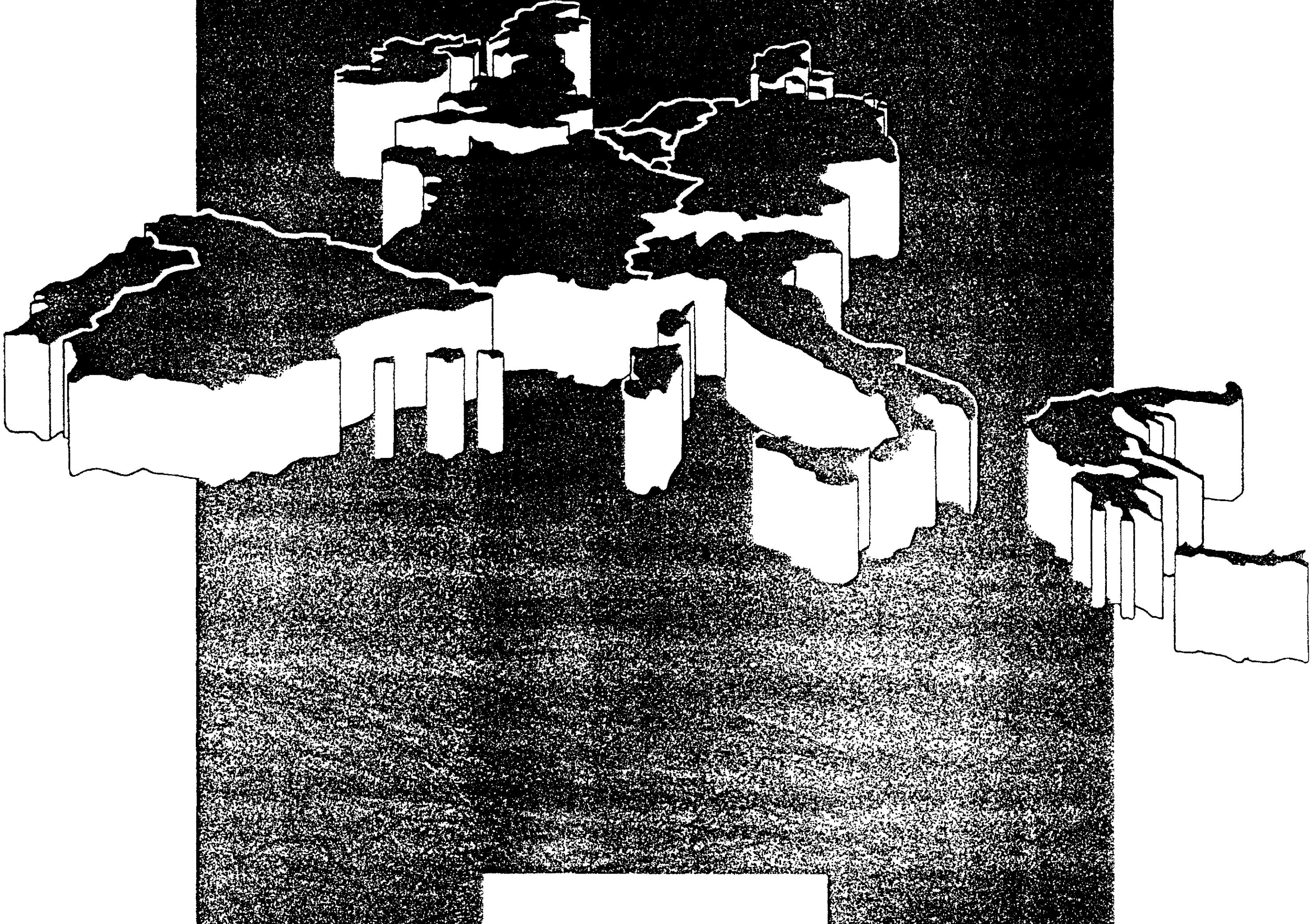

L'Observatoire européen
du textile et de l'habillement

FIGURES
AND FACTS
IN THE WORLD
OF TEXTILES

THE EC TEXTILE AND CLOTHING INDUSTRY 1990/91

- A Factual Report -

Prepared by the OETH at the request of the Directorate General III of the European Commission

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INTRODUCTION

The purpose of this report is to present a factual analysis of the situation in the EC textile and clothing industry and the recent trends.

In the analysis below, the emphasis has been on changes in 1991, where this information has been available. Comparisons have also been made with the situation in 1985. Information for individual countries is given, where appropriate.

The first subject discussed is production in the EC textile and clothing industries. This is followed by an extended treatment of the evolution of external and internal EC trade. Special emphasis has been put also on Outward Processing Trade.

An attempt has been made to estimate changes in apparent consumption of knitwear and woven clothing. This is considered alongside the changes in producer, consumer and foreign trade prices that have taken place.

Structural changes are considered next, followed by an analysis of changes by sectors of activity. The analysis here has concentrated on changes in the EC as a whole. A special study of technical textiles is also discussed.

Finally, related topics have been considered. These include trends in textile machinery production and sales, and changes in labour costs in spinning and weaving. Cotton yarn and fabric manufacturing costs are compared between a number of countries, including Germany, India, Korea, Japan and the USA.

1. SUMMARY

1.1. The production of textiles in the Community fell by 3.5% in 1991, in volume terms, as compared with a fall of 1.4% the previous year. Textile production fell below its 1985 level. The fall in clothing production in 1991 was smaller than in textiles, while knitwear production was unchanged. Clothing production was well below its 1985 level.

Textiles and clothing production did worse than the average for manufacturing as a whole in 1991, and far worse over the whole period 1985-1991.

Analysing changes in output by sector of activity, it appears that production fell in all textile sectors in 1991, except for hosiery, carpets and non-woven fabrics. A study of technical textiles, indicates that these account for about 1 million tonnes of fibre consumed in the EC, representing about 21% of all textiles. The technical textile sector is growing at a much faster rate than other textile sectors in the EC, but is less developed than in Japan and the United States.

1.2. Imports of textiles from outside the EC rose by 3% in tonnage terms in 1991, as compared with 1990, while exports were little changed. There was a sharp rise of 23% in clothing imports, but clothing exports were unchanged. The balance of trade deteriorated for both textiles and clothing, in tonnage and ECU terms. For textiles and clothing together, there was a rise in the balance of trade deficit, in ECU terms, of some 50% in relation to that of 1990.

Looking at developments in 1991 and at the whole period since 1985, textile and clothing exports were both up, but the rise in imports was much greater in both sectors, and was especially marked in the case of clothing.

