czech Republic	Estonia[1)]	Hungary	Latvia[2)]	Lithuania[3)]
D	Manufacturing total	100.0	100.0	100.0	100.0	100.0
DA	Food products; beverages and tobacco	11.4	16.4	16.9	24.2	21.5
DB	**Textiles and textile products**	**8.8**	**19.6**	**11.9**	**16.3**	**25.7**
DC	Leather and leather products	1.2	2.2	2.8	0.6	1.2
DD	Wood and wood products	2.7	12.3	2.9	20.9	10.0
DE	Pulp, paper & prod.; publishing & printing	3.8	5.6	5.1	6.1	5.2
DF	Coke, refined petroleum products & nuclear fuel	0.3	.	1.3	.	1.5
DG	Chemicals, chemical products & man-made fibres	3.6	2.5	4.4	2.9	2.6
DH	Rubber and plastic products	5.1	2.7	4.8	1.6	2.6
DI	Other non-metallic mineral products	6.8	3.8	3.7	2.6	4.4
DJ	Basic metals and fabricated metal products	15.9	7.5	9.9	4.5	4.3
DK	Machinery and equipment n.e.c.	12.0	4.0	8.1	4.3	4.9
DL	Electrical and optical equipment	12.7	8.8	18.3	2.6	6.6
DM	Transport equipment	10.0	3.0	6.0	3.9	2.7
DN	Manufacturing n.e.c.	5.5	11.6	3.7	9.4	6.7

		Poland	Slovak Republic	Slovenia	Bulgaria	Romania
D	Manufacturing total	100.0	100.0	100.0	100.0	100.0
DA	Food products; beverages and tobacco	19.7	11.4	8.7	16.8	10.5
DB	**Textiles and textile products**	**11.4**	**12.3**	**12.3**	**28.1**	**24.7**
DC	Leather and leather products	1.8	4.4	3.1	3.4	6.3
DD	Wood and wood products	5.0	2.8	4.8	2.5	4.8
DE	Pulp, paper & prod.; publishing & printing	5.1	4.3	6.2	4.3	2.7
DF	Coke, refined petroleum products & nuclear fuel	0.8	1.2	0.3	1.6	1.1
DG	Chemicals, chemical products & man-made fibres	4.5	4.6	5.2	4.8	4.0
DH	Rubber and plastic products	5.1	3.8	5.2	2.8	2.2
DI	Other non-metallic mineral products	6.1	5.9	4.6	3.8	4.8
DJ	Basic metals and fabricated metal products	11.5	14.7	16.2	8.8	10.2
DK	Machinery and equipment n.e.c.	8.3	11.1	10.3	12.0	8.7
DL	Electrical and optical equipment	7.0	12.8	12.3	5.5	5.3
DM	Transport equipment	6.8	7.0	4.3	2.2	8.0
DN	Manufacturing n.e.c.	7.0	3.6	6.3	3.6	6.7

Notes: 1) Coke, refined petroleum products & nuclear fuel (DF) included in manufacturing n.e.c. (DN); year 2001.
2) DA without tobacco products (16), DJ without basic metals (27), DL without office machinery (30) and medical instruments (33); extra share for the ISIC groups 16,27,30,33 and 23 (coke) accounting for 3.2%, year 2001; 3) food, beverages (without tobacco); year 2001.

Source: WIIW Industrial Database 0604.

