



## **Final Report**

# **The Textiles and Clothing Industry in an enlarged Community and the Outlook in the Candidate States**

## **Part 1 Supplement: Turkey**

(in the framework of contract No. FIF. 20030838)

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# 1. Introduction & Scope of Analysis

## 1.1 World market trends

Turkey's Textile and Clothing (T/C) industry is regarded as a key 'locomotive industry', pulling the country's progress along since the 1980s. It has been one of the most important sectors of the Turkish economy with its share in the economic indicators. It accounts 10% of GDP, 21% of industrial production, 21% of industrial employment<sup>1</sup> and 37% of total manufacturing export earnings.

Turkish textiles presently rank tenth in world trade, increasing their share from 0.6% in 1980 to 2.8% in 2002. In the clothing industry, Turkey ranks fourth in the world trade, increasing its 0.3% share in 1980 to 4% in 2002.<sup>2</sup> Turkey's T/C exports reached US\$ 12.1 billion in 2002 whose 54.3 % belongs to clothing and 45.7% belongs to textiles exports. T/C imports into Turkey are lower (US\$ 2.8 billion in 2002), but have increased by 44.5% from 2001 and are mainly textile weaving, representing 47.6% of all T/C imports. Textile products account for 87.9% of T/C imports.

Table 1

MAIN TRADING PARTNERS OF EU (15) IN TEXTILE-CLOTHING 2000-2002						
Mn EUR		2002 e		2001e		2000 e
TEXTILE SUPPLIERS	1 CHINA P.R.	2219.8	TURKEY	2237.3	TURKEY	2035.1
	2 TURKEY	2127	CHINA P.R.	2049.6	CHINA P.R.	1980.3
	3 INDIA	1707.8	INDIA	1967.9	INDIA	1931.2
	4 PAKISTAN	1174.7	USA	1351.0	USA	1459.6
	5 USA	1109.5	SWITZERLAND	1147.4	SWITZERLAND	1165.4
	1-5 % Extra	45.90%	1-5 % Extra	45.9%	1-5 % Extra	45.7%
	EXTRA-EU-15	18159.5	EXTRA-EU-15	19060.5	EXTRA-EU-15	18755.5
CLOTHING SUPPLIERS	1 CHINA P.R.	9186.5	CHINA P.R.	8320.3	CHINA P.R.	7759.2
	2 TURKEY	6698.7	TURKEY	5732.1	TURKEY	5273.9
	3 ROMANIA	3593.1	ROMANIA	3256.5	HONG KONG	3094.0
	4 TUNISIA	2873.1	TUNISIA	2846.9	TUNISIA	2547.9
	5 BANGLADESH	2582.4	BANGLADESH	2766.4	MOROCCO	2546.7
	1-5 % Extra	48.80%	1-5 % Extra	45.1%	1-5 % Extra	43.4%
	EXTRA-EU-15	51335.9	EXTRA-EU-15	50778.3	EXTRA-EU-15	48932.1

Source : CITH, EUROSTAT, from Euratex

<sup>1</sup> Institut Francais de la Mode, Study on the implications of the 2005 trade liberalisation in the textile and clothing sector, Consolidated Report, February 2004

<sup>2</sup> Turkish Textile and Clothing Industry, Istanbul Textile and Clothing Exporters' Association (ITKIB), May 2004.

For decades now, the EU has become the main trading partner of Turkey in textiles and clothing. This does not necessarily exclude trade with other countries and regions in the world, but the fact that proximity with the EU has determined the progress of the industry since its early years. In 2002, 67% of Turkey's exports in textiles and clothing was with the EU (15) and 49% of imports was from the EU (15). In 2002, Turkey's T/C exports reached 12.1 billion US\$, up from 10.4 billion US\$ in 2001. The EU represents Turkey's main export market, accounting for 67% of the country's total T/C export, with a particularly strong focus on exports to Germany (26.6%), followed by the US (15%) and the UK (13.8%). As a result, in 2002 Turkey was the second largest third-country supplier of textiles to the EU with a share of 11.7% (within Extra-EU) and also ranked second for clothing exports after China (with a share of 13% within Extra-EU). In textiles, Turkey has lost its leadership in 2001 to China (see Table 1). The EU therefore plays an important role in T/C imports to Turkey, accounting for 49% of imports in 2002 with Italy taking the largest share (17.2%) followed by Germany (9.3%).<sup>3</sup> Yet imports from the US and China account for 22.3% and 9% respectively.

Since 1998, as with other industries, textiles and clothing have also been negatively influenced by economic crises, both in Turkey and more globally. The changing trade regulations of the industry in world markets have had a further impact on the necessity of restructuring in these industries. On the one hand, Turkish textile and clothing industries have shown a significant effort to catch up with technological and structural changes in the last five years, by investing 50 billion dollars into the industry through state investment incentives. On the other hand, recently the pace of progress in Turkish textiles and clothing industries has almost stagnated with respect to production and employment.

The Turkish Clothing industry has certainly improved in terms of production and exports, in comparison to textiles in the period 1997-2002. The most important products in Turkish T/C industry exports are articles of clothing, both knitted and non-knitted, cotton yarn and woven fabrics of cotton, and man-made staples and filaments (see Table 13 in section 5).<sup>4</sup> The pattern of imported products tends to suggest a deficiency of domestic production of raw material for the clothing industry (which will be discussed in section 8 below). The most important products according to production and sales quantities are shown in Table 8 in section 3.

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<sup>3</sup> *ibid.*

<sup>4</sup> For more detailed information on most important export/import products of Turkey, one can refer to the appendix 5 of the main interim report based on Eurostat Combine Nomenclature.

In the light of this introduction, this (Part 1) Supplementary report will first analyse the trends in growth and structure of T/C industry in Turkey and then look at its international competitiveness by discussing trends in costs and productivity. The fifth section will examine the trade performance of the Turkish T/C industry with the EU (15) and other countries and regions. The following section will then deal with foreign direct investment and regional localisation in detail.

Finally, in companion with Part 2 analysis, we briefly discuss the likely impact of the abolition of import quotas by the WTO/ATC in 2005 and the role of EU enlargement on Turkish T/C industries and on company profiles in the industry. This supplementary interim report will be compatible and comparable with the main interim report in discussing the main indicators of the Turkish T/C industry.

## **2. Methodology**

This supplementary report analyses the current situation and the outlook of the Turkish textiles and clothing industry. In accordance with the main report on the new member states (NMS) and the two other candidate countries (C-2), Romania and Bulgaria, the report on Turkey also uses the NACE rev.1 classification for ease of comparison. The textile industry (NACE division 17) and the clothing industry (NACE division 18) are treated separately. Analysis at the 3-digit level is done as well.

### **2.1 Source of data and information**

Our analysis on production, employment and wages draws to a large extent on unpublished data from State Institute of Statistics (SIS) of Turkey. The data on world trade come from the UN-Comtrade database and trade with the EU from the Eurostat-Comext database. The re-classification of the UN trade data from SIT/C rev.3 to NACE rev.1 was done by the Vienna Institute for International Economic Studies (wiiw). Where necessary, also trade data from the State Institute of Statistics (SIS) of Turkey and the Under-secretariat for Foreign Trade are used. Secondary/supplementary data are obtained from Under secretariat of Treasury and Under-secretariat of Foreign Trade. Our primary source of *qualitative* information is derived from interviews with state officials and representatives from industry, export and workers associations. Existing reports on the Turkish textiles and clothing industry published by various public and private organizations are our secondary source of information. Finally, the Internet has been used to obtain information from online journals of the textiles and clothing associations.

It should be mentioned that the data from SIS are based on a national statistical classification called 'US-97'. The two-digit level data have no correspondence problem with NACE rev.1. The three-digit level data have to be converted into NACE rev.1 for which there is a correspondence table provided by the SIS. However, SIS could not provide data at the five-digit level US-97 which is required to convert into three-digit NACE rev.1, as they do not have them. On the other hand, the foreign trade data obtained from SIS, Foreign Trade unit, are based on ISIC rev.3, which also has no correspondence problem with NACE rev.1 at two-digit level.

### **2.2 Kinds of information**

There are two kinds of data obtained from State Institute of Statistics (SIS) of Turkey with regard to production. The first are the *quarterly data* from the Industrial Production unit and the second

are the *annual data* from the Manufacturing Industry unit. In our research, we used production data from the former, since the latter was only able to provide figures on 'output', which do not correspond directly with production values and were supplied at current prices only. But the Industrial Production unit was only able to provide production data and an industrial production index, both of which are based on three monthly industrial production questionnaires. The data on employment and wages were thus provided by the Manufacturing Industry unit (on an annual basis).

The *quarterly data* cover all manufacturing firms in the public sector and the middle and large firms with 10 and more employees in the private sector, which produce 80% of the value added of the manufacturing industry. The abovementioned questionnaires, on which production data are based, represent around 90% of total value added of the firms that are covered in the annual total manufacturing questionnaires and 84.2% of all total manufacturing firms. The quarterly data were available until 2002.

The *annual data* are based on questionnaires sent to manufacturing firms annually and cover all manufacturing firms in the public sector and the middle and large firms with 10 and more employees in the private sector. However, the state firms with 1-9 employees are covered within the category of firms with a number of 10-24 employees through 'sampling' method. In some cases, data pertaining to one or two private sector establishments are not given due to the code of confidentiality.<sup>5</sup>The annual data are available until 2001 only.

The above information relies on the general explanation provided by the SIS for their data. That is, not specifically for the data on T/C industry.

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<sup>5</sup> Confidentiality is implemented by law no 53, which is indicated by the decree commanded as law 219.

### 3. Trends in growth and structure

#### 3.1 Relative position of the industry

Before starting to analyse the production and employment values of the textiles and textile products industry in Turkey, we will briefly refer to the special data problems faced by analysts. First, one has to bear in mind that the data used are the official figures obtained from the State Institute of Statistics (SIS) of Turkey which are based on the abovementioned *questionnaires* explained in the methodology section of this report. Second, one has to also bear in mind the very large role of the *informal economy* in the textiles and clothing industry, which makes the sector one of the most complicated in Turkey in terms of data collection. Although it is well known that the industry is strongly based on small and medium sized enterprises due to the informal sector, the exact number of 'atelier' type micro establishments is not known. For this reason, the analyses in the published sectoral studies are almost always based on the performance of exports and imports of the industry. It is nearly impossible to find data on production and precise data on employment in those reports. Therefore, when analysing production and employment in this report, we will draw on the unpublished official data from the SIS.

In our analysis, the results for Turkish T/C industry will also be presented in comparison to NMS, NMS & CC-2, EU-15 and EU-25. The objective of this report is not only to assess the current position of the Turkish T/C industries with respect to the enlarged EU, but to get an insight in the prospects for the Turkish textiles and clothing industry after enlargement as well.

According to SIS, in 2002, a little more than 3200 T/C enterprises produced textiles and clothing worth EUR 11 bn which corresponds to 15% of total manufacturing production and employed 380100 persons.<sup>6</sup> The respective value added (VAD) comes to EUR 6.4 bn, which accounts for 17% of total manufacturing VAD and around 4% of GDP (see Table 2). Thus, the role of the T/C industry in the domestic economy in Turkey is significantly higher than in the EU-15 on average, but also compared to the NMS, where the T/C industry contributed 6% to manufacturing VAD and 1.2% to GDP in the same year (2001). The (official) employment figures show even more striking results: The Turkish T/C industry employs 35% of all manufacturing workers while in the NMS this share is about 12% and in the EU-15 it is 7% only. This is a clear indicator of higher labour intensity and thus lower labour productivity in the Turkish T/C industry, when compared to the EU-15 and the NMS as well.

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<sup>6</sup>According to a report from PWC Consulting, the employment figure reported by the Turkish Ministry of Labour and Social Security in January 2001 was 503 211, see Smid/Taskesen (2002), p.7.



Consequently, the position of the Turkish T/C industry in relation to a fictional EU-25 in 2001/2002 is less prominent in production and VAD than in employment. As shown in Table 2, the Turkish T/C industry amounted to 5.6% in production, to 10.2% in VAD of the EU-25 T/C industry. The respective shares of the NMS are 6% and 7.9%. However, when using PPS (for GDP) instead of exchange rates for conversion into euro, the shares of Turkey in the EU-25 T/C industry increases to 11.4% in production and to 22.1% for VAD. The latter share is significantly higher than the combined share of the NMS (14.4%), pointing to the relatively large size of the Turkish T/C compared to the European T/C industry.

Also, when compared to individual NMS, Turkey is far ahead of the biggest T/C producer of the NMS, namely Poland, which reached a T/C VAD of EUR 2518 mn (at exchange rates) and EUR 4766 at PPS in 2002; compare Figures 3a and 3b in Part 1 of the Main Report.

There are several reasons why the T/C industry in Turkey is still competitive despite low labour productivity. Apart from lower labour costs than in some of the NMS, there are several other advantages which the industry enjoys over the NMS, along with the strengths enjoyed by the Turkish T/C industry due to its long-standing tradition in this field.

#### **Box 1: The role of the grey economy**

One of the main problems in the Turkish T/C industry where employers and workers associations have united their power to fight against is the *grey economy*. According to the data provided by Denizli Textile and Clothing Exporters' Union (DETKIB) (2001) on the importance of the Turkish T/C industry in the registered compared to the unregistered economy, T/C industry accounted for 10% of official GNP but for 20% of unregistered GNP and for 11% of official overall employment but for 20% of undeclared employment in 2001. With regard to the number of establishments within the grey economy, there is no reference. But one thing can be said; the establishments that are functioning within the grey economy are not only small and medium sized enterprises. They are growing to become big enterprises as a result of the unfair competition they create in the domestic production.

With regard to the number of undeclared workers, there are different claims by the Workers Associations. The estimates range from 2 to 2.5 million employees in the T/C industry, apart from the official numbers and an additional 1 to 1.5 million foreign undeclared workers that come mainly from Turkic countries in Central Asia. Notably, the T/C output produced within the grey economy is not only for the domestic market. Therefore, although not registered in any way in the domestic economy, many T/C enterprises in the grey economy are engaged in exports, which are incorporated in the Turkish export figures.

Table 2

## Overview of production and employment, 2001/2002

Textiles and textile products (DB)

	Number of enterprises**	Production (at current prices)*					Value added (at current prices)**						Employment**		
		mn Euro at exchange rates	mn Euro at PPS GDP	% of manufacturing	% of EU-25 at exchange rates	% of EU-25 at PPS GDP	mn Euro at exchange rates	mn Euro at PPS GDP	% of manufacturing	% of GDP	% of EU-25 at exchange rates	% of EU-25 at PPS GDP	thousand persons	% of manufacturing	% of EU-25
Turkey	3,229	11,143	23,803	14.9	5.6	11.4	6,422	15,031	17.2	3.9	10.2	22.1	380.1 <sup>1)</sup>	35.0	15.3
NMS	54,727	11,880	22,849	4.5	6.0	11.0	5,000	9,774	5.9	1.2	7.9	14.4	648.2 <sup>2)</sup>	12.5	26.1
NMS&C-2	66,590	15,056	32,092	4.9	7.6	15.4	6,266	13,443	6.7	1.3	9.9	19.8	1,157.7 <sup>2)</sup>	15.9	46.7
EU-15	177,000	185,380	185,380	3.8	94.0	89.0	58,110	58,110	4.0	0.7	92.1	85.6	1,832.6 <sup>1)</sup>	6.7	73.9
EU-25	231,727	197,260	208,229	3.8	100.0	100.0	63,110	67,884	4.1	0.7	100.0	100.0	2,480.8	7.6	100.0

\*based on quarterly data, 2002

TL/EUR (2002) = 1,428,767 TL/EUR (2001) = 1,092,644

\*\* based on annual data, 2001

PPS/EUR (2002) = 668,860 PPS/EUR (2001) = 466,820 from Eurostat

Notes: 1) persons employed.- 2) employees

Source: State Institute of Statistics, Turkey; author's own calculations, Table 1 in Part 1 of the report.

Table 2a.

## Overview: Textiles (NACE 17)

	Number of enterprises**	Production (at current prices)*				Value added (at current prices)**				Employment**			
		mn Euro at exchange rates	% of DB	% of manufacturing	% of EU-25 at exchange rates	mn Euro at exchange rates	% of DB	% of manufacturing	% of EU-25 at exchange rates	thousand persons	% of DB	% of manufacturing	% of EU-25
Turkey	1,727	7,854	70.5	10.5	6.8	4,349	67.7	11.7	11.5	224 <sup>1)</sup>	59.0	21.0	18.2
NMS	12,883	6,470	54.5	2.4	5.6	2,419	48.4	2.8	6.4	250.8 <sup>2)</sup>	38.7	4.8	20.4
NMS&C-2	15,821	7,555	50.2	2.5	6.6	2,786	44.5	3.0	7.4	367.4 <sup>2)</sup>	31.7	5.1	29.9
EU-15	70,000	108,662	58.6	2.2	94.4	35,341	60.8	2.4	93.6	979.8 <sup>1)</sup>	53.5	3.6	79.6
EU-25	82,883	115,132	58.4	2.2	100.0	37,760	59.8	2.5	100.0	1,230.6	49.6	3.8	100.0

Table 2b.

## Overview: Clothing (NACE 18)

	Number of enterprises**	Production (at current prices)*				Value added (at current prices)**				Employment**			
		mn Euro at exchange rates	% of DB	% of manufacturing	% of EU-25 at exchange rates	mn Euro at exchange rates	% of DB	% of manufacturing	% of EU-25 at exchange rates	thousand persons	% of DB	% of manufacturing	% of EU-25
Turkey	1,502	3,289	29.5	4.4	4.0	2,073	32.3	5.6	8.2	156.0 <sup>1)</sup>	41.0	14.4	12.5
NMS	41,844	5,416	45.6	2.0	6.6	2,581	51.6	3.0	10.2	397.3 <sup>2)</sup>	61.3	7.7	31.8
NMS&C-2	45,480	5,984	49.9	2.5	7.3	3,480	55.5	3.7	13.7	790.2 <sup>2)</sup>	68.3	10.9	63.2
EU-15	107,000	76,718	41.4	1.6	93.4	22,769	39.2	1.6	89.8	852.8 <sup>1)</sup>	46.5	3.1	68.2
EU-25	148,844	82,134	41.6	1.6	100.0	25,350	40.2	1.6	100.0	1,250.1	50.4	3.8	100.0

\*based on quarterly data, 2002 data.

\*\* based on annual data, 2001 data.

Notes: 1) persons employed.- 2) employees

Source: State Institute of Statistics, Turkey; author's own calculations, Tables 1a and 1b in Part 1 of the report

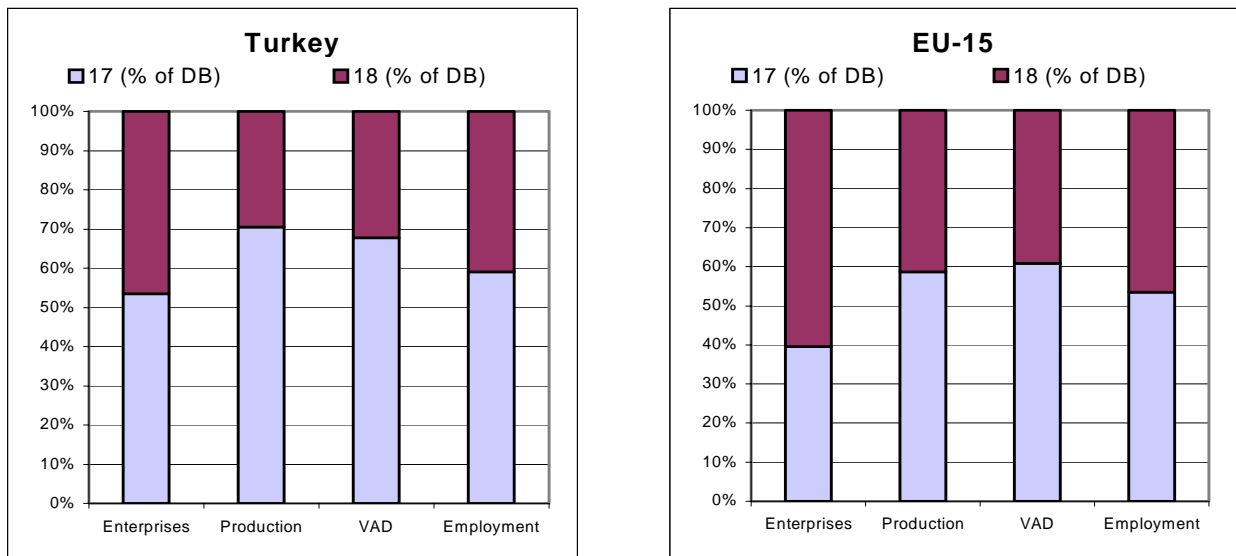
### 3.2. Textiles versus clothing industry

The main difference between the Turkish T/C industry and that in the NMS is the strong and traditional *textiles industry*. Contrary to the NMS, the textiles industry in Turkey is prominent in terms of enterprises, production, value added and employment. In 2002, 68% of VAD in the T/C industry originated from textiles and only 32% from clothing. This compares more with the EU-15, where 61% of the VAD in the sector were produced by the textiles industry and 39% by the clothing industry, than with the NMS, where the VAD share of clothing is higher than that of textiles, reaching 52% and 48% respectively (see Tables 2a and 2b).

However, the (official) number of enterprises in the textiles and clothing industry in Turkey do not differ significantly, with slightly more textiles enterprises than clothing enterprises. Yet with regard to the number of employees, the textiles industry is employing significantly more persons than the clothing industry, indicating that the textiles industry in Turkey specializes more on the labour intensive parts of production and that there is plenty of room for the textiles industry to become more capital intensive before it will reach the average EU-15 level (see Figure 1)<sup>7</sup>.

Figure 1

**Relative position of the textile (17) and clothing (18) industry in Turkey and in the EU-15**



Source: Tables 2a and 2b

<sup>7</sup> However, unofficial employment may be significantly higher in the clothing than in the textile industry, reversing this proportion.

Over the period 1997-2002, the Turkish textiles industry has lost part of its shares in DB to the clothing industry, but in terms of employment its share in DB has not changed (see Figure 2a).

Figure 2a

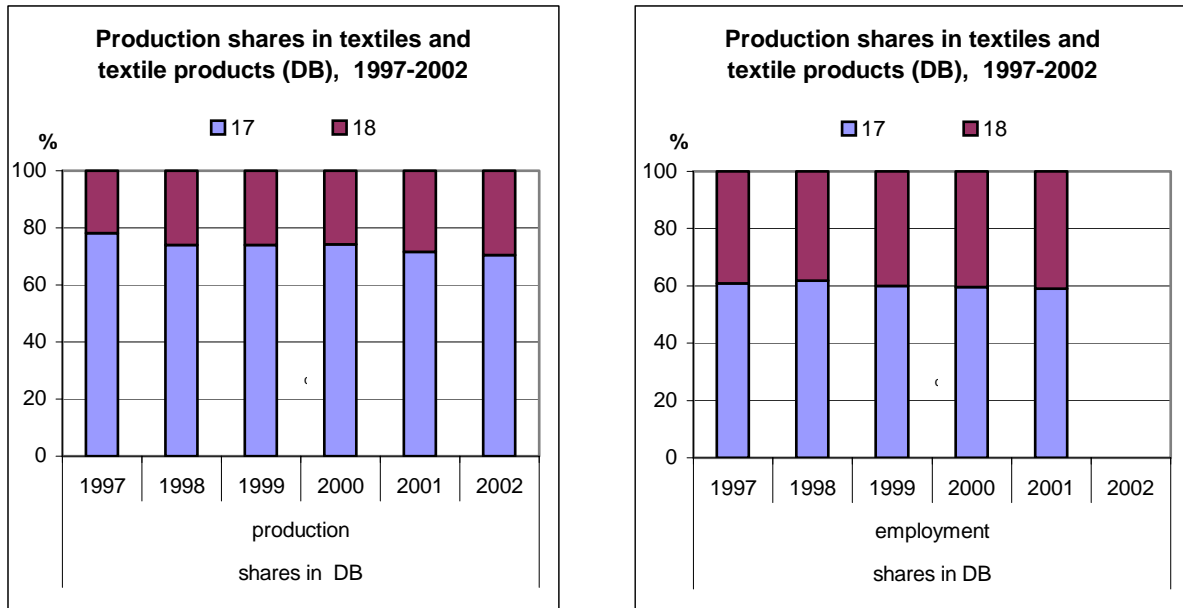
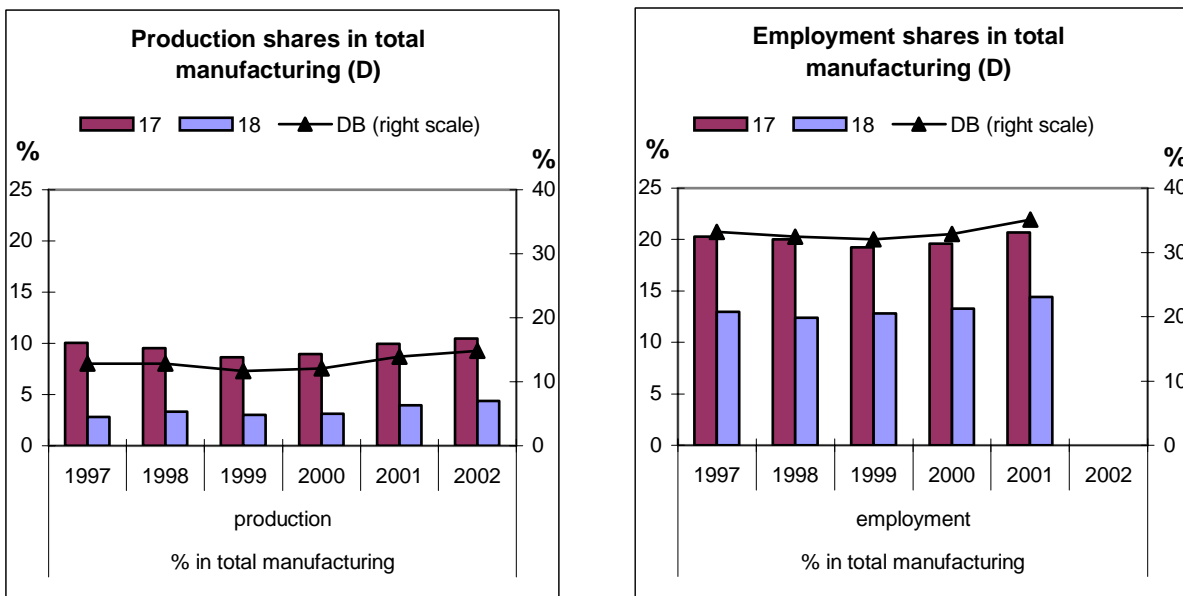


Figure 2b



Source: State Institute of Statistics, Turkey

Altogether, the share of of the Turkish T/C industry in total manufacturing has slightly declined in the late 1990s, but increased again to the level of 1997 after 2000, in terms of both production and employment. The production share increased from 13% in 1997 to 15% in 2002 and the employment share rose from 33% in 1997 to 35% in 2001, with slight slump in the years between 1997 and 2001 (see Figure 2b).

### 3.3 Development over time

#### 3.3.1 Production

**Table 3**

<b>Textile and textile products (DB)</b>								
Production growth (at constant prices 1999)*								
	annual changes (%)						average annual changes in %	growth differential** in ppt
	1998	1999	2000	2001	2002	2003	1997-02	1997-02
<b>DB</b>	-3.4	-6.4	9.1	-4.5	10.2	2.2	0.7	0.3
<b>17</b>	-6.4	-7.1	10.0	-5.0	12.5	2.3	0.5	0.0
<b>18</b>	6.7	-4.4	6.6	-3.1	3.3	1.7	1.7	1.2
<b>D</b>	0.1	-4.2	6.5	-9.5	10.9	9.4	0.5	

\*based on quarterly data

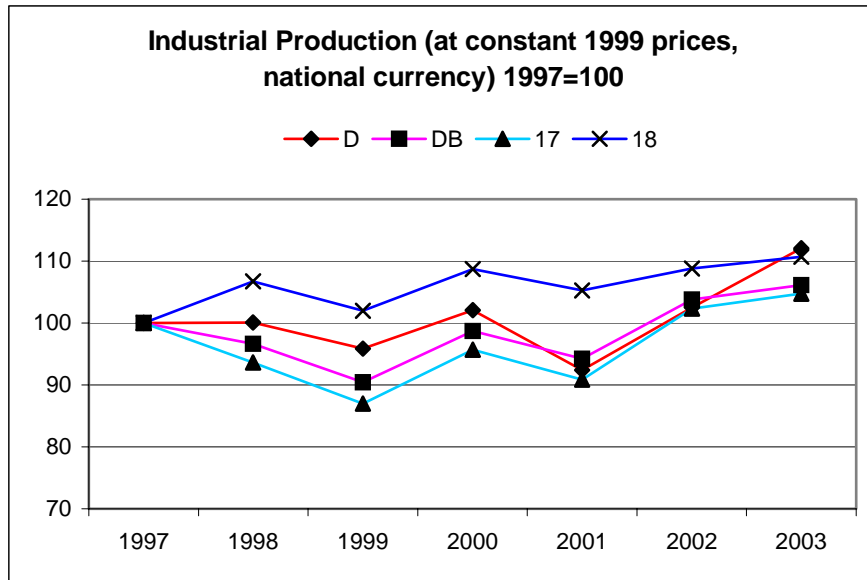
\*\*growth rate (DB, 17, 18) - growth rate total manufacturing (D)

**Source:** State Institute of Statistics, Turkey; author's own calculations

Turkey has acquired a reputation as an unstable, but at the same time dynamic, economy. This pattern is reflected in the development of the T/C industry as well. As shown in Table 3, T/C production in real terms (measured at constant 1999 prices) fluctuated widely over the 1997-2002 period. Production declined significantly in 1998 and 1999 probably due to the East Asian and Russian crises in 1998 and in line with the overall economic slow-down of economic activity in Turkey in 1999. From 2000 onwards, production began to grow very rapidly, again with the exception of 2001, when an overall crisis hit the Turkish economy. 2003 was also not a good year for the Turkish T/C industry, which suffered in particular due to the fluctuating exchange rates of the Turkish lira, as producers were unable to give proper prices to their foreign customers and thus were often lured by other competitors. The average annual growth rate of the T/C industry 1997-2002 was 0.7%, which is 0.2 percentage points higher than in the

manufacturing industry on average, pointing to a slightly increasing specialisation of Turkey in this field.