Intra-EC trade in textiles scarcely rose in 1991, but intra-EC trade in clothing continued to rise strongly. As compared with 1985, intra-EC imports of both textiles and clothing have risen less fast than extra-EC imports. On the export side, intra-EC trade has been more buoyant than extra-EC trade.

Very large increases in both intra- and extra-EC imports, of both textiles and clothing, have occurred in the cases of Spain and Portugal. Joining the Community has clearly had a considerable effect on their trade in textiles and clothing.

1.3. A study of the EC's Outward Processing Trade, carried out by OETH, shows that OPT clothing imports into the EC, from all countries, amounted in 1990 to 9% of total EC imports of clothing. From those countries which account for the bulk of the EC's OPT trade, the main OPT imports amounted in 1990 to some 30% of total EC clothing imports from those countries (the figure may possibly be even higher than this). OPT imports into the EC have been rising fast in recent years.

1.4. In 1991, the apparent consumption of woven clothing rose by an estimated 2%, and of knitwear by 13% (in current value terms). However, stocks were reported to have risen between the two years, as did prices. Whether consumption in the EC actually rose so much in 1991 must be doubtful, especially as regards woven clothing.

1.5. Producer and consumer prices for clothing rose by similar amounts - some 4%, which was a little less than the general rise in prices, in 1991. Import prices, in all sectors of textiles and clothing, changed little between the two years. Indeed, import prices have fallen, in all textile and clothing sectors since 1985, in ECU terms, while export prices have fallen in several sectors also.

1.6. Structural changes: Overall employment in the textile industry fell by more than 6% between 1988 and 1990. In clothing, the fall in employment over the same period was closer to 7%. The fall in both cases was less steep in 1990 than in the previous year. The number of enterprises employing over 20 continued to fall.

The value of investments in the Community's textile industry fell by 1% in current prices in 1990 (the latest available year), but there had been a rise in the previous year of 1.3%. In real terms, there was probably a fall in investment in both years. In clothing, investment rose in current prices by 6.4% between 1988 and 1989, and by 4% between 1989 and 1990. There was almost certainly a real increase between the first two years.

Turnover figures show a continual rise, in constant prices, between 1988 and 1990, for textiles, and a small rise for clothing in 1990. The index of production, which showed a fall in 1990, is however probably a more useful indicator of trends.

1.7. The textile machinery market was hit by a severe recession in 1991. Deliveries of open-ended spinning machines and looms fell generally by 25-30%. Deliveries to the EC were much less buoyant than to Asian countries.

1.8. As regards labour costs in spinning and weaving, the top 20 countries in 1991 were the same as in 1990, while the labour costs in CIS and former Eastern Europe decreased, as the result of substantial devaluations. Denmark was the highest cost EC country.

1.9. In 1991, spinning manufacturing costs were at the same level, in US dollars, in Germany and India. In weaving, on the other hand, India's manufacturing costs were 73% of the German level. When raw material costs are added, total yarn costs in Germany were 25% above the Indian level. For total fabric costs, the cost differential between Germany and India was little changed from that for weaving.

2. RECENT DEVELOPMENTS IN THE PRODUCTION OF TEXTILES AND CLOTHING

In 1991 the production of textiles and clothing in the Community fell by more than in the previous year.

2.1. The volume index of textile production (including knitwear) had fallen in 1990 by 1.4%, as compared with 1989, but in 1991 the fall compared with 1990 was much greater, at 3.5% (Table 1), while knitwear production was virtually unchanged, as compared with the previous year.

In 1991, the index of textile production in the EC fell below its 1985 level (to 99.2), after having reached a peak of 4% above that level in 1989. The index of knitwear production was higher, at 102.7, in volume terms, in the same period.

2.2. In the case of woven clothing, EC production fell in 1991, following a small fall in 1990. The fall in the index of clothing production in 1991 was 1.8%. The index of clothing production in 1991 (at 87.4) was well below its 1985 level.

2.3. These figures for textiles and clothing compare with a fall in the index of manufacturing production as a whole between 1990 and 1991 of 1%. The index of manufacturing production for the Community for 1991 was, at 116, well above its 1985 level. Textiles and clothing therefore did worse than the average for manufacturing in 1991, and far worse over the whole period 1985-1991.

2.4. Looking at individual Community countries, textile production fell in 1991 in all, while woven clothing production fell in all but Belgium, Denmark, Italy and Portugal. Over the whole period 1985 to 1991, the most marked changes in textile production have been the increases in Ireland, Portugal and Italy, and the falls in France, the UK and Denmark.

As regards clothing, increases in production have taken place in Belgium and Portugal, while marked falls have occurred in

Denmark, France, Ireland - and to a lesser extent in Germany. Spanish and Italian clothing production have fallen comparatively little.

Knitwear production in member states took different development paths. In Italy, for example, there has been a steady increase, to reach 128 of the 1985 level, by 1991. In France, knitwear production has been declining, to reach 83 in the same period. Similar developments were recorded in Germany.

3. EVOLUTION OF THE FOREIGN TRADE OF THE EUROPEAN COMMUNITY AND MEMBER STATES

3.1. EXTERNAL TRADE

Imports of textiles and clothing from outside the EC rose by 10% in terms of tonnage in 1991, as compared with 1990, while exports changed little. The balance of trade deteriorated, and the ratio of exports to imports fell from 58% to 53% in tonnage terms. In terms of ECUs, the rise in imports of textiles and clothing was higher than that in tonnage, while exports were little changed, resulting in a rise in the balance of trade deficit of some 50%, in relation to that of 1990 (Table 2).

3.1.1. Imports of textiles (excluding knitwear) from outside the EC rose by 3% in terms of tonnage in 1991, as compared with 1990, while exports were little changed. The balance of trade deteriorated, and the ratio of exports to imports fell from 79% to 77% in tonnage terms. In terms of ECUs, the rise in imports was higher than that in tonnage, while exports rose also. The balance in ECU terms remained strongly positive for the Community as a whole.

3.1.2. The rise in clothing imports (including knitwear) was very sharp in 1991 - much more so than in textiles. It was up 23% in tonnage terms, although exports were unchanged. As a result, the balance of trade in clothing deteriorated sharply in both tonnage and value terms. The export/import ratio fell to 18% in tonnage terms (from 22% in 1990), and to 36% in terms of value (from 45% in 1990).

Much the largest rise in clothing imports in 1991 came from countries with agreements with the EC (countries under the MFA, plus Taiwan). The increases from the four 'dominants' were small, but there were large increases from other countries in Asia and the Far East, including China (Table 3).