APPENDIX 2
Table A2/3

Textiles and clothing (DB), basic data from WIIW Industrial Database

a) Production value at *current* prices in millions of national currency (DB)

	1997	1998	1999	2000	2001	2002	2003
Czech Republic	59423	66322	63805	70921	75457	65295	63236
Estonia	3977	4350	4217	5447	5896	-	-
Hungary	189621	245143	286098	344345	361772	339518	320005
Latvia	131	141	130	145	158	146	-
Lithuania	2690	3057	3187	3282	3526	-	-
Poland	17019	18831	17133	18254	17933	18759	19198
Slovak Republic	14707	15289	16323	16467	18430	19518	35567
Slovenia	134046	154970	157634	155760	182909	185173	-
Bulgaria	869	958	883	1093	1340	1774	1952
Romania	10777800	14710600	22648300	34354900	54980200	80396300	88729800

Source: WIIW Industrial Database

b) Production value at *constant* 1999 prices in millions of national currency (DB)

	1997	1998	1999	2000	2001	2002	2003
Czech Republic	74562	73593	63805	70058	72790	71771	69761
Estonia	4003	4167	4217	5002	5685	6201	-
Hungary	226470	260660	286098	323545	328434	312734	289316
Latvia	132	137	130	143	148	149	-
Lithuania	2746	3030	3187	3411	3759	3740	-
Poland	18697	19188	17133	17883	17362	18396	18671
Slovak Republic	19565	18528	16323	17139	18785	19517	19224
Slovenia	167159	169499	157634	164412	151259	132352	117264
Bulgaria	1110	1061	883	996	1180	1459	1770
Romania	30852066	24839415	22648300	27559900	30684106	32977309	32401801

Source: WIIW Industrial Database

c) Production value at current prices in € millions at market exchange rates (DB)

	1997	1998	1999	2000	2001	2002	2003
Czech Republic	1660	1834	1730	1992	2214	2119	1986
Estonia	254	276	270	348	377	-	-
Hungary	899	1017	1132	1324	1409	1397	1262
Latvia	199	213	208	259	281	251	-
Lithuania	594	680	746	887	984	-	-
Poland	4593	4800	4053	4551	4888	4865	4365
Slovak Republic	387	386	370	387	426	457	857
Slovenia	743	832	814	760	842	819	-
Bulgaria	458	486	451	559	685	907	998
Romania	1332	1473	1390	1722	2112	2572	2363

Source: WIIW Industrial Database, own calculations.

APPENDIX 2
Table A2/3 continued

d) **Exchange rates used**

Annual average rates (€1 = ...national currency)

	1997	1998	1999	2000	2001	2002	2003
Czech Republic	35.8	36.16	36.88	35.61	34.083	30.812	31.844
Estonia	15.6696	15.7828	15.6466	15.6466	15.6466	15.6466	15.6466
Hungary	210.93	240.980	252.800	260.040	256.680	242.970	253.510
Latvia	0.6574	0.6614	0.6237	0.5601	0.5627	0.5826	0.6449
Lithuania	4.5272	4.4924	4.2712	3.6990	3.5849	3.4605	3.4528
Poland	3.7055	3.9231	4.2270	4.0110	3.6685	3.8557	4.3978
Slovak Republic	38.010	39.600	44.120	42.589	43.309	42.699	41.491
Slovenia	180.399	186.270	193.625	205.032	217.185	226.224	233.705
Bulgaria	1.89581	1.97226	1.95583	1.95583	1.9558	1.9558	1.9558
Romania	8090.9	9989.3	16295.6	19955.8	26026.9	31255.3	37555.9
Cyprus	0.58263	0.57742	0.57885	0.57392	0.57589	0.57530	-
Malta	0.43750	0.43498	0.42577	0.40414	0.40301	0.40894	-

Sources: Central banks of the respective countries; Cyprus and Malta: Eurostat.