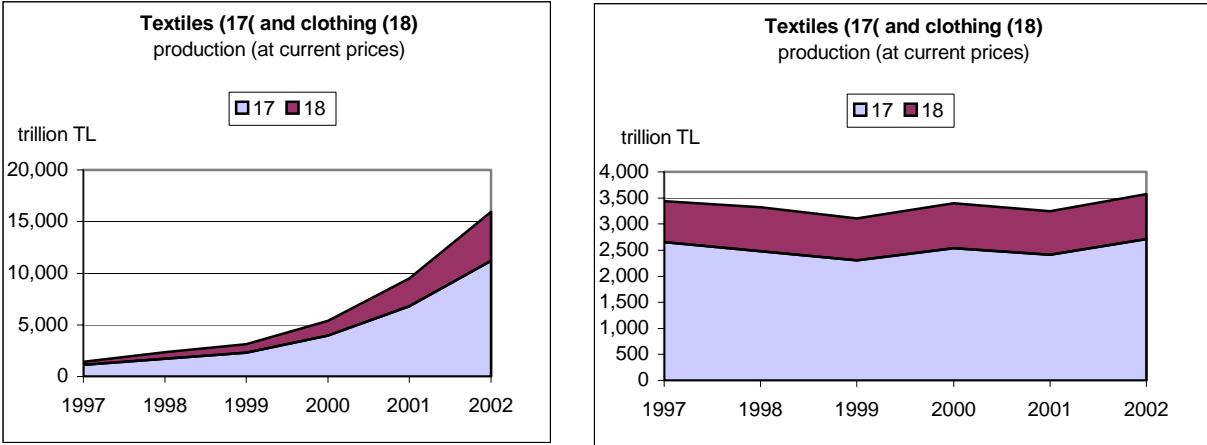
Figure 3



Source: State Institute of Statistics, Turkey; own calculations

The industrial production index in Figure 3 shows that over the period 1997-2002 as a whole, both the textiles (17) and the clothing (18) industry have increased their production in real terms, yet that the pace of increase of the clothing industry was much faster. However, even the clothing industry developed much faster than manufacturing on average throughout the period, while the growth of the textile industry outpaced manufacturing slightly and by 2002 only (see also Table A1/1a in Appendix 1).

Figure 4



But despite the dynamic development of the clothing industry in recent years, the textile industry has remained dominant in Turkey, as shown in Figure 4. This is reasonable for Turkey, since the clothing industry has emerged out of the textiles industry and has always been backed by it. Turkey is distinct from its European and particular the central and east European counterparts with its complete production chain, providing for up-stream and down-stream industries. However, what creates a serious problem now is the loss of competitiveness of Turkish textiles compared to its East Asian competitors (to be discussed in section 8).

**3.3.2 Number of establishments**

The fluctuations in the number of enterprises in Turkish T/C industry during 1997-2001 period show that there are frequent entries and exits to the industry. The experts of the industry strongly stress the bankruptcies and large outstanding debts that are slowing down the restructuring efforts in the industry (see Table 4).

Table 4

Number of establishments in textiles and clothing industries					
	1997	1998	1999	2000	2001
Textiles	1650	1766	1549	1630	1727
Clothing	1604	1678	1416	1424	1502
Total	3254	3444	2965	3054	3229

Source: State Institute of Statistics, Turkey



Number of firms according to the number of employees - clothing industry					
	1997	1998	1999	2000	2001
10--- 24	444	446	380	369	404
25--- 49	456	492	419	419	445
50--- 99	326	350	313	281	295
100--- 199	226	239	174	177	185
200--- 499	111	111	87	124	120
500--- 999	31	34	35	44	42
1000+	10	6	8	10	11
<b>Total</b>	1604	1678	1416	1424	1502

Source: State Institute of Statistics, Turkey

Number of firms according to the number of employees -textiles industry					
	1997	1998	1999	2000	2001
10--- 24	533	507	487	449	480
25--- 49	411	497	430	467	491
50--- 99	245	285	240	265	263
100--- 199	194	208	181	219	230
200--- 499	169	164	136	167	172
500--- 999	55	55	40	60	63
1000+	43	50	35	37	28
<b>Total</b>	1650	1766	1549	1664	1727

Source: State Institute of Statistics, Turkey

Share of number of enterprises in the textiles industry in DB, %						
	1997	1998	1999	2000	2001	avg
10--- 24	54.6	53.2	56.2	54.9	54.3	54.6
25--- 49	47.4	50.3	50.6	52.7	52.5	50.7
50--- 99	42.9	44.9	43.4	48.5	47.1	45.4
100--- 199	46.2	46.5	51.0	55.3	55.4	50.9
200--- 499	60.4	59.6	61.0	57.4	58.9	59.5
500--- 999	64.0	61.8	53.3	57.7	60.0	59.4
1000+	81.1	89.3	81.4	78.7	71.8	80.5
<b>Total</b>	31.4	32.5	31.2	32.7	33.0	32.2

Source: SIS, Turkey; author's own calculations

Share of number of enterprises in the clothing industry in DB, %						
	1997	1998	1999	2000	2001	avg
10--- 24	45.4	46.8	43.8	45.1	45.7	45.4
25--- 49	52.6	49.7	49.4	47.3	47.5	49.3
50--- 99	57.1	55.1	56.6	51.5	52.9	54.6
100--- 199	53.8	53.5	49.0	44.7	44.6	49.1
200--- 499	39.6	40.4	39.0	42.6	41.1	40.5
500--- 999	36.0	38.2	46.7	42.3	40.0	40.6
1000+	18.9	10.7	18.6	21.3	28.2	19.5
<b>Total</b>	30.5	30.8	28.5	28.0	28.7	29.3

Source: SIS, Turkey; author's own calculations

**Note:** State-owned enterprises with 1-9 employees are included in category 10-24 employees; see Chapter 2, Methodology.

The shares of textile enterprises in DB enterprises by years shows that the medium and large enterprises in the textiles industry are predominant. In the clothing industry, small and medium size enterprises are predominant, but the increasing share of large enterprises cannot be ignored (for size-classes in DB as a whole, see Table A1/2 in the Appendix).

Another source, a research report by PriceWaterhouseCoopers<sup>8</sup>, suggests that the numbers for establishments with 1-9 employees were 41,361, and those for establishment with 10-24 employees were 4.468 in 2001. The respective shares in total T/C enterprises are 83.9% and 9.1%. Also, in that report the total number of employees in T/C sector is quoted as being 503,211 of which 19.3% are working in enterprises with 1-9 employees and 13.3% in enterprises with 10-24 employees. PWC obtained the data from the Ministry of Labour and Social Security. Yet, according to January 2003 data disclosed by the same Ministry, there are 27,245 enterprises registered under the T/C sector and 67% of those enterprises are micro-enterprises with 1-9 employees (according to Ms. Ulkem Genc Yaman, Turkish Clothing Manufacturer's

<sup>8</sup> Siemon Smid and Fatma Taskesen, 2002, Textile, clothing and leather sector in Turkey, Study on the situation of enterprises, the industry and the service sectors in Turkey, Cyprus and Malta, PWC Consulting.

Association T/CMA)). This also shows that there were a significant number of firms exiting the sector in two years time.

### **3.3.3 Employment**

Between 1997-2001, the number of people employed in the T/C sector fluctuated considerably resulting in a slight decline of 7000 persons over the period as a whole. However, within the T/C industry, the textiles industry showed a significant loss in employment (-12 000) whereas clothing industry experienced a slight rise (+5000). The 1.4 percentage points 'growth differential' indicates that the relative employment decline in the T/C industry was below that in manufacturing on average during the same period (see Table 6, and also Tables A1/1b).

The right-hand part of Figure 5 (based on Table 6) presents a wider picture of the 1997-2001 period than the left-hand part. As can be clearly seen, the order of the employment indices for textiles (17), textiles and textile products (DB) and clothing (18) reversed over time, in favour of the clothing industry, which is more labour-intensive.

In Table 7, the gender percentages in different work categories are displayed for textiles, clothing and textiles and textile products. As expected, there are relatively more female workers than male workers in the clothing industry than in the textiles industry in every category. The percentage of female T/C employees in total manufacturing employees is also higher than that of male employees. The industry is dominated by women workers (for absolute values, see Tables A1/3 – A1/6 in the Appendix).

With regard to the number of undeclared employees, there are different estimates by the Employees Associations. There is a range between 2 to 2.5 million employees in the T/C industry apart from the official numbers, and an additional 1 or 1.5 million foreign undeclared employees that come mainly from Turkic countries in Central Asia. Textiles and clothing produced within the grey economy is not only for the domestic market. Thus, although production is not registered in any way in the domestic economy, it does appear in the export figures of Turkey.

Table 5

**Labour and Employers' Unions in 2002**

	Labour Unions	Employers' Unions
Total	99	49
Total manufacturing	42	31
Textile and textile products	8	3

**Source:** State Institute of Statistics, Turkey

There are eight labour unions in the T/C industry, which fight against the grey economy by inviting the T/C workers to join them (see Table 5). According to the 1999 research of the Turkish Textiles Employers' Association, drawing on its 87 member enterprises with 38,696 employees, 74.9% of the workers belong to TEKSIF (Turk-Is Confederation), 14% belong to OZIPLIK-IS (Hak-Is Confederation) and 11.1% belong to TEKSTIL (Disk Confederation). Among these workers, 1.4% are office workers, 8.3% are foreman, or technical workers and 90.3% are blue collar workers.

The same research reveals striking results in terms of the turnover of workers. 14.6% of the workers worked less than a year. 31.8% of the workers worked between 1-5 years, and 21.1% worked 6-10 years. Workers working between 10-20 years amounted to 20.8% and those working between 20-25 years make up 1.7% only. There are no workers working more than 26 years. The age distribution of employees shows a concentration on young and middle aged workers, with 46.1% aged 21-30 and 34.4% aged 31-40 years.

**Table 6**

**Textile and Textile products (DB)**

Employment (thousand persons)\*

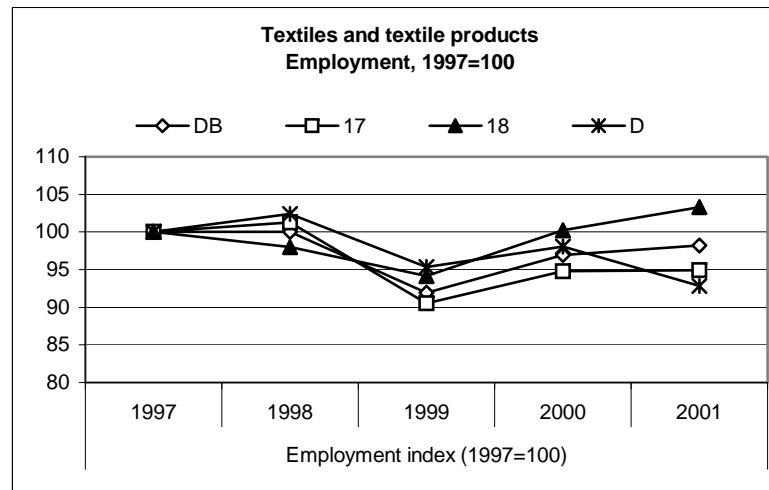
	Employment (thousand persons)*					annual changes in %			average annual changes in %	growth differential**	
	1997	1998	1999	2000	2001	1998	1999	2000	2001	1997-2001	1997-2001
<b>DB</b>	387	387	356	375	380	0.02	-8.07	5.41	1.33	-0.45	1.4
<b>17</b>	236	239	214	224	224	1.29	-10.62	4.70	0.17	-1.29	0.5
<b>18</b>	151	148	142	151	156	-1.97	-3.95	6.48	3.05	0.82	2.7
<b>D</b>	1,165	1,193	1,111	1,142	1,082	2.42	-6.92	2.84	-5.29	-1.84	

\* persons employed, based on annual data.

\*\* growth rate (DB, 17, 18) - growth rate total manufacturing (D)

**Source:** State Institute of Statistics, Turkey, author's own calculations

**Figure 5**



**Source:** Table 6

Table 7

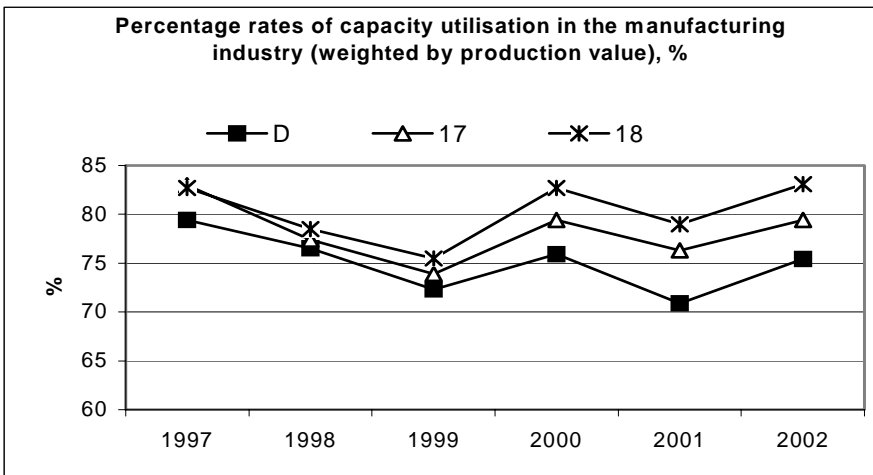
				Percentage share of textiles (17) employees according to gender in DB, in %					Percentage share of clothing industry (18) employees according to gender in DB, in %					Percentage share of textiles and textile products industry (DB) employees according to gender in total manufacturing (D), in %				
				1997	1998	1999	2000	2001	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001
Production workers	Technical personnel	High level	Male	67.5	71.7	72.6	77.0	71.9	32.5	28.3	27.4	23.0	28.1	17.0	16.8	15.9	19.3	19.1
			Female	45.6	52.3	56.1	60.4	43.2	54.4	47.7	43.9	39.6	56.8	28.1	32.8	27.9	35.2	35.9
		Middle level	Male	68.0	72.8	74.9	72.2	71.4	32.0	27.2	25.1	27.8	28.6	18.4	19.9	19.8	19.8	21.5
			Female	45.1	54.6	52.2	51.9	53.0	54.9	45.4	47.8	48.1	47.0	38.1	39.0	37.6	35.4	37.1
	Foremen, production chief, etc.	Male	73.6	74.4	73.2	74.6	70.8	26.4	25.6	26.8	25.4	29.2	26.4	26.8	25.4	26.8	28.3	
		Female	43.7	45.5	40.4	44.6	41.7	56.3	54.5	59.6	55.4	58.3	61.9	62.8	60.2	58.8	60.5	
	Workers	Male	69.6	68.7	67.9	67.5	66.0	30.4	31.3	32.1	32.5	34.0	29.1	28.2	28.9	29.1	32.0	
		Female	47.7	49.8	45.0	44.9	45.7	52.3	50.2	55.0	55.1	54.3	66.1	65.8	65.0	66.7	68.1	
Administ-rative and other personnel	Administ-ration personnel	Male	58.5	61.3	62.1	59.7	59.8	41.5	38.7	37.9	40.3	40.2	20.9	21.0	19.4	20.6	22.2	
		Female	46.0	46.4	47.4	48.8	48.5	54.0	53.6	52.6	51.2	51.5	34.2	36.0	30.1	32.4	35.3	
	Office personnel	Male	60.5	61.8	58.6	60.2	61.1	39.5	38.2	41.4	39.8	38.9	18.3	19.6	18.1	18.5	18.9	
		Female	50.7	55.0	52.3	50.7	51.0	49.3	45.0	47.7	49.3	49.0	29.4	30.2	27.5	27.9	28.7	
	Labora-tory personnel	Male	86.1	83.9	75.4	82.1	86.3	13.9	16.1	24.6	17.9	13.7	17.7	15.0	17.6	19.5	16.5	
		Female	86.4	88.1	87.8	80.2	85.1	13.6	11.9	12.2	19.8	14.9	39.6	40.3	35.8	39.9	40.6	
	Other personnel	Male	68.9	69.0	69.5	67.2	68.3	31.1	31.0	30.5	32.8	31.7	18.6	16.2	16.4	16.6	19.1	
		Female	52.8	53.5	51.4	50.0	44.4	47.2	46.5	48.6	50.0	55.6	44.4	39.4	43.7	40.9	45.1	
<b>Total employment</b>				61.0	61.8	60.0	59.6	58.9	39.0	38.2	40.0	40.4	41.1	33.2	32.4	32.0	32.8	35.1

Source: State Institute of Statistics of Turkey

### 3.3.4. Capacity Utilisation rates

There is a certain over-capacity problem in the Turkish T/C industry, which leaves capacity unutilised. Particularly with the Customs Union coming into effect in 1996, high expectations for rising exports led many companies to extend their capacities. However, the expected impact of the Customs Union has not been realised. Therefore, after 1997, the capacity utilisation rates declined considerably, but in the clothing industry in the year 2002, the 1997 level was reached again. However, between 1997-2002, both the textiles and clothing industry have utilised capacities above the average of total manufacturing (see Figure 6 and Table A1/7).

Figure 6



Source: Table A1/8

### 3.4. Most important products of Textiles and Clothing Industry

A list of major textiles and clothing product categories according to production value as well as quantities produced, also provided in PRODCOM classification, and is given in Tables 8a-b<sup>9</sup>.

#### 3.4.1 Textiles industry

Tables 8a1 and 8a2 show the most important textile products according to their 2002 *production value*. The top ten products in each of the following major textile categories are listed: yarns; fabrics; home textiles; other textiles. Tables 8b1 and 8b2 give the most important textile products

<sup>9</sup> When the number of firms in a particular category of product is less than three, then the information is considered as confidential and not disclosed by the State Institute of Statistics (SIS), Turkey.

ranked by the *production volume* in 2002, based on the same categories. There are no great differences between production value and production volume rankings: more or less the same product groups are listed among the top ten in each category. Yarns are mainly used as an input for other production segments of the textile industry ('not prepared for retail sale' [n.p.r.s]). Apparently, the textile industry is specialised in a wide variety of fabric production. Home textiles are very prominent in the Turkish textile production, but are highly exposed to Chinese competition and therefore the industry has to find a niche market for itself. Currently, the industry produces a huge variety of products with different raw materials (e.g. tarpaulin; cotton; woven, knitted and terry fabrics; synthetic fibres; eT/C.). Among the 'other textiles' category, woven carpets are the most sold product.

If the results presented in Table 8a and 8b are compared to former years, they show that the Turkish textile industry has stepped up from raw material production (e.g. natural and man-made fibres) in the 1980s (Yoruk, 1999) to semi-processed goods (yarns, woven and knitted fabrics including their finishing process) and final products (clothing and technical textiles, home textiles, carpets).

Table 8a1.

## Ten most important textiles products (yarns) by production value in 2002

NACE/ CPA/ PRODCOM*	ISIC rev 3	Product Category	unit	Number of establishment s	Production quantity	Production value, mn TL
1714331	171110632	Cotton yarn of uncombed fibres n.p.r.s. for other weaving	Tons	64	307180	979127281
17104352	171110652	Cotton yarn of combed fibres n.p.r.s. for other weaving	Tons	34	117615	444657366
17105133	171111033	Multiple or cabled yarn of nylon or other polyamides n.p.r.s.	Tons	10	99383	398229003
17105135	171111035	Multiple or cabled yarn of polyesters n.p.r.	Tons	26	114478	391052813
no correspondence	171111195	Other yarns of synthetic staple fibres nes n.p.r.s. for other uses	Tons	4	228448	385430369
17103031	171110331	Synthetic staple fibres acrylic processed not spun	Tons	10	118925	296519966
17104557	171110857	Cotton yarn (excl. sewing) p.r.s.	Tons	18	61438	153696391
no correspondence	171111038	Multiple or cabled yarn of other synthetic filaments n.p.r.s.	Tons	10	50730	149040889
17104353	171110653	Cotton yarn of combed fibres n.p.r.s. for hosiery	Tons	4	33171	130150475
17105272	171111172	Yarn of synthetic staple fibres mixed with cotton n.p.r.s. for other weaving	Tons	7	21125	126148093

\* The correspondences are matched from the concordance between ISIC rev.3 and NACE/CPA/PRODCOM in National Activities and Product Classification US-97, SIS, Turkey, 1997.

Source: State Institute of Statistics, Turkey

## Ten most important textiles products (fabrics) by production value in 2002

NACE/ CPA/ PRODCOM*	ISIC rev 3	Product Category	unit	Number of establishment s	Production quantity	Production value, mn TL
17202060	171120295	Cotton fabrics denim > 200 g/m2	Meter	9	169632133	862305856
17202012	171120214	Cotton fabrics, weighing < 200 g/m2, excl. net curtain, coloured (Raw linen, coarse white calico)	Meter	31	328446033	609353376
no correspondence	171120541	Woven fabrics of synthetic fibres mixed with cotton, polyester and viscon	Meter	19	107537483	399830983
17204033	171120633	Terry towelling and similar woven terry fabrics of cotton	Kgr.	20	44806925	301345617
17203152	171120352	Synthetic filament yarn fabrics nes for clothing	Meter	6	84813945	192277587
17601130	173010130	Long pile fabrics	Tons	11	40029	189104274
17204033	171120266	Woven fabrics of cotton, weighing more than 200 g/m2, not of yarn of different colours	Meter	5	35305863	156906151
17202011	171120205	Mercerized cotton fabrics	Meter	9	51846521	155748915
17204010	171120611	Warp and weft pile fabrics chenille fabrics	Meter	13	21835333	153390515
17302230	171200330	Dyeing of woven fabrics of cotton	Tons	18	39943	143780575

\* The correspondences are matched from the concordance between ISIC rev.3 and NACE/CPA/PRODCOM in National Activities and Product Classification US-97, SIS, Turkey, 1997.

Source: State Institute of Statistics, Turkey



Table 8a2.

## Ten most important textiles products (home textiles) by production value in 2002

NACE/ CPA/ PRODCOM*	ISIC rev 3	Product Category	unit	Number of establishments	Production quantity	Production value, mn TL
17402210	172100810	Tarpaulins awnings and sunblinds	No	3	11182427	211192900
17401253	172100253	Bed linen of cotton	No	10	17617319	178970604
17401550	172100550	Curtains and interior blinds; curtain or bed valances woven	Meter	4	73706024	75560383
no correspondence	172100262	Quilt cases	No	12	4540755	70384048
17601290	173010285	Art linen	Meter	6	15894595	47804158
17401530	172100530	Curtains and interior blinds; valances knitted or crocheted	Meter	7	19550513	43835696
17401150	172100150	Blankets (excl. electric blankets) etc. of synthetic fibres	No	4	7367720	28562611
17401430	172100430	Toilet linen and kitchen linen of terry fabrics, of cotton	Kgr.	5	3635759	27192745
17541250	172920250	Lace in piece in strips or in motifs machine made	Meter	4	13553979	24374523
17401359	172100359	Table linen woven of other textiles nes	No	5	3944379	14508559

\* The correspondences are matched from the concordance between ISIC rev.3 and NACE/CPA/PRODCOM in National Activities and Product Classification US-97, SIS, Turkey, 1997.

Source: State Institute of Statistics, Turkey

## Ten most important textiles products (other textiles) by production value in 2002

NACE/ CPA/ PRODCOM*	ISIC rev 3	Product Category	unit	Number of establishments	Production quantity	Production value, mn TL
17511200	172200200	Woven carpets and other textile covering	Mi	12	16817903	202302965
no correspondence	173030131	M/b jerseys pullovers sweat-shirts cardigans ...of wool or fine animal hair	No	19	6690798	115933391
17711090	173020190	Hosiery and footwear knitted or crocheted n.e.c.	Pair	9	164368752	111588335
17402150	172100750	Sacks and bags used for packing goods of polyethylene strip knitt or crocheted	No	9	135555452	65529829
17402150	172100750	Sacks and bags used for packing goods of polyethylene strip knitt or crocheted	Kgr.	4	27224072	62956332
17492173	172100773	Sacks and bags used for packing goods of polyethylene strip =< 120 g/m	No	6	114941226	43379034
17721032	173030132	Women or girls' sweat-shirts waistcoats cardigans of wool	No	15	2175903	34365270
17711050	173020150	Hosiery < 67 decitex knitted or crocheted	Pair	4	64407146	32125396
17543130	172920530	Wadding and articles thereof medical use	Meter	3	153025702	26726675
17721053	173030153	Lightweight fine knit...turtle neck of cotton	No	4	1632720	23011135

\* The correspondences are matched from the concordance between ISIC rev.3 and NACE/CPA/PRODCOM in National Activities and Product Classification US-97, SIS, Turkey, 1997.

Table 8b1.

## Ten most important textiles products (yarns) by production quantity in 2002

NACE/ CPA/ PRODCOM*	ISIC rev 3	Product Category	unit	Number of establishment s	Production quantity	Production value, mn TL
1714331	171110632	Cotton yarn of uncombed fibres n.p.r.s. for other weaving	Tons	64	307180	979127281
no correspondence	171111195	Other yarns of synthetic staple fibres nes n.p.r.s. for other uses	Tons	4	228448	385430369
17103031	171110331	Synthetic staple fibres acrylic processed not spun	Tons	10	118925	296519966
17104352	171110652	Cotton yarn of combed fibres n.p.r.s. for other weaving	Tons	34	117615	444657366
17105135	171111035	Multiple or cabled yarn of polyesters n.p.r.	Tons	26	114478	391052813
17105133	171111033	Multiple or cabled yarn of nylon or other polyamides n.p.r.s.	Tons	10	99383	398229003
17104557	171110857	Cotton yarn (excl. sewing) p.r.s.	Tons	18	61438	153696391
17102030	171110230	Cotton carded or combed	Tons	8	52971	56928844
no correspondence	171111038	Multiple or cabled yarn of other synthetic filaments n.p.r.s.	Tons	10	50730	149040889
17104333	171110633	Cotton yarn of uncombed fibres n.p.r.s. for hosiery	Tons	8	36555	110696861

\* The correspondences are matched from the concordance between ISIC rev.3 and NACE/CPA/PRODCOM in National Activities and Product Classification US-97, SIS, Turkey, 1997.

Source: State Institute of Statistics, Turkey

## Ten most important textiles products (fabrics) by production quantity in 2002

NACE/ CPA/ PRODCOM*	ISIC rev 3	Product Category	unit	Number of establishment s	Production quantity	Production value, mn TL
17202012	171120214	Cotton fabrics, weighing < 200 g/m <sup>2</sup> , excl. net curtain, coloured (Raw linen, coarse white calico)	Meter	31	328446033	609353376
17202060	171120295	Cotton fabrics denim > 200 g/m <sup>2</sup>	Meter	9	169632133	862305856
17203155	171120355	Woven fabrics of synthetic filament yarns excl. those obtained from high tenacity yarn or strip	Meter	8	128585390	127142537
no correspondence	171120541	Woven fabrics of synthetic fibres mixed with cotton, polyester and viscon	Meter	19	107537483	399830983
17203152	171120352	Synthetic filament yarn fabrics nes for clothing	Meter	6	84813945	192277587
17203130	171120330	Woven fabrics of SAF hightenacity strip or the like	Meter	7	58603359	124126900
17302230	171200330	Dyeing of woven fabrics of cotton	Meter	10	58171554	99231939
17202042	171120261	Cotton fabrics, > 200 g/m <sup>2</sup> , for clothing	Meter	11	52255896	97738934
17202011	171120205	Mercerized cotton fabrics	Meter	9	51846521	155748915
17204033	171120633	Terry towelling and similar woven terry fabrics of cotton	Kgr.	20	44806925	301345617

\* The correspondences are matched from the concordance between ISIC rev.3 and NACE/CPA/PRODCOM in National Activities and Product Classification US-97, SIS, Turkey, 1997.

Source: State Institute of Statistics, Turkey

Table 8b2.

## Ten most important textiles products (home textiles) by production quantity in 2002

NACE/ CPA/ PRODCOM*	ISIC rev 3	Product Category	unit	Number of establishment s	Production quantity	Production value, mn TL
17401550	172100550	Curtains and interior blinds; curtain or bed valances woven	Meter	4	73706024	75560383
17401530	172100530	Curtains and interior blinds; valances knitted or crocheted	Meter	7	19550513	43835696
17401253	172100253	Bed linen of cotton	No	10	17617319	178970604
17601290	173010285	Art linen	Meter	6	15894595	47804158
17541250	172920250	Lace in piece in strips or in motifs machine made	Meter	4	13553979	24374523
17402210	172100810	Tarpaulins awnings and sunblinds	No	3	11182427	211192900
17401150	172100150	Blankets (excl. electric blankets) etc. of synthetic fibres	No	4	7367720	28562611
no correspondence	172100262	Quilt cases	No	12	4540755	70384048
17401359	172100359	Table linen woven of other textiles nes	No	5	3944379	14508559
17401430	172100430	Toilet linen and kitchen linen of terry fabrics, of cotton	Kgr.	5	3635759	27192745

\* The correspondences are matched from the concordance between ISIC rev.3 and NACE/CPA/PRODCOM in National Activities and Product Classification US-97, SIS, Turkey, 1997.

Source: State Institute of Statistics, Turkey

## Ten most important textiles products (other textiles) by production quantity in 2002

NACE/ CPA/ PRODCOM*	ISIC rev 3	Product Category	unit	Number of establishment s	Production quantity	Production value, mn TL
17711090	173020190	Hosiery and footwear knitted or crocheted n.e.c.	Pair	9	164368752	111588335
17543130	172920530	Wadding and articles thereof medical use	Meter	3	153025702	26726675
17402150	172100750	Sacks and bags used for packing goods of polyethylene strip knitt or crcoh	No	9	135555452	65529829
17492173	172100773	Sacks and bags used for packing goods of polyethylene strip =< 120 g/m	No	6	114941226	43379034
17711050	173020150	Hosiery < 67 decitex knitted or crocheted	Pair	4	64407146	32125396
17402150	172100750	Sacks and bags used for packing goods of polyethylene strip knitt or crcoh	Kgr.	4	27224072	62956332
17511200	172200200	Woven carpets and other textile covering	Mi	12	16817903	202302965
17511490	172200481	Non-woven carpets	Mi	3	8213945	18989078
no correspondence	173030131	M/b jerseys pullovers sweat-shirts cardigans ...of wool or fine animal hair	No	19	6690798	115933391
17401130	172100130	Blankets (excl. electric blankets) and travelling rugs of wool...	No	8	2660890	14898537

\* The correspondences are matched from the concordance between ISIC rev.3 and NACE/CPA/PRODCOM in National Activities and Product Classification US-97, SIS, Turkey, 1997.

Source: State Institute of Statistics, Turkey

### 3.4.2. Clothing industry

Tables 8c and 8d, show the most important clothing products according to their 2002 production value/volume. Similar to the textile industry, the top products do not vary much whether listed according to production values or quantities. As one may expect, the main input material of clothing in the Turkish clothing industry is cotton. The most prominent category within clothing is the outerwear of men and women, followed by women's underwear. There is no specialisation in children's wear, for instance. T-shirts are the predominant product of the clothing industry. Denim products and women's underwear rank second and third.

Table 8c.