3.1.3. The US dollar strengthened in 1991 from the very low level it had reached in the last quarter of 1990, but it nevertheless remained at a comparatively low level throughout the year. This gave a continued stimulus to exports to the Community from the USA and from those countries in the Far East and elsewhere with currencies linked to the dollar. No doubt the greatest stimulus to imports into the Community, however, was the depressed condition of world markets, and the incentive that this gave to exporters to seek out the most profitable import markets.

3.1.4. Looking at the whole period since 1985, textile exports from the Community were at 108 of their 1985 level in 1991 in tonnage terms, while textile imports were 167. Clothing exports from the Community were 123 of their 1985 level, while clothing imports were 259. The increase in imports has therefore been much greater than in exports in both cases, and has been especially marked in the case of clothing (Tables 4 and 5).

It is interesting that the knitwear trade has been more buoyant than trade in woven clothing, in volume terms. Knitwear imports rose to 318 in 1991, and exports to 140 (1985=100). This rise was much greater than that for woven clothing - 244 for imports and 117 for exports, in volume terms (Table 7).

The industrialised countries remained, between 1985 and 1991, the main markets for MFA textile exports from the EC. The biggest increases in textile exports, in volume terms, were to countries covered by the textile policy, but from a very low level. These included Taiwan, dominant countries, and countries with arrangements, including Turkey. As regards clothing, the Community's exports of MFA clothing increased sizeably to Turkey, from a low level. They doubled to countries with agreements and

Taiwan, while to countries with arrangements the increase was similar.

3.1.5. EC's exports to the rest of the world are, in general, in a different price class from its imports. In 1991, the average value of the Community's textile exports outside the EC was 8.5 ECUs per kilo, as compared with 5.7 ECUs for imports into the Community. The comparable figures for woven clothing were 40.6 ECUs for exports and 18.7 ECUs for imports. For knitwear they were 27.5 ECUs and 15.1 ECUs respectively (Table 8). It is therefore obvious that the quality of EC exports was higher than that of its imports, and that different types of products were traded.

3.2. EXTERNAL AND INTERNAL EC TRADE

3.2.1. Volume indices for extra- and intra- EC trade for the period 1989-91 show that, on the import side, intra trade in textiles scarcely changed in 1991, while extra-EC imports rose. Intra-EC trade in clothing (including knitwear), on the other hand, continued to rise strongly in 1991, although at a smaller rate than that for extra-EC imports of clothing (Table 4).

On the export side, intra-EC trade in textiles rose by a small amount in 1991 - slightly less than the rise in extra-EC exports. Intra-EC trade in clothing, on the other hand, rose appreciably, while extra-EC exports altered little (Table 5).

The evolution and the importance of intra-EC trade can partly be explained by the fact that intra-EC trade includes two categories - the first is goods produced within the EC, the second is goods imported from outside the EC, and then traded within it.

3.2.2. It is clear from the index numbers for 1991, as compared with 1985, that, on the import side, intra-EC trade in both textiles and clothing has risen less fast than extra-EC trade. On the export side, intra-EC trade has been more buoyant, for both textiles and clothing, than extra-EC trade.

As was to be expected, intra-EC exports and imports, for textiles and for clothing, have risen since 1985 by broadly similar amounts for the Community as a whole. The extra-EC export and import figures illustrate, on the other hand, the greater rise in imports into the Community than exports from the Community, especially for clothing.

3.2.3. Looking at the trade since 1985 of individual Community countries - on the intra-EC side to begin with - the biggest increases for textile exports have been from the UK, Spain and Portugal, followed by Belgium and France. By far the biggest intra-EC textile import increases have occurred in the cases of Portugal and Spain. As regards clothing, the biggest increases in intra-EC exports were accounted for by Denmark, France, and Portugal, followed by the UK and Ireland. Intra-EC imports of clothing rose greatly in Spain and Portugal, and to a lesser extent in Greece - all from a very low level. This was without doubt one of the consequences for these countries of joining the European Community.

Turning to extra-EC trade, the biggest increases in textile exports since 1985 have been from France, Germany, Belgium and Spain. The biggest import increases in textiles have occurred in Spain, Portugal and Greece, from a low level. For clothing, exports from Greece have risen fastest, followed by Belgium, the Netherlands, France, Germany and Portugal. Clothing imports have risen a great deal in Spain and Portugal, followed by Greece. However in 1991, even with these substantial increases, Portugal accounted for only 0.1%, Greece for 0.2% and Spain for 2.2% of extra EC imports of clothing, in volume terms.

3.3. OUTWARD PROCESSING TRADE

A study has been carried out by OETH of the Community's Outward Processing Trade (OPT). This shows that total OPT clothing imports, of every MFA category, from all countries external to the EC, accounted in 1990 for some 9% of total EC imports of clothing in tonnage terms (Tables 2 and 10).

However, the main OPT clothing imports into the EC, from those countries which account for the bulk of the EC's OPT trade, amounted in 1990 to some 30% of total EC clothing imports from those countries (Table 9).

3.3.1. In 1990 OPT imports into the EC rose by some 21%, following a rise of 29% between 1988 and 1989 (Table 9).

Danish, Italian and French OPT imports showed the fastest rates of increase over the period 1988-90, but the Italian increase was from a very low starting point.

Germany is the biggest OPT importer (61% of the EC total in 1990), followed by Benelux and France. Yugoslavia has been the biggest OPT clothing exporter to the EC (31% of the main OPT clothing imports in 1990), followed by Poland, Morocco and Tunisia, in that order (Table 10). Germany has dealt mainly with Yugoslavia and Eastern Europe, and France with Morocco and Tunisia.

3.3.2. Looking at fabric exports from the EC, fabrics for Outward Processing represented some 7.5% of total EC textile exports. There are indications, from the figures for fabric exports and clothing imports, that the statistics may not necessarily cover the full extent of OPT. The proportion of OPT imports, from the main OPT suppliers to the EC, might be nearer 50% of total EC imports from these countries than 30%.

3.3.3. Changes in the source of OPT imports have been taking place, especially away from the former Yugoslavia to the countries of Eastern Europe. The overall size of the EC's OPT activities is likely to grow further in the future, as those countries which have in the past participated relatively little (such as Italy and the UK) turn increasingly to OPT.

4. APPARENT CONSUMPTION

The estimated apparent consumption of clothing in the Community rose by some 5% in 1991, in current value terms, as compared with 1990. However, the rise in the consumption of knitwear, at 13%, appears to have been much greater than that for woven clothing, at 2% (Table 11).