e) **PPS for GDP used**

	1997	1998	1999	2000	2001	2002	2003
Czech Republic	13.3065	14.4748	14.5691	15.4690	16.0588	15.8633	16.1097
Estonia	6.6988	7.2304	7.3835	7.5133	7.9603	8.2304	8.5607
Hungary	92.93	102.93	109.11	116.74	121.28	128.33	134.09
Latvia	0.2382	0.2457	0.2529	0.2567	0.2623	0.2650	0.2728
Lithuania	1.6382	1.6973	1.6534	1.6048	1.5700	1.5545	1.5218
Poland	1.6601	1.8209	1.8933	1.9792	2.0352	2.0371	2.0558
Slovak Republic	15.8616	16.4103	17.0787	17.4460	17.9131	17.9941	18.9512
Slovenia	124.21	131.47	136.17	141.02	150.19	159.28	163.87
Bulgaria	0.4589	0.5586	0.5662	0.5895	0.6176	0.6462	0.6443
Romania	2212.7	3378.2	4877.9	6845.7	9138.1	10914.1	12928.7
Cyprus	0.4578	0.4614	0.4612	0.4607	0.4579	0.4716	0.4913
Malta	0.2648	0.2663	0.2674	0.266	0.2749	0.2742	0.2841

Source: Eurostat.

APPENDIX 2

Table A2/3 continued

Total manufacturing (D), basic data from WIIW Industrial Database

f) Production value at *current* prices in millions of national currency (D)

	1997	1998	1999	2000	2001	2002	2003
Czech Republic	1330877	1442259	1438096	1554652	1667176	1731044	1827780
Estonia	33968	37644	35239	45369	52346	-	-
Hungary	5197367	6615642	7886728	10525068	11328511	11442387	12421558
Latvia	1514	1610	1438	1585	1836	2032	-
Lithuania	19082	18795	18252	21022	22778	-	-
Poland	299825	334887	359650	412265	414630	439211	494991
Slovak Republic	419028	474260	502141	614372	677632	731067	1095663
Slovenia	1869819	2077927	2158023	2581621	2827411	3099072	-
Bulgaria	13511	13501	12523	15754	17042	17891	18635
Romania	171363200	205444800	292302100	501553900	769938600	1001578700	1178067200

Source: WIIW Industrial Database.

g) Production value at *current* prices in € millions at market exchange rates (D)

	1997	1998	1999	2000	2001	2002	2003
Czech Republic	37175	39885	38994	43658	48915	56181	57398
Estonia	2168	2385	2252	2900	3346	-	-
Hungary	24640	27453	31198	40475	44135	47094	48998
Latvia	2303	2434	2306	2830	3263	3488	-
Lithuania	4215	4184	4273	5683	6354	-	-
Poland	80914	85363	85084	102784	113024	113912	112554
Slovak Republic	11024	11976	11381	14426	15646	17121	26407
Slovenia	10365	11155	11145	12591	13018	13699	-
Bulgaria	7127	6846	6403	8055	8713	9148	9528
Romania	21180	20567	17938	25133	29582	32045	31368

Source: WIIW Industrial Database.

APPENDIX 2
Table A2/4

Textiles and clothing (DB), various indicators from Eurostat, NewCronos

a) **db Manufacture of textiles and textile products**
v12150 Value added at factor cost (€ millions)

	2002	2001	2000	1999	1998	1997
Bulgaria	-	268.8	218.9	199.2	-	-
Cyprus	-	52.5	56.5	-	80.1	86.6
Czech Rep.	-	768.8	740.5	-	-	-
Estonia	-	139.9	114	89.8	81.2	72.9
Hungary	-	515.9	469.2	452	424.3	-
Lithuania	-	229.4	216.4	143.2	170.3	150.4
Latvia	-	176.7	115.2	86.9	94.6	87.3
Malta	-	71.6	80.5	69	-	-
Poland	-	2517.7	1862.9	1820.7	1766.5	1609.6
Romania	-	997.2	900.2	743.5	769.9	657.5
Slovenia	-	330.2	320.9	313.6	318.6	310.1
Slovak Rep.	-	197.2	132	116.6	145.1	143.3

Sources: Eurostat, NewCronos, SBS (enter_cc and enter_preli).

b) **db Manufacture of textiles and textile products**
v13310 Personnel costs (€ millions)