**Ten most important clothing products by production quantity in 2002**

NACE/ CPA/ PRODCOM	ISIC rev.3	Product Category	unit	Number of the establishments	Production quantity	Production value, mn TL
18233030	181041030	T-shirts knitted or crocheted of cotton	No	124	219,328,489	1,265,324,557
18222445	181030845	Men's or boys' trousers breeches etc. of denim	No	16	30,419,831	516,246,474
18231420	181040420	Women's or girls' briefs panties boxers	No	18	28,052,166	56,318,666
18223543	181031343	Women's or girls' trousers breeches, etc. of other cottons	No	44	21,818,093	257,700,698
18232311	181040711	Women's or girls' blouses shirts and shirt-blouses of cotton	No	61	18,810,387	172,887,815
18232111	181040511	Men's or boys' shirts of cotton	No	35	15,970,264	174,630,815
18232221	181040621	Men's or boys' underpants and briefs of cotton	No	10	15,725,260	27,153,694
18223471	181031271	Dresses of cotton W/g	No	56	13,629,975	143,644,391
18241210	181050210	Track-suits	No	7	13,329,262	137,243,582
18232530	181040930	Brassieres	No	10	13,225,446	29,119,674

Source: State Institute of Statistics, Turkey

Table 8d.

**Ten most important clothing products by production values in 2002**

NACE/ CPA/ PRODCOM	ISIC rev.3	Product Category	unit	Number of the establish- ments	Production quantity	Production value, mn TL
18233030	181041030	T-shirts knitted or crocheted of cotton	No	124	219328489	1265324557
18222445	181030845	Men's or boys' trousers breeches etc. of denim	No	16	30419831	516246474
18223543	181031343	Women's or girls' trousers breeches, etc. of other cottons	No	44	21818093	257700698
18232111	181040511	Men's or boys' shirts of cotton	No	35	15970264	174630815
18232311	181040711	Women's or girls' blouses shirts and shirt-blouses of cotton	No	61	18810387	172887815
18101005	181010105	Blazers and jackets of leather	No	28	977638	157637736
18223471	181031271	Dresses of cotton W/g	No	56	13629975	143644391
18241210	181050210	Track-suits	No	7	13329262	137243582
18221240	181030240	Men's or boys' trousers and breeches	No	22	8978381	98540339
18101001	181010101	Coats and overcoats of leather	No	19	349941	81198811

Source: State Institute of Statistics, Turkey

## 4. Labour Productivity, Wages and Unit Labour Costs

This chapter examines the development of labour productivity, wages and unit labour costs in the Turkish T/C industry over the period 1997 – 2002 (2001). In order to be able to compare the Turkish data with the NMS data in the main report, we are applying the same calculation methods for labour productivity and unit labour costs.<sup>10</sup>

### 4.1 Development of labour productivity

Based on the definition of labour productivity as output per employee, any change in productivity can be decomposed into two components, output change and employment change (see Part 1, Chapter 4.1 in the Main Report). Labour productivity will rise when output growth is faster than employment growth but also if both, output and employment are falling and employment is falling at a faster pace.

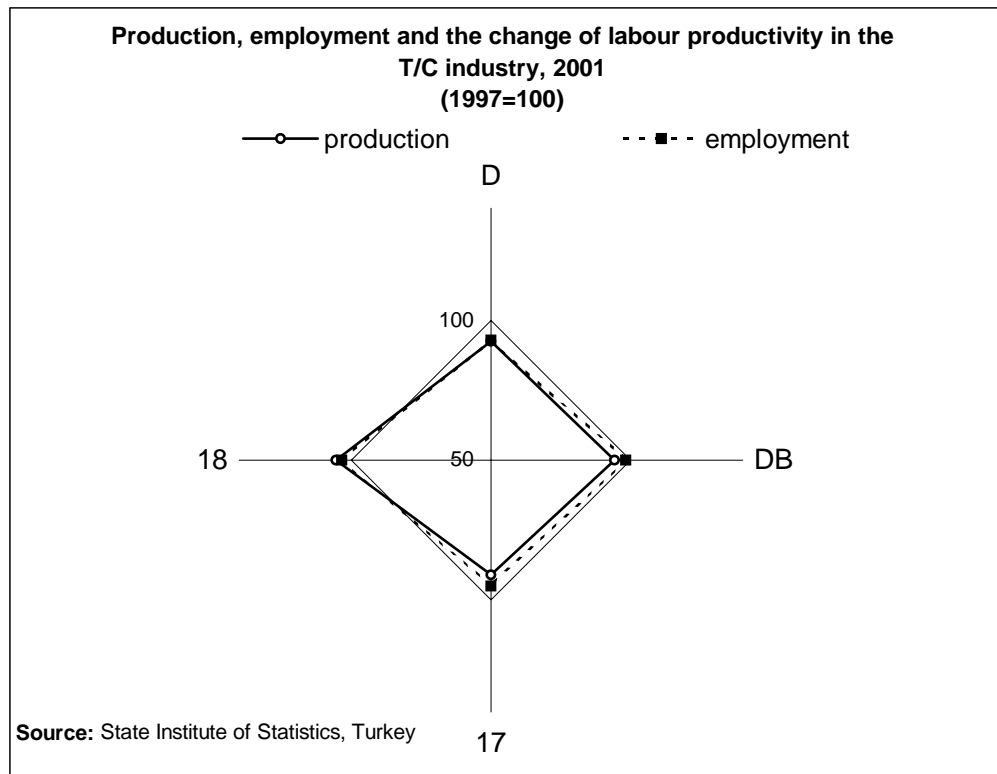
Taking production growth and employment growth in the Turkish T/C industry 1997-2001, the resulting change in productivity can be seen in Figure 7: The 100 percent line (thin solid line) represents the situation in 1997. All points within this line indicate a lower index in 2001 than in 1997, which means a decline of the respective variable. All points outside the 100 percent line show a higher index in 2001 than in 1997 and thus an increase of either output or employment.

As depicted in Figure 7, over the whole period 1997-2002, both production (at constant prices) and employment decreased slightly, with output declining somewhat more than employment. Thus labour productivity was falling rather, pointing to too little restructuring and modernisation in the industry (see also Tables A1/1a and A1/1b in Appendix 1). However, in the clothing industry (18), both output and employment have increased compared to the 1997 level and there was also a slight rise in labour productivity (compare Table 9).

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<sup>10</sup> See the equations for labour productivity and unit labour cost in the main report

Figure 7



#### 4.2 T/C productivity below manufacturing average

As expected, labour productivity, in the T/C industry in Turkey is much lower than in overall manufacturing, just like in the NMS and in the EU (15). In 2001, the percentage share of T/C productivity in overall manufacturing productivity was 36%, comparable to Poland (38%), Bulgaria and Romania (33%) but much lower than for instance in the Baltic states, where the T/C industry reached between 55% and 65% of the average manufacturing level. (compare Table 9 below and Table 4 in Part 1 of the Main Report). However, due to the more capital intensive character of the textile industry (17), the productivity level there was much higher than in the clothing industry (18), where it was extremely low compared to manufacturing on average.

The problem of productivity comparisons across countries is dealt in great detail in Part 1, Chapter 3 of the Main Report. Generally, 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 in many cases. Alternative proxy converters are either purchasing power standards (PPS) or-much better at the level of individual industries – so called (branch-specific) ‘unit value ratios’ (UVRs), which compare prices of representative products in two countries . Unfortunately, such those UVRs are not available for the Turkish T/C industry. We there fore had to resort to the ‘second best’ solution and use PPS (for GDP) as a converter instead. In the year 2001, labour productivity converted at PPS came up to 53 000 EUR in the Turkish T/C industry compared to 109 968 EUR for the EU-15 on average. However, in most of the NMS, labour productivity (converted at PPS) was only between 20% and 40% of the EU-level, Romania and Bulgaria reached even less. The NMS most comparable to Turkey is Cyprus (46.9% - see Table 4b in Part 1 of the Main Report).

### Measurement Problems

When calculating productivity, we used production data (at current and at constant prices), based on the quarterly surveys of the State Institute of Statistics in Turkey. For employment, only annual data were available, drawn from a somewhat wider sample of firms (see Section 2 Methodology). We may thus slightly underestimate the actual productivity level in the T/C industry. Moreover, both data sets do not include the grey economy, as no maT/Ching data on production and employment are available. This has to be borne in mind when assessing our results.

**Table 9**

	Textile and textile products 1997-2001												
	Productivity (at constant prices 1999), in mn TL					in % of total manuf. annual changes (%)					average annual changes in %		growth differential
	1997	1998	1999	2000	2001	2001	1998	1999	2000	2001	1997-2001	1997-2001	
DB	8888	8585	8743	9050	8526	35.8	-3.4	1.8	3.5	-5.8	-1.0	-2.0	
17	11225	10373	10787	11333	10747	45.2	-7.6	4.0	5.1	-5.2	-1.1	-2.1	
18	5236	5699	5672	5677	5336	22.4	8.8	-0.5	0.1	-6.0	0.5	-0.5	
D	23906	23365	24048	24895	23789		-2.3	2.9	3.5	-4.4	-0.1		

Note: 1) Measured as industrial production (at constant prices 1999) / persons employed. Industrial production values are based on quarterly data, the numbers of persons employed are based on annual data for reasons of availability.- 2) growth rate (DB, 17, 18) - growth rate total manufacturing (D)

**Source:** State Institute of Statistics, Turkey; own calculations



### *Lack of incentives?*

According to research by Textiles Employers' Association, 93.3% of the enterprises pay 'time-based' wages and only 6.7% of enterprises pay 'efficiency-based' wages (incentive-oriented wages). On the same basis, only 18.7% of the wages include premium, and 81.3% does not include premium. Although a group of entrepreneurs are aware of the importance of incentives to workers in increasing the productivity, the efforts are not sufficient enough to affect the system in the whole industry.

### **4.3 Wages and total labour costs are comparatively high**

When converted into euros, using market exchange rates, wages in the Turkish T/C industry are, of course, significantly lower than in the OMS, but at a similar level as in the NMS, reaching about 20 % of EU-15 average in 2001. Euro wages increased particularly strong in the years 1999 and 2000. However, in 2001, annual gross wages declined from EUR 4825 (EUR 404 per person per month) to EUR 3321 (EUR 277 per person per month), as a consequence of the economic crisis and associated devaluation of the Turkish currency in this year (see Table 10a). But this is still a relatively high wage level in comparison to the NMS, when leaving Slovenia and especially Malta and Cyprus with wages hovering around EUR 10 000 per annum, aside. Notably, T/C wages in Turkey are much higher than in Bulgaria and Romania coming up to EUR 952 and 1235 only in 2001 (compare Table 5a in Part 1 of the Main Report).

Wages in the clothing industry are significantly lower than in the textile industry (see Table 10a).

In the domestic economy, T/C workers (mostly men in textiles and mostly women in clothing – see Tables A1/5 and A1/6) are amongst the worst paid workers in manufacturing in Turkey, just like in most other countries, including the NMS (see Table A2/1). The existing gap widened further during the period 1997-2001, as the wage development in the T/C industry was lagging behind that in manufacturing as a whole; indicated by the negative growth differential in Table 10a.

Table 10a

<b>Textiles and textile products</b>													
Annual gross wages, EUR, 1997-2001*													
						in %		annual changes			av. annual	growth	
	1997	1998	1999	2000	2001	of total	in % of	in %			changes	differential	
						manuf.	EU-15	1998	1999	2000	2001	1997-2001	1997-2001
<b>DB</b>	3543	3613	4251	4825	3321	57.6	19.2	2.0	17.7	13.5	-31.2	-1.6	-3.3
<b>17</b>	3951	4070	4894	5366	3686	63.9		3.0	20.3	9.6	-31.3	-1.7	-3.4
<b>18</b>	2924	2866	3305	4012	2797	48.5		-2.0	15.3	21.4	-30.3	-1.1	-2.8
<b>D</b>	5388	5747	6801	8136	5767			6.7	18.3	19.6	-29.1	1.7	
<b>EU-15 (DB)</b>					17319								

Table 10 b

<b>Total labour costs, EUR, 1997-2001*</b>													
						in %		annual changes (%)			av. annual		
	1997	1998	1999	2000	2001	of total	in % of	in %			changes		
						manuf.	EU-15	1998	1999	2000	2001	1997-2001	
<b>DB</b>	4379	4513	5318	6031	4405	56.3	21.7	3.1	17.8	13.4	-27.0	0.2	
<b>17</b>	4892	5087	6147	6726	4943	63.2		4.0	20.8	9.4	-26.5	0.3	
<b>18</b>	3600	3574	4099	4988	3633	46.5		-0.7	14.7	21.7	-27.2	0.2	
<b>D</b>	6389	6823	8119	9832	7820								
<b>EU-15 (DB)</b>					20261								

\* based on annual data

**Sources:** State Institute of Statistics, Turkey, own calculations; EU-15: Eurostat, New Cronos, SBS

Table 10b shows total labour costs, including indirect wage costs such as employers' contributions to social insurance and pension funds eT/C. This is particularly important for the Turkish T/C industry, as high indirect wage costs are considered one of the main reasons for the declining competitiveness of the Turkish producers vis a vis their competitors in the global market. There is an intensive lobbying going on, not only by Employers' Associations but also by Labour Unions, in support of a reduction of indirect wage costs<sup>11</sup>, composed of taxes, social insurance tax, compulsory savings, and very recently also contributions for unemployment benefits. But so far, the government shows no intention to reduce these rates.

According to the Unions, a worker receives only half of his total cost to the employer. For instance, if the total cost of a worker for the employer was EUR 760 (converted at market exchange rates) in 2000, the worker was claimed to receive (net) only EUR 325-380<sup>12</sup>. According to the official data as given in Tables 10a and 10b, the indirect costs on wages

<sup>11</sup> Various issues of Employers' Association's magazine Isveren (Employer).

<sup>12</sup> Minutes of Grand Assembly of Turkey (TBMM Tutanaklari, 30 January 2001)

accounted for 19.1% in 1997 and 24.6% in 2001 of total labour costs in the Turkish T/C industry. Notably, indirect wage costs are relatively low in the clothing and high in the textile industry. Although the international competitiveness of the Turkish textile producers are negatively affected by high and rising indirect wage costs, these are not very high in comparison to the NMS, where the average indirect wage costs come up to about of 30% of total labour costs<sup>13</sup>

Measured in national currency, Turkish T/C wages increased very fast, at an annual average rate of about 57%, comparable to Romania and Bulgaria only. But when inflation is taken into account, using the Consumer Price Index (CPI) as a deflator, real wages declined on average by nearly 5% per annum during the 1997 – 2001 period, which means a substantial decline of living standards of the textile workers in Turkey over this period (see Table 11).

Table 11

**Textiles and Textile products - average annual growth rates 1997-2000\***

Gross wages (NCU based)

	avg. annual changes in %	
	1997-2001	
		CPI deflated <sup>1)</sup>
DB	56.2	-4.9
17	56.1	-5.0
18	57.0	-4.4
D	61.5	-1.7

\*) based on annual data

Notes: 1) CPI = consumer price index.-

**Source:** State Statistical Institute (SIS), Turkey, own calculations.

#### 4.4 Unit labour costs

Unit labour costs defined as 'labour costs per unit of output' or as 'wages divided by productivity' (see Part 1 Chapter 3 of the Main Report), show the combined effect of wages and productivity on costs. To be consistent with the Main Report, labour costs are measured as wages (excluding indirect wage costs) and output is measured by production values (quarterly data).

<sup>13</sup> Compare Tables 5a and 5b in Part 1 of the Main Report. Calculated from Tables 10 and 10b, total labour costs as a percentage of wages were 132.6 % for the Turkish T/C industry.

In 2002, the share of labour costs as a percentage of output at current prices made up 14% in the T/C sector as a whole, 13% in the textile industry and 17% in the clothing industry, due to the more labour intensive character of the latter. However, in both sub-industries, labour costs had a larger share in output than in manufacturing on average. (see Table 12a).

The changes in ULCs over time may be considered at current and at constant prices for output. As pointed out in the Main Report, changes in ULC at current output prices ( $ULC_{curr}$ ) are considered as an indicator of changing profitability rather, while ULCs measured at constant output prices ( $ULC_{cons}$ ) may be taken as an indicator of international competitiveness.

Measured at constant output prices (Table 12b), ULCs in the Turkish T/C industry have risen dramatically, due to the high wage increases in national currency outpacing productivity gains by far. But currency depreciation over-compensated the competitive loss from high wage increases in national currency, and in euro terms unit labour costs ( $ULC_{cons(eur)}$ ) have declined and thus international competitiveness has rather improved – in both, the textiles and the clothing industry (see last column of Table 12b).

Table 12a

**Textiles and textile products**  
Unit labour cost, national currency, at current prices, 1997-2001\*

	1997	1998	1999	2000	2001	in %			av. annual		growth	
						of total	annual changes		changes		differential <sup>1)</sup>	
						manuf.	in %		in %		in ppt	
						2001	1998	1999	2000	2001	1997-2001	1997-2001
<b>DB</b>	16.15	17.93	21.39	19.14	14.22	141.3	11.0	19.3	-10.5	-25.7	-3.1	-4.6
<b>17</b>	13.91	16.93	19.80	17.21	13.00	129.2	21.7	16.9	-13.1	-24.4	-1.7	-3.1
<b>18</b>	24.12	20.79	25.96	24.74	17.27	171.6	-13.8	24.9	-4.7	-30.2	-8.0	-9.5
<b>D</b>	9.50	11.20	12.53	11.88	10.06		17.9	11.8	-5.2	-15.3	1.4	

\* (Average annual wages in NCU x number of employees / production at current prices in NCU) x 100; wages and employees based on annual data, production based on quarterly data.

Table 12b

Unit labour cost, national currency, at constant 1999 prices, 1997-2001\*\*

	1997	1998	1999	2000	2001	annual changes			av. annual		growth	ULC cons(eur) ***
						in %		changes	changes	differential <sup>1)</sup>	av. annual	
						1998	1999	2000	2001	1997-2001	1997-2001	change
												in %
												1997-2002
<b>DB</b>	6.67	12.56	21.39	30.20	41.71	88.4	70.3	41.2	38.1	58.1	-5.1	-0.4
<b>17</b>	5.82	11.77	19.80	27.00	36.72	102.3	68.1	36.4	36.0	58.5	-4.7	-0.2
<b>18</b>	9.51	14.89	25.96	39.63	56.12	56.5	74.4	52.6	41.6	55.8	-7.3	-1.9
<b>D</b>	3.77	7.27	12.53	18.49	26.74	92.8	72.3	47.6	44.6	63.2		2.8

\*\* (Average annual wages in NCU x number of employees / production at constant prices in NCU) x 100

\*\*\* (Average annual wages in euro x number of employees / production at constant 1999 prices in NCU) x100; wages and employees based on annual data, production based on quarterly data

Note: av. annual growth rate (DB, 17, 18) - av. annual growth rate total manufacturing (D)

Source: State Institute of Statistics, Turkey

Measured at current prices, ULC stayed relatively constant in the textile industry and declined in the clothing industry, indicating that wage increases (in national currency) exceeding productivity gains could be passed on to prices (in national currency) and/or that the average labour intensity of production in the clothing industry declined over the period 1997-2001 for reasons of restructuring.

## 5. Trade performance with the EU(15) and other countries and regions

### 5.1 Relative position and export composition of Turkey

Turkish textiles and clothing exports have shown a steady decrease since the 1980s, and the clothing industry in particular has increased its export share, which became a 'flagship' export industry for Turkey (see Figure 8). The exports of the clothing industry continued to gain momentum during the course of 1990s, stabilising between 25-30% of total exports in 2000 at a period when the exports of clothing started to decline.

Table 13

Selection of top TC products out of top 20 chapters in exports according to value in 2003	% in total manufacturing			% in wearing apparel exports			% in textiles exports			% in DB		
	1999	2000	2001	1999	2000	2001	1999	2000	2001	1999	2000	2001
Exports												
Articles of apparel and clothing accessories, knitted or crocheted	14.2	13.4	11.6	53.0	51.8	49.6	138.5	134.4	123.7	38.3	37.8	36.4
Articles of apparel and clothing accessories, not knitted or crocheted	9.1	9.0	8.4	33.8	34.8	36.0	88.3	85.6	78.9	24.4	24.1	23.2
Other made up textile articles; sets; worn clothing	3.6	3.7	3.4	13.2	14.2	14.4	34.5	33.5	30.8	9.6	9.4	9.1
Cotton, cotton yarn, woven fabrics of cotton	2.9	2.6	2.7	10.9	9.9	11.5	28.4	27.6	25.4	7.9	7.8	7.5
Man-made staple fibres	2.3	2.2	2.0	8.5	8.4	8.7	22.1	21.5	19.8	6.1	6.0	5.8
Man-made filaments	1.5	1.8	1.5	5.7	6.8	6.4	14.8	14.3	13.2	4.1	4.0	3.9
Imports												
Cotton, cotton yarn, woven fabrics of cotton	2.5	3.9	3.0	9.4	15.0	13.0	24.6	23.8	21.9	6.8	6.7	6.5
Man-made staple fibres	2.1	2.4	1.8	7.7	9.2	7.5	20.2	19.6	18.1	5.6	5.5	5.3
Man-made filaments	2.4	2.5	1.8	9.0	9.7	7.7	23.4	22.7	20.9	6.5	6.4	6.2
<b>Source:</b> Undersecretariat of Foreign Trade, <a href="http://www.dtm.gov.tr">www.dtm.gov.tr</a>												

Turkey's export composition has improved significantly since the 1980s as a result of changes in policy. At the time, exports were concentrated in unprocessed textile products and cotton yarn, leading Turkey to be the major supplier to the EU. Technical improvements in the industry since the 1980s can be appreciated not only in regard to enhancement of capital-intensive production techniques, but also in the alteration of the composition of export goods, from natural to artificial fibres (see Table 13).<sup>14</sup> Increasing competition from Asian countries and an anti-dumping tax imposed by the EU reduced Turkish exports to the EU. Another shift was also observed from textiles to clothing from 1990s onwards. Today, Turkish T/C exports are strongly based on processed textile and clothing products, which is evident in the shift from low value-added to higher-value added products.<sup>15</sup>

Although T/C has been a key export-generating industry for Turkey, the share of textiles in total manufacturing exports now shows a declining trend (see Figure 8).

Figure 8



<sup>14</sup> For more detailed information on most important export/import products of Turkey, one can refer to the appendix 5 of the main interim report based on Eurostat Combine Nomenclature.

<sup>15</sup> See Yoruk (1999) for detailed analysis of shift of Turkish textiles industry in value added chain, based on Comext trade data of 1980-1994.



The share of textiles exports in textiles and textile products increased in 2001, probably due to a depreciation of the national currency, however this increase was not sustained in the following year. The share of textile imports in textiles and textile products, on the other hand, increased in the late 1990s but decreased in the early 2000s. This is in contrast to the clothing industry, which slightly increased. The share of clothing exports has stayed more or less the same for the period 1997-2001.

## **5.2 Trade with the world and the EU (15)**

According to the world trade balance, the T/C industry showed a trade surplus (Table A3/3). The clothing industry accounts for a little more than half of textiles and textile product exports to the world, while the textiles industry accounts for more than 86% of world imports of textiles and textile products (Table 14). Therefore, the textiles industry was more import-oriented until 2001, and the clothing industry more export-oriented. (see Tables A3/1, A3/2 and A3/3 and compare Figures A3/1, 2 and 4 for two digit NACE level and A1/3 and 5 for three digit NACE level). 67% of the trade surplus belongs to the clothing industry and 32% of it belongs to the textiles industry (Table 14).

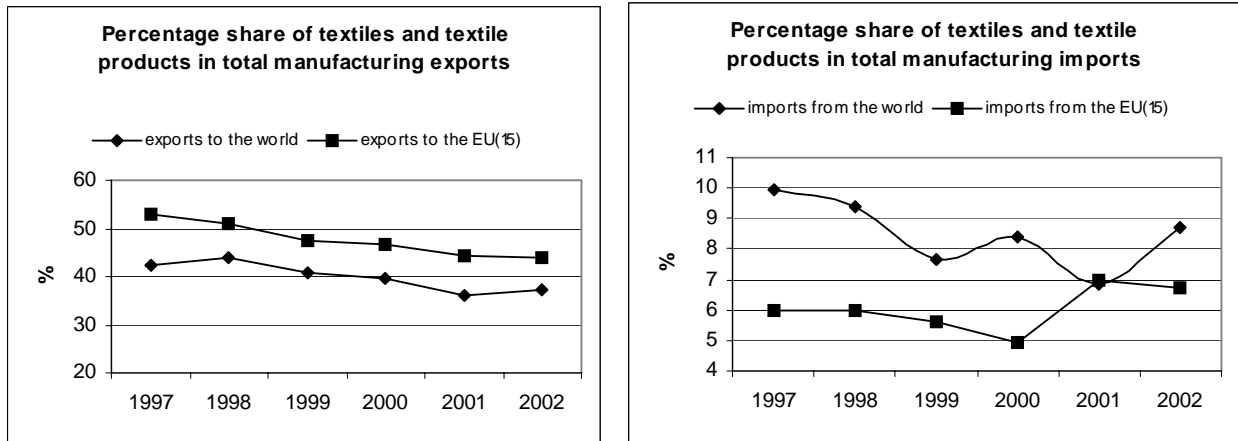
Table 14

<b>Exports of Turkey to the world</b>						
	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
<b>% of DB in D</b>	42.5	43.9	41.0	39.7	36.0	37.1
<b>% of 17 in D</b>	19.2	20.1	19.1	18.4	17.3	17.0
<b>% of 18 in D</b>	23.3	23.7	21.9	21.3	18.7	20.2
<b>% of 17 in DB</b>	45.2	45.9	46.6	46.4	48.0	45.7
<b>% of 18 in DB</b>	54.8	54.1	53.4	53.6	52.0	54.3
<b>Imports of Turkey from the world</b>						
	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
<b>% of DB in D</b>	9.9	9.4	7.6	8.4	6.8	8.7
<b>% of 17 in D</b>	8.8	8.4	6.9	7.4	5.9	7.7
<b>% of 18 in D</b>	1.2	1.0	0.8	1.1	1.0	1.1
<b>% of 17 in DB</b>	88.1	89.0	89.9	87.5	85.9	87.9
<b>% of 18 in DB</b>	11.9	11.0	10.1	12.5	14.1	12.1
<b>Trade balance of Turkey with the world</b>						
	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
<b>% of DB in D</b>	-43.6	-52.5	-76.2	-40.8	-206.5	-115.5
<b>% of 17 in D</b>	-14.0	-17.9	-28.0	-14.4	-80.9	-37.9
<b>% of 18 in D</b>	-29.6	-34.6	-48.2	-26.4	-125.6	-77.7
<b>% of 17 in DB</b>	32.2	34.1	36.7	35.3	39.2	32.8
<b>% of 18 in DB</b>	67.8	65.9	63.3	64.7	60.8	67.2

**Source:** UN-DB and Eurostat, Comext database; author's own calculations

In the period 1997-2002, the share of DB in total manufacturing exports both to the world and to the EU-15 decreased steadily from 43% and 53% in 1997 to 37% and 43% in 2002 respectively (see Figure 9 and Table A3/5 on which Fig %.2 is based). The T/C imports of Turkey from the world and from the EU-15 were on par in the late 1990s. 2000 seems to be a turning point for the share of T/C imports in total manufacturing, both from the world and the EU-15. While the share of DB in total manufacturing imports from the world began to decrease, that of imports from the EU-15 started to increase. A dominant view on the increase in imports from the EU(15) expressed by Turkish industry is that the Customs Union with the EU(15) allows imports not only from the EU(15) countries but also by third countries *through* the EU(15) countries by means of bilateral agreements between the EU and those countries. This view is corroborated to some extent by the fact that Turkey's textiles industry is less protected than the EU's (PWC Consulting, 2002).

Figure 9



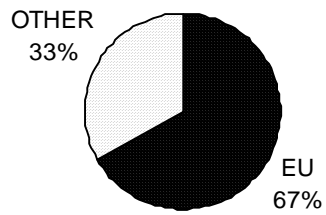
Despite the decreasing share of Turkey's DB exports with the EU-15 in total manufacturing trade, the EU-15 prevailed as the major partner for Turkey in T/C trade. 2002 figures show that the EU (15) dominate in the T/C exports of Turkey. In textiles, some other countries have penetrated the Turkish market and there is a decrease in market share for the EU (15) in Turkey (see Figure 10).<sup>16</sup> The share of the US, the second biggest destination for Turkey's DB exports to the world, was about one fifth of that of the EU (15) in 2002. The Import share of the EU (15) (48.9%) was ahead of the US share (2.3%) in 2002 (see Table A3/4).

The individual shares of textiles and clothing exports to the EU(15) in total manufacturing exports and imports of Turkey also reveal that clothing exports to the EU(15) have been declining since the mid-1990s and textiles exports to the EU(15) have been on a decreasing trend since 1997. Textile imports from the EU (15), on the other hand, stagnated for about three years and then decreased until 2000 when they significantly decreased with the 2001 economic crisis. Clothing imports from the EU (15) jumped 1.8% in 2001 as a result of the crisis when it was profitable to import instead of producing domestically (see Figure 11).

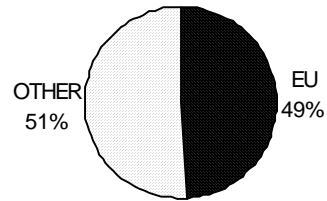
<sup>16</sup> This issue will be examined in detail below.