4.1. This rise in apparent consumption is scarcely surprising, given the increase of clothing imports in 1991. In ECU terms, knitwear imports rose by 32% and woven clothing imports by 20%.

Whether actual consumption in the Community rose so much in 1991 must be doubtful, especially as regards woven clothing. Stock increases were reported for both textiles and clothing in 1991, as compared with 1990 (see OETH Bulletin No.0, March 1992).

4.2. Producer prices for clothing rose by much the same amount as consumer prices for clothing, just over 4%. This was a little less than the general rise in prices (Table 12 and 13). Import prices, in all sectors of textiles and clothing, changed little between the two years. However, since 1985, import prices have fallen, in all textile and clothing sectors, in ECU terms. Export prices have fallen since 1985 in several sectors also (Table 8).

The movement in 1991 suggests that consumer prices for clothing rose in response to higher production and other costs within the Community, even though import prices were unchanged.It appears that they react to producer prices rather than to import prices.

5. STRUCTURAL CHANGE IN THE INDUSTRY

The industry has continued the process of restructuring. Compared with all manufacturing industry, the textiles and clothing sector accounted for some 12% in terms of employment and 6% in terms of the value of production.

The analysis below is based on the structural data which were available to the OETH, and in general were only until 1990.

5.1. Overall employment in both the textile and clothing industry has continued to fall. The total fell by 3.6% between 1988 and 1989, and by 3.1% between 1989 and 1990. The falls in employment, for enterprises with more than 20 employees, followed a similar pattern (Table 14).

Employment figures for the clothing industry show a fall in employment from 1989 to 1990 of 2.4%, following a fall from 1988 to 1989 of 4.5%. The proportion of the fall in clothing employment over the two years together was rather more than in textiles. However, in absolute terms, the loss in EC employment in textiles was in the region of some 110.000, and in clothing it was nearly 86.000, reflecting the smaller size of the clothing industry.

Employment figures for individual countries between 1989 and 1990 show falls in both textile and clothing employment for Germany, France, Italy, the Netherlands, the UK, Denmark, Spain and Greece. In Ireland both textile and clothing industry employment were up. Portugal was the only country, apart from Ireland, showing a rise in textile employment.

5.2. The <u>number of enterprises</u> employing over 20 continued to fall in textiles, but rose slightly in clothing since 1988. The total number of textile and clothing enterprises (including firms employing less than 20) rose in 1989, but fell in 1990: there seems to be no clear trend in the number of smaller firms in this sector. However, this can partly be explained by the fact that the smaller firms started the most recent process of restructuring later than the big ones.

5.3. The value of <u>investments</u> in the Community's textile industry fell by 1% (in current prices) in 1990, following a rise of 1.3% in 1989. Investment per employee in textiles in 1990 was highest in Benelux and Denmark (Table 15). Although it is not evident from the statistics, investment in knitwear (which is less costly) is included in textiles, and therefore in countries like Italy and Germany, where knitwear production is important, investment per employee is lower than would otherwise be the case.

Investments in the clothing industry were at a much lower level than in textiles, but rose by 6.4% between 1988 and 1989, and by 4% between 1989 and 1990.

In the absence of an appropriate price index, it is not easy to judge the increase in real investment over the period, but the figures suggest a fall in textile investment and a rise in clothing investment, at least between 1988 and 1989.

5.4. Turnover figures show a rise since 1988 for textiles, in constant prices. Turnover of clothing increased by 2% in 1990, after a fall in 1989. The changes in turnover between 1989 and 1990 appear to be out of line with the index of production. This is probably a more useful indicator of trends, and - as has been said - this shows a fall in 1990, as compared with 1989.

6. CHANGES BY SECTOR OF ACTIVITY

6.1. TEXTILES AND CLOTHING

Production of yarn and spun yarn is much the largest textile sector, in terms of tonnage, followed by woven fabrics and carpets (Table 6). Between 1990 and 1991 production fell in all textile sectors, except for hosiery, carpets and non-woven fabric (Table 7).

Imports fell in yarn and spun yarn and woven fabric in 1991, in tonnage terms, but rose in all the other textiles sectors. Exports rose in all sectors but simple ready-made goods.

As regards woven and knitted clothing, knitwear production is much larger than that of woven clothing, measured by the number of pieces produced. However, if expressed in tonnage terms, the relationship would most probably be the opposite. Imports and exports of knitwear and clothing have been discussed above.

6.1.1. Looking at individual sectors as a whole:

Yarn and spun yarn - Production within the EC is very important in supplying the EC market. Production has fallen since 1985, but imports have not changed. Import and export prices have approximately halved (Table 8).

As far as spun yarn is concerned, this sector also is very important in supplying the EC market. Production is down on 1985, imports are up and exports down, in volume terms. Import and export prices are down by 15% to 25%.

Woven fabric - Production has fallen slightly since 1985. Imports in 1991 are nearly one-half of production, and exports one-third (Table 6). Since 1985, imports and exports have risen by 45% and 28% respectively, but in 1991 imports were some 4% down on 1990 level. Import prices are down, but export prices slightly up.

Hosiery - Production, imports and exports all went up since 1985, but imports have more than doubled in that period. Hosiery import prices have fallen little, while export prices are well up.

Carpets - EC production increased by about one third since 1985, in tonnage terms, and exports continue to exceed imports. There has been a large rise in imports, especially between 1990 and 1991. Prices are down, especially for imports, but the unit price (ECU/kg) of imported carpets continues to be more than double that of the unit price of exports.

Non-woven fabric - EC production increased substantially since 1985, exports more than doubled in tonnage terms. Imports were up, but less than exports. Import unit prices were lower than for exports, throughout the period.

Knitwear - Imports are approximately one half of EC production, in value terms in 1991 (Table 11). Since 1985 however, the proportion has increased. Imports dominate exports, and have more than trebled in tonnage terms since 1985. Exports are up by more one-third. Foreign trade prices have fallen, especially for imports, but import unit prices were about one half of that of exports in 1991.

Woven clothing -Imports are less than one third of EC production, in value terms (Table 11). Since 1985 however, the proportion has increased. Imports dominate exports here also, and have risen much more than exports in tonnage terms. Import prices are down on 1985, but export prices are up by some 8%. In 1985 the unit price of exports was 80% higher and in 1991 it was some 120% higher than the unit price of imports.

6.2. TECHNICAL TEXTILES

The market for technical textiles in the EC is estimated (in the study 'Situation and perspective of Technical Textiles in the European Community', carried out by Werner International for the European Commission) at close to 1 million tonnes per year of fibre consumed, representing about 21% of all textiles. Technical textiles have replaced household textiles as the second most important sector of the market in terms of mill consumption.