	2002	2001	2000	1999	1998	1997
Bulgaria	-	200.6	173.1	154.5	148.8	115.9
Cyprus	-	36	37.8	-	-	-
Czech Rep.	-	530.6	-	463.7	461.5	447.5
Estonia	-	96	82.1	69.2	66	56.7
Hungary	-	405.8	348.2	349.6	334.1	-
Lithuania	-	179.6	178.9	154.4	141.8	125.6
Latvia	-	84.4	81.3	70.7	67.9	62.4
Malta	-	45	41.6	38	-	-
Poland	-	1208.4	1217	1162.9	1150.8	1122.7
Romania	-	645.5	625.4	479.8	526.5	399.9
Slovenia	-	295	288.4	281.1	288.4	280.2
Slovak Rep.	-	166.5	151.2	128	132.2	130.8

Sources: Eurostat, NewCronos, SBS (enter_cc and enter_preli).

APPENDIX 2

Table A2/4, continued

c) **db Manufacture of textiles and textile products**
v16110 Number of persons employed

	2002	2001	2000	1999	1998	1997
Bulgaria	170538	159477	145726	133434	138795	133769
Cyprus	3398	3592	3839	-	6823	7515
Czech Rep.	-	124777	133264	141046	136886	150237
Estonia	24941	24300	22531	-	-	-
Hungary	104257	97280	101755	108206	110725	-
Lithuania	61620	60390	60012	57760	59645	58747
Latvia	23786	25579	24985	23821	24792	-
Malta	4635	3720	3693	3779	-	-
Poland	-	-	-	-	361058	384572
Romania	423567	420235	405700	398391	394146	391370
Slovenia	-	-	-	-	-	-
Slovak Rep.	47350	49607	47582	-	-	-

Sources: Eurostat, NewCronos, SBS (enter_cc and enter_preli).

d) **db Manufacture of textiles and textile products**
V16130 Number of employees

	2002	2001	2000	1999	1998	1997
Bulgaria	-	150778	134153	130341	134769	130362
Cyprus	-	-	3441	-	-	-
Czech Rep.	-	113330	119361	124481	128050	133140
Estonia	-	24179	22488	21040	22034	21427
Hungary	-	96940	101496	107049	110051	-
Lithuania	-	59503	59310	56934	58774	57758
Latvia	-	25555	24963	23744	24762	23591
Malta	-	3545	3514	3584	-	-
Poland	-	242046	272318	298310	310722	335458
Romania	-	413039	392338	372667	373239	375957
Slovenia	-	30031	31877	31855	34896	35493
Slovak Rep.	-	49561	47540	46240	46134	49097

Sources: Eurostat, NewCronos, SBS (enter_cc and enter_preli).

APPENDIX 2
Table A2/4 continued

e) **db Manufacture of textiles and textile products**
Share of self-employed in the total number of persons employed (in %)

	2002	2001	2000	1999	1998	1997
Bulgaria	-	5.5	7.9	2.3	2.9	2.5
Cyprus	-	-	10.4	-	-	-
Czech Rep.	-	9.2	10.4	11.7	6.5	11.4
Estonia	-	0.5	0.2	-	-	-
Hungary	-	0.3	0.3	1.1	0.6	-
Lithuania	-	1.5	1.2	1.4	1.5	1.7
Latvia	-	0.1	0.1	0.3	0.1	-
Malta	-	4.7	4.8	5.2	-	-
Poland	-	-	-	-	13.9	12.8
Romania	-	1.7	3.3	6.5	5.3	3.9
Slovenia	-	-	-	-	-	-
Slovak Rep.	-	0.1	0.1	-	-	-

Sources: Eurostat, NewCronos, SBS (enter_cc and enter_preli).

f) **db Total labour costs (€)**
Calculated as personnel costs/number of employees