Figure 10

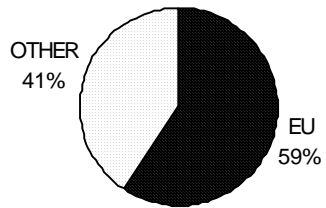
**Turkey export destinations  
Textile and Clothing % shares 2002**



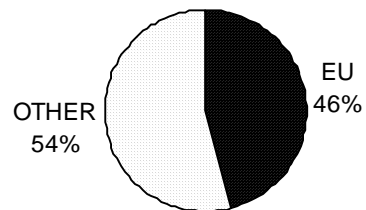
**Turkey import sources  
Textile and Clothing % shares 2002**



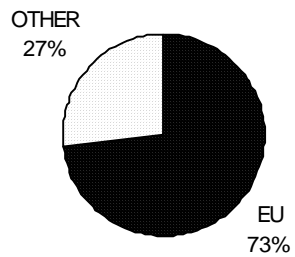
**Turkey export destinations  
Textiles % shares 2002**



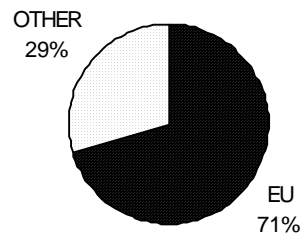
**Turkey import sources  
Textiles % shares 2002**



**Turkey export destinations  
Clothing % shares 2002**

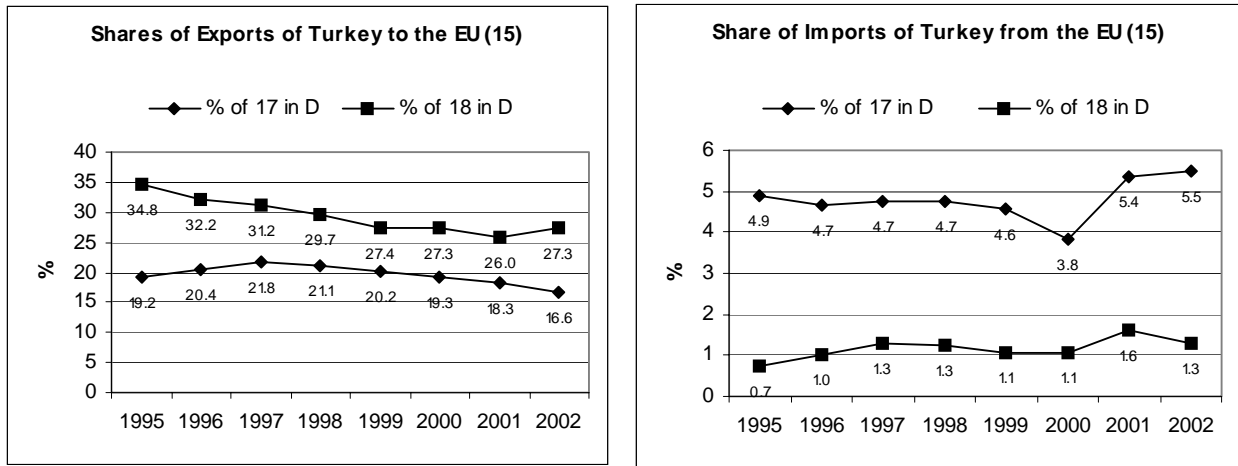


**Turkey import sources  
Clothing % shares 2002**



**Source:** United Nations Trade Database, author's own calculations

Figure 11



Among the EU countries, Germany is the main export partner, accounting for 27% of Turkey's T/C exports to the EU (15), followed by the UK with 13.8% of total exports. The main import partner is Italy (17.2%) followed by Germany (9.3%), whereas the main T/C customer countries outside the EU (15) are the US with 15% of T/C exports and Russia with 2.5%. Asian countries, such as China (9%), India (7.7%) and Republic of Korea (5.6%) (see Table 15) are the main supply countries.

At a more detailed three-digit NACE level, exports to the EU (15) concentrate on clothing articles whereas imports from the EU (15) concentrate on textiles. Turkey's exports to the EU(15) concentrate more on knitted and crocheted articles - composed of knitted and crocheted hosiery and pullovers, cardigans and similar articles (which is considered within clothing). Made-up textile articles and textile weaving are the second and third most important articles in textile exports to the EU (15) in the 1995-2002 period. In the clothing industry, the concentration is on the 'other clothing and accessories' category which involves everything except 'leather clothes' and 'dressing and dyeing of fur; and articles of fur'. The imports of textiles from the EU (15) concentrates on textile weaving, other textiles, and textile fibres, as complementary to the exports of Turkey to the EU (15). A high level of clothing exports of Turkey to the EU (15) (59.3%) is supported by clothing imports from the EU (15) (12.9%). 'Dressing and dyeing of fur; articles of fur' is the second most important import category from the EU (15) (see Tables 16a and 16b, and compare with Figures A3/3 and A3/4).

Table 15

Export and imports shares of individual EU countries in total TC exports and imports of Turkey to the world, 2002, in %			Share of main customers and suppliers of Turkey (apart from the EU) in total TC exports and imports of Turkey, 2002, in %		
Countries	Share in DB		Countries	Share in DB	
	Exports	Imports		Exports	Imports
Germany	26.6	9.3	USA	15.0	22.3
Italy	4.1	17.2	Russian Fed.	2.5	
Belgium	2.5	2.4	Turkmenistan		1.7
Luxembourg	0.0	0.3	Indonesia		3.6
France	7.0	5.2	Bangladesh		1.3
Netherlands	4.6	1.5	China		9.0
Greece	0.9	0.8	India		7.7
United Kingdom	13.8	3.9	Republic of Korea		5.6
Denmark	1.9	0.2	Pakistan		3.9
Portugal	0.3	0.6			
Ireland	0.4	0.3			
Spain	2.0	5.2			
Austria	1.0	1.5			
Sweden	1.4	0.3			
Finland	0.3	0.2			

**Source:** United Nations Trade Database, author's own calculations.

Table 16a

Detailed export structure of the textiles and textiles products sector in Turkey, exports to the EU(15), 1995 - 2002, in %								
	1995	1996	1997	1998	1999	2000	2001	2002
<b>17 Textiles</b>	<b>35.6</b>	<b>38.8</b>	<b>41.1</b>	<b>41.6</b>	<b>42.4</b>	<b>41.4</b>	<b>41.3</b>	<b>37.9</b>
171 Textile fibres	3.7	3.4	4.7	5.4	6.1	5.5	5.4	3.7
172 Textile weaving	8.3	7.9	7.8	8.1	7.6	7.0	7.4	6.4
174 Made-up textile articles	5.9	6.6	7.8	8.4	9.0	9.4	9.3	9.0
175 Other textiles	3.0	3.3	3.1	2.8	2.5	2.6	2.8	2.5
176 Knitted and crocheted fabrics	0.9	1.1	1.5	1.3	1.3	1.3	1.1	1.0
177 Knitted and crocheted articles	13.7	16.4	16.3	15.5	16.0	15.6	15.3	15.3
<b>18 Wearing apparel; dressing and dyeing of fur</b>	<b>64.4</b>	<b>61.2</b>	<b>58.9</b>	<b>58.4</b>	<b>57.6</b>	<b>58.6</b>	<b>58.7</b>	<b>62.1</b>
181 Leather clothes	5.1	4.3	3.6	3.1	2.9	3.1	3.3	2.7
182 Other wearing apparel and accessories	59.0	56.6	55.0	55.0	54.5	55.3	55.2	59.3
183 Dressing and dyeing of fur; articles of fur	0.3	0.3	0.3	0.2	0.3	0.2	0.1	0.2
<b>DB Textiles and textile products in mn EUR</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	<b>4398.2</b>	<b>4714.9</b>	<b>5536.6</b>	<b>6218.1</b>	<b>6521.2</b>	<b>7469.6</b>	<b>8182.4</b>	<b>9011.9</b>

**Source:** Eurostat, Comext database, author's own calculations

Table 16b

<b>Detailed import structure of the textiles and textiles products sector in Turkey, imports from the EU(15), 1995 - 2002, in %</b>								
	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
<b>17 Textiles</b>	<b>87.1</b>	<b>81.8</b>	<b>78.8</b>	<b>79.1</b>	<b>80.8</b>	<b>78.4</b>	<b>77.0</b>	<b>81.1</b>
171 Textile fibres	18.5	15.7	12.5	11.4	13.2	14.6	13.7	15.4
172 Textile weaving	39.5	38.4	41.4	39.3	37.5	35.1	37.4	39.5
174 Made-up textile articles	1.1	1.3	1.3	1.5	2.2	1.6	1.7	1.2
175 Other textiles	22.8	21.1	18.2	19.9	20.3	19.6	17.4	18.8
176 Knitted and crocheted fabrics	4.3	3.8	3.6	5.1	5.6	4.7	4.5	4.3
177 Knitted and crocheted articles	0.9	1.5	1.7	1.9	2.1	2.7	2.3	1.9
<b>18 Wearing apparel; dressing and dyeing of fur</b>	<b>12.9</b>	<b>18.2</b>	<b>21.2</b>	<b>20.9</b>	<b>19.2</b>	<b>21.6</b>	<b>23.0</b>	<b>18.9</b>
181 Leather clothes	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.2
182 Other wearing apparel and accessories	7.9	10.7	11.8	14.7	14.4	16.1	15.2	12.9
183 Dressing and dyeing of fur; articles of fur	4.7	7.2	9.1	5.9	4.4	5.3	7.5	5.8
<b>DB Textiles and textile products in mn EUR</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	<b>667.7</b>	<b>942.4</b>	<b>1207.1</b>	<b>1178.7</b>	<b>1037.0</b>	<b>1343.3</b>	<b>1267.1</b>	<b>1465.5</b>

Source: Eurostat, Comext database, author's own calculations

### 5.3 Market share in trade with the EU (15)

Turkish exports of textiles and textile products increased their market share from 10% in 1995 to 12.7% in 2002. The same increase is observed in the clothing industry, despite some fluctuations in the mid-1990s. The increase in market share of textiles exports is even bigger and more continuous than for clothing and DB (from 9.6% in 1995 to 13.3% in 2002). As compared to the exports of individual countries in the Central and East European Countries (CEECs), Turkey's market share in the EU is high, yet it is below the market share of total CEECs' exports to the EU (see Table 17a).

Table 17a

Turkey's exports to the EU(15) in mn EUR , market shares %									
	Extra-EU imports, mn EUR	DB, mn EUR	%	Extra-EU imports, mn EUR	17, mn EUR	%	Extra-EU imports, mn EUR	18, mn EUR	%
1995	43395.2	4398.2	10.14	16367.6	1565.5	9.56	27027.6	2832.8	10.48
1996	46012.7	4714.9	10.25	17125.1	1829.0	10.68	28887.5	2885.9	9.99
1997	53184.8	5536.6	10.41	20410.5	2277.3	11.16	32774.3	3259.3	9.94
1998	55854.1	6218.1	11.13	21140.8	2586.2	12.23	34713.3	3632.0	10.46
1999	58332.9	6521.2	11.18	21896.9	2766.0	12.63	36436.0	3755.2	10.31
2000	68099.1	7469.6	10.97	25503.6	3090.8	12.12	42595.5	4378.8	10.28
2001	71543.0	8182.4	11.44	26510.4	3377.9	12.74	45032.5	4804.5	10.67
2002	70816.2	9011.9	12.73	25681.5	3412.7	13.29	45134.7	5599.1	12.41

Source: Eurostat, Comext database; author's own calculations

The market share of Turkey within Extra-EU exports was 3.5% between 1997-2002. The market share of Turkish textiles imports (on average 4.2% between 1997-2002) is higher than that of clothing exports (on average 1.9% between 1997-2002) (see Table 17b).

Table 17b

Turkey's imports to the EU(15) in mn EUR , market shares %									
	Extra-EU exports, mn EUR	DB, mn EUR	%	Extra-EU exports, mn EUR	17, mn EUR	%	Extra-EU exports, mn EUR	18, mn EUR	%
1995	28409.2	667.7	2.35	18058.7	581.6	3.22	10350.5	86.1	0.83
1996	31068.6	942.4	3.03	19251.6	770.8	4.00	11817.0	171.6	1.45
1997	33992.3	1207.1	3.55	21327.6	951.4	4.46	12664.7	255.8	2.02
1998	34411.2	1178.7	3.43	21665.4	931.9	4.30	12745.7	246.7	1.94
1999	33652.8	1037.0	3.08	21392.3	838.1	3.92	12260.6	198.9	1.62
2000	39046.2	1343.3	3.44	24942.5	1052.7	4.22	14103.7	290.7	2.06
2001	42190.3	1267.1	3.00	26495.4	975.2	3.68	15694.9	291.9	1.86
2002	41931.9	1465.5	3.49	26089.0	1188.9	4.56	15842.9	276.6	1.75

Source: Eurostat, Comext database; author's own calculations



## 5.4 Revealed comparative advantage

The RCA<sup>17</sup> values of Turkey for textiles and textile products are positive and around 0.50 for textiles and 0.90 for the clothing industry, with a RCA of around 0.70 for textiles and textile products between 1997 and 2002. These indicators suggest that the RCA for clothing was almost twice as good as the RCA for textiles during that period. (see Table 18).

Table 18

Detailed RCA* structure of the Turkish textile and textile products sector in trade with the EU(15), 1995-2002								
	1995	1996	1997	1998	1999	2000	2001	2002
171 Textile fibres	0.14	0.05	0.27	0.43	0.49	0.35	0.43	0.19
172 Textile weaving	0.16	0.01	-0.08	0.04	0.12	0.05	0.12	0.00
174 Made-up textile articles	0.95	0.93	0.93	0.94	0.93	0.94	0.95	0.96
175 Other textiles	-0.06	-0.12	-0.13	-0.14	-0.13	-0.15	0.01	-0.10
176 Knitted and crocheted fabrics	0.17	0.20	0.30	0.15	0.17	0.20	0.23	0.16
177 Knitted and crocheted articles	0.98	0.96	0.95	0.96	0.96	0.94	0.95	0.96
<b>17</b>	<b>0.46</b>	<b>0.41</b>	<b>0.41</b>	<b>0.47</b>	<b>0.53</b>	<b>0.49</b>	<b>0.55</b>	<b>0.48</b>
181 Leather clothes	0.98	0.97	0.97	0.96	0.97	0.97	0.97	0.97
182 Other wearing apparel and accessories	0.96	0.93	0.91	0.90	0.92	0.90	0.92	0.93
183 Dressing and dyeing of fur; articles of fur	-0.43	-0.65	-0.76	-0.66	-0.47	-0.68	-0.78	-0.64
<b>18</b>	<b>0.94</b>	<b>0.89</b>	<b>0.85</b>	<b>0.87</b>	<b>0.90</b>	<b>0.88</b>	<b>0.89</b>	<b>0.91</b>
<b>DB Textiles and textile products</b>	<b>0.74</b>	<b>0.67</b>	<b>0.64</b>	<b>0.68</b>	<b>0.73</b>	<b>0.70</b>	<b>0.73</b>	<b>0.72</b>
<b>D Total manufacturing</b>	<b>-0.19</b>	<b>-0.30</b>	<b>-0.32</b>	<b>-0.23</b>	<b>-0.15</b>	<b>-0.26</b>	<b>0.01</b>	<b>-0.03</b>

\* Measured as:  $RCA = (\text{exports of Turkey to the EU(15)} - \text{imports of Turkey to the EU(15)}) / (\text{exports of Turkey to the EU(15)} + \text{imports of Turkey to the EU(15)})$

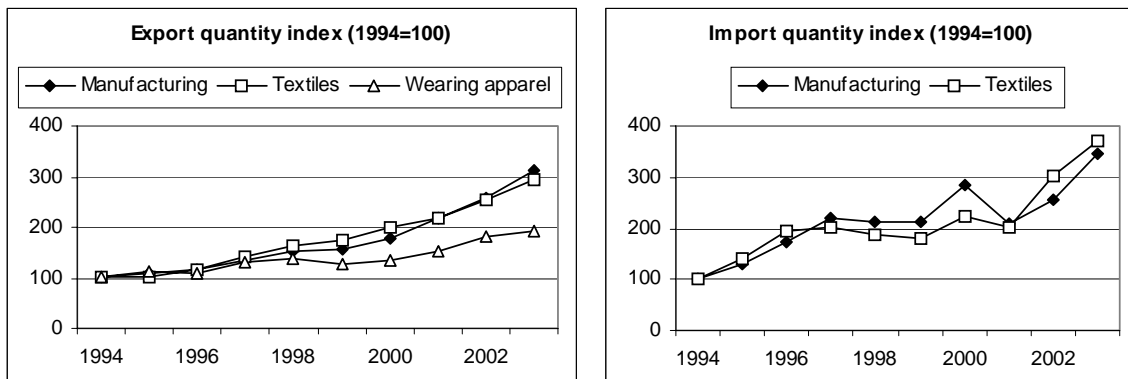
Source: Eurostat, Comext database; author's own calculations

<sup>17</sup> Measured as  $RCA = (\text{exports} - \text{imports}) / (\text{exports} + \text{imports})$ .

## 5.5 Export price and quantity indices

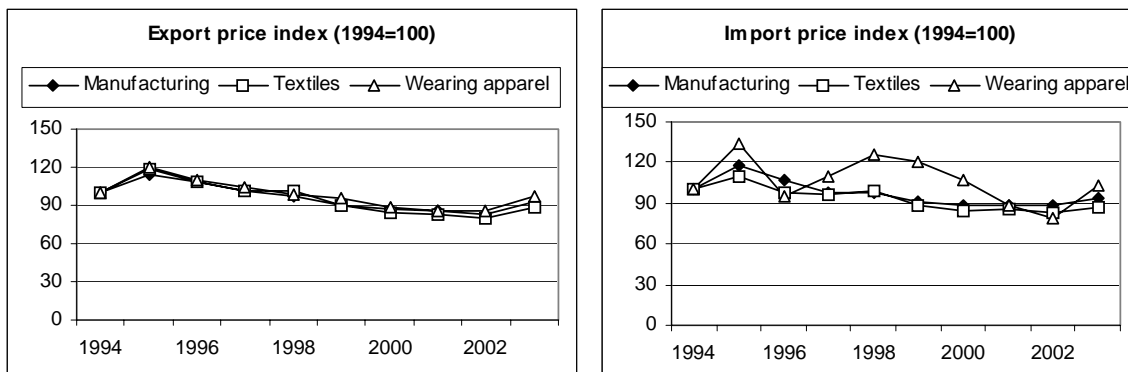
The trade indices in T/C industries are obtained from the Turkish State Institute of Statistics and based on 1994 data. From 1997 onwards, quantities exported in the clothing industry increased but at a reduced pace. 2001 seems to have been a turning-point for the textiles industry, because the rate of increase in export quantities fell below that of total manufacturing and the rate of increase in import quantities increased above that of total manufacturing. Import quantities of clothing are currently not available (see Figure 12).

Figure 12



Both export and import prices appear to decrease between 1997-2002. Clothing prices have fluctuated, being particularly high in late 1990s and very low in the early 2000 (see Figure 13).

Figure 13



## 5.6 Trade of Competitors of Turkey with the world and the EU (15)

An analysis of Turkey's export competitors to the EU (15) is required, because these countries create competition to the EU market and are likely to erode Turkey's market share. Figure 14 depicts the share of exports and imports of selected competitors to Turkey (to the EU-15) in world exports in 2002. According to 2002 values, Turkey appears to be the third country whose T/C trade is most dependent upon the EU after Tunisia and Morocco. The Asian countries create more competition for Turkey in the world markets due to their better positioning in the EU market.

Figure 14

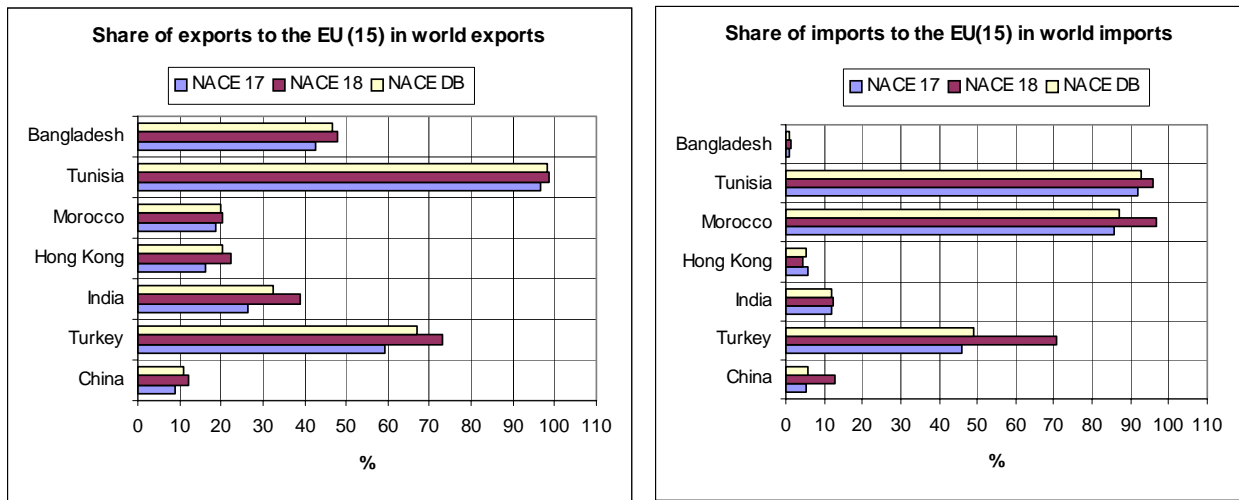
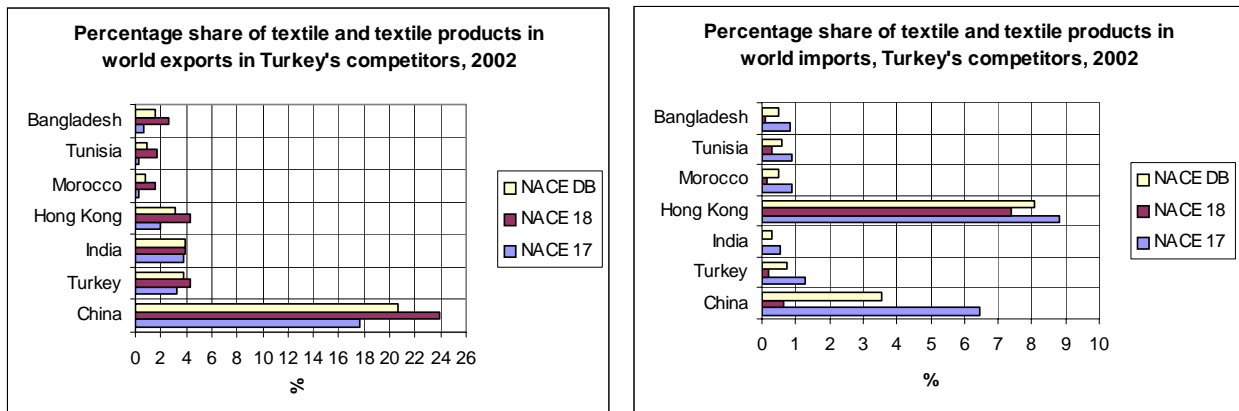


Figure 15



The shares in the world exports point to the large emerging gap between China and the rest of the world. Turkey is still comparable with India and Hong Kong in terms of export share. Hong Kong exceeds even China in world imports (see Figure 15 and see Figure A3/5 for three-digit NACE level).

Although, in comparison to its competitors, Turkey remains well situated to prosper in the T/C industry, with the abolition of the quantitative restrictions from rival countries in 2005 the competitive position of Turkey is almost certain to deteriorate and may well force it to move upmarket in some sectors if it is to avoid a serious relative decline.

### **5.7 Possible impacts of 2005 on Turkish T/C exports to the EU**

The T/C industry is one of the most important ones driving the Turkish economy and Turkey cannot simply move out of T/C into other industries due to the large scale of investments that have been made in the last five years. This makes the need for rapid restructuring of the Turkish T/C industry, in line with the new competitive environment within the global T/C industry, almost essential. The interviewees have evaluated the level of restructuring in the Turkish T/C industry as being at a medium level.

The main question appears to be how Turkey's trade with the EU(15) and EU(25) will be affected by the completion of the ATC. The figures presented in this chapter regarding the trade relations of Turkey with the EU(15) helped to a limited extent in interpreting this aspect of trade relations, which will become crucial after January 2005. The answer to this question lies in the catching-up literature, where it deals with the link between trade and growth. The new growth theory particularly emphasises the benefits from free trade, which improves the scope for knowledge spillovers that have significant outcomes in the T/C industry in terms of learning and industrial upgrading (see Gereffi 1999, Ernst, *et al.*1998, Yoruk 2004). In their study on the CEE industries, Hotopp *et al.* (2002) incorporate the latter views in an analysis of trade patterns of the countries and make use of the 'product composition of exports' to explain the learning effects and industrial upgrading through trade relations. Considering Turkey's specialisation in production and export (see Tables 8 - the products produced most and Table 13 – the products exported most), the Turkish T/C industry benefits from product differentiation. The learning process in increasing product varieties by Turkish T/C firms has been in place for more than two decades (especially through their subcontracting relationships with foreign customers). The critical point of product differentiation is in the ability to move to more technologically advanced products as well as to quality-oriented production.

This raises the question of where Turkish T/C producers will locate themselves in the global (production) value chain in the near future. They have to make a choice between price competitiveness in the lower value added segment of the industry and quality competitiveness in the higher value added segment of the industry. The former choice is associated with the threat of price-cutting competitors, especially the East Asian T/C producers, who have caused significant changes in the dynamics of competition in the global T/C industry since the third phase of ATC was realized. The latter choice seems to be the only way out for the Turkish T/C industry. Turkey has also gradually started adjusting its industry along these lines in order to maintain its market share in the world as a T/C supplier country.

Turkey's main competitive strength in the EU market is no longer price; not only have labour costs and utility prices increased, but Turkey's lack of support and subsidies from government contrasts with China, for instance. Instead, Turkish T/C producers are aware of the fact that their advantage vis-à-vis East Asian competitors will be the quality of their products, supplemented by proximity to the EU markets. Thus, although the vast majority of the Turkish T/C exporters are still exporting products that are mostly associated with outsourced production with different quality levels, there is a growing trend towards production for upper income consumers on world markets.

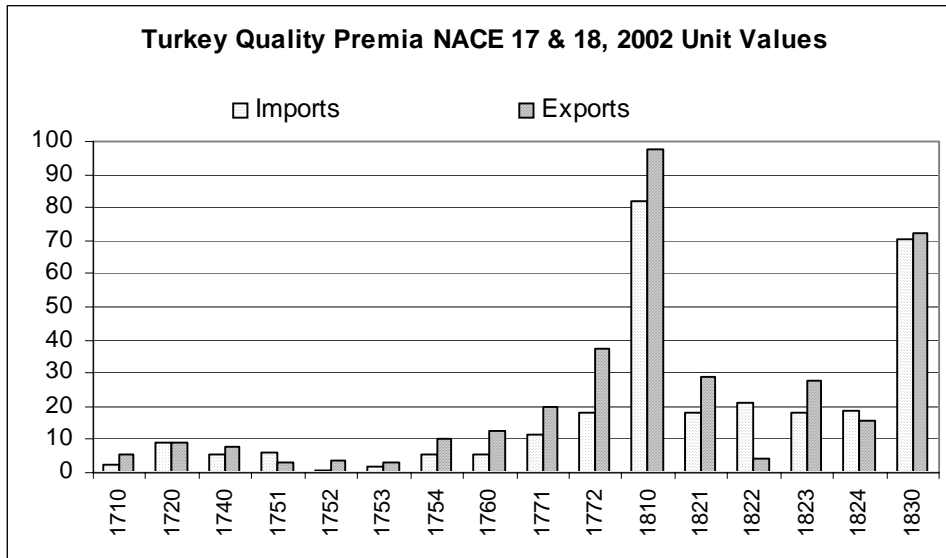
The efforts by the Turkish Clothing Manufacturers' Association (TCMA) (mentioned in Chapter 8) show that this transformation will require no more than 5-6 years if the guidelines are followed carefully. Turkish T/C producers are taking Italy as an example, creating a fashion center in Istanbul and giving importance to the establishment of own brand names by developing design abilities within the firm or through cooperation with an external designer.<sup>18</sup> This new target influences the firms' exporting activities, leading them to enter new markets and new product categories with high quality. In the last five years, Turkish clothing exports to the world have increased from rank 5 to rank 3 and are closing the gap with Italy, which ranks second in world exports (Ulkem Genc - TCMA). This shows the significant increases in the unit value of exports from low value added to higher value added product exports (see Figure 16).<sup>19</sup>

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<sup>18</sup> These efforts do not rule out the fact that there are such firms, which have already achieved recognition in the foreign markets. See section 9 on company profiles.

<sup>19</sup> The most striking result in Figure 16 belongs to NACE code 1822 - manufacture of other outerwear, where the exports are concentrated on low value added products and imports on high value added products. This sub-sector is expected to be one of the segments that is associated with the subcontracting relations with the foreign customers. (For detailed examination of the NACE codes in Figure 16, please find the three-digit NACE classifications in the appendix of the main report.)

Figure 16



Source: Eurostat, Comext Database.

Furthermore, the above-mentioned decreasing trend of Turkish T/C exports in total manufacturing exports – which has not been accompanied by a decrease in the market share of Turkish T/C exports to the EU (15) – might in fact be a result of the changing product composition of Turkish T/C exports. There are also efforts to penetrate into the area of functional textiles, for instance through the establishment of the Textile Research Center (TRC) and other initiatives<sup>20</sup>, as the Turkish T/C producers know that technological developments in the industry do not happen only in the machinery and equipment that they acquire abroad, but also in Research & Development. The manager of the TRC, Prof. Isik Tarakcioglu, has started a study to ascertain the level of inventory and technology use in T/C firms, since there is still a lack of statistics on this issue. The use of information technologies and EDI is still limited, whereas computer-aided design and manufacturing systems that are important in the pre-assembly stages of the clothing industry are in medium level use. The latter technologies give Turkish firms the ability to respond quickly to the requirements and demands of customers, particularly the flexibility allowing one firm to produce both small and large orders.

The geographical proximity to the EU is still seen as an advantage for increase in the trade relations with the EU. Currently, the Chinese government's subsidies are eliminating Turkey's many advantages,<sup>21</sup> one of which is its geographical proximity to the EU. However, some

<sup>20</sup> Discussed in detail in Chapter 8.

<sup>21</sup> For details about subsidies of Chinese government in T/C industry, see the report of Musa Demir, World Textiles

Turkish T/C experts expect that beginning in 2005 this may be reversed, with Turkey's proximity once again becoming a significant advantage. Additionally, there are European customers looking for quality products without the need for investments (either physical or intangible, such as sending technicians and coordinating the production activities) in the close vicinity (minimizing delivery time and costs). Turkish T/C producers that are specialized in 'full package' supplies with upgraded organizational structures for fast delivery would still be their choice.

The Horizon 2010 study of the TCMA declares that Turkish T/C industry has the potential to increase its export value to \$34.8 billion in 2010 (from \$10.4bn in 2001) provided that the industry goes through the recommended restructuring stages and upgrades to a high value added producer country position. The idle capacity in the Turkish T/C industry, which is a result of the investments made with high expectations from the Customs Union that were not realised, has to be successfully converted into production and exportation of high value added products. The key point is to be able to get the greatest benefit from the already available resources of the country to increase the competitiveness of the T/C firms in the world markets against the export potential of the rivals after 2005.

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Industry after 2005, Undersecretariat of Foreign Trade, Exports General Directory, Textile and Clothing Unit, Ankara, 2001 (in Turkish). There is also a Trade Trip Report of ITKIB R&D Department to People's Republic of China conducted on October 9-17, 2002.

## 6. Foreign Direct Investment

When the industrial structure of T/C industry is taken into account, it seems that subcontracting is the most optimal production method. However, the organization side of the industry has become the competitive edge which forces foreign buyers to organize and monitor the local production according to the pace and determinants of the fashion. There is also the distribution and retailing downstream of the industry that the domestic markets provide opportunities.