The technical textile market is growing at a much faster rate than other textile sectors in the EC : 7.3% per annum, during the five years ending in 1990, as compared with 1.2% for apparel and 1.2% for household textiles.

6.2.1. The technical textiles sector in Europe is relatively much less developed than in Japan and the United States, where the sector accounts for 38% and 28% of textiles respectively. Werner concluded that the EC, relative to the USA and Japan, has the least developed technical textile sector of the three. The implication is that further significant growth can be anticipated.

6.2.2. Traditional textile markets such as tents, canvas products etc dominate the technical market. As a result, conventional fibres, such as cotton and high-tenacity fibres (nylon, polyester and viscose), are still the most important. High-tech fibres such as aramid and carbon account for only 2% of the fibres used.

Among end-uses, industry textiles dominate, with 43% of the market, followed by transportation (23%), leisure (12%), geotextiles (10%), medical (nearly 10%), and technical apparel (3%).

6.2.3. Measured by fibre consumption, Germany is the most important manufacturer, with 29% of the EC total, followed by France (23%), Italy and the UK. The industry consists mainly of medium size enterprises, although the man-made fibres it uses are produced by the large international firms.

6.2.4. A significant part of the investment in the EC textile industry in recent years, in all countries, has been in sectors producing technical textiles. Investment prospects are good, and the output of technical textiles in the Community is likely to continue to grow at a rapid rate.

7. RELATED TOPICS

7.1. TEXTILE MACHINERY TRENDS

A severe recession struck the textile machinery market in 1991, after a buoyant market in 1990 for ring-spinning machinery and an expansion in that year in weaving machinery sales. In 1991 deliveries of open-ended spinning machines and looms fell by 25-30% (Tables 16 and 17).

7.1.1. Spinning: Shipments of short-staple (cotton) spindles totalled 4.6 million in 1991. This was 8% less than in 1990. Two-thirds of the shipments were for Asia, down 6% on 1990. Shipments to other parts of the world fell by 11%. In Asia, shipments increased to India and (especially) Pakistan, but fell to Indonesia and Thailand. Shipments to EC countries and the USA accounted for 7% only of all investment in short-staple spindles, as against 12% in 1990.

Shipments of long-staple (wool) spindles were down 20% in 1991. Over half of the total shipments of 500,000 was for Europe, where shipments were down 9%. In Asia the fall was 31%. The world market for open-ended rotors also fell - by 30%, after a fall of nearly 20% in 1990. This was the lowest level since 1975. All regions were affected by the downturn, except South America.

7.1.2. Weaving: In 1991, 55,000 shuttle-less looms were shipped, a fall of 26% from 1990. Deliveries to Asia (over 60% of the total) were virtually unchanged, but those to the rest of the world dropped by nearly 50%. In Asia, there were large increases in Taiwan and China, but falls in Indonesia and Korea.Shipments to the USA fell by 31% and to EC countries by 56%.

Some 40% more water-jet looms were shipped to Asia in 1991, but deliveries to the EC were very low, after a fall of 75% from the 1990 level. World deliveries of rapier and projectile looms (where the Comecon countries, especially the former Soviet Union, were the largest market) fell by over 40%, while those of air-jet looms fell by 24%. Deliveries of shuttle looms, nearly all to Asian countries, were down by 20%.

7.2. CHANGES IN SPINNING AND WEAVING COSTS

7.2.1. Labour cost comparisons in spinning and weaving show large differences both within the EC and between EC and non-EC countries. In 1991, in terms of US dollars, Denmark was the highest cost EC country, followed by the Netherlands, Belgium and Italy. Portugal and Greece had the lowest costs. In Asia, however, labour costs in countries such as China, India, Pakistan and Sri Lanka were far below the Portuguese level (Table 18).

The top 20 countries were the same in 1991 as in 1990, while the 10 countries with the lowest labour costs also remained the same.

The case of Turkey is rather dramatic with a substantial increase in total labour cost per hour, from 1.8 US$ to 3.1, between 1990 and 1991. Labour costs, relative to the US level, rose by as much as 67%, in the same period.

In 1991, following steep devaluations in the C.I.S and Eastern Europe, labour costs in the C.I.S were only 2-4% of the US level. They were slightly higher than this in the Czech and Slovak Republic and Poland, and appreciably higher in Hungary - but still no more than 14% of the US level.

Within Europe some significant changes occurred between 1990 and 1991. Labour costs, relative to the US level, rose by as much as 15% in Portugal, 6% in East Germany and 4% in Italy. They fell relatively, however, in Belgium, Ireland, France, the UK, Greece and Spain.

7.2.2. Total spinning and weaving manufacturing costs are affected by labour productivity, as well as by labour costs per hour, and also by overheads, including depreciation. Labour costs are much higher in Germany than in these developing countries which have been covered in the ITMF study 'International Production Cost Comparison'. It should be pointed out however, that other cost elements, such as depreciation and interest, are much higher in low (labour) cost countries than in the industrialised ones (Tables 19 and 20).

The effect of these factors, among others, is to make spinning manufacturing costs comparable over a wide range of countries, but not weaving costs. In 1991, total manufacturing costs for spinning were at the same level, in terms of US dollars, in Germany and India. They were higher, but equally high, in Brazil and the USA, in spite of the fact that Brazil's labour costs per hour were only one-fifth of the US level.

In weaving, on the other hand, India's manufacturing costs in 1991 were 73% of the German level. Korea's costs were 56% of those in Germany, while US costs were 67%. The low level of US costs was partly accounted for by labour costs per hour of only 60% of the German level, and partly by relatively low costs for power.

7.2.3. When raw material costs are included, the picture alters somewhat. Total yarn costs in Germany in 1991 were then 25% above the Indian level. Brazil and the USA were still equal, and slightly below the German level. As regards total fabric costs, Germany was at rather less of a disadvantage than in weaving manufacturing costs, but had the highest costs, along with Japan.

Although these calculations attempt to compare like with like, it seems probable that yarn and fabric quality, in countries such as Germany, were somewhat better than in India, for example.