	2002	2001	2000	1999	1998	1997
Bulgaria	-	1330	1290	1185	1104	889
Cyprus	-	-	10985	-	-	-
Czech Rep.	-	4682	-	3725	3604	3361
Estonia	-	3970	3651	3289	2995	2646
Hungary	-	4186	3431	3266	3036	-
Lithuania	-	3018	3016	2712	2413	2175
Latvia	-	3303	3257	2978	2742	2645
Malta	-	12694	11838	10603	-	-
Poland	-	4992	4469	3898	3704	3347
Romania	-	1563	1594	1287	1411	1064
Slovenia	-	9823	9047	8824	8265	7895
Slovak Rep.	-	3359	3180	2768	2866	2664

Sources: Eurostat, NewCronos, SBS (enter_cc and enter_preli).

APPENDIX 2
Table A2/4 continued

g) **db Manufacture of textiles and textile products (€ thousands)**
v91110 Gross value added per person employed (apparent labour productivity)

	2002	2001	2000	1999	1998	1997
Bulgaria	-	1.7	-	-	-	-
Cyprus	-	14.6	14.7	-	-	-
Czech Rep.	-	6.2	-	-	-	-
Estonia	-	5.8	5.1	-	-	-
Hungary	-	5.3	4.6	-	-	-
Lithuania	-	3.8	3.6	-	-	-
Latvia	-	6.9	4.6	3.6	-	-
Malta	-	19.2	21.8	-	-	-
Poland	-	-	-	-	-	-
Romania	-	2.4	-	-	-	-
Slovenia	-	-	-	-	-	-
Slovak Rep.	-	4	2.8	-	-	-

Sources: Eurostat, NewCronos, SBS (enter_cc and enter_preli).

h) **Db Manufacture of textiles and textile products**
v91120 Gross value added per unit personnel cost
(simple wage adjusted labour productivity) (in %)

	2002	2001	2000	1999	1998	**$ULC_{currVAD}$ 2001 (calc)**	
Bulgaria	-	126.7	-	-	-	**78.9**	
Cyprus	-	-	133.8	-	-	**74.7**	1)
Czech Rep.	-	131.6	-	-	-	**76.0**	
Estonia	-	145.1	138.7	-	-	**68.9**	
Hungary	-	126.7	134.4	-	-	**78.9**	
Lithuania	-	125.8	119.6	-	-	**79.5**	
Latvia	-	209.2	141.6	122.6	-	**47.8**	
Malta	-	151.8	183.9	-	-	**65.9**	
Poland	-	-	-	-	-	**-**	
Romania	-	151.9	-	-	-	**65.8**	
Slovenia	-	-	-	-	-	**-**	
Slovak Rep.	-	118.3	87.2	-	-	**84.5**	

Note: 1) 2000.
*Source*s: Eurostat, NewCronos, SBS (enter_cc and enter_preli).

APPENDIX 2
Table A2/4 continued

i) **d Total manufacturing**
v12120 Production value (€ millions)

	2002	2001	2000	1999	1998	1997
Bulgaria	-	9425.1	8277.5	6537.9	7487.5	7805.3
Cyprus	-	2843.4	2753.2	-	2343.3	2327.1
Czech Rep.	-	60219.4	51745	43080.7	44522.9	42287.7
Estonia	-	3570	3097.8	2484.7	2649.8	2352.7
Hungary	-	46155.2	40098.9	31428.2	27245.3	-
Lithuania	-	6213.2	5431.2	3968	3995.7	3805.2
Latvia	-	3563.3	3312.8	2499.1	2567.1	2346.7
Malta	-	2654.9	3248.6	2391.1	-	-
Poland	-	120126.8	107133.5	89215.8	85341.4	79286.1
Romania	-	23321.7	20620.2	16437.7	19939.2	21336
Slovenia	-	15566.3	14796.3	13385.6	13341.2	12363.4
Slovak Rep.	-	16979.4	15448.9	11797	12388	11610.9

Sources: Eurostat, NewCronos, SBS (enter_cc and enter_preli).