Therefore, some foreign retailers and brand manufacturers prefer to invest in Turkey with market-seeking strategies, and some prefer to reap benefits from the advantages provided by the local producers (such as skilled labour at low costs, geographical proximity to optimize delivery time, procurement of quality raw material locally, full production chain, eT/C.) with efficiency-seeking strategies.<sup>22</sup>

Compared to CEECs and newly emerging markets of the Far East and Latin America, Turkey has always encountered some difficulties to attract FDI and its share of global FDI inflows has always been low, around 2% of all FDI inflows to developing countries in the mid-1990s. There are efforts of different governments in different time periods were successful to some extent in terms of increasing the number of foreign equity ventures in the country.<sup>23</sup> The number of foreign capital companies increased from 4068 in 1997 to 6280 in 2002 (see Table A4/1 for 1980-2003 period). One of the reasons of this increase is the equal treatment of foreign companies with Turkish companies in terms of investment in Turkey, access to the government investment incentives and transfer of profit and capital.<sup>24</sup>

However, the fluctuations of the share of manufacturing sector FDI in total FDI inflows in the years from 1997 to 2002 show that the FDI inflows are strongly affected by the economic climate in Turkey (see Table A4/2). According to the 2004 list of companies with foreign capital by Under secretariat of Treasury<sup>25</sup>, one half of clothing companies and only one third of textiles companies penetrated Turkey after 1997 (Table 19).

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<sup>22</sup> As will be discussed in section 8 and as expected, there is no knowledge-seeking strategy in FDI inflows as Turkish T/C industry is lagging behind technological innovations such as technical textiles and is technology recipient instead of technology producer.

<sup>23</sup> Ekrem Tatoglu and Keith W. Glaister, 1998, An analysis of motives for western FDI in Turkey, *International Business Review*, 7 (1998):203-230.

<sup>24</sup> Turkish Clothing Industry, Horizon 2010, Road Map, Global Targets and Policies, Turkish Garment Manufacturers' Association.

<sup>25</sup> This section will use this comprehensive and extensive list of enterprises with foreign capital, established between 01/01/1954 - 18/07/2003. The full list can be obtained from the website of Foreign Capital Association [www.yased.org.tr](http://www.yased.org.tr)



Table 19

<b>Number of firms with FDI, inflows before and after 1997</b>		
	<b>Textiles</b>	<b>Clothing</b>
before 1997	50	111
between 1997-2003	27	112
<b>Total</b>	<b>77</b>	<b>236</b>

**Source:** Foreign Capital Association, YASED

Among 1667 foreign owned companies in total manufacturing, there are 231 clothing and 67 textile firms in 2003 (Table 20).<sup>26</sup> The share of T/C FDI in total manufacturing firms is around 18% in 2003. When compared to total numbers of firms with FDI, the percentage decreases to 4.6%. Clothing industry excluding knitted products attracts FDI the least and textiles industry attracts FDI meagrely. In the T/C industry, the lion share for attracting FDI belongs to the ready-made garments industry.

<sup>26</sup> The number of firms with foreign capital in the 2004 FDI list and Table 6.2 do roughly maT/Ch with each other.

Table 20

SECTORAL DISTRIBUTION OF FOREIGN CAPITAL COMPANIES OPERATING IN TURKEY*, million TL						
	Wearing Apparel Excluding Knitted Products	Textiles	Ready Made Garments	Textiles and Clothing	Total manufacturing	Total
No. of firms	7	67	224	298	1667	6511
% in total manufacturing firms	0.42	4.02	13.44	17.88	100.00	
% in total number of firms	0.11	1.03	3.44	4.58	25.60	100.00
Present foreign capital	1,198,709	16,303,143	124,756,388	142,258,240	3,182,618,272	7,665,750,139
% in total manufacturing foreign capital	0.04	0.51	3.92	4.47	100	
% in total foreign capital	0,02	0,21	1,63	1.86	41.52	100
Total capital of the companies	14,374,340	40,647,876	249,092,277	142,258,567	5,411,113,189	12,605,285,296
% of total capital of companies in total manufacturing	0.27	0.75	4.60	2.63	100.00	
% of total capital of companies in total capital	8,34	40,11	50,08	1.13	58.82	60.81
* As of June 30, 2003						
Law No. 4875 enacted on June 17, 2003. Therefore any statistics on base of permits will not be published from this date on.						
<b>Source:</b> Republic of Turkey, Undersecretariat of Treasury, www.treasury.gov.tr						

In both textiles and clothing sectors, the FDI flow to Turkey started only after 1990s. In early 2000, almost half of the 1990s foreign inflow to clothing industry was realised (see Table A4/3). 54% of the firms in the clothing industry has a foreign share less than 50% and around 17% of the firms have a foreign share of over 90% (almost wholly-owned subsidiary). Textiles firms have foreign partners mostly with less than 50% share (62%) (see Table A4/4). The distribution of total capital is rather even in terms of categories, meaning that there are small, medium and big investors in both industries (see Table A4/5). The foreign investment in terms of regions strikingly concentrates on the developed western part of the country, in Istanbul (137), Izmir (34) and Bursa (12) in clothing and Istanbul (31) and Bursa (9) in textiles (see Table A4/6). In terms of investors, EU (15) is the major investor in Turkey in clothing industry, followed by Middle East

and EFTA countries. In textiles, EU (15) is followed by North American, Middle East and Asian countries with a significant gap (see Table A4/7).

Table 21 provides a detailed and in rank distribution of countries invested in T/C industry in Turkey. Both number of firms and their total capital are displayed (left for textiles and right for clothing). In the textiles industry, Germany is by far the largest investor within the EU (15) with 22 firms and 11,805 bn TL. Albania, the UK and the USA are the second, third and fourth largest investors in terms of total capital with significantly less number of firms. In the clothing industry, the UK and the Netherlands are the major investors within the EU(15) countries with 32,500 bn TL and around 28,000 bn TL respectively. The major investors in the clothing industry are from Yemen, which has double the investment of the UK (70,000 bn TL), Taiwan, India and Albania with still higher total capital investment in Turkey.

### ***Outward investment***

In the late-1990s and early 2000, Turkish outward investments targeted East European countries with labour costs cheaper than Turkey such as Romania and Bulgaria. The incentives for FDI by the governments of these countries and the US quotas of these countries in apparel products were the attraction elements for the outward investments by Turkish clothing manufacturers. Those investments are estimated to be around USD 5 billion. Some experts have claimed that outward investments to East European countries have stopped as a result of increase in their labour costs and of the increase in the extent of liberalisation of trade with the USA. There are also efforts of Turkish Garment Manufacturers' Association to relocate the investments in Anatolia instead of abroad.

More recently, outward investment by Turkish textile manufacturers has shown a tendency towards countries, such as Uzbekistan, where raw materials are cheap and of (relatively) high quality.

Table 21

Number of firms with FDI and total capital, 2004, by countries					
Origin of country for textiles	Textiles		Clothing		Origin of country for clothing
	Number of firms	Total capital (in mn TL)	Number of firms	Total capital (in mn TL)	
<b>EUROPEAN UNION</b>					<b>EUROPEAN UNION</b>
Germany	22	11805120	31	32488067	United Kingdom
United Kingdom	8	9447630	26	27738898	Netherlands
Ireland	2	5220000	2	23943400	Spain
Luxemburg	3	3767750	57	17741105	Germany
Belgium	1	3173400	1	14586700	Luxemburg
Netherlands	5	2836256	18	8199259	Italy
Italy	5	2106584	3	7726800	Greece
France	2	501300	10	1496595	France
Greece	1	61900	5	1388230	Belgium
Austria	0	0	2	1230000	Ireland
Denmark	0	0	1	10000	Austria
Finland	0	0	1	3300	Denmark
Spain	0	0	2	3008	Finland
<b>TOTAL</b>	<b>49</b>	<b>38919940</b>	<b>159</b>	<b>136555362</b>	<b>TOTAL</b>
<b>OTHER COUNTRIES</b>					<b>OTHER COUNTRIES</b>
Albania	4	10101996	1	70000000	Yemen
USA	8	8289026	5	51290000	Taiwan
Switzerland	1	1740531	1	40000000	India
Iraq	3	473623	16	38275017	Albania
South Korea	1	260000	9	11755920	USA
Russian Fed.	1	60000	7	1627400	Russian Fed.
Liechtenstein	2	38,000	1	1032000	Ukraine
Afghanistan	2	30600	2	825300	Australia
Etopia	1	28690	1	320000	Norway
Rep. Of China	1	9600	6	286220	Etopia
Syria	1	2052	4	192150	Israel
TRNC	1	247	3	117000	Rep. Of China
Azerbaijan	0	0	2	111100	Jordan
Australia	0	0	1	65000	Panama
Canada	0	0	5	56046	Iraq
Cayman Islands	0	0	1	56000	Azerbaijan
Gibraltar	0	0	2	33000	Iran
India	0	0	1	31800	Romania
Iran	0	0	1	30000	Gibraltar
Israel	0	0	2	21042	Cayman Islands
Jordan	0	0	1	11100	Quwait
Lebanon	0	0	1	6000	Lebanon
Norway	0	0	1	3300	Canada
Panama	0	0	1	2900	TRNC
Quwait	0	0	1	550	South Korea
Romania	0	0	1	120	S. Arabia
S. Arabia	0	0	0	0	Afghanistan
Taiwan	0	0	0	0	Liechtenstein
Ukraine	0	0	0	0	Switzerland
Yemen	0	0	0	0	Syria
<b>TOTAL</b>	<b>26</b>	<b>21034365</b>	<b>77</b>	<b>216148965</b>	<b>TOTAL</b>

Source: Republic of Turkey Undersecretariat of Treasury, www.treasury.gov.tr

## 7. Regional Localisation

According to a regional assessment, the distribution of number of T/C firms and their contributions to the Turkish T/C industry signals the presence of clusters in a few regions. Tables 21 and 22 cover only the Turkish cities which produce textiles and clothing.

In the textiles industry, there are first industrial clusters in Aegean (Izmir and Denizli), Mediterranean (Adana), South East (Kahramanmaras and Gaziantep) and Central Anatolia (Kayseri) regions. Second it is clear that Marmara region (with Istanbul, Bursa and Tekirdag) is the most significant of all regions. Among the clusters, Istanbul is by far the most important contributor in terms of number of establishments and total employment, followed by Bursa, Denizli, Gaziantep and Tekirdag. Tekirdag (or more precisely Corlu) is one of the newest textile clusters where many firms have relocated their integrated production sites by moving from Istanbul to benefit from the cheap energy and water prices. According to the value added, Bursa contributes most. Istanbul is followed by Tekirdag, Gaziantep and Denizli. Istanbul is also the leader in quality certificates obtained from Turkish Institute for Standardisation (see Table 25)

The specialisation of clusters varies. Bursa and Denizli are specialised in weaving and home textiles. Gaziantep and Adana are specialised in cotton textiles. Kahramanmaras is specialised in yarns and clothing. Also Gaziantep is strong in yarn production as well as textile machinery. In Istanbul and Marmara region, all sorts of textiles and clothing products are produced, meaning that the lowest concentration is in those regions.

In the clothing industry, the structure of regional distribution is different than in the textiles industry. More than clustering, there is a concentration of clothing production in Istanbul, a city destined to become a fashion centre, and in Izmir, the capital of Aegean region with its trade harbour. Tekirdag, Denizli and Bursa are the followers of these two big cities in terms of contribution to value added. In clothing production, Ankara and Adana have relatively smaller but still significant roles.

The export tables for textiles (Table 23) and clothing (Table 24) industries (based on statements by the regional exporters' associations) corroborate the significance of Istanbul and Bursa as well as Aegean and Denizli in 2002 and 2003.

In order to understand the level of interaction within these clusters, a detailed micro-level analysis is needed. However, it is well known that the clusters helped to develop a culture of T/C production and organisation in Turkey. They also hastened knowledge accumulation within the clusters through informal links, which still have strong influence on the knowledge transfer

among the firms. Networking activities are highly informal and formal partnerships for R&D, product or process innovations are not present. Lack of coordination appears to be the weakness of these clusters, and overcoming this will necessitate an external stimulus.

Table 21

**Average contribution of cities operating in the textiles industry to the Turkish textiles industry, 1997-2001**

Cities	Number of establishments	Total employment	Total annual payments to employees	Gross additions to the fixed capital*, mn TL	Value added	Total Income	Labour cost
<b>Adana</b>	<b>3.02</b>	<b>5.83</b>	<b>10.74</b>	<b>4.53</b>	<b>5.56</b>	<b>5.75</b>	<b>10.76</b>
Ankara	1.64	1.25	1.06	1.82	1.09	0.95	1.04
Antalya	0.50	1.32	1.52	0.52	0.98	1.14	1.67
Aydin	1.51	1.73	2.20	1.40	1.30	1.65	2.80
Balikesir	0.26	0.17	0.25	0.22	0.36	0.29	0.24
Burdur	0.24	0.11	0.10	0.10	0.08	0.09	0.10
<b>Bursa</b>	<b>16.25</b>	<b>17.91</b>	<b>17.74</b>	<b>22.23</b>	<b>20.73</b>	<b>20.35</b>	<b>17.58</b>
<b>Denizli</b>	<b>10.83</b>	<b>8.91</b>	<b>4.99</b>	<b>7.10</b>	<b>7.04</b>	<b>7.08</b>	<b>4.93</b>
Diyarbakir	0.43	0.21	0.23	0.02	0.08	0.26	0.23
Edirne	0.33	0.97	1.09	0.72	1.31	0.96	1.08
<b>Gaziantep</b>	<b>8.84</b>	<b>7.85</b>	<b>4.64</b>	<b>9.28</b>	<b>8.40</b>	<b>7.76</b>	<b>4.59</b>
Hatay	0.65	0.38	0.14	0.05	0.18	0.32	0.14
Isparta	1.27	0.98	0.84	0.87	0.92	0.87	0.85
Icel	0.43	1.62	2.49	3.40	1.68	1.68	2.39
<b>Istanbul</b>	<b>29.77</b>	<b>20.67</b>	<b>19.99</b>	<b>16.08</b>	<b>19.04</b>	<b>19.17</b>	<b>19.65</b>
<b>Izmir</b>	<b>3.83</b>	<b>2.96</b>	<b>3.90</b>	<b>2.03</b>	<b>3.02</b>	<b>2.95</b>	<b>3.99</b>
<b>Kayseri</b>	<b>1.58</b>	<b>3.82</b>	<b>4.57</b>	<b>4.75</b>	<b>5.43</b>	<b>4.31</b>	<b>4.63</b>
Kirklareli	0.71	1.98	2.37	1.22	1.76	1.88	2.36
Kocaeli	0.86	0.87	2.23	5.99	2.16	2.36	2.05
Malatya	0.96	2.07	1.98	1.01	0.72	1.64	2.02
Manisa	1.01	0.40	0.31	0.06	0.48	0.61	0.34
<b>K.Maras</b>	<b>1.86</b>	<b>2.59</b>	<b>2.14</b>	<b>1.77</b>	<b>2.61</b>	<b>3.65</b>	<b>2.15</b>
Nigde	0.18	0.38	0.46	0.45	0.57	0.51	0.52
Sakarya	0.39	0.20	0.13	0.42	0.11	0.12	0.14
Samsun	0.39	0.23	0.12	0.04	0.07	0.09	0.12
<b>Tekirdag</b>	<b>5.23</b>	<b>8.43</b>	<b>8.94</b>	<b>10.13</b>	<b>10.19</b>	<b>9.09</b>	<b>8.74</b>
Sanliurfa	0.46	0.11	0.05	0.17	0.18	0.23	0.04
Usak	3.08	1.80	0.83	0.27	0.70	0.82	0.85
Yalova	0.18	1.62	2.31	2.09	1.69	1.43	2.34
Turkey	100	100	100	100	100	100	100

\* includes machinery and equipment, transportation, building construction, other construction (inc. maintenance), office furniture.

**Source:** State Institute of Statistics, Turkey

Table 22

**Average contribution of cities operating in the clothing industry to the Turkish clothing industry, 1997-2001**

Cities	Number of establishments	Total employment	Total annual payments to employees	Gross additions to the fixed capital**, mn TL	Value added	Total Income	Labour cost
<b>Adana</b>	<b>1.21</b>	<b>1.82</b>	<b>2.06</b>	<b>0.52</b>	<b>1.25</b>	<b>2.09</b>	<b>2.01</b>
Adiyaman	0.35	0.42	0.99	0.13	0.11	0.13	0.94
<b>Ankara</b>	<b>4.02</b>	<b>2.37</b>	<b>1.77</b>	<b>2.47</b>	<b>1.82</b>	<b>1.53</b>	<b>1.80</b>
Aydin	0.24	0.35	0.63	0.53	1.00	0.53	0.59
Bolu	0.42	0.44	0.28	0.80	0.27	0.28	0.29
<b>Bursa</b>	<b>4.20</b>	<b>6.68</b>	<b>7.38</b>	<b>10.86</b>	<b>4.32</b>	<b>5.06</b>	<b>7.15</b>
Canakkale	0.21	0.22	0.19	0.21	0.09	0.06	0.19
Corum	0.21	0.40	0.27	0.08	0.42	0.27	0.27
<b>Denizli</b>	<b>5.13</b>	<b>7.23</b>	<b>5.74</b>	<b>8.52</b>	<b>6.30</b>	<b>6.30</b>	<b>5.82</b>
Eskisehir	0.52	0.98	0.68	0.31	0.47	0.48	0.71
Icel	1.62	1.48	0.93	0.58	1.07	0.62	0.95
<b>Istanbul</b>	<b>59.16</b>	<b>54.28</b>	<b>57.50</b>	<b>51.27</b>	<b>61.10</b>	<b>63.54</b>	<b>57.63</b>
<b>Izmir</b>	<b>14.07</b>	<b>9.84</b>	<b>8.01</b>	<b>6.93</b>	<b>8.26</b>	<b>7.68</b>	<b>8.16</b>
Kastamonu	0.18	0.62	0.57	0.88	0.62	0.48	0.56
Kayseri	0.35	0.14	0.10	0.08	0.06	0.07	0.10
Kirklareli	0.73	1.62	1.45	0.84	1.13	0.94	1.40
Kocaeli	0.30	0.24	0.16	0.70	0.14	0.09	0.18
Manisa	0.35	0.63	1.51	0.04	0.96	0.61	1.56
K.Maras	0.24	0.06	0.03	0.02	0.02	0.02	0.03
Sakarya	0.31	0.31	0.26	0.29	0.22	0.17	0.26
Samsun	0.29	0.14	0.07	0.15	0.06	0.07	0.08
<b>Tekirdag</b>	<b>2.28</b>	<b>5.89</b>	<b>6.73</b>	<b>7.93</b>	<b>7.91</b>	<b>7.31</b>	<b>6.68</b>
Usak	0.17	0.05	0.03	0.38	0.06	0.07	0.03
Zonguldak	0.30	0.23	0.12	0.05	0.15	0.12	0.12
Yalova	0.29	0.18	0.11	0.02	0.06	0.04	0.11
Karabuk	0.72	0.72	0.37	0.47	0.48	0.30	0.37
Duzce*	0.24	0.14	0.32	0.09	0.37	0.29	0.34
Turkey	100.00	100.00	100.00	100.00	100.00	100.00	100.00

\* average 2000-2001

\*\* includes machinery and equipment, transportation, building construction, other construction (inc. maintenance), office furniture.

**Source:** State Institute of Statistics, Turkey

Table 23

<b>Textiles and Raw materials exports (1000\$)</b>	2002	2003	Change (2002/2003) (%)	Share in total textiles exports (%)
İSTANBUL Textiles and Raw materials Exports Association	1,672,113	2,062,288	23.3	56.3
Aegean Textiles and Raw materials Exports Association	459,123	528,035	15.0	14.4
ULUDAĞ Textiles and Raw materials Exports Association (Bursa)	363,860	461,708	26.9	12.6
DENİZLİ Textiles and Raw materials Exports Association	251,520	312,005	24.0	8.5
Mediterranean Textiles and Raw materials Exports Association	125,175	179,870	43.7	4.9
South East Anatolia Textiles and Raw materials Exports Association (Textiles only)	43,615	44,548	2.1	1.2
East Anatolia Textiles and Raw materials Exports Association (Textiles only)	44,346	51,039	15.1	1.4
ANTALYA Textiles and Raw materials Exports Association (Textiles only)	8,382	11,688	39.4	0.3
Black Sea Textiles and Raw materials Exports Association (Textiles only)	6	2	-67	0.0
<i>Total of Exports Associations</i>	<b>2,968,140</b>	<b>3,651,183</b>	<b>23.0</b>	
<i>Other*</i>	9,542	12,534	31.4	
<b>Total</b>	<b>2,977,682</b>	<b>3,663,717</b>	<b>23.0</b>	<b>100</b>

\* 'Other' category covers the possibility of the difference between the data from Exporters' Associations and the data from Undersecretariat of Foreign Trade that appears due to different categorisation of the products and combined exports in some customs declarations.

Source: Istanbul Textile and Apparel Exporters' Association (ITKIB)

Table 24

<b>Ready Made and Retail Clothing Exports (1000\$)</b>	2002	2003	Change (2002/2003) (%)	share in total apparel exports (%)
İSTANBUL Ready made and Retail Clothing Exports Association	6,999,430	8,829,196	26.1	76.7
Aegean Ready made and Retail Clothing Exports Association	729,977	944,710	29.4	8.2
ULUDAĞ Ready made and Retail Clothing Exports Association (Bursa)	552,510	683,316	23.7	5.9
DENİZLİ Ready made and Retail Clothing Exports Association	647,655	766,100	18.3	6.7
Mediterranean Ready made and Retail Clothing Exports Association	164,760	183,638	11.5	1.6
South East Anatolia Ready made and Retail Clothing Exports Association (ready made only)	42,396	72,197	70.3	0.6
East Anatolia Ready made and Retail Clothing Exports Association (ready made only)	14,474	12,917	-10.8	0.1
ANTALYA Ready made and Retail Clothing Exports Association (ready made only)	11,950	14,138	18.3	0.1
Black Sea Ready made and Retail Clothing Exports Association (ready made only)	9	1	-88.9	—
<i>Total of Exports Associations</i>	<b>9,163,161</b>	<b>11,506,213</b>	<b>25.6</b>	
<i>Other*</i>	9,032	11,696	29.5	
<b>Total</b>	<b>9,172,193</b>	<b>11,517,909</b>	<b>25.6</b>	<b>100</b>

\* 'Other' category covers the possibility of the difference between the data from Exporters' Associations and the data from Undersecretariat of Foreign Trade that appears due to different categorisation of the products and combined exports in some customs declarations.

Source: Istanbul Textile and Apparel Exporters' Association (ITKIB)



Table 25

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<b>Name of the city</b>	<b>Number of firms that has quality certificate from Turkish Institute for Standardisation</b>
Istanbul	66
Bursa	17
Ankara	11
Denizli	5
Adana	4
Izmir	3
Kayseri	3
Gaziantep	2

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**Source:** Turkish Institute for Standardisation, <http://www.tse.org.tr>

## **8. Trade relations with the EU and other partners and future prospects of the Turkish T&C**

Turkey has been a WTO member since 1995 and has been in a Customs Union with the EU since 1996. It is one of the few open markets alongside the EU, Canada and the US with regard to low tariffs and non-tariff barriers.

### **8.1 Customs Union with the EU**

Turkey is a direct trade partner with no quota and no duty with the EU since the 1996 Custom Union Agreement, which came into force on December 31<sup>st</sup>, 1995. This means that all the tariffs and quantitative restrictions between the EU and Turkey were liberalized and Turkey gradually adopted common external tariffs of the EU.<sup>27</sup> The latter means that Turkey applies the same quantitative restrictions to the same products from the same countries as does the EU.

Nonetheless, the Customs Union with the EU has not prevented Turkey from being exposed to non-tariff barriers that has become a significant obstacle in competing with third countries in the EU market in goods where Turkey has a comparative advantage (PWC Consulting, 2002).

In the domestic market, apart from the ongoing political debate on the positive and negative effects of the Customs Union with the EU on the T/C trade of Turkey<sup>28</sup>, the T/C trade associations argue that the policies of the EU towards the liberalisation of trade with third countries in the T/C industry have negative impacts on Turkish T/C industry. They were calling attention to this as early as 2001.<sup>29</sup> Since 1996, the average customs duties for industrial products have decreased from 16% to 5.4%, whereas the customs duties for T/C products decreased from 27% to 6%. In addition, the application of common external tariffs to third countries led to relatively easy entrance of cheap Asian T/C products, whose market share in Turkey's T/C imports grew from 53% in 1998 to 67% in 2000 in terms of quantity.<sup>30</sup>

### **8.2 Tariffs and non-tariff barriers with the third countries**

Turkey has agreements with third countries China, Belarus, Pakistan, Malaysia, South Korea, Sri Lanka, Vietnam, Indonesia, Macao, Taiwan and Egypt based on the agreements of the EU with these countries, subject to a mutual controlling system. For the countries, such as Argentina,

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<sup>27</sup> Based on the presentation of Umut Oran, Presidents of Euratex Clothing Group, International Apparel Foundation and Turkish Clothing Manufacturers' Association, "International Trends in the Textile & Clothing Industry and the Impact of 2005", May 2, 2004.

<sup>28</sup> See the reports of PWC Consulting 2002 and Baris Tan (2001).

<sup>29</sup> See the report of DETKIB (2001, in Turkish) on the views about the consequences of the EU's liberalisation policies in T/C sector for Turkey's trade.

<sup>30</sup> DETKIB, 2001, Textile and Clothing industry in EU-Turkey Relations, Report No. 3.

Brazil, Philippines, India, Hong Kong, Singapore, Thailand, Peru, Russian Federation, Ukraine and Uzbekistan, Turkey applies import quotas and surveillance on imports.<sup>31</sup>

Both quotas and surveillance on imports of textile and clothing products are highly concentrated around the products of cotton yarn, woven cotton fabrics, woven synthetic fabrics, knitted T-shirts, pullovers, etc., woven trousers and shorts, women's shirts and blouses and men's shirts.<sup>32</sup> Over twenty products from Russia and Vietnam are under surveillance. Almost all ready-wear products and some textiles products from China are exposed to antidumping investigations and are treated under monitoring measures. Among the countries to which quota restrictions are applied, China has by far the most categories (70 out of 163) (see Tables A5/1 -2). The phase-out of import quotas in 2005 will leave competitive Turkish T/C products vulnerable to the fierce competition from these countries in the world markets.

The problems that might arise out of the world trade liberalisation are twofold for Turkey. First, as explained above, the T/C associations think that domestic T/C production is under the threat of cheap imported products from third countries through the EU countries - and thus unfair trade from the third countries - as a result of EU trade liberalisation policies. This is because there is no restriction that applies to imports of textile products, processed in Turkey and shipped back to third countries outside the EU. This is realized under the 'inward processing regime' accepted in 1996 alongside the outward processing trade regime of the EU, which is extensively abused.<sup>33</sup> This is an internal problem of the Turkish T/C industry, and T/C associations are lobbying for stricter monitoring by the customs authorities.

Second is a problem experienced not only by Turkey but also in countries with protective policies for T/C industry (such as USA) which is related to the broken promises of third countries (Bangladesh, Brazil, China, Colombia, Egypt, India, Indonesia, Malaysia, Pakistan and Thailand) to reduce their high tariff rates and non-tariff barriers.<sup>34</sup>

All this leads to relatively free entry of these countries into the Turkish market and simultaneously prevents Turkey from entering their markets with comparable ease. Some experts believe that 2005 will change the unbalanced trade relations with these countries and will improve Turkey's competitiveness by opening up through the new markets. The gains of Turkey from the free trade agreements in terms of trade volume vary in textiles and clothing. In textiles, the exports of Turkey have relatively increased to countries with free trade agreements,

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<sup>31</sup> Export Promotion Centre of Turkey (IGEME), Ready-wear Sector Report, 2002 (in Turkish).

<sup>32</sup> The list of countries and products to which Turkey applies quotas and monitoring measures can be found from [www.itkib.org.tr](http://www.itkib.org.tr)

<sup>33</sup> Grand Assembly of Turkey, Textile and Clothing Industry Research Commission Meeting Minutes, 30 January 2003 (in Turkish).

<sup>34</sup> American Textile Manufacturers Institute, Promises Unkept, A Report on the Failure of the WTO and the U.S. Government to Provide Market Access for U.S. Textile Products Six Years into the World Trade Organization (rev.1), April 2001.

whereas in clothing, the imports of Turkey from these countries have seemed to increase (see Table A5/3).

In environmental issues, the requirements of the EU are viewed as non-tariff barriers to trade by Turkish textile exporters. Their response to these requirements and the European consumer preferences is to get the ISO14000 and Oeko-Tex 100 certificates. An increasing number of firms apply to get these certificates, and awareness is increasing throughout the industry.<sup>35</sup>

### **8.3 Free trade agreements**

Turkey also signed free trade agreements with the privileged partners of the EU, such as the EFTA countries, Israel, Macedonia, Bosnia-Herzegovina, Croatia, Bulgaria, Romania, and some of the NMS (see Table 26). The free trade agreements of the EU with 20 countries (which consist of competitors of Turkey in the industry, such as Mexico and North African countries) and the reduction of the T/C tariffs from 26% to about 6% have diminished the so-called advantageous position of Turkey due to Customs Union. Exports and imports of the EU between 1995 and 2000 increased considerably both in textiles and clothing as a result of the Asian and East Asian exports to the EU.

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<sup>35</sup> For detailed information, see Zeynep Yontem, Textile Industry Sectoral Study, prepared for UNEP, Blue Plan for Mediterranean, Regional Activity Centre, 2000.

Table 26

Countries that signed Free Trade Agreements with Turkey			
Country	Date of Signature	Enforcement Date of FTA	Date of Customs Duty Elimination
EFTA	10-Dec-91	01-Apr-92	01-Jan-96
ISRAEL	14-Mar-96	01-May-97	01-Jan-00
ROMANIA	29-Apr-97	01-Feb-98	01-Jan-02
LITHUANIA	02-Jun-97	01-Mar-98	01-Jan-01
HUNGARY	08-Jan-97	01-Apr-98	01-Jan-01
ESTONIA	03-Jun-97	01-Jul-98	01-Jul-98
CZECH REPUBLIC	03-Oct-97	01-Sep-98	01-Jan-01
SLOVAKIA	20-Oct-97	01-Sep-98	01-Jan-01
LATVIA	16-Jun-98	01-Jul-00	01-Jul-01
SLOVENIA	05-May-98	01-Jun-00	01-Jan-01
BULGARIA	11-Jul-98	01-Jan-99	01-Jan-02
POLAND	04-Oct-99	01-May-00	01-Jan-02
MACEDONIA	07-Sep-99	01-Sep-00	01-Jan-08
CROATIA	13-Mar-02	01-Jul-03	01-Jan-07
BOSNIA HERZEGOVINA	03-Jul-02	01-Jul-03	01-Jan-07

Source: Istanbul Textile and Clothing Exporters' Association (ITKIB)

#### 8.4 Expected impacts of 2005

The standing of east-european countries as the main competitors of Turkey has been changed with their improved GDP per capita during their economic transition and final accession to the EU in May 2004, which also changed their perception in Turkey as potential markets. Today China appears to be the most important competitor of textile and clothing producer countries in the world. Since 2001, when the third phase-out of the quotas in ATC was realised, China increased its T/C exports by 192% and in a year its market share in the world grew from 14 to 37%.<sup>36</sup>

Experts strongly emphasise the urgency of a shift to brand production so as not to compete with countries like China, India, Pakistan and African countries that have increasingly focused on assembly and original equipment manufacturing (OEM). After 2005, the Customs Union with the EU might not be an advantage, as the Chinese products, against which Turkey tries to protect its domestic production through anti-dumping law, will enter the EU market with the result that Turkey loses market share in the EU. There is a strong belief among the experts that the EU has to take the some kind of precaution in a similar way to the US, which prepares to protect its

<sup>36</sup> For a detailed study on the development of world exports of China and other competitors of Turkey, see Musa Demir, World Textiles Industry after 2005, Undersecretariat of Foreign Trade, Exports General Directory, Textile and Clothing Unit, Ankara, 2001 (in Turkish).

domestic industry against the competition from China. There are lobbying efforts of Turkish textile associations in cooperation with the American textile associations in the WTO.<sup>37</sup>

The competition in the textiles and clothing industry is strongly influenced by the formation of new trade blocks, such as Pan-Euro-Mediterranean Zone.<sup>38</sup> This zone is going to cover the complete value added chain of the T/C industry in the vicinity of the EU and Turkey expects to gain from this zone against the competition from China. After 2005 the extent of competition will, to a large extent, be determined by the creation of free trade markets between developed markets and exporting countries. Elimination of quotas in 2005 will change the dynamics of supplier-customer countries by changing the supply channels according to the applicable customs duty rates.