TABLE 1

EC: Production of Textiles and Clothing between 1985 and 1991

Country	Textiles (NACE 43) (incl. knitwear)				Clothing (NACE 459*)			
	1988	1989	1990	1991	1988	1989	1990	1991
Germany (**)	97.4	98.9	100.2	99.3	91.7	88.3	87.2	87.1
France	92.0	92.4	88.3	81.2	83.5	79.0	76.5	76.2
Italy	108.5	115.6	113.7	111.8	96.6	96.7	95.2	95.4
Netherlands	96.4	101.7	103.6	101.5	90.2	95.6	-	-
Belgium/Lux.	101.1	104.5	110.3	99.9	90.3	109.3	122.0	124.7
U.K.	101.8	96.8	92.4	85.3	102.6	100.9	102.3	93.0
Ireland	106.4	111.2	119.2	118.8	95.3	89.4	91.2	80.1
Denmark	92.6	95.1	87.0	86.8	71.9	66.2	66.7	67.5
Greece	105.7	102.1	98.1	-	96.7	90.0	87.0	-
Spain	104.2	108.8	107.1	98.5	97.0	103.0	106.3	97.6
Portugal	107.5	106.7	114.3	113.2	108.4	101.8	114.7	115.8
EC12	102	104.3	102.8	99.2	90.3	89.3	89	87.4

Note: 1985 = 100; indices based on volume.

(OETH)

Source: SOEC: CRONOS, ISTI. OETH.

(*): NACE 459 = 453+454+456.
(**): West only

TABLE 2

EC: MFA External Trade 1990 / 91

		EC Imports			EC Exports (*)			Balance (**)		E/I Ratio	
		1990	1991	Change (%)	1990	1991	Change (%)	1990	1991	1990	1991
MFA Textiles (excl. knitwear)	Tonnes	1,812,623	1,866,992	3.0	1,428,524	1,427,464	-0.1	(384,099)	(439,528)	78.8	76.6
	million ECU	10,282	10,725	4.3	12,005	12,204	1.7	1,723	1,479	116.8	113.8
MFA Clothing (incl. knitwear)	Tonnes	1,044,294	1,287,002	23.2	234,251	235,992	0.7	(810,043)	(1,051,010)	22.4	18.3
	million ECU	17,836	22,127	24.1	8,026	8,022	-0.0	(9,810)	(14,105)	45.0	36.3
Total MFA T+C	Tonnes	2,856,917	3,153,994	10.4	1,662,775	1,663,456	0.1	(1,194,142)	(1,490,538)	58.2	52.7
	million ECU	28,118	32,852	16.8	20,031	20,226	0.1	(8,087)	(12,626)	71.2	61.6

Source: SOEC: COMEXT. (OETH)

(*): Extra only
(**): ( ) means negative figure.

Imports of Textiles and Clothing into the EC between 1985 and 1991

(1000 tonnes)

Code		Year	All Textiles	MFA T+C	MFA* T	MFA* C
3011	Extra-EC	1985	2,306	1,598	1,119	478
		1990	3,770	2,857	1,813	1,044
		1991	4,038	3,154	1,867	1,287
3071	Countries not covered by textile policy	1985	694	423	385	38
		1990	974	592	534	58
		1991	971	611	546	65
3064	Countries covered by textile policy	1985	1,612	1,175	735	440
		1990	2,796	2,257	1,271	986
		1991	3,068	2,544	1,322	1,222
3072	Countries with arrangements	1985	342	260	172	88
		1990	521	473	235	238
		1991	564	510	240	270
	o.w. Turkey	1985	182	155	119	36
		1990	293	257	150	107
		1991	317	279	155	124
3070 (+736)	Countries with an agreement	1985	1,172	835	514	321
		1990	2,089	1,646	941	705
		1991	2,322	1,877	987	890
9002	o.w. dominant countries	1985	265	262	98	164
		1990	414	356	150	206
		1991	408	343	131	212
720	o.w. China	1985	129	107	78	29
		1990	295	249	120	129
		1991	366	305	125	180
9055	o.w. ASEAN	1985	106	72	47	26
		1990	299	249	129	120
		1991	367	283	147	136

Source: SOEC: COMEXT; DB DG III: Textiles. (OETH)

(*): T - excl. knitwear
C - incl. knitwear

TABLE 4

EC Textiles and Clothing Imports (Extra, Intra)

Country	EXTRA						INTRA					
	TEXTILES MFA			CLOTHING MFA (incl. knitwear)			TEXTILES MFA			CLOTHING MFA (incl. knitwear)		
	1989	1990	1991 (*)	1989	1990	1991 (*)	1989	1990	1991 (*)	1989	1990	1991 (*)
Germany	122	137	155	156	183	222	119	138	146	132	161	180
France	145	157	153	252	284	317	125	131	129	167	150	155
Italy	150	163	163	220	254	369	125	128	122	133	159	198
Netherlands	109	137	142	174	207	219	113	118	116	117	129	139
Belgium	164	191	201	267	386	433	115	120	121	125	139	145
U.K.	152	160	154	192	206	216	111	109	102	139	151	137
Ireland	155	198	211	231	367	401	95	98	104	139	153	171
Denmark	100	105	108	202	274	378	99	97	98	131	133	139
Greece	191	263	279	476	557	626	158	169	168	215	265	305
Spain	615	730	905	1013	1949	3334	336	355	419	1032	1556	2322
Portugal	247	323	312	1342	1558	2267	338	420	449	740	939	1354
EC 12	143	160	167	186	218	259	122	129	130	141	156	171

NOTES: (*) Estimate
Indices based on volume; 1985 = 100

(OETH)

SOURCE: SOEC: COMEXT, DB DGIII Textiles. OETH.

TABLE 5

EC Textiles and Clothing Exports (Extra, Intra)

Country	EXTRA						INTRA					
	TEXTILES MFA			CLOTHING MFA (incl. knitwear)			TEXTILES MFA			CLOTHING MFA (incl. knitwear)		
	1989	1990	1991 (*)	1989	1990	1991 (*)	1989	1990	1991 (*)	1989	1990	1991 (*)
Germany	110	113	122	118	129	138	117	115	115	126	136	146
France	116	122	124	248	169	160	125	129	131	133	205	223
Italy	95	91	89	89	97	90	111	115	116	96	105	103
Netherlands	81	81	83	131	141	170	91	93	92	156	167	188
Belgium	122	116	119	128	160	179	126	135	137	131	157	168
U.K.	104	101	102	81	92	96	137	160	176	141	174	212
Ireland	101	88	81	160	133	118	110	113	123	159	201	202
Denmark	98	93	90	80	83	101	104	107	108	157	208	223
Greece	118	100	111	266	278	308	90	67	77	164	138	166
Spain	95	110	119	243	122	91	145	154	159	133	99	99
Portugal	110	109	99	152	159	138	124	139	138	178	213	226
EC 12	105	105	108	131	125	123	117	121	123	131	148	159

NOTES: (*) Estimate
Indices based on volume; 1985 = 100

(OETH)

SOURCE: SOEC: COMEXT, DB DGIII Textiles. OETH.