APPENDIX 3

A3/1 List of local collaborators

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APPENDIX 3

A3/2 List of reports and interview partners

Bulgaria

Textile Report prepared by *Evgeni Peev*

Interviews with representatives of:

Association of Apparel and Textile Exporters in Bulgaria – AATEB (Denitza Peycheva, Executive Secretary)

National Cooperative Union of Disabled (Dimitar Georgiev, expert, Marketing and International Relations Division, Clothing And Textile Industry)

Bulgarian Association of Textile and Clothing – BATEC, (Dinko Ovcharov, coordination board, textile industry)

Federation of the Independent Organisations of Textile and Clothing Industry, of the Confederation of Trade Unions in Bulgaria (Ani Becheva, National Secretary, Ms. Kamelia Tacheva, Executive Secretary)

Additional consultations with Ilia Metchev, Secretary, and Petar Nikolov, expert, Scientific and Technical Union of Textiles, Ready-made Clothing and Leathers

Clothing Report prepared by *Evgeny Peev*

Interviews with representatives of:

Association of Apparel and Textile Exporters in Bulgaria – AATEB (Denitza Peycheva, Executive Secretary)

National Cooperative Union of Disabled (Dimitar Georgiev, expert, Marketing and International Relations Division, Clothing and Textile Industry)

Federation of the Independent Organisations of Textile and Clothing Industry, of the Confederation of Trade Unions in Bulgaria (Ani Becheva, National Secretary, Ms. Kamelia Tacheva, Executive Secretary)

Estonia

Textile Report prepared by *Urve Venesaar*

Clothing Report prepared by *Urve Venesaar*

Interviews with representatives of:

Estonian Clothing and Textile Association

Estonian Light Industry Workers Trade Union

The Labour Inspectorate

Estonian Quality Association

Enterprises of the textile and clothing industry (some)

Hungaria

Textile Industry Report prepared by *Eszter Bod*

Clothing Industry Report prepared by *Eszter Bod*

Interviews with representatives of:

Association of Hungarian Clothing Companies (Ms. Ildikó Medgyessy, President and also Director of the company Elegant Design Modell Rt)

Hungarian Society of Textile Technology and Science (Csabáné Mate, President and Katalin Lakotosne Gyory, Secretary-General)

Trade Union of the Textile Industry Employees (Tibor Groszmann, Secretary-General)

Trend & Design Ltd, clothing company (Éva Bajczár, Designer)

Latvia

Textile Report prepared by *Raitis Bukovskis*

Clothing Report prepared by *Raitis Bukovskis*

Interviews with representatives of:

Association of Textile and Clothing Industry (Guntis Strazds, President)

Anastasija – a large sewing company in Latvia

Lithuania

Textile Report prepared by *Mark Chandler*

Clothing Report prepared by *Mark Chandler*

Interviews with representatives of:

Lithuanian Light Industry Trade Union (Ingirda Cirvinskaite, President)

Lithuanian Apparel and Textile Industry Association (Jonas Karciauskas, President)

Poland

Textile Report prepared by *Richard Woodward*

Clothing Report prepared by *Richard Woodward*

Interviews with representatives of: Polish Clothing and Textile Chamber – Polska Izba Odziezowo-Tekstylna (Jerzy Garczynski)

Polish Association of Private Employers Producing Clothing and Fabric – Polski Zwiazek Pracodawcow Prywatnych Producentow Odziezy i Tkanin (Boguslaw Slaby)

Federation of Light Industry Trade Unions – Federacja NSZZ (Przemysłu Lekkiego).

The interviews were conducted by Wojciech Pander.