The questionnaire results, applied by TCMA to 60 clothing firms in a 2001 report by the State Planning Organisation, reveal that 45% of the firms believe that they will be positively influenced by liberal trade after 2005, whereas 25% think that the impacts will be negative and 18% thinks that there will be no influence in their trade performance at all. 12% did not answer.<sup>39</sup>

This attitude is also linked with the beliefs of the firms that Turkey cannot continue to be a T/C supplier country and has to upgrade its position in the world markets. They think their productivity level has increase and support from government is necessary for restructuring of the industry. 23% of the firms perceive Central and East European firms as competitors, 20% perceive Portuguese firms as competitors and 18% perceive Italian firms as competitor. North African firms are perceived as competitors by 12% of the firms. Chinese and East Asian firms are perceived as the main competitors by 30% and 42% of the firms respectively.<sup>40</sup> In the next five years, 26% of these firms see China as the main competitor followed by East Asian firms with 16% and East European firms with 10%. These firms believe that their quality (38%), speed of delivery (13%) and brand development and design for collection preparation (8%) will be their main strength in competing with their competitors in the next five years.

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<sup>37</sup> Textile Employer, No.290, Feb 2004.

<sup>38</sup> Pan-Euro-Mediterranean Zone is composed of the EU-25; the EFTA countries; Turkey and the countries of the Mediterranean rim, to which Bulgaria and Romania will be added in 2007. In terms of production, employment, and population (i.e. consumers) the Zone had more than 700 million consumers, 6.95 million jobs and 273 billion Euro in turnover in 2001 (W. H. Lakin, Director-General Euratex, "Textiles and Clothing in the wider Pan Euro Mediterranean Area. 2005-2010: the Crucial Five Years", Presentation to the Aachen Textile Conference, 26<sup>th</sup> November 2003) (see also Table A5/4).

<sup>39</sup> State Planning Organisation, Textiles and Clothing Industry, Private Specialisation Commission Report, Eighth Five-Year Development Plan, DPT: 2549. ÖİK: 565, 2001, Ankara (in Turkish)

<sup>40</sup> The percentage exceeds 100% since the respondent firms have answered more than one category.

### 8.4.1 Summary of strengths and weaknesses of the Turkish T/C industry

The Turkish T/C industry has a common strong point with the NMS, which is its proximity to the EU. Yet, Turkey enjoys some other strengths that the NMS do not have, such as domestic raw materials which support the downstream of T/C industry and an integrated textile chain that feeds the clothing industry and upgrades clothing firms from “Cut-Make-Trim (CMT)” relations to direct export to foreign buyers. One of the properties of Turkish T/C producers that make them renowned is their ability to provide high-quality customer service and flexibility in production modes with quick response to both small and large batch production.

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• An integrated textile chain within the country (from raw material to textiles and to clothing)</li> <li>• Ability to produce commodity and specialised products (having well-established know-how)</li> <li>• Flexibility in production modes (the ability to respond quickly to both small and large orders) and timeliness in delivery</li> <li>• Proximity to the EU</li> <li>• Relatively low wages</li> <li>• Experience in providing high level of customer service (as a result of longstanding tradition in the sector)</li> <li>• Broad domestic raw material basis (self-sufficiency due to being one of the leading cotton producers)</li> <li>• Existence of developed finishing industry for textiles industry</li> <li>• Existence of developed sub-sector of clothing industry (for accessories)</li> <li>• Young and motivated workforce (recently increasing number of skilled workforce through vocational programmes)</li> <li>• Entrepreneurial spirit</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of highly skilled workers in SMEs</li> <li>• High total costs (labour, utilities, etc.) due to high taxes</li> <li>• Deficiencies in R&amp;D activities (recently started)</li> <li>• Reliance on standardised products (through large proportion of subcontracting links in production)</li> <li>• Concentration on SMEs in clothing</li> <li>• Diversification of its product range (newly developing)</li> <li>• Diversification of its export markets to reduce strong reliance on the EU market</li> <li>• Reduce over-capacities</li> <li>• Lack of government support and bureaucratic obstacles</li> <li>• Inability to attract FDI</li> </ul>

**Source:** Interviews conducted by the author; report of Institut Francais de la Mode, February 2004; report of PWC Consulting, 2002.

Although the industry has a young and motivated workforce, the low level of skilled workers especially in the SMEs, which is the dominant firm size in the industry, creates a weakness. There are combined efforts of T/C associations, universities and KOSGEB (Small and Medium Industry Development Organization) under the EU Framework projects and their own initiatives.

Weaknesses that arise out of the general economic climate of the country, are the presence of very little FDI in the T/C industry and a shortage of investment capital. In addition, the informal

economy adversely affects the restructuring of the industry through the high proportion of informal production by the workshops that create unjust competition in the internal market.

#### **8.4.2 Is Turkish T/C industry ready for this fierce competition?**

Experts believe that Turkey possesses the potential for realising two contrasting T/C giants in the world market, namely China and Italy. In fact, when assisted and supported carefully, there is no reason for this potential not to be realised. The literature on the Asian clothing industry shows that the industry has been transformed in each Asian country throughout the decades by relocating their manufacturing to the low labour cost economies in the region (one of which is China today). This is called 'triangle manufacturing' which has become the main source of competitiveness of the Asian countries. As the production moved to the low labour cost countries, this so-called sunset industry helped the upgrading of these countries gradually through dynamic learning.

The literature on industrial districts, particularly in the Italian context with examples from the textiles clusters (see Locke 1995),<sup>41</sup> shows the importance of knowledge sharing and spillover effects in the restructuring of the Italian industry to become a world leader at the end of the 1980s. The success of today's Italian T/C industry relies on the crisis it went through in the 1970s, when labour, energy and raw material costs increased, leading to a changing pattern of international competition. Italian T/C industry overcame this shaky period through restructuring the industry by breaking up of large integrated firms producing standardised goods into a network of smaller, more specialised firms working together to produce niche products. Also intensive efforts for technological innovation that led to original brand development and manufacturing in the 1980s played a significant role in the progress of the industry.

##### **8.4.2.1 Textiles industry**

Since the mid-1990s, the Turkish textiles industry has been adversely affected not only by the consequences of the informal economy, which increased manufacturing costs (basically the labour costs) but also by the increasing competition from third countries like China and India. The latter has started to become a threat to Turkey, even before 2005, both in the world

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<sup>41</sup> See R.M. Locke, 1996, The composite economy: local politics and industrial change in contemporary Italy, *Economy and Society*, vol 25, no 4, Nov 1996.



markets, where it becomes more difficult for Turkey to maintain its market share, and in the internal market, where cheap imports make it difficult to maintain its manufacturing level<sup>42</sup>.

As discussed above, the textiles manufacturers have founded industrial districts, such as Istanbul, Bursa, Izmir, Gaziantep, Adana and recently in Corlu where the energy costs are relatively low.<sup>43</sup> The main question is the awareness of the potential in those districts, which still has not been turned into cooperation between firms for product and process innovations. The experience and knowledge transfer is very informal, via the exporters' and the industry associations. The cooperation between the industry and the universities has been traditionally restricted to the provision of textile engineers.

Over the years, the Turkish textile industry has been successfully transformed from labour-intensive to capital-intensive industry. However, this transformation is based on the imported or imitated technology. Recent developments have increased the awareness of the importance of R&D in textiles industry to catch up with the developed markets and also to forge ahead of the competitors. This has led the industry and the university to cooperate in establishment of a special unit called Textile Research Centre under the auspices of Ege University and TUBITAK. The main aims of the centre are to contribute to the development of technical textiles, to the production of high value added and high quality products as well as know-how and innovation-intensive products.<sup>44</sup> Within the country, the centre collaborates with the Ege (Aegean) University Textile and Ready-wear Research Application Institute, Dokuz Eylul (9 September) University, Textile, Apparel and Dye Research Institute and TUBITAK Textile Research Institute. Abroad, it has been involved in the network of excellence of 35 European universities that gathered with the aim of developing projects on multi-functional textiles (smart textiles) within the EU 6<sup>th</sup> Framework and become a participant in the projects.<sup>45</sup> The centre conducts nine R&D projects, some of which are on the practical problems of the industry such as production of machinery that saves energy by almost 50 percent in the textiles industry (by using radio waves and steam and in cooperation with a Turkish electronics firm), or on the technological innovations such as bleaching/ washing of raw cotton fabric with ultrasonic waves. Some of the firms in Tunisia and Morocco have moved subcontracting of R&D from the EU to this centre.

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<sup>42</sup> See also *Tekstil Isveren* (Textile Employer) monthly magazine of Turkish Textile Industry Employers Association, no. 290, February 2004.

<sup>43</sup> Corlu belongs to the province of Tekirdag which is in the European side of Marmara region.

<sup>44</sup> *Tekstil Isveren* (Textile Employer) monthly magazine of Turkish Textile Industry Employers Association, no. 265, January 2002.

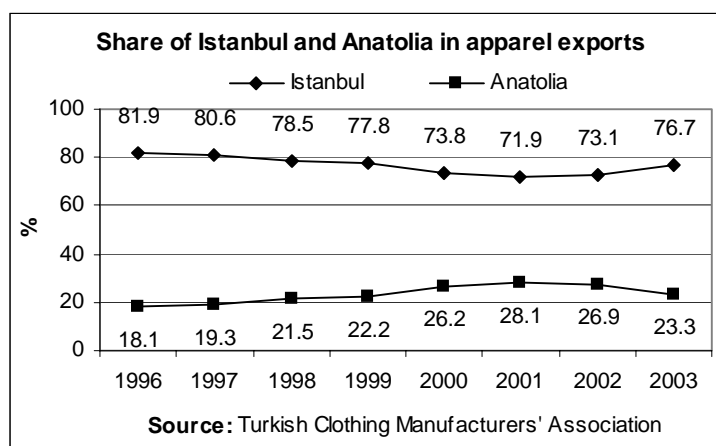
<sup>45</sup> Based on interview with Prof.Dr. Isik Tarakcioglu, Textile Employer, No 278, February 2003.

Technologically the Turkish textiles industry improved in the last decade as a result of around 40 billion USD<sup>46</sup> investments by the firms.<sup>47</sup> However, the industry relies on imported technology and lacks large-scale R&D activities. Big textiles firms have in-house R&D units that conduct tests, analyses, and product development. There is no evidence with regard to cooperation among the R&D units of these big textile firms.

### 8.4.2.2 Clothing industry

The Turkish clothing industry has gone through 4 phases since 1970s. Starting with Cut-Make-Trim (CMT) in the 1970s when everything sewn was imported, the industry is transformed into 'organisation' (i.e. organising the network between the large firms that take orders from foreign customers and the small manufacturing firms) in the 1980s. The 1990s witnessed the 'industrialisation' of the industry as a result of the opening of the Turkish market via producing in accordance with the world trends in technology, social and environmental conditions. Since 2000, the firms have been developing new products and even creating brands. The clothing manufacturers are also aware of the increasing competition from the third countries in the form of decrease in their world market shares and in the form of cheap imports into the domestic market.

Figure 17



The Turkish Clothing Manufacturer's Association (TCMA) has an initiative that seeks to prepare the Turkish T/C industry – not primarily for 2005 but rather for 2010. The initiative called 'Horizon

<sup>46</sup> Inclusive of textiles and clothing industries, Report of TCMA, Turkish Clothing Industry Horizon 2010 Road Map Global Targets and Policies.

<sup>47</sup> For this reason, Turkey has the highest capacity levels of spinning, weaving, dyeing-finishing and clothing within the EU (DETKIB, 2001, Textile and Clothing industry in EU-Turkey Relations, Report No. 3).

2010' aims at taking advantage of resources within Turkey by promoting investments and employment in Anatolia in order to grasp the potential of the country against the competition that will arise after 2005 (Figure 17 might give an idea about the unequal distribution of the shares of Istanbul and Anatolia in clothing exports). The government incentives are not entirely helpful, but there is one that helps clothing manufacturers to consider relocating their production sites in 36 provinces whose GDP per capita is less than 1500 USD.<sup>48</sup> Most of the 36 provinces are in the South Eastern part of Turkey, which could become "clothing production centre" of Turkey, according to the Horizon 2010.

With the same reasoning, eastern Anatolia could become the "cotton and textile centre" of Turkey as result of the Southeast Anatolia Project of Turkey that has converted infertile land into fertile land in that region. As well as increasing exports despite the competition from the third countries, another most important target of Horizon 2010 is to make Istanbul a fashion centre of the world. The International Istanbul Fashion Fair is among the projects. There is an increasing awareness of the need to create fashion institutes and opportunities for young fashion designers. ITKIB has studies on supporting those designers through competitions and sending the winners to abroad for further education. Efforts for exporting under the 'Made in Turkey' and 'Turquality' labels are also promising.<sup>49</sup> There are unfortunately even fewer university-industry links in the clothing industry than in textiles.

The trends in the globally traded product groups in the clothing industry show that cheap, mass production accounts for 65% of the products of the industry (see Table 27). Since the competitiveness of these products is based on low cost, with the phase-out of the import quotas after 2005, the producers of this category are expected to be influenced most. The Turkish producers, which are mostly SMEs, will lose their advantage of low costs on the world market, and are expected to exit the industry.

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<sup>48</sup> Law no. 5084 was put into effect on Feb. 6th, 2004 with the aim of eliminating regional and social differences, ensuring sustainable peace in the east and south east regions by creating economy and the less developed regions through new investments and employment. The Law 5084 provides discount on electricity prices, (at rate max 50 percent), exemption from income tax, exemption from the employers' share of the Social Insurance cost, and free factory area. It will be in effect for five years in 36 provinces.

<sup>49</sup> This issue is discussed in chapter 9 in detail.

Table 27 Changes In Globally Traded Product Groups

PRODUCTS	SHARE IN TOTAL PRODUCTION		Competitiveness based on	TRENDS
	QUANTITY %	VALUE %		
CHEAP, SIMPLE, MASS PRODUCTION PRODUCTS	65	45	Cost	Lower price More competition Less value share
FASHION ORIENTED MIDDLE CLASS BATCH PRODUCTION PRODUCTS	20	20	Cost and added value	Same/higher price, More competition Bigger share in quantity and value.
CUSTOMIZED PRODUCTS	3	7	Creativity and added value	Higher price, Higher share in value.
EXPENSIVE, LUXURY, FASHION-BRAND PRODUCTS	2	8	Added value, fashion and exclusiveness	Higher price.
HIGH VALUE, INTERACTIVE, MULTI-FUNCTION PRODUCTS	10	20	Technology and know-how	Rapidly increasing price, Price determined by technology Know-how in developed countries, Higher share in quantity and value.

**source:** Report of Turkish Clothing Manufacturers' Association (TCMA), Turkish Clothing Industry Horizon 2010 Road Map Global Targets and Policies.

Fashion-oriented, middle range batch production products are estimated to be the second most important products in terms of quantity in which value added has become a determinant for the competitiveness of the product alongside the cost. The trend clearly shows that the creativity and value added and use of technology and know-how will lead to economies of scope for the industry. In the light of these trends, the Turkish clothing industry has determined its strategies to cope with the competition after 2005. The practical problems that arise from the government policies and support as well as the domestic supplies of the raw material will determine to what extent and how soon these strategies will be in effect.

When the distribution of product groups within the value added chain in the Turkish clothing industry in 2000 is considered, strikingly it is observed that 77% of the production in Turkish clothing industry is outsourced (see Table 28). The main product group is composed of simple standard products. The global competitiveness determinants of Turkey have to shift from low cost to quality, fashion creation, brand development and innovativeness. The brand manufacturers represent 20% of the T/C producers. The targets for 2005 aim at an increase in

production for global brand names. In 2001, 30% of Turkish manufacturers have their own designs and brands for their goods, which are sold in the European and US markets.<sup>50</sup>

Table 28 Product Group Transformation Targets (%)

PRODUCT GROUPS	2000	2005	2010
OUTSOURCE PRODUCTION	77	65	20
SIMPLE STANDARD	47	30	5
MIDDLE CLASS	30	35	15
MIDDLE CLASS FASHION PROPRIETY REGIONAL BRAND NAME	20	20	25
UPPER MIDDLE CLASS FASHION PROPRIETY GLOBAL BRAND NAME	3	15	50
FUNCTIONAL PRODUCTS			5

**Source:** Report of Turkish Clothing Manufacturers' Association (TCMA), Turkish Clothing Industry Horizon 2010 Road Map Global Targets and Policies.

One of the improving functions within the clothing industry is distribution (Table 29). As is well known, the global clothing industry is an example of buyer-driven value chain (Gereffi 1999) and this chain is recently dominated by clothing retailers, such as Wal-Mart (US), Tesco (UK), Carrefour (France). The pressure of these retailers on garment manufacturers for low cost quality products has been constantly increasing in the last decade. Although such clothing retailers still have not been dominant in Turkish market, the mass production product category still works for their global markets. Since the current presence of these retailers in the domestic market is not as strong as in the developed markets, the distribution of Turkish clothing sales in 2000 is mostly based on the stand-alone stores. Estimates of 2005 and 2010 retail clothing sales distribution according to the Horizon 2010 report of TCMA show faster progress in the department and chain stores compared to stand-alone stores.

<sup>50</sup> General Secretariat Of Istanbul Textile And Apparel Exporters' Associations (ITKIB), Textile and Apparel from Turkey, A Summary of Turkey's Potentials, November 2001.

Table 29

**Distribution of Retail Clothing Sales  
(Billion Dollars)**

OUTLETS	2000	2005	2010
DEPARTMENT STORE	0.6	1.8	4.7
CHAIN STORE	0.4	1.2	3.0
STAND-ALONE STORE	19.0	18.0	25.0

**Source:** Report of Turkish Clothing Manufacturers' Association (TCMA), Turkish Clothing Industry Horizon 2010 Road Map Global Targets and Policies.

### 8.4.3 Competitiveness of Turkish T/C industry in comparison to its competitors (including NMS)

The abovementioned transformation in competitiveness determinants first relies on the cost factor. Production costs are the main reason behind the loss of competitiveness of Turkish T/C industry in the global markets (see Table 30). This is strongly linked to the support from the government policies where the employees and employers' associations seek for common ground with the government for lobbying.

Table 30 Cost comparison with major competitors

Costs	Turkey	China	India	Italy	Poland	Morocco	Tunisia	Mexico
Electricity cent/ kw h	7.5	2.1	2.8	1.6	1.5	1.54	1.9	1.8
Water cent/m3	95	45	60	30-90	85	60	70	80
Natural Gas 1000 m3/Dollar	172.3			171.4	132.0			81.4
Labor cost dollars/hour	2.14	0.61	0.60	16.65	2.52	1.92	1.89	1.51
International telephone call dollar/minute	2.34	6.66	6.10	2.28	4.12	6.30	5.70	3.70
Transportation dollar/ton	1.600	2.200	2.000	1.100	1.000	1.900	2.000	1.400
Real Loan Interest %	21.0	7.3	7.9	6.3	8.9	7.9		4.7
Corporate Income Tax %	25 + (23)	30	40	37	36	35		34
Cost USA = 100	51-53	33-35	33-35	127	56-58	40-43	40-43	38-39

**Source:** Report of Turkish Clothing Manufacturers' Association (TCMA), Turkish Clothing Industry Horizon 2010 Road Map Global Targets and Policies.

As mentioned before, apart from the labour costs, utilities prices (particularly electricity and water) are the highest among all T/C producer countries. Taking loans for investments is so highly risky that companies prefer to invest on their own capital. The costs of Turkey are half the USA prices, and a little less than Poland, a NMS in the EU.

Raw material costs are high as well and still rising; they rose in the clothing industry increased by 7.6% in the first nine months of 2003. Also the clothing industry is oversensitive to changes in the exchange rates. The textiles industry has been negatively influenced by the domestic

wholesale price increases in its main raw material, cotton, by 39%. The only advantage of the T/C industry in the last year is the decreasing tax on credit.<sup>51</sup>

Table 31

**Comparative analysis with major competitors**

	TURKEY	CHINA	INDIA	ITALY	POLAND	MOROCCO	TUNISIA	MEXICO
Cooperation with the textile industry and infra-structure	Very strong	Strong	Strong	Excellent	Improving	Weak	Weak	Improving
Yarn quality	Good	Fair/good	Good	Excellent	Fair/good	Fair/good	Fair/good	Good
Weave Quality	70-80	70-80	60-70	95	70-80	60-80	70-80	70-80
Technological Level	80-90	60-70	55-65	100	70-80	70-80	60-70	80-90
Computerized production	15	10	3	80	20	2	5	30
Quality	80	65-70	60-65	100	75	75	75-80	80
Collection Forming	30	25	20	80-90	30-35	25	25	30-35
Flexible production; ability to produce smaller batches	Fair/good	Weak	Weak	Very good	Fair	Good	Good	Good
Efficiency %	55-65	40-50	40-50	70-75	50-60	50-60	50-60	65-70
Marketing	Strong	Strong	Fair/Strong	Very Strong	Weak	Weak	Very weak	Strong
Delivery lead time	3-4 weeks	3-5 weeks	3-5 weeks	2-4 weeks	3-4 weeks	4-5 weeks	3-5 weeks	3-4 weeks
Delivery Success	90	70	60-70	90	85-90	80	90	90
Collection success	Up trend	Up trend	Very Weak	Very Strong	Up trend	Weak	Weak	Up trend
Direct sale to retailer	Increasing	Starting	Starting	Present	Infrequent	None	Increasing	Starting

**Source:** Report of Turkish Clothing Manufacturers' Association (TCMA), Turkish Clothing Industry Horizon 2010 Road Map Global Targets and Policies.

On the other hand, Turkey outperforms in many categories when compared to its major competitors in production quality, use of technology, ability to make design and collections and organisational matters such as marketing and distribution, delivery (see Table 31).

Government support is imperative for the attainment of targets in T/C industry in: development of technology and R&D activities; production quality improvements through providing qualified

<sup>51</sup> Istanbul Textile and Clothing Exporters' Association (ITKIB), Evaluation of Ready-wear and Clothing Exports, January-September 2003 (in Turkish).



personnel need in SMEs, increasing total quality management (TQM) awareness and supporting through accreditation and certification, patent and brand registration expenditures; investments that help guaranteeing the inputs that cannot be provided within Turkey (such as specialised yarn and fabrics), investment in industry clusters and underdeveloped regions, partnerships, co-operations or mergers with foreign-owned companies.

According to the TCMA Horizon 2010 report, the existing production capacity is as shown in Table 32. The cotton yarn is traditionally the most important ingredient of the textile industry that is produced domestically in Turkey. This has been one of the strong points of the integrated supply chain in the T/C industry. However there are problems in this area and two different views on the subject. The problem arises from the imports of cheap cotton yarn from Turkmenistan and Uzbekistan, as well as from China, Indonesia, India, Pakistan, the United Arab Emirates and Syria, leading Turkish producers of cotton yarn to request anti-dumping investigations. The Turkish fabric producers confront the same kind of problems through cheap imports of denim and raw cloth. Although third country competitors' prices for cotton yarn are as cheap as those of raw cotton as a result of the subsidies from their governments, these products are considered as low quality, negatively impacting the quality of Turkish clothing products made using this yarn and consequently creating risks for both the internal and external markets. Some experts believe that non-tariff barriers have to be effectively used against these imports. Some other experts think that this would be damaging to the Turkish clothing industry at a time of increasing demand for products made with these raw materials. They give the example of anti-dumping investigations on polyester-based fabrics, whose domestic production does not meet demand in clothing production.<sup>52</sup>

Table 32 Capacity in Raw Materials 2000 (thousand tons)

PRODUCTION FIELDS	2000 Existing Capacity
COTTON	870
YARN	1.600
FABRIC	900
DYE PRINT FINISH	1.600
CLOTHING	1.600

**Source:** Report of Turkish Clothing Manufacturers' Association (TCMA), Turkish Clothing Industry Horizon 2010 Road Map Global Targets and Policies.

<sup>52</sup> News from <http://www.textileonly.com/TextileOnly/tr/info/news/news.htm>, 31.01.2003, Istanbul.

The export markets of T/C exporter countries are predominantly the EU and the US (see Table 33). The countries with proximity advantage to the EU and the US seem to stick to those markets. Turkish T/C industry export markets, whose main export market is the EU, are growing recently. The same kind of handicap can be observed in Mexico, Honduras, Dominican Republic for the US market and in Romania, Poland, Tunisia and Morocco for the EU market. Yet there are some countries for which cost advantages are more important than proximity advantages when conquering the world markets. Turkish T/C producers move strategically against the 2005 changes to break the dominance of the EU as the main export market and extend their products to other markets with their own global brands for the consumption of upper middle class. This strategy does not exclude countries that compete against Turkey in the global market, such as China itself.

Table 33 Market Positions of Exporting Countries

<i>COUNTRY</i>	<b>EU</b>	<b>USA</b>	<b>JAPAN</b>	<b>OTHER</b>
CHINA	+	+	+	+
HONG KONG	+	+	weaker	+
MEXICO		+		
TURKEY	+	+ developing		+ developing
INDIA	+	+		+ stronger
S.KOREA	weaker	+	developing	+
INDONESIA	+	+	developing	+ developing
THAILAND	+	+	developing	+ developing
BANGLADESH	+	+		
TAIWAN	weaker	+	stronger	
TUNISIA	+			
DOMINIC R.		+		
ROMANIA	+			
HONDURAS		+		
PHILIPPINES	+ stronger	+		
MOROCCO	+			

SRI LANKA	+ stronger	+		
MALAYSIA	+ stronger	+		
PAKISTAN	+	+		
POLAND	+	+		+ developing
MACAO	+ stronger			

**Source:** Report of Turkish Clothing Manufacturers' Association (TCMA), Turkish Clothing Industry Horizon 2010 Road Map Global Targets and Policies.

### 8.5 Prospects of the Turkish T/C industry

The prospects for the Turkish T/C industry lie in the performance of the textiles industry which has dual roles within the T/C industry: Exporting its own products and providing raw material to clothing industry whose long-term strategy is also strongly based on exports. While the competitiveness of the textile industry determines the competitiveness of the clothing industry, the factors that either determine or influence the competitiveness of the former are mostly rooted in the relation between cotton prices and exchange rates. In the Aegean region of Turkey, with world class, quality cotton production, the production level has been decreasing due to low profitability in recent years, leading to import of quality cotton from Egypt. The imported cotton used in production is around 20%. There has to be a significant effort to develop a national policy to give incentives to cotton producers to boost the production again. Taking into account the shift of consumer tastes to products made from cotton, in the next ten years this could be in Turkey's favour.

The slowly developing clothing retailing in Turkey could gain momentum if the government develops national policies to attract the foreign retail chains through various means such as the 'sectoral foreign trade firms' (a special firm category for foreign investors) and support of 'office-shops abroad'. The T/C industry has to widen its perspective to create new opportunities and market diversification, and has to develop capabilities to design and innovate for increasing product diversity so as to maintain and improve its competitiveness in the world markets.

After 2005, experts think that clothing will be affected more than textiles. Indeed textiles have already been liberalised and experienced the negative impacts of this liberalisation. Since most of the competitors of Turkey are among the world cotton producers, the cotton based clothing products are expected to be affected most at the beginning. The efforts to decrease the negative impacts have been started since 2000 under the support and aegis of the EU support programs

to develop a Fashion Institute and training programs to increase the share of skilled employees in employment. The industry is well equipped and thus is ready for the competition in this sense. The average age of the machines is around five years. In the last 10 years the investments in the machinery and equipment were enormous. In 2003 alone, two billion USD was invested.

Some other experts consider that small firms that rely on non-branded products will be hugely affected after 2005 and be erased from the market. For the medium size and large companies they do not see any reason to compete with East Asian countries like China, particularly in quality. They even think that the real competitors of Turkey will be the fashion producer countries like Italy, and say that China will be one of Turkey's markets rather than its competitor if Turkey can successfully manage to specialise in upper middle class products. Also today's competitors Tunisia and Morocco will highly likely become partners in the Pan-Euro-Mediterranean Zone, particularly in the era of production blocks in the world T/C industry created by the developing countries (i.e. East Asian, Indian, Latin American and Pan-Euro-Med Zone). In accordance with these ideas, some experts even say that the main competitor of Turkey is itself. Unfortunately, experts agree that there is lack of coordination in the industry, which is urgently needed for taking action and getting prepared for phase-out of the import quotas and hence the accelerating competition in world markets. The near future will be determined according to how successful Turkey is in coordinating its targets, resources and capabilities.

## 9. Company profiles

Similar to the Italian T/C industry, the firms in the Turkish T/C industry show a variety of different organisational structures. Some, especially big ones, are vertically integrated with heavy investment in new process technologies; and some, especially small and medium sized ones, are decentralised and specialised in particular phases of the production process, relying on their relations with other firms in the cluster for other phases.<sup>53</sup> Vertically integrated firms include all the production processes starting from spinning to weaving, dyeing and finishing and even clothing in most cases.

231 firms in textiles industry have received ISO certificates from various organizations such as RWTUV, KEMA, MOODY IC, AST, SGS, BVQI, ABS QE and Turkish Standardisation Institute since 1998, whereas in clothing industry this number is much lower (34).<sup>54</sup>

As mentioned in chapter 8, Turkish T/C firms aim at establishing themselves with globally recognised brands in order to compete against potential competitors. Especially clothing companies are successful in achieving this goal. They have started introducing their brand names abroad through fashion fairs, some of which are organised by ITKIB for the Turkish brand manufacturers.<sup>55</sup> Denim producers are particularly successful in foreign markets, namely the US and the EU.