TABLE 6

EC: Sectors of Activity in 1991

	Production (tonnes)	Imports (tonnes)	Imports (M. ECU)	Unit price ECU per kg	Exports (tonnes)	Exports (M. ECU)	Unit price ECU per kg
TEXTILES							
Yarn and spun yarn	3,465,178	716,004	2,502	3.49	350,215	1,913	5.46
o.w. Spun yarn	2,161,421	462,660	1,602	3.46	141,550	956	6.75
Woven fabric	1,532,484	690,485	4,402	6.38	522,927	6,978	13.34
Hosiery	372,232	51,193	459	8.97	52,916	655	12.38
Simple ready-made goods	313,482	156,684	1,138	7.26	55,081	609	11.06
Carpets	1,193,590	135,259	1,347	9.96	233,541	917	3.93
Non-woven fabric	330,400	58,103	270	4.65	94,480	530	5.61
Others	NA	119,879	895	7.47	96,130	780	8.11
CLOTHING							
Knitwear	6,831,068*	530,736	8,017	15.11	118,405	3,251	27.46
Woven clothing	1,705,660*	753,492	14,074	18.68	117,458	4,766	40.58

Source: SOEC - DB DGIII Textiles, OETH. (OETH)

Note: Imports and Exports are Extra-EC total.

(*): in 000pieces

TABLE 7

EC: Changes between 1985 and 1991 by Sector of Activity (Base 1985 = 100)	Production (tonnes)		Imports (tonnes)		Imports (ECU)		Exports (tonnes)		Exports (ECU)	
	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991
TEXTILES										
Yarn and spun yarn	92.8	90.5	100.2	99.4	55.4	54.0	72.2	76.4	34.9	35.3
o.w. Spun yarn	86.1	82.4	143.1	147.6	114.3	114.4	89.2	90.9	79.9	78.1
Woven fabric	98.8	96.2	151.2	144.8	120.7	118.5	122.1	127.9	126.9	130.1
Hosiery	116.3	117.3	199.7	238.1	182.9	232.0	106.6	108.6	108.9	117.9
Simple ready-made goods	100.5	100.1	227.3	281.9	192.6	240.3	103.0	98.1	103.5	102.5
Carpets	124.1	131.9	199.1	239.0	151.8	171.8	98.1	105.5	95.4	94.1
Non-woven fabric	177.0	187.7	134.6	152.8	117.1	135.1	206.0	226.4	179.2	203.9
Others	NA	NA	222.5	244.2	172.1	190.4	119.5	117.0	128.0	135.6
CLOTHING (*)										
Knitwear	110.2	109.0	247.0	317.7	204.0	269.5	140.2	140.0	135.7	132.8
Woven clothing	102.3	99.7	203.4	243.7	186.3	223.5	115.3	117.3	125.3	127.1

Source: SOEC - DB DGIII Textiles; OETH.

(OETH)

(*): production in pieces

TABLE 8

EC: Unit Price of Imports and Exports (ECU per kg)

Changes between 1985 and 1991

Unit Price (ECU/kg) Index 1985 = 100	Imports				Exports			
	1985	1989	1990	1991	1985	1989	1990	1991
Yarn and spun yarn	6.4	5.6	3.6	3.5	11.8	12.7	5.7	5.5
	100.0	87.3	55.3	54.2	100.0	107.5	48.3	46.2
Spun yarn	4.5	3.6	3.6	3.5	7.9	6.4	7.0	6.8
	100.0	80.8	79.9	77.4	100.0	81.9	89.7	86.0
Woven fabric	7.8	7.1	6.2	6.4	13.1	13.9	13.6	13.3
	100.0	91.7	79.8	81.9	100.0	105.8	103.9	101.7
Hosiery	9.2	7.9	8.4	9.0	11.4	11.8	11.7	12.4
	100.0	85.6	91.5	97.4	100.0	103.4	102.2	108.6
Simple ready-made goods	8.5	7.6	7.2	7.3	10.6	10.7	10.6	11.1
	100.0	89.2	84.7	85.2	100.0	101.4	100.6	104.5
Carpets	13.9	12.0	10.6	10.0	4.4	4.1	4.3	3.9
	100.0	86.6	76.2	71.9	100.0	93.2	97.3	89.3
Non-woven fabric	5.3	5.0	4.6	4.7	6.2	5.7	5.4	5.6
	100.0	94.3	86.9	88.4	100.0	90.8	87.1	90.2
Others	9.6	7.8	7.4	7.5	7.0	7.2	7.5	8.1
	100.0	81.7	77.4	78.1	100.0	102.1	107.1	115.9
CLOTHING								
Knitwear	17.8	15.4	14.7	15.1	29.0	27.8	28.0	27.5
	100.0	86.4	82.5	84.8	100.0	96.0	96.8	94.8
Woven clothing	20.4	18.7	18.7	18.7	37.5	40.3	40.7	40.6
	100.0	91.6	91.7	91.7	100.0	107.7	108.6	108.3

(OETH)

Source: SOEC - CITH; OETH.

Unit Price Change in Textiles

Imports & Export Prices 1991 (1985=100)

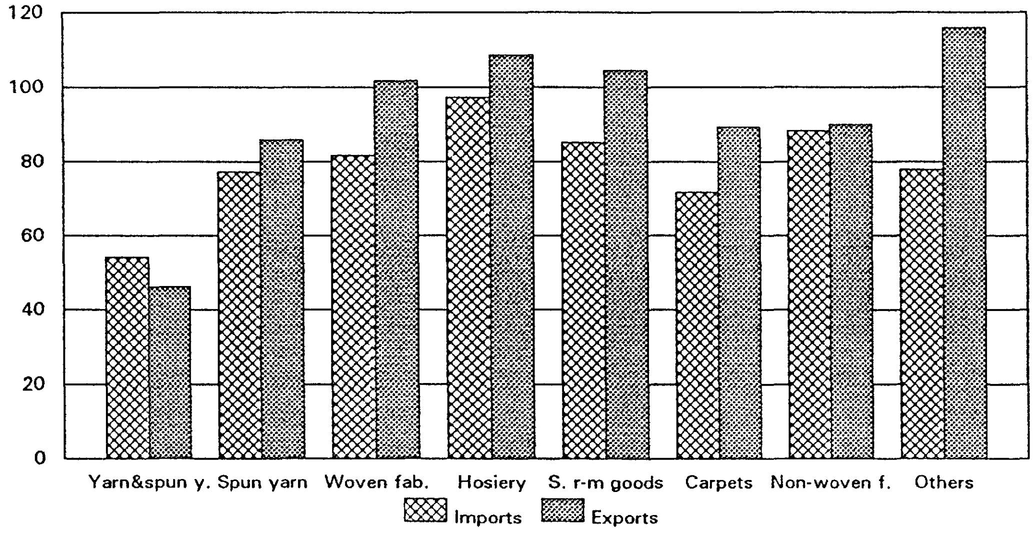


TABLE 9

OPT KEY FIGURES ON IMPORTS

Selected categories and supplier countries only

UNIT: TONNES

COUNTRY: EC TOT.