Romania

Textile Report prepared by *Emilia Aldea*

Clothing Report prepared by *Cornelia Paunescu*

Interviews with representatives of:

Marketing departments of several textile and clothing enterprises (Confex, Romanoexport-Bucharest, Dorobantu-Ploisti, Textile Dacia-Bucharest, Incom Vranco-Focsani);

FEPAIUS (Federation of the employers of the light industry)

UGIR 1903 (The general confederation of industrialists and employers of Romania 1903)

Additional consultations with experts from:

Chamber of Commerce of Romania (Director Pop Ion)

National Institute for Research and Development for textiles (Mrs. Maria Nazarenco)

Slovakia

Textile Report prepared by *Marek Jakoby*

Clothing Report prepared by *Marek Jakoby*

Interviews with representatives of:

Association of the Textile and Clothing Industry (Jaroslav Kubecka, General Secretary and Pavol Jakubik, Manager)

Slovenia

Textile Report prepared by *Tanja Cesen*

Clothing Report prepared by *Tanja Cesen*

Interviews with representatives of:

Slovenian Chamber of Commerce Association of the Textile, Clothing and Leather Industry (Joze Smole, Secretary and Josica Weissenbacher, Advisor)

APPENDIX 3/3a

List of important interview topics: Textile industry

1. Company structure
What is the size structure in your industry (small-, medium-sized, large enterprises – could you help the interviewer to fill in the attached Table 1)?
What is the approximate ownership structure in your industry (state/private, domestic/foreign)?

2. Industry structure
What are the most important companies (could you help the interviewer to fill in the attached Table 2)?
Is there a significant regional concentration in your industry?
If yes, in which areas/cities?

What alternative employment opportunities exist or could be created in the region by regional or other support programmes, if jobs in the textile industry are lost?

3. Modernisation/technology

How far has restructuring/modernisation proceeded in your industry up to now (just started, intermediate, advanced)?

Is the industry making use of information technology (little, some, best practice available)?

How many companies have attained certification (ISO, CE-certification, O(e)ko-Tex Standard)?

4. Investment
What was the extent of investment activity to adjust to modern requirements in terms of machinery and equipment in the last five years (insufficient, moderately sufficient, sufficient)?
Are there excess capacities in the industry? Will capacities be rather extended or reduced in the future?

5. Inputs
Are there any specific advantages or problems with inputs for the industry in your country, e.g. with raw materials for production, with utilities (energy, water, telecommunication) or labour (labour costs, skills), etc.?
Do you expect any changes in this respect after accession? Please specify.

6. Research & development
Is there any specific research activity in your industry (at company level, special research institutes, etc.)? Is there any cooperation in R&D between different textile companies?

7. Customer relations

Is there a considerable user-producer interaction with domestic customers that leads to innovation in the industry?

8. Support programmes
Are there any government support programmes relevant for your industry (e.g. investment incentives, research & development, regional development plans or special support for small- and medium-sized enterprises)?

Do you expect more or less support after becoming a full EU member? In what regard?

What supportive measure would you suggest?

9. Social and environmental issues

Describe the share of female employment, working conditions and measures to manage the social impact of restructuring such as retraining programmes and others.

Will the industry have problems to comply with the *Acquis Communautaire*? In what regard?

10. How would you describe the position of your industry within an enlarged Europe?

Do you think that your textile industry will become or remain competitive globally?

Are there any particular strengths or weaknesses of the textile industry in your country you would like to mention?

Who will be your main competitors?

Are there any specific threats or opportunities related to becoming a full EU member?

In your opinion, will phasing out of the textile and clothing agreement (ATC) at the end of 2004 have a significant impact on your industry (positive or negative)?

Which sub-industries (regions) will have the best chance, which will suffer most?

APPENDIX 3

A3/3b List of important interview topics: Clothing industry

1. Company structure

What is the size structure in your industry (small-, medium-sized, large enterprises – could you help the interviewer to fill in the attached Table 1)?

What is the approximate ownership structure in your industry (state/private, domestic/foreign)?

2. Industry structure

What are the most important companies (could you help the interviewer to fill in the attached Table 2)?

Is there a significant regional concentration in your industry?