For the product marketing and distribution activities, the T/C brand manufacturer firms either set up a foreign sales office (e.g. Erak Giyim) or cooperate with big domestic distributor companies (e.g. Damat/Tween). The former helps functional upgrading of the firm whereas the latter helps networking capabilities. While big firms are strong enough to follow the world trends through their own resources and efforts, the SMEs – the main component of the restructuring of T/C industry – which often possess insufficient resources to keep up with world competition on their own, have recently gained access to a programme of bank loans subsidised by KOSGEB. Moreover, Turkish SMEs in T/C industry make use of programmes that are funded by the EU. Since 2000, these EU-funded projects aim at improving the infrastructure of the T/C industry in Turkey in accordance with the *acquis*, providing technical support and introducing expertise into the undeveloped parts of the sector. These projects are conducted in collaboration with universities and government organisations in the area of total quality management, development

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<sup>53</sup> See R.M. Locke, 1995, *Remaking the Italian Economy*, Ithaca, NY: Cornell University Press.

<sup>54</sup> The list of these firms can be obtained from the website of Quality Association (KALDER), [www.kalder.org.tr](http://www.kalder.org.tr)

<sup>55</sup> News from <http://www.textileonly.com/TextileOnly/tr/info/news/news.htm>, 23.01.2003

of R&D and training in the sector. The support project to the quality infrastructure in Turkey has started in 2001, coordinated by Quality Association (Kalder). It focuses on informing the public and private agents in the sector with regard to quality accreditation, certification, monitoring, etc.

The top ten Turkish T/C firms are shown in Tables 33a and 33b.

Table 33a

## Top ten Turkish Textiles and Clothing firms, 2002 (First 1-5 companies)

Rank	Ranking in 2002 Fortune 500 of ISO	Firms and enterprises	Net Sales from Production, 2002 (mn TL)	Net profit/loss, 2002 (bn TL)	Exports. 2002 (bn TL, as otherwise mentioned)	Location (City/Region)	Year of foundation	Ownership (state, private, foreign)	Product categories	Certificates	Notes
1	35	İSKO DOKUMA İŞLETMELERİ SANAYİ VE TİCARET A.Ş.	357.382.559			Bursa (Marmara Region)	1989	private	Woven fabrics (denim -stretch, novelty and overdyed, casual and sportswear - cotton-strech, 100% cotton, dyed yarns and velvet, home textiles - curtains and upholstery)		
2	37	BİLKONT DIŞ TİCARET VE TEKSTİL SAN. A.Ş.	341.572.862			Corlu, Tekirdag (Marmara Region)	1994	private	yarn and fabrics	ISO 9001 and Oeko-tex-100	a vertically integrated company with 1100 employees
3	40	SANKO TEKSTİL İŞLETMELERİ SAN.VE TİC. A.Ş.	324.521.485			Gaziantep (South East Anatolia)	1977	private	raw cotton yarn, Karde, Penye and mixed yarns, melange (mixed and 100% cotton), Open End (100% cotton, mixed, melanj), twisted yarns, yarns with lycra (core-spun), etc.	ISO 9002; Supima, Cotton USA and Egyptian Cotton certificates; Belcoro certificate (by Schlafhorst) for Open End production, organic products (Skal International).	
4	47	YEŞİM TEKSTİL SANAYİ VE TİCARET A.Ş.	299.644.095		200 mn USD	Bursa (Marmara Region)	1983	private	Textiles (75% cotton ad 25% polyester): raw fabrics, cotton knitted products, home textiles; and clothing		a vertically integrated company with round 5000 employees
5	62	KORDSA SABANCI DUPONT ENDÜSTRİYEL İPLİK VE KORD BEZİ SANAYİ VE TİCARET A.Ş.	259.597.968	27,598	228,714			private - foreign (JV)	Nylon 6.6 Industrial Yarns ( Type 728 AND Type 802 ) - Tire Cord Fabric (TCF), Single End Cord (SEC), Mechanical Rubber Goods (MRG), Webbing, Ropes and Fish Nets	ISO 9001(1991); BS 7750 (1994); BS 8800 (1996); EMAS REPORT (1996); ISO 14001 (1997); OHSAS 18001 (2000)	German FDI. In-house occupational health, safety and environment training related to their task and professions. The duration and scope of the training are extended to serve specific needs.

Source: Istanbul Chamber of Industry, <http://www.iso.org.tr>

Table 33b

Top ten Turkish Textiles and Clothing firms, 2002 (first 6-10 companies)

Rank	Ranking in 2002 Fortune 500 of ISO	Firms and enterprises	Net Sales from Production, 2002 (mn TL)	Net profit/loss, 2002 (bn TL)	Exports. 2002 (bn TL, as otherwise mentioned)	Location (City/Region)	Year of foundation	Ownership (state, private, foreign)	Product categories	Certificates	Notes
6	69	ZORLU LİNEN DOKUMA EMPRİME KONFEKSİYON SANAYİ VE TİCARET A.Ş.	238.317.611		80% of production is exported.	Luleburgaz, Kırklareli (Marmara Region)	1997	private	Woven and knitted fabrics, and home textiles	ISO 9002 (1999) (by German RWTUV); ISO 14001 (2001)	<u>Brand</u> : Tac
7	96	ERAK GİYİM SAN. VE TİC. LTD. ŞTİ.	182.393.027		90 mn USD	Cerkezkoy, Istanbul	1984	private	denim products		<u>Number of employees</u> : 2200 <u>Brand</u> : Mavi Jeans. Export to the 28 countries including USA, Canada and European countries with a volume of 3.170.000 pieces in 2002.
8	113	AKIN TEKSTİL A.Ş.	157.002.512	6,083	109.633	Istanbul (in 2000, new factory in Kırklareli/Luleburgaz)	1956	private	Textiles: yarn and fabrics (100% cotton, cotton-lycra, polyester-cotton, polyester-viscose, polyester-viscose-lycra, tactel, tencel, linen, filament, PU-moulded); clothing: trousers		<u>first in Turkey</u> : automatic quality control and packaging. Own R&D. Spanish designer. Produces its own electricity.
9	120	ALTINYILDIZ MENSUCAT VE KONFEKSİYON FABRİKALARI A.Ş.	144.906.728	702	50,150	Istanbul	Textiles: 1952; Clothing: 1971	private	<u>Textiles</u> : superfine woolen fabrics for suits, woolen kashmir, woolen moher, woolen silk, kamgarn for suits, woolen lycra, woolen cotton fabrics, linen and linen mixed fabrics; <u>Clothing</u> : men and women outerwear	ISO 9001 (1992) and Oeko-tex 100, Woolmark license, Lycra approved producer.	<u>Brands</u> : Fabrika in 2000 as 'mix and match' format and Network in 1999 for men and women outerwear. <u>Capacities</u> : yarn factory 5.5ton/day, weaving 32,000m/day, dyeing and finishing 35,000 m/day. Since 2003 introduced New Formula Technology.
10	124	MENDERES TEKSTİL SAN. VE TİC. A.Ş.	143.979.538	15,404	126,333	Denizli		private	% 100 cotton woven and knitted fabrics, polyester and cotton mixed fabrics, fabric for curtains and upholstery, collar lining, dress interfacing, bed linen and sheet, pillow case, kitchen set, table cloth, towel.		Vertically integrated home textiles company with 3650 employees. Investments in weaving and knitted products since 1996. In-house training to employees.

Source: Istanbul Chamber of Industry, <http://www.iso.org.tr>



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### **List of interviewees**

Mrs. Zuhale Bilek, Istanbul Textile and Clothing Exporters' Association (ITKIB), Head of EU and Agreements Department.

Mrs. Ulkem Genc Yaman, Turkish Clothing Manufacturers' Association (TCMA), Head of International Relations and Research Department.

Mr. Emrah Ongut, State Planning Organisation, Textile and Clothing Commission, Expert.

Mr. Mehmet Attila Sogut, Small and Medium Industry Development Organisation (KOSGEB), Consultant to the Head of KOSGEB.

Dr. Mehmet Kucukcirkin, Small and Medium Industry Development Organisation (KOSGEB), Sectors Assembly General Coordinator.

Dr. Husniye Guler, Small and Medium Industry Development Organisation (KOSGEB), Co-director of the project on “Turkish Vocational Training in Clothing Industry and Quality Control Laboratories in Textile Industry”, coordinated by EU-KOSGEB.

Mr. Adnan Selcuk Erginoz, Ministry of Industry and Trade, General Directorate of Industry Research and Development, Branch manager.

Mr. Murat Inanc, Oziplik-Is (Weaving, Yarn, Trikotage, and Clothing industry Employees' Association), General Secretary.

Mr. Muharrem Erdogan, Ar-Teks Ltd., President (operating in sub-sector of clothing).

Mr. Abdullah Baki, Mavi Jeans, Planning Manager (operating in production, marketing and distribution of denim products).

### **Published Interviews (benefited as expert views)**

Prof. Isik Tarakcioglu, General Manager of Textile Research Center and Head of Ege (Aegean) University Textile and Ready-wear Research Application Institute, “China Nightmare in Textiles”, interview published in Turkiye Newspaper, [www.turkiyegazetesi.com](http://www.turkiyegazetesi.com) , “Creating brandnames saves Turkish textiles”, interview in Kobi-Efor, [www.kobi-efor.com.tr](http://www.kobi-efor.com.tr).

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Umut Oran, President of Euratex Clothing Group, of International Clothing Foundation and of Turkish Clothing Manufacturers' Association, interview published in ITO-Vizyon (monthly magazine of Istanbul Chamber of Trade), June 2003.

## APPENDICES FOR TABLES AND FIGURES

### SUMMARY TABLES

#### Overview of the Turkish Textile and textile products industry (DB) 2002\*

		Textile & Clothing (DB)	Textiles (17)	Clothing(18)
Number of enterprises **		3229	1727	1502
Production (at current prices)	mn EUR	11,143	7854	3289
Production (at current prices)	mn TL	15,920,750,681	11,221,797,968	4,699,228,489
Production growth	%	10.2	12.5	3.3
Value added (at current prices)**	mn EUR	6422	4349	2073
Value added (at current prices)**	mn TL	15920757113	4751905062	2265094881
Employment**	1000 people	380	224	156
Employment growth**	%	1.33	0.17	3.05
Annual gross wages**	EUR	3321	3686	2797
Exports to the World	1000 USD	12127.9	5543.7	6584.2
Imports from the world	1000 USD	2845.4	2500.5	344.9
EU share in exports to the world (DB)	%	66.9	59.3	72.9
EU share in imports from the world	%	48.9	45.9	70.5
Exports to the EU(15)	mn EUR	9011.9	3412.7	5599.1
Imports from the EU(15)	mn EUR	1465.5	1188.9	276.6
Trade balance with the EU(15)	mn EUR	7546.4	2223.8	5322.5
EU market shares	%	12.7	13.3	12.4

\* based on quarterly data, 2002.

\*\* values in 2001 (based on annual data, 2001).

Source: State Institute of Statistics, Turkey

#### Trade partners of Turkey in T/C exports and imports with the world

Top 5 countries for exports to the world		
Textile & Clothing (DB)	Textiles (17)	Clothing(18)
Germany (DE)	Germany (DE)	Germany (DE)
United States of America (US)	United States of America (US)	United Kingdom (GB)
United Kingdom (GB)	United Kingdom (GB)	United States of America (US)
France (FR)	France (FR)	France (FR)
Netherlands (NL)	Netherlands (NL)	Netherlands (NL)

Top 5 countries for imports from the world		
Textile & Clothing (DB)	Textiles (17)	Clothing(18)
Italy (IT)	Italy (IT)	Spain (ES)
Germany (DE)	Germany (DE)	Italy (IT)
People's Republic of China (CN)	People's Republic of China (CN)	People's Republic of China (CN)
India (IN)	India (IN)	United Kingdom (GB)
South Korea (KR)	South Korea (KR)	Germany (DE)

Source: United Nations Trade Database

## APPENDIX 1

Table A1/1a

Industrial production index, 1997 = 100							
	1997	1998	1999	2000	2001	2002	2003
<b>D</b>	100	100.1	95.9	102.1	92.4	102.5	112.1
<b>DB</b>	100.0	96.6	90.4	98.7	94.2	103.8	106.1
<b>17</b>	100.0	93.6	87.0	95.7	90.9	102.3	104.7
<b>18</b>	100	106.7	102	108.7	105.3	108.8	110.7

Source: State Institute of Statistics, Turkey; own calculations

Table A1/1b

Employment index (1997=100)										
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
<b>DB</b>	72.2	72.8	73.1	82.2	92.1	100.0	100.0	91.9	96.9	98.2
<b>17</b>	78.3	81.2	80.3	82.8	92.4	100.0	101.3	90.5	94.8	94.9
<b>18</b>	62.6	59.6	61.8	81.1	91.6	100.0	98.0	94.2	100.3	103.3
<b>D</b>	83.9	84.6	80.5	85.8	91.8	100.0	102.4	95.3	98.0	92.9

Source: Table 6

Table A1/2

Number of firms according to the number of employees - textiles and textile products industry						
	1997	1998	1999	2000	2001	Total
<b>10--- 24</b>	977	953	867	818	884	4499
<b>25--- 49</b>	867	989	849	886	936	4527
<b>50--- 99</b>	571	635	553	546	558	2863
<b>100--- 199</b>	420	447	355	396	415	2033
<b>200--- 499</b>	280	275	223	291	292	1361
<b>500--- 999</b>	86	89	75	104	105	459
<b>1000+</b>	53	56	43	47	39	238
<b>Total</b>	5251	5442	4964	5088	5230	

Source: State Institute of Statistics, Turkey

Table A1/3

Distribution of employees according to gender in some work categories in total manufacturing								
			1997	1998	1999	2000	2001	
Production workers	Technical personnel	High level	Male	22440	23587	22489	23427	23322
			Female	4202	4020	3851	4352	4807
	Middle level	Male	29643	29505	28976	29793	29535	
		Female	4139	4087	4298	4366	5096	
	Formen, production chief, etc.	Male	69880	69875	65871	65519	63801	
		Female	7197	7076	6286	7020	6858	
Workers	Male	597796	617523	577526	595650	546499		
	Female	186262	185654	163795	172864	167779		
Administrative and other personnel	Administration personnel	Male	32694	34713	33266	33695	34354	
		Female	6805	7147	7365	7709	8265	
	Office personnel	Male	62805	62452	60058	59809	57892	
		Female	33217	34323	32186	33022	32090	
	Laboratory personnel	Male	4908	5486	5689	5169	6088	
		Female	2687	3034	3286	3279	3120	
	Other personnel	Male	85499	91131	82395	83082	78522	
		Female	14864	13607	13359	13497	13799	
<b>Total employment</b>			1165038	1193220	1110696	1142253	1081827	

Source: State Institute of Statistics of Turkey

Table A1/4

Distribution of employees according to gender in some work categories in textiles and textile products industry (DB)								
			1997	1998	1999	2000	2001	
Production workers	Technical personnel	High level	Male	3815	3967	3570	4527	4463
			Female	1182	1318	1074	1531	1724
	Middle level	Male	5441	5859	5739	5907	6360	
		Female	1578	1593	1615	1545	1893	
	Formen, production chief, etc.	Male	18470	18761	16742	17559	18052	
		Female	4458	4444	3787	4126	4151	
Workers	Male	174062	174367	166967	173321	175045		
	Female	123195	122181	106489	115288	114279		
Administrative and other personnel	Administration personnel	Male	6822	7291	6465	6950	7624	
		Female	2326	2575	2214	2500	2919	
	Office personnel	Male	11518	12238	10845	11035	10944	
		Female	9757	10378	8854	9201	9204	
	Laboratory personnel	Male	871	825	1004	1006	1003	
		Female	1065	1223	1178	1309	1266	
	Other personnel	Male	15889	14747	13514	13805	14981	
		Female	6606	5361	5832	5526	6224	
<b>Total employment</b>			387055	387128	355889	375136	380132	

Source: State Institute of Statistics of Turkey

Table A1/5

Distribution of employees according to gender in some work categories in textiles industry (17)								
			1997	1998	1999	2000	2001	
Production workers	Technical personnel	High level	Male	2576	2845	2591	3487	3210
			Female	539	689	603	924	745
		Middle level	Male	3701	4264	4299	4264	4542
			Female	711	870	843	802	1003
		Formen, production chief, etc.	Male	13601	13961	12256	13100	12775
			Female	1949	2023	1529	1839	1732
	Workers	Male	121086	119858	113384	116929	115580	
		Female	58769	60791	47925	51761	52191	
Administrative and other personnel	Administration personnel	Male	3993	4472	4016	4151	4558	
		Female	1071	1194	1049	1219	1416	
	Office personnel	Male	6967	7560	6357	6641	6686	
		Female	4946	5713	4630	4663	4698	
	Laboratory personnel	Male	750	692	757	826	866	
		Female	920	1077	1034	1050	1077	
	Other personnel	Male	10942	10177	9393	9281	10231	
		Female	3488	2867	3000	2764	2764	
<b>Total employment</b>			236,009	239,053	213,666	223,701	224,074	

Source: State Institute of Statistics of Turkey

Table A1/6

Distribution of employees according to gender in some work categories in clothing industry (18)								
			1997	1998	1999	2000	2001	
Production workers	Technical personnel	High level	Male	1239	1122	979	1040	1253
			Female	643	629	471	607	979
		Middle level	Male	1740	1595	1440	1643	1818
			Female	867	723	772	743	890
		Formen, production chief, etc.	Male	4869	4800	4486	4459	5277
			Female	2509	2421	2258	2287	2419
	Workers	Male	52976	54509	53583	56392	59465	
		Female	64426	61390	58564	63527	62088	
Administrative and other personnel	Administration personnel	Male	2829	2819	2449	2799	3066	
		Female	1255	1381	1165	1281	1503	
	Office personnel	Male	4551	4678	4488	4394	4258	
		Female	4811	4665	4224	4538	4506	
	Laboratory personnel	Male	121	133	247	180	137	
		Female	145	146	144	259	189	
	Other personnel	Male	4947	4570	4121	4524	4750	
		Female	3118	2494	2832	2762	3460	
<b>Total employment</b>			151,046	148,075	142,223	151,435	156,058	

Source: State Institute of Statistics of Turkey

Table A1/7

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<b>Percentage rates of capacity utilization in the manufacturing industry by quarter , (Weighted by production value)%</b>						
	Year	<b>Annual average</b>	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
D	1997	<b>79.4</b>	76.9	79.4	80.9	80.3
	1998	<b>76.5</b>	77.5	76.1	77.3	75.1
	1999	<b>72.3</b>	70.3	75.7	71.6	72.0
	2000	<b>75.9</b>	72.7	76.3	76.6	78.1
	2001	<b>70.9</b>	69.8	69.9	71.1	72.8
	2002	<b>75.4</b>	73.8	75.9	77.1	74.9
17	1997	<b>83.0</b>	81.9	80.9	85.6	83.7
	1998	<b>77.4</b>	81.3	78.6	77.8	72.2
	1999	<b>73.9</b>	74.5	75.4	71.2	78.1
	2000	<b>79.4</b>	77.1	78.7	81.5	80.3
	2001	<b>76.3</b>	75.8	75.4	75.8	78.0
	2002	<b>79.4</b>	82.6	84.0	69.2	81.8
18	1997	<b>82.7</b>	81.7	85.1	81.4	82.5
	1998	<b>78.5</b>	79.7	80.2	76.6	77.8
	1999	<b>75.5</b>	74.4	75.4	73.2	79.0
	2000	<b>82.7</b>	82.5	82.6	83.5	82.2
	2001	<b>79.0</b>	77.5	78.3	79.9	80.3
	2002	<b>83.1</b>	83.7	84.8	79.0	84.8

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**Source:** State Statistical Institute (SIS) of Turkey



## APPENDIX 2

Table A2/1

Average monthly wages by sectors in 2001, mn TL	
Sectors (converted from ISIC Rev3)	Average monthly wages
DA	702.2
DB	295.1
DC	313.0
DD	305.0
DE	642.6
DF	1608.7
DG	1073.8
DH	580.2
DI	513.6
DJ	642.7
DK	567.7
DL	536.5
DM	854.8
DN	589.7
D	525.1

**Source:** SIS of Turkey

## APPENDIX 3

Table A3/1

<b>Turkey</b>						
<b>Exports to the world</b>						
NACE rev.1, 3-digit (based on SITC rev.3), 1000 USD						
	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
NACE 171	512.3	603.8	587.2	531	569.3	461
NACE 172	1075.2	1137.3	1037.9	1092.8	1189.4	1339
NACE 174	799.3	920.2	933.7	1000.8	1046.5	1246.6
NACE 175	661.8	617.8	568.6	638	676.8	757.2
NACE 176	183.2	191.3	223.1	210.9	238.9	263.6
NACE 177	1265.3	1366.2	1251.9	1166.5	1266.4	1476.3
<b>NACE 17 (calc)<sup>1)</sup></b>	<b>4497.1</b>	<b>4836.6</b>	<b>4602.4</b>	<b>4640</b>	<b>4987.3</b>	<b>5543.7</b>
NACE 181	261.1	269.6	220.7	257.1	270.9	242.4
NACE 182	5043.6	5352.5	4964.1	5030.2	5027.3	6203.5
NACE 183	137.6	78.9	85.4	82.6	100.3	138.3
<b>NACE 18 (calc)</b>	<b>5442.3</b>	<b>5701</b>	<b>5270.2</b>	<b>5369.9</b>	<b>5398.5</b>	<b>6584.2</b>
<b>NACE DB (17 + 18) (calc)</b>	<b>9939.4</b>	<b>10537.6</b>	<b>9872.6</b>	<b>10009.9</b>	<b>10385.8</b>	<b>12127.9</b>
<b>NACE D</b>	<b>23363.5</b>	<b>24022.9</b>	<b>24108.2</b>	<b>25189.9</b>	<b>28845.6</b>	<b>32649.2</b>
<b>NACE DB in % of D</b>	<b>42.5</b>	<b>43.9</b>	<b>41.0</b>	<b>39.7</b>	<b>36.0</b>	<b>37.1</b>
<b>NACE 17 in % of D</b>	<b>19.2</b>	<b>20.1</b>	<b>19.1</b>	<b>18.4</b>	<b>17.3</b>	<b>17.0</b>
<b>NACE 18 in % of D</b>	<b>23.3</b>	<b>23.7</b>	<b>21.9</b>	<b>21.3</b>	<b>18.7</b>	<b>20.2</b>

Source: UN-DB, WIIW calculations

Table A3/2

<b>Turkey</b>						
<b>Imports from the world</b>						
NACE rev.1, 3-digit (based on SITC rev.3), 1000 USD						
	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
NACE 171	476.2	434.7	347.9	461.1	388.9	584.7
NACE 172	1058	1055.9	858.4	895.3	863.7	1355.1
NACE 174	27.8	26.7	24.9	29.3	28.5	27.1
NACE 175	345.1	354.1	311.9	332.5	296.1	389.7
NACE 176	108.4	105.6	75.5	88	74.3	104.6
NACE 177	29.4	34.8	34.6	49.5	39.6	39.3
<b>NACE 17 (calc)<sup>1)</sup></b>	<b>2044.9</b>	<b>2011.8</b>	<b>1653.2</b>	<b>1855.7</b>	<b>1691.1</b>	<b>2500.5</b>
NACE 181	9.4	12.2	5.7	6.2	19.5	19.5
NACE 182	182.8	180.7	149.6	190.3	163.6	205.6
NACE 183	84.5	55.6	30.3	69.6	94	119.8
<b>NACE 18 (calc)</b>	<b>276.7</b>	<b>248.5</b>	<b>185.6</b>	<b>266.1</b>	<b>277.1</b>	<b>344.9</b>
<b>NACE DB (17 + 18) (calc)</b>	<b>2321.6</b>	<b>2260.3</b>	<b>1838.8</b>	<b>2121.8</b>	<b>1968.2</b>	<b>2845.4</b>
<b>NACE D</b>	<b>40825</b>	<b>39787.8</b>	<b>34655.3</b>	<b>44505.9</b>	<b>32922</b>	<b>40682.9</b>
<b>NACE DB in % of D</b>	<b>9.9</b>	<b>9.4</b>	<b>7.6</b>	<b>8.4</b>	<b>6.8</b>	<b>8.7</b>
<b>NACE 17 in % of D</b>	<b>8.8</b>	<b>8.4</b>	<b>6.9</b>	<b>7.4</b>	<b>5.9</b>	<b>7.7</b>
<b>NACE 18 in % of D</b>	<b>1.2</b>	<b>1.0</b>	<b>0.8</b>	<b>1.1</b>	<b>1.0</b>	<b>1.1</b>

Source: UN-DB, WIIW calculations

Table A3/3

<b>Turkey</b>						
<b>Trade balance with the world</b>						
NACE rev.1, 3-digit (based on SITC rev.3), 1000 USD						
	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
NACE 171	36.1	169.1	239.3	69.9	180.4	-123.7
NACE 172	17.2	81.4	179.5	197.5	325.7	-16.1
NACE 174	771.5	893.5	908.8	971.5	1018	1219.5
NACE 175	316.7	263.7	256.7	305.5	380.7	367.5
NACE 176	74.8	85.7	147.6	122.9	164.6	159
NACE 177	1235.9	1331.4	1217.3	1117	1226.8	1437
<b>NACE 17 (calc)<sup>1)</sup></b>	<b>2452.2</b>	<b>2824.8</b>	<b>2949.2</b>	<b>2784.3</b>	<b>3296.2</b>	<b>3043.2</b>
NACE 181	251.7	257.4	215	250.9	251.4	222.9
NACE 182	4860.8	5171.8	4814.5	4839.9	4863.7	5997.9
NACE 183	53.1	23.3	55.1	13	6.3	18.5
<b>NACE 18 (calc)</b>	<b>5165.6</b>	<b>5452.5</b>	<b>5084.6</b>	<b>5103.8</b>	<b>5121.4</b>	<b>6239.3</b>
<b>NACE DB (17 + 18) (calc)</b>	<b>7617.8</b>	<b>8277.3</b>	<b>8033.8</b>	<b>7888.1</b>	<b>8417.6</b>	<b>9282.5</b>
<b>NACE D</b>	<b>-17461.5</b>	<b>-15764.9</b>	<b>-10547.1</b>	<b>-19316</b>	<b>-4076.4</b>	<b>-8033.7</b>

Note: NACE 173 'finishing of textiles' is an activity which is not matched by any SITC product group

Source: UN-DB, WIIW calculations

Table A3/4

<b>Share of Turkey's trade with the EU (15) and the US in its trade with the world, 2002, in %</b>				
	Exports		Imports	
	EU (15)	USA	EU (15)	USA
NACE 171	60.6	5.6	38.5	0.2
NACE 172	43.2	11.0	38.1	3.5
NACE 174	65.8	22.5	52.7	4.5
NACE 175	36.1	9.4	73.8	3.1
NACE 176	33.7	2.0	54.2	0.8
NACE 177	81.2	13.6	68.6	0.8
<b>NACE 17</b>	<b>59.3</b>	<b>13.4</b>	<b>45.9</b>	<b>2.4</b>
NACE 181	76.1	8.2	18.1	0.5
NACE 182	73.8	16.8	63.0	1.6
NACE 183	32.4	9.9	94.4	0.2
<b>NACE 18</b>	<b>72.9</b>	<b>16.3</b>	<b>70.5</b>	<b>1.1</b>
<b>NACE DB</b>	<b>66.9</b>	<b>15.0</b>	<b>48.9</b>	<b>2.3</b>

Source: United Nations Trade Database

Table A3/5

Turkey - Percentage share of Textiles and textile products in total manufacturing, %						
	1997	1998	1999	2000	2001	2002
exports to the world	42.5	43.9	41.0	39.7	36.0	37.1
exports to the EU(15)	53.0	50.8	47.6	46.6	44.2	43.9
imports from the world	9.9	9.4	7.6	8.4	6.8	8.7
imports from the EU(15)	6.0	6.0	5.6	4.9	7.0	6.7

Source: UN-DB, WIIW calculations and Eurostat, author's own calculations.

Table A3/6

Share of exports to the EU(15) in exports to the world							
	China	Turkey	India	Hong Kong	Morocco	Tunisia	Bangladesh
NACE 171	11.5	60.6	21.0	0.6	16.1	90.6	31.2
NACE 172	8.1	43.2	19.5	3.0	39.3	99.3	11.6
NACE 174	16.0	65.8	32.9	5.1	61.9	97.9	23.8
NACE 175	11.0	36.1	34.9	2.5	7.4	92.5	34.9
NACE 176	1.5	33.7	37.9	0.0	6.5	100.0	0.7
NACE 177	4.6	81.2	61.3	23.1	9.0	96.4	64.0
<b>NACE 17</b>	9.1	59.3	26.2	16.4	18.9	96.6	42.6
NACE 181	19.2	76.1	74.6	0.0	76.4	100.0	0.0
NACE 182	11.7	73.8	37.4	22.4	19.8	98.5	47.8
NACE 183	19.8	32.4	71.4	17.8	100.0	0.0	0.0
<b>NACE 18</b>	12.3	72.9	39.2	22.4	20.2	98.5	47.8
<b>NACE DB</b>	10.9	66.9	32.6	20.5	20.0	98.2	46.8
Share of imports to the EU(15) in imports to the world							
	China	Turkey	India	Hong Kong	Morocco	Tunisia	Bangladesh
NACE 171	9.9	38.5	6.4	7.9	68.5	84.2	0.6
NACE 172	3.3	38.1	15.3	6.9	85.7	91.6	0.5
NACE 174	15.1	52.7	7.1	2.7	78.8	86.1	1.6
NACE 175	7.1	73.8	16.6	10.8	86.7	94.8	4.1
NACE 176	1.7	54.2	4.4	3.9	95.3	93.5	0.0
NACE 177	3.3	68.6	7.1	2.7	98.9	98.0	100.0
<b>NACE 17</b>	5.1	45.9	11.9	5.9	85.9	91.7	0.7
NACE 181	64.9	18.1	0.0	11.2	100.0	100.0	0.0
NACE 182	6.2	63.0	12.3	4.2	96.7	95.7	1.3
NACE 183	64.1	94.4	11.1	7.3	100.0	100.0	0.0
<b>NACE 18</b>	12.9	70.5	12.2	4.4	96.7	95.7	1.3
<b>NACE DB</b>	5.8	48.9	12.0	5.2	87.2	92.8	0.8

Source: Author's own calculations, based on UN-DB, WIIW calculations.