If yes, in which areas/cities?

What alternative employment opportunities exist or could be created in the region by regional or other support programmes, if jobs in the textile industry are lost?

3. Modernisation/Technology

What is the relative position of your country's clothing industry in the value added chain (assembly, original equipment manufacturing, etc., please fill in the attached Table 3)?

How many firms use CAD/CIM[50] systems in your industry and are taking advantage of information technology to increase flexibility of production?

How many firms have attained certification (ISO, CE-certification, O(e)ko-Tex Standard)?

4. Investment

What was the extent of investment activity to enhance flexibility of production over the last five years (insufficient, moderately sufficient, sufficient)?

Are there excess capacities in the industry? Will capacities be rather extended or reduced in the future?

5. Inputs

Are there any specific advantages or problems with inputs for the industry in your country, e.g. with fabrics, trimmings, accessories, with infrastructure (telecommunication, transport) or labour (labour costs, skills)?

Do you expect any changes in this respect after accession? Please specify.

6. Research & development

Are there any research/training institutes focussing on design and creativity with regard to clothing?

7. Customer relations

Has there been increasing pressure from the retail sector over the last few years in terms of timeliness as well as prices? What about rising concentration in the retail sector or the rising share of foreign retailers?

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[50] Computer-Aided Design, Computer-Integrated Manufacturing.

Do you expect any changes in this respect after accession? Please specify.

8. Support programmes

Are there any government support programmes relevant for your industry (e.g. investment incentives, regional development plans or special support for small- and medium-sized enterprises)?

Do you expect more or less support after becoming a full EU member? In what regard?

What supportive measures for the industry would you suggest?

9. Social and environmental issues

Describe the share of female employment, working conditions and measures to manage the social impact of restructuring such as retraining programmes and others.

Will the industry have problems to comply with the *Acquis Communautaire*? In what regard?

10. How would you describe the position of your industry within an enlarged Europe?

Do you think that your clothing industry will become/remain competitive globally?

Are there any particular strengths or weaknesses of the clothing industry in your country you would like to mention?

Who will be your main competitors?

Are there any specific threats or opportunities related to becoming a full EU member?

In your opinion, will phasing out of the textile and clothing agreement (ATC) at the end of 2004 have a significant impact on your industry (positive or negative)?

Which sub-industries (regions) will have the best chance, which will suffer most?

APPENDIX 3

A3/4 Supporting tables

Table 1. **Size structure in the industry**

Millions in national currency, persons	Small (0-20 employees)*	Medium (20-250 employees)*	Large (> 250 employees)*
Production			
Value added			
Number of employees			

* It is also acceptable, if other size classes are available only – please indicate them.

Table 2. **The ten most important companies (including foreign-invested) 2003 (2002) in the clothing industry**

Name of the enterprise	**Sales (in millions of national currency)**	Sales (in € million)*	Number of employees	**Loca-tion**	Share of exports	Owner-ship (state, foreign, private)	**Main activities (products)**

* Please note down the exchange rate used.

The most important items are indicated in bold letters!

Table 3. **Estimated shares of value added (production) *or* percentage of companies engaged in the following activities (please indicate, which measure you have used) 2003 (2002)**

Assembly	OEM	ODM	OBM
%	%	%	%

Assembly is only the sewing of already cut fabrics sent by the (foreign or domestic) buyer firm and sending the sewn pieces back to the buyer firm without finishing.

Original Equipment Manufacturing (OEM) is providing a product according to the specifications the (foreign or domestic) buyer firm requires in order to sell under its own brand name and through its own distribution channels.

Original Design Manufacturing (ODM) is designing and manufacturing a range of products with little or no assistance from the (foreign or domestic) buyer firm who then purchases the products it requires and sells them under its own brand name.

Original Brand Manufacturing (OBM) is attaining the financial and marketing capability to sell products under the domestic company's own brand name in the foreign markets.