Table A3/7

<b>Export quantity index (1994=100)</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
<b>General</b>	<b>100.0</b>	<b>106.4</b>	<b>116.7</b>	<b>132.4</b>	<b>145.2</b>	<b>149.8</b>	<b>166.7</b>	<b>203.7</b>	<b>235.9</b>	<b>287.6</b>
D Manufacturing	100.0	107.7	117.1	136.3	151.0	156.3	179.1	217.3	256.7	313.3
17 Textiles	100.0	100.9	117.5	142.9	164.7	175.5	198.3	219.6	255.4	295.9
18 Wearing apparel	100.0	112.2	109.0	130.6	137.0	128.6	135.7	151.1	182.1	193.6
<b>Import quantity index (1994=100)</b>										
<b>General</b>	<b>100.0</b>	<b>129.4</b>	<b>167.4</b>	<b>206.9</b>	<b>201.8</b>	<b>199.4</b>	<b>264.6</b>	<b>198.9</b>	<b>240.3</b>	<b>320.2</b>
D Manufacturing	100.0	129.3	172.2	219.0	212.6	211.7	283.8	209.1	256.1	346.1
17 Textiles	100.0	140.9	193.3	202.9	187.8	178.8	221.9	202.6	301.4	370.5
<b>Export price index (1994=100)</b>										
<b>General</b>	<b>100.0</b>	<b>112.6</b>	<b>107.6</b>	<b>102.5</b>	<b>98.4</b>	<b>91.7</b>	<b>87.8</b>	<b>85.5</b>	<b>84.0</b>	<b>92.4</b>
D Manufacturing	100.0	114.7	109.1	101.7	96.9	90.5	86.6	85.1	83.5	92.8
17 Textiles	100.0	118.4	108.5	100.9	101.1	90.3	83.6	82.2	79.9	88.9
18 Wearing apparel	100.0	119.6	110.3	104.3	99.1	95.7	88.6	85.6	86.3	97.5
<b>Import price index (1994=100)</b>										
<b>General</b>	<b>100.0</b>	<b>116.8</b>	<b>109.7</b>	<b>100.2</b>	<b>96.1</b>	<b>90.8</b>	<b>94.9</b>	<b>94.6</b>	<b>93.5</b>	<b>100.9</b>
D Manufacturing	100.0	117.4	107.5	97.9	98.1	90.7	88.5	88.8	88.1	93.9
17 Textiles	100.0	110.2	97.6	97.0	99.2	88.2	84.2	85.9	82.5	87.4
18 Wearing apparel	100.0	134.4	95.5	109.8	125.6	121.2	107.7	87.8	78.7	103.6
<b>Ratio of foreign trade (1994=100)</b>										
<b>General</b>	<b>100.6</b>	<b>96.5</b>	<b>98.1</b>	<b>102.4</b>	<b>102.4</b>	<b>101.2</b>	<b>92.5</b>	<b>90.4</b>	<b>89.9</b>	<b>91.6</b>
D Manufacturing	100.6	97.8	101.5	103.9	98.8	99.7	97.8	95.9	94.8	98.8
17 Textiles	100.6	107.5	111.4	104.5	102.0	102.4	99.3	95.7	96.9	101.8
18 Wearing apparel	102.2	92.5	119.0	97.5	79.6	80.6	82.5	101.7	110.1	96.4

Source: State Institute of Statistics, Turkey

Figure A3/1

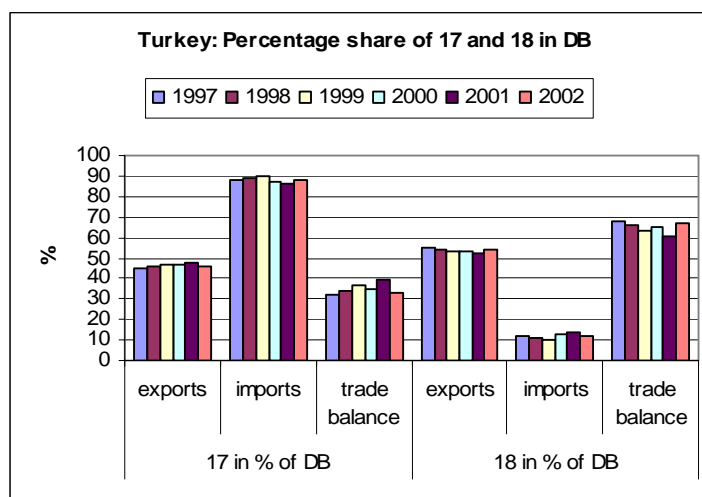


Figure A3/2

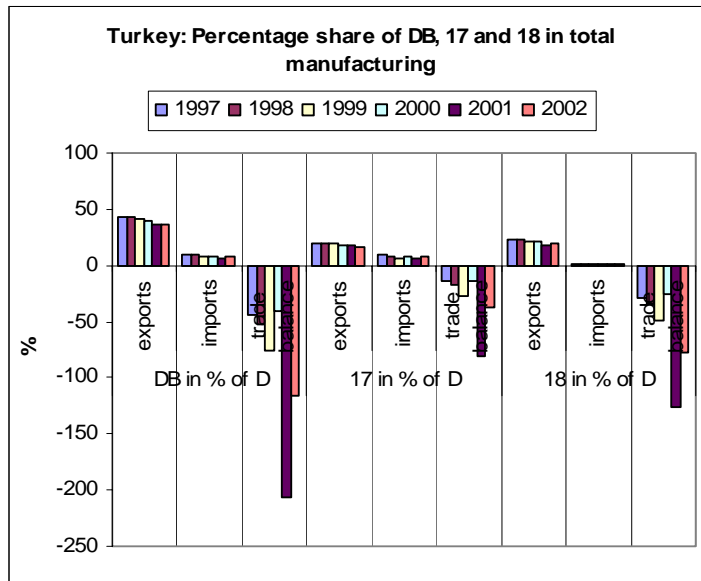


Figure A3/3

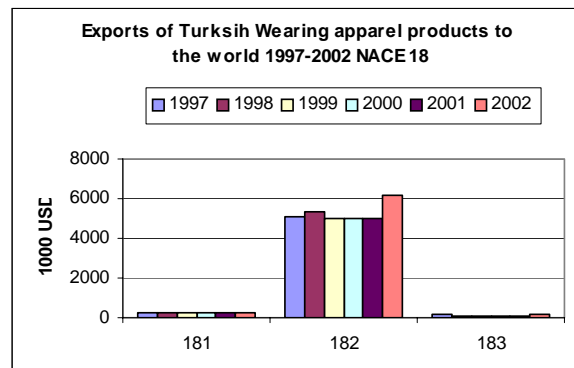
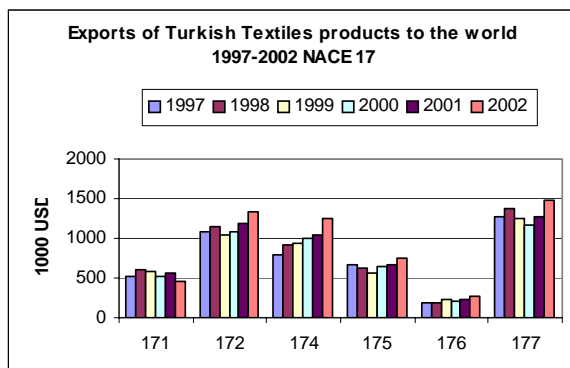


Figure A3/4

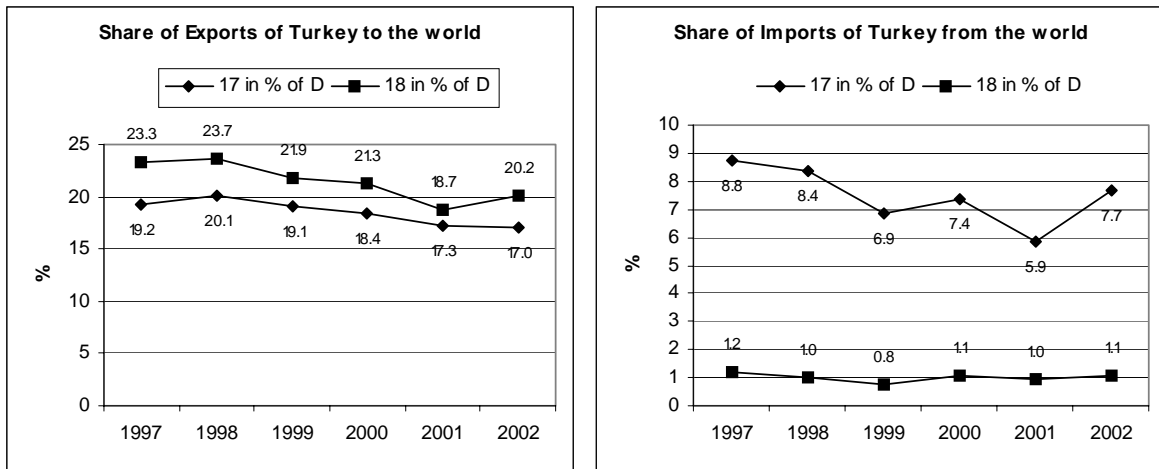


Figure A3/5

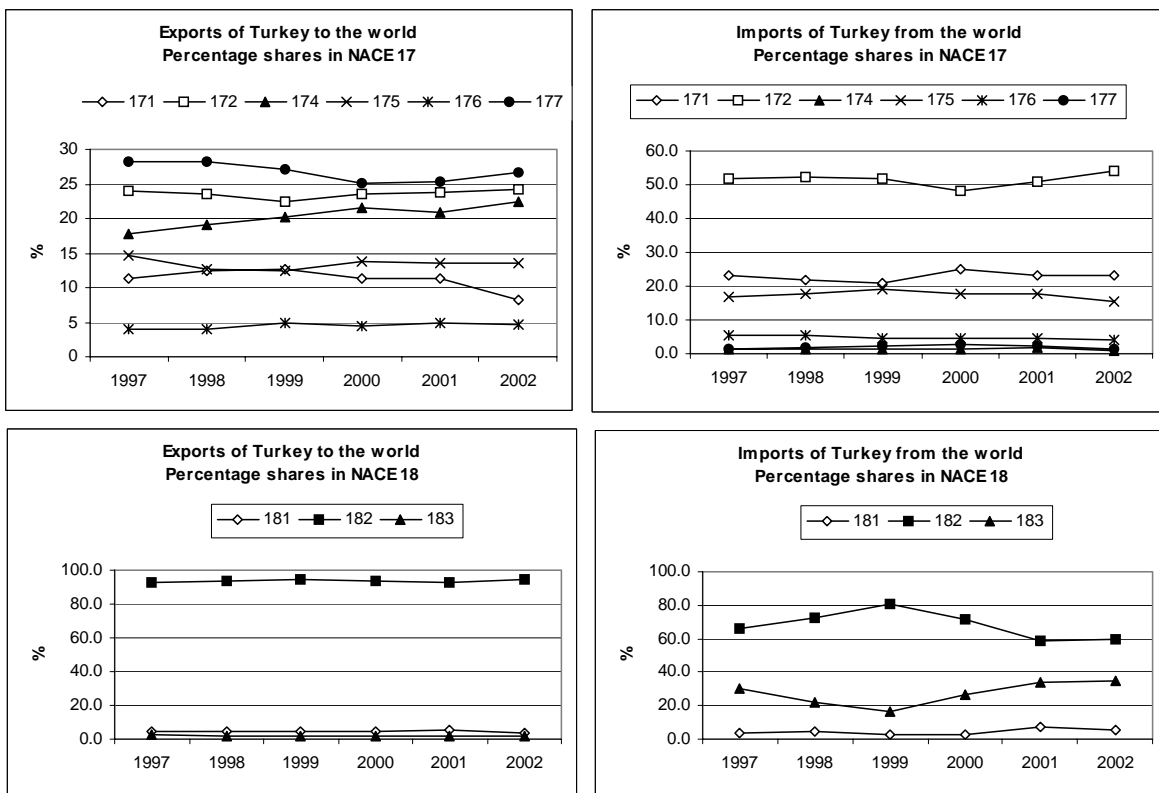
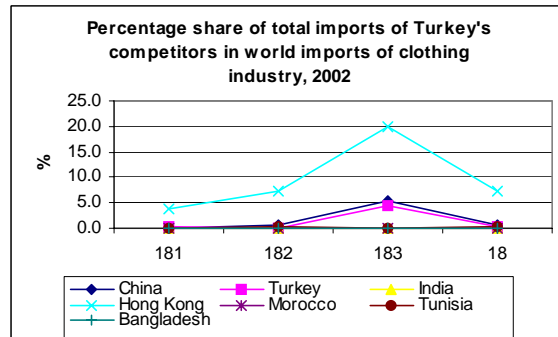
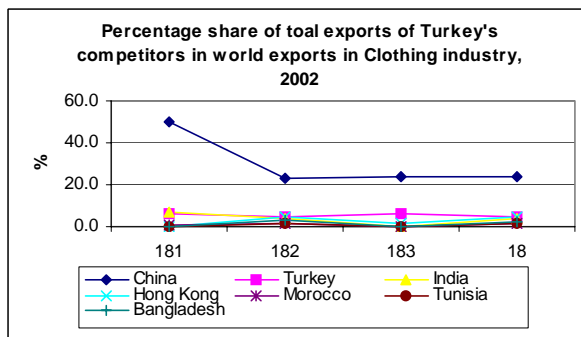
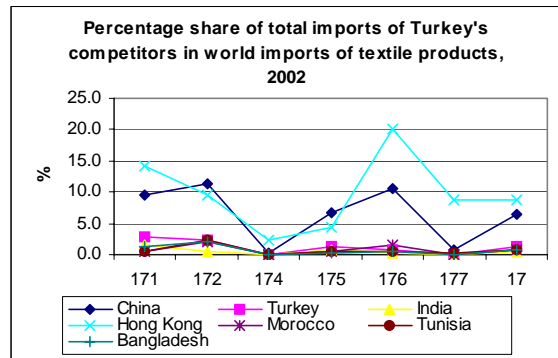
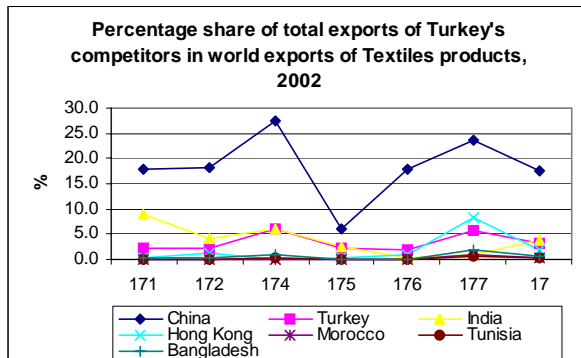


Figure A3/6





## APPENDIX 4

Table A4/1

<b>AUTHORISED FDI INFLOWS TO TURKEY WITHIN THE 1980-2003 PERIOD, million USD</b>			
<b>YEARS</b>	<b>AUTHORIZED FDI (MILLION \$)</b>	<b>NO. OF FOREIGN CAPITAL COMPANIES**</b>	<b>REALIZATIONS (MILLION \$)***</b>
1980	97	78	35
1981	338	109	141
1982	167	147	103
1983	103	166	87
1984	271	235	113
1985	234	408	99
1986	364	619	125
1987	655	836	115
1988	821	1,172	354
1989	1.512	1,525	663
1990	1.861	1,856	684
1991	1.967	2,123	907
1992	1.82	2,330	911
1993	2.063	2,554	746
1994	1.478	2,830	636
1995	2.938	3,161	934
1996	3.836	3,582	914
1997	1.678	4,068	852
1998	1.646	4,533	953
1999	1.7	4,950	813
2000	3.477	5,328	1.707
2001	2.725	5,841	3.288
2002	2.243	6,280	1.042
2003*	1.208	6,511	150
<b>Total</b>	<b>35.203</b>	<b>---</b>	<b>16.372</b>
<p>* As of June 30, 2003</p> <p>** Cumulative</p> <p>*** Data for 2003 is between Jan-May</p> <p><b>Important note:</b> All types of permits issued by General Directorate of Foreign Investment are abolished by Foreign Direct Investment Law No. 4875 enacted on June 17, 2003. Therefore any statistics on base of permits will not be published from this date on.</p> <p><b>Source:</b> Republic of Turkey, Undersecretariat of Treasury, <a href="http://www.treasury.gov.tr">www.treasury.gov.tr</a></p>			

Table A4/2

<b>Authorised FDI, million USD</b>			
Years	Manufacturing	%	Total
1980	88,76	92%	97,00
1981	246,54	73%	337,51
1982	98,54	59%	167,00
1983	88,93	87%	102,74
1984	185,92	69%	271,36
1985	142,89	61%	234,49
1986	193,47	53%	364,00
1987	293,91	45%	655,24
1988	490,68	60%	820,52
1989	950,13	63%	1.511,77
1990	1.214,06	65%	1.861,30
1991	1.095,48	56%	1.967,26
1992	1.274,28	70%	1.819,96
1993	1.568,59	76%	2.063,39
1994	1.107,29	75%	1.477,61
1995	1.996,48	68%	2.938,32
1996	640,59	17%	3.835,97
1997	871,81	52%	1.678,21
1998	1.017,29	62%	1.646,44
1999	1.123,22	66%	1.699,57
2000	1.105,49	32%	3.477,42
2001	1.244,59	46%	2.725,28
2002	892,01	40%	2.242,93
2003	710,65	59%	1.207,99
<b>TOTAL</b>	<b>18.641,60</b>	<b>%53,0</b>	<b>35.203,27</b>

Important : All types of permits issued by General Directorate of Foreign Investment are abolished by Foreign Direct Investment Law No. 4875 enacted on June 17, 2003. Therefore any statistics on base of permits will not be published from this date on.

**Source:** Republic of Turkey, Undersecretariat of Treasury,  
www.treasury.gov.tr

Table A4/3

<b>Number of firms with FDI, 2004, by investment years</b>		
	<b>Clothing</b>	<b>Textiles</b>
FDI came before 1980s	0	1
FDI came during 1980s	38	15
FDI came during 1990s	125	42
FDI came after 2000	60	9
<b>Total</b>	<b>223</b>	<b>67</b>

**Source:** Foreign Capital Association, YASED

Table A4/4

<b>Number of firms with FDI, 2004, by share of foreign partner</b>		
	<b>Clothing</b>	<b>Textiles</b>
below and equal to 49	183	58
between 50 and 89	98	21
over 90 (up to 99)	56	14
<b>Total</b>	<b>337</b>	<b>93</b>

Note: Some companies are counted more than once due to the presence of more than one foreign partners.

Source: Foreign Capital Association, YASED

Table A4/5

<b>Number of firms with FDI, 2004, by total capital (million TL)</b>		
	<b>Clothing</b>	<b>Textiles</b>
less than 1000	32	10
between 1,000-10,000	41	10
between 10,000-100,000	73	22
between 100,000-1,000,000	52	13
between 1,000,000-10,000,000	19	12
above 10,000,000	6	0
<b>Total</b>	<b>223</b>	<b>67</b>

Source: Foreign Capital Association, YASED

Table A4/6

<b>Number of firms with FDI, 2004, by regions</b>		
<b>Regions</b>	<b>Clothing</b>	<b>Textiles</b>
Marmara	158	44
Aegean	37	10
Mediterranean	17	3
Black Sea	5	1
Middle Anatolia	5	6
Eastern Anatolia	0	0
Southern Anatolia	1	3
<b>Total</b>	<b>223</b>	<b>67</b>

Source: Foreign Capital Association, YASED

Table A4/7

Number of firms with FDI, 2004, by regional origins		
	Clothing	Textiles
EU (15)	161	49
Eastern Europe, exc NMS (Romania, Russian Federation, Albania, Ukraine, Azerbaijan)	7	1
North and Central America (USA, Canada, Panama)	12	8
Middle East (Syria, Iran, Iraq, Saudi Arabia, Israel, Jordan, Lebanon, Quwait, Yemen)	26	6
Asia and East Asia (China, Taiwan, South Korea, India, Afghanistan)	9	6
EFTA (Liechtenstein, Switzerland, Norway)	18	5
Other (Cayman islands, Australia, Northern Cyprus, Etopia, Gibraltar)	3	2
<b>Total</b>	<b>236</b>	<b>77</b>

Note: Some companies have more than one individual foreign partners from different countries.

Source: Foreign Capital Association, YASED

## APPENDIX 5

Table A5/1

Turkey's surveillance applications: countries and product categories

Cat.	Definition	Azerbaijan	Bangladesh	United Arab Emirates	China	Armenia	Estonia	Georgia	Iran	Cambodia	Kazakhstan	Kyrgyzstan	Laos	Latvia	Lithuania	Macedonia	Egypt	Mongolia	Moldova	Uzbekistan	Russian Federation	Tajikistan	Turkmenistan	Ukraine	Vietnam
1	Cotton yarn																								
2	Woven cotton fabrics																								
2a	a)Woven cotton fabrics																								
3	Woven Synthetic fabrics																								
4	Knitted T-Shirt, underwear, etc.																								
5	Knitted S-Shirt, pullover, jacket, vest, etc.																								
5a	a)Knitted S-Shirt, pullover, jacket, vest, etc.																								
6	Woven trousers and shorts																								
7	Women's shirts and blouses																								
8	Men's shirts																								
9	Cotton towel fabrics																								
12	Socks																								
13	Knitted briefs																								
15	Woven women overcoats																								
16	Woven men suits																								
17	Woven men suit and blazers																								
19	Woven handkerchiefs																								
20	Woven bed linen																								
21	Woven parka and wind jackets, etc.																								
22	Synthetic yarn from staple fibre																								
23	Man-made yarn from staple fibres																								
24	Knitted pyjamas and bathrobes																								
26	Women's dresses																								
27	Women's skirts																								
28	Knitted trousers																								
29	Woven women's suits																								
31	Bras																								
32	Woven velvet and plush fabrics																								
33	Woven bags from polyethylene and polypropylene																								
36	woven fabrics from man-made flament yarns																								
37	Woven fabrics from man-made staple fibres																								
39	Woven table cloths, etc.																								
40**	Woven curtains																								
41*	Synthetic flament yarns								*																
50	Woven wool fabricis																								
61***	Woven ribbons																								
66**	Blankets (exc. Knitted ones)																								
67**	Knitted accessories																								
72**	Swimming suits																								
73	Knitted sportswear																								
74	Knitted women's suits																								
78	Other woven apparel																								
83	Other knitted apparel																								
84**	Shawls, kerchieves, scarves, etc. (exc knitted)																								
85**	Bow ties, neckties, etc. (exc. knitted)																								
86**	Corset, suspenders, garter																								
87**	Gloves (exc. knitted)																								
88**	Long and short socks																								
90	Synthetic cord, ropes, etc.																								
91**	Tents																								
96**	Non-woven fabrics and articles made of those																								
112**	Other articels from non-woven fabrics																								
115	Linen and ramie yarns																								
117	Fabrics woven made from linen and ramie																								
118	Woven linen and ramie table clothes																								
136	Woven mensucat from silk and silk remnants																								
141**	blankets and battaniyeler ve diz battaniyeleri																								
156	Knitted silk women's blouses																								
157	Other knitted apparel																								
159	Woven silk apparel																								
160	Silk handkercheif																								
161	Other woven apparel																								

Source: www.itkib.org.tr

Table A5/2

## Turkey's quota applications: countries and product categories

CAT.	Product categories	Argentina	Belarussia	Bosnia Herzegovina	Brasil	China	Indonesia	Philippines	South Korea	Croatia	India	Hong Kong	North Korea	Macao	Malaysia	Egypt	Uzbekistan	Pakistan	Peru	Singapore	SriLanka	Thailand	Taiwan	Ukraine	Vietnam	Serbia-Montenegro
		1	Cotton yarn																							
2	Woven cotton fabrics																									
2a	a)Woven cotton fabrics																									
3	Woven Synthetic fabrics																									
3a	a)Woven Synthetic fabrics																									
4	Knitted T-Shirt, underwear, etc.																									
5	Knitted S-Shirt, pullover, jacket, vest, etc.																									
5a	a)Knitted S-Shirt, pullover, jacket, vest, etc.																									
6	Woven trousers and shorts																									
6a	a)Woven trousers																									
7	Women's shirts and blouses																									
8	Men's shirts																									
9	Cotton towel fabrics																									
10	Knitted gloves																									
12	Socks																									
13	Knitted briefs																									
y13	a)Knitted briefs																									
14	Woven men overcoats																									
15	Woven women overcoats																									
16	Woven men suits																									
17	Woven men suit and blazers																									
18	Woven underwear, pyjamas and bathrobes																									
y18	a)Woven underwear, pyjamas and bathrobes																									
19	Woven handkerchiefs																									
20**	Woven bed linen																									
y20	a)Woven bed linen																									
21	Woven parka and wind jackets, etc.																									
22	Synthetic yarn from staple fibre																									
23	Man-made yarn from staple fibres																									
24	Knitted pyjamas and bathrobes																									
y24	y)Knitted pyjamas and bathrobes																									
26**	Women's dresses																									
27**	Women's skirts																									
28	Knitted trousers																									
29	Woven women's suits																									
31	Bras																									
32	Woven velvet and plush fabrics																									
33	Woven bags from polyethylene and polypropylene																									
35	woven fabrics from synthetic filament yarns																									
36	woven fabrics from man-made filament yarns																									
37	Woven fabrics from man-made staple fibres																									
37a	a)Woven fabrics from man-made staple fibres																									
39**	Woven table cloths, etc.																									
y39	(y)Woven table cloths, etc.																									
41	Synthetic filament yarns																									
50	Woven wool fabrics																									
59	Carpets and other textiles for floor																									
61	Woven ribbons																									
67	Knitted accessories																									
68	Woven babies clothes and accessories																									
69	Knitted women petticoat, etc.																									
70	Sythetic women stockings																									
73	Knitted sportswear																									
74	Knitted women's suits																									
75	Knitted men's suits																									
76	Woven uniforms																									
77	Woven skiwear																									
78	Other woven apparel																									



Table A5/3

The impacts of Free Trade Agreements on Turkey's T/C Trade volume, % change 1997-2002												
	EFTA			BOSNIA - HERCEGOVINA			BULGARIA			CROATIA		
	Exports	Imports	Trade Balance	Exports	Imports	Trade Balance	Exports	Imports	Trade Balance	Exports	Imports	Trade Balance
<b>Textiles</b>	-67.6	-13.5	-123.1	146.8	-94.1	163.5	341.9	81.4	613.0	7.6	435.6	5.1
<b>Clothing</b>	-6.3	-35.4	-5.9	-59.3	83.2	-59.4	-2.0	501.4	-15.7	-73.6	1485.9	-74.9
	CZECH REPUBLIC			ESTONIA			HUNGARY			ISRAEL		
	Exports	Imports	Trade Balance	Exports	Imports	Trade Balance	Exports	Imports	Trade Balance	Exports	Imports	Trade Balance
<b>Textiles</b>	198.9	1571.4	-345.2	14.3	-99.7	17.2	52.6	-64.3	69.5	27.7	390.3	-1.1
<b>Clothing</b>	-36.4	351.1	-37.6	4773.5	1493.8	4807.6	-88.0	381.8	-88.9	1015.5	46.6	1172.2
	LATVIA			LITHUANIA			MACEDONIA			POLAND		
	Exports	Imports	Trade Balance	Exports	Imports	Trade Balance	Exports	Imports	Trade Balance	Exports	Imports	Trade Balance
<b>Textiles</b>	1140.6	-11.9	-1513.6	90.4	1136.6	70.7	-29.7	-28.0	-29.8	338.5	-60.1	700.1
<b>Clothing</b>	2948.6	-55.0	5209.4	-93.5	0.0	-93.9	-3.5	34158.5	-6.5	-73.3	2283.2	-74.9
	ROMANIA			SLOVAK REPUBLIC			SLOVENIA					
	Exports	Imports	Trade Balance	Exports	Imports	Trade Balance	Exports	Imports	Trade Balance	Exports	Imports	Trade Balance
<b>Textiles</b>	33.1	9.4	36.9	184.9	12.0	-284.2	7.1	-18.2	20.5			
<b>Clothing</b>	-77.6	1590.3	-82.0	-80.7	78.5	-81.0	230.3	1857.6	217.9			

Source: Undersecretariat of Foreign Trade, www.dtm.gov.tr



Table A5/4

**IMPORTANCE OF THE TEXTILE-CLOTHING INDUSTRY IN THE PANEUROMEDITERRANEAN  
AREA - 2000-2001**

EURATEX  Country	Textile and Clothing importance						Total Population	
	Weight of T&C in Total Employment		Share of T&C in industrial production		Share of T&C exports in total merchandise (WTO)		World Bank 2001 Millions	%
<b>U.E.-15</b>	<b>2000</b>	<b>6.90%</b>	<b>2000</b>	<b>3.80%</b>	<b>2001</b>	<b>4.30%</b>	<b>377.398</b>	<b>50.00%</b>
Norway	1998	2.10%	2001	1.60%	n.a.		4.519	0.60%
Switzerland	1998	4.50%	2001	3.20%	n.a.		7.209	1.00%
Bulgaria	1996	19.00%	1999	8.20%	2001	18.20%	8.124	1.10%
Czech Rep	1998	7.90%	1995	3.50%	2001	5.90%	10.265	1.40%
Estonia	2001	19.00%	2001	13.00%	2000	12.00%	1.355	0.20%
Hungary	2000	13.70%	2000	3.30%	2001	5.70%	10.187	1.30%
Latvia	2001	16.20%	2001	9.30%	2001	5.90%	2.341	0.30%
Lithuania	2001	27.00%	2001	16.00%	2001	15.90%	3.488	0.50%
Poland	2001	12.30%	1999	5.70%	2001	7.60%	38.653	5.10%
Romania	2000	18.00%	2000	5.90%	2001	26.40%	22.397	3.00%
Slovak Rep	2001	10.70%	2001	3.30%	2001	7.20%	5.408	0.70%
Slovenia	2000	16.30%	2000	9.30%	2001	7.70%	1.989	0.30%
Malta	1996	15.40%	1996	10.90%	n.a.		0.392	0.10%
Cyprus	1999	16.40%	1999	8.90%	n.a.		0.761	0.10%
Egypt	n.a.		1996	13.60%	2001	24.00%	65.173	8.60%
Israel (*)	1996	15.00%	1996	7.90%	n.a.		6.363	0.80%
Jordan	1997	9.00%	1997	4.50%	1999	5.90%	5.031	0.70%
Morocco	2001	40.00%	2001	16.00%	2001	34.90%	29.173	3.90%
Syria	n.a.		2001	7.00%	2001	15.00%	16.593	2.20%
Tunisia	2001	46.00%	2001	19.50%	2001	42.40%	9.675	1.30%
Turkey	1998	34.10%	1998	16.50%	2001	33.80%	66.23	8.80%
Other PanEuroMed. (+)	n.a.		n.a.		n.a.		62.761	8.30%
<b>TOTAL ZONE (**)</b>	<b>15.0%</b>		<b>8.4%</b>		<b>12.60%</b>		<b>755.485</b>	<b>100%</b>

(\*) : Israel employment : only cotton industry - n.a. : not available - L : leather included - x : UNIDO 99 - p : Partex

(\*\*) Average of available data for EU-15, Efta, CEEC and Turkey

(+) Albania, Algeria, Bosnia-Herzegovina, Croatia, Lebanon, Fed. Rep. Yugoslavia, FYR Macedonia, West Bank Gaza,

**Source:** EURATEX, National Associations, DREE, ITMF, EIU, UNCTAD, WTO, World Bank; cited in W. H. Lakin, Director-General Euratex, "Textiles and Clothing in the wider Pan Euro Mediterranean Area. 2005-2010: the Crucial Five Years", Presentation to the Aachen Textile Conference, 26th November 2003.