	1988	Share (%)	1989	Share (%)	1990	Share (%)
OPT Imports	41333	29.54	52326	31.59	63279	32.16
DIRECT Imports	98591	70.46	113316	68.41	133456	67.84
TOTAL Imports	139924		165642		196735	

COUNTRY: GERMANY

	1988	Share (%)	1989	Share (%)	1990	Share (%)
OPT Imports	27441	36.19	32459	36.88	39369	38.85
DIRECT Imports	48387	63.81	55533	63.12	61963	61.15
TOTAL Imports	75828		87992		101332	

COUNTRY:FRANCE

	1988	Share (%)	1989	Share (%)	1990	Share (%)
OPT Imports	5228	16.8	8952	22.89	9531	19.51
DIRECT Imports	25887	83.2	30157	77.11	39312	80.49
TOTAL Imports	31115		39109		48843	

COUNTRY:ITALY

	1988	Share (%)	1989	Share (%)	1990	Share (%)
OPT Imports	102	1.99	384	5.78	285	3.91
DIRECT Imports	5011	98.01	6256	94.22	7003	96.09
TOTAL Imports	5113		6640		7288	

COUNTRY:BENELUX

	1988	Share (%)	1989	Share (%)	1990	Share (%)
OPT Imports	6666	37.62	7780	37.42	9834	38.7
DIRECT Imports	11051	62.38	13009	62.58	15575	61.3
TOTAL Imports	17717		20789		25409	

COUNTRY:DENMARK

	1988	Share (%)	1989	Share (%)	1990	Share (%)
OPT Imports	698	48.04	1254	60.67	2092	70.99
DIRECT Imports	755	51.96	813	39.33	855	29.01
TOTAL Imports	1453		2067		2947	

NOTE:

(OETH)

Selected MFA Cat. are 5, 6, 7, 8, 14, 15, 16, 26, 27, 76

Selected countries are YUG, POL, CZE, HUN, RUM, BUL, MOR, ALG, TUN, EGY, TUR. for OPT, Total Imports and Direct (= Direct + Inward Processing Trade).

Source: SOEC; OETH Report.

TABLE 10

Tonnes 1990

Country: EC-TOTAL

OPT EXPORTS FROM EC

MFA Cat.	YUGOS.	POL.	CZECH.	HUNG.	RUMAN.	BULGAR.	MOROC.	ALGER.	TUNIS.	EGYPT	TURKEY	TOTAL	EXTRAEC	COVERAGE (%)
1	187	67	8	100	0	25	11	0	19	0	4	421	668	63.0
2	7236	4777	1212	1829	1184	192	5326	0	5246	98	1444	28544	30209	94.5
3	4452	2305	543	1396	812	130	903	1	1900	0	699	13141	14359	91.5
22	241	101	22	104	1	6	15	0	60	0	7	557	678	82.2
23	22	5	0	28	6	1	1	0	2	0	0	65	105	61.9
35	1837	1329	86	483	935	88	1089	0	416	1	228	6492	6995	92.8
36	1683	795	86	606	285	36	223	0	33	0	227	3974	4056	98.0
37	3533	1996	221	1219	1298	316	584	0	220	1	553	9941	10417	95.4
50	4017	1613	285	1779	767	46	3498	0	403	6	367	12781	13142	97.3
TOTAL	23208	12988	2463	7544	5288	840	11650	1	8299	106	3529	75916	80629	94.2
T.MFA TEX	29697	16826	3127	11237	7375	1192	13965	36	10779	106	4346	98686	106028	93.1
COVERAGE (%)	78.15	77.19	78.77	67.14	71.7	70.47	83.42	2.78	76.99	100	81.2	76.93	76.05	

Source: SOEC; OETH Report.

Country: EC-TOTAL

OPT IMPORTS INTO EC

Tonnes 1990

MFA Cat.	YUGOS.	POL.	CZECH.	HUNG.	RUMAN.	BULGAR.	MOROC.	ALGER.	TUNIS.	EGYPT	TURKEY	TOTAL	EXTRAEC	COVERAGE (%)
5	785	290	15	165	44	55	99	0	309	0	222	1984	2079	95.4
6	5367	2156	378	1306	1120	94	5137	0	3391	6	1449	20404	21869	93.3
7	1815	1638	21	800	454	299	335	0	322	0	197	5881	6279	93.7
8	2819	1610	18	22	486	161	713	0	788	0	57	6674	7342	90.9
14	500	458	88	160	155	5	135	0	106	0	170	1777	2116	84.0
15	3197	2078	356	1183	1536	41	202	0	285	0	174	9052	9798	92.4
16	1521	364	207	899	424	11	96	0	4	0	283	3809	4113	92.6
26	373	222	82	564	252	72	152	0	114	0	61	1892	2092	90.4
27	1387	856	131	735	555	175	676	0	672	0	181	5368	5567	96.4
76	1599	1521	991	624	1	0	631	0	1052	0	19	6438	6854	93.9
TOTAL	19363	11193	2287	6458	5027	913	8176	0	7043	6	2813	63279	68109	92.9
T.MFA CLG	26940	15169	2775	10185	8279	1183	10627	0	9402	53	4091	84613	97037	87.2
COVERAGE (%)	71.87	73.79	82.41	63.41	60.72	77.18	76.94	NA	74.91	11.32	68.76	74.79	70.19	

Source: SOEC; OETH Report.

(OETH)

TABLE 11

EC: Estimated apparent total clothing consumption

1990 - 91

	Knitwear (NACE 436)		Woven (NACE 453+454)		Total Clothing (436+453+454) 1991/1990 (%)
	1990	1991	1990	1991	
Production	17,374	17,932	52,301	51,244	99
Imports	6,429	8,476	11,732	14,074	124
Exports	3,927	3,906	4,699	4,766	101
Apparent Consumption	19,876	22,502	59,334	60,552	
1991/90 (%)		113		102	105

Source: OETH (estimates) based on SOEC. (OETH)

Unit: million ECU, current prices.

Indices of Consumer Prices (1985 = 100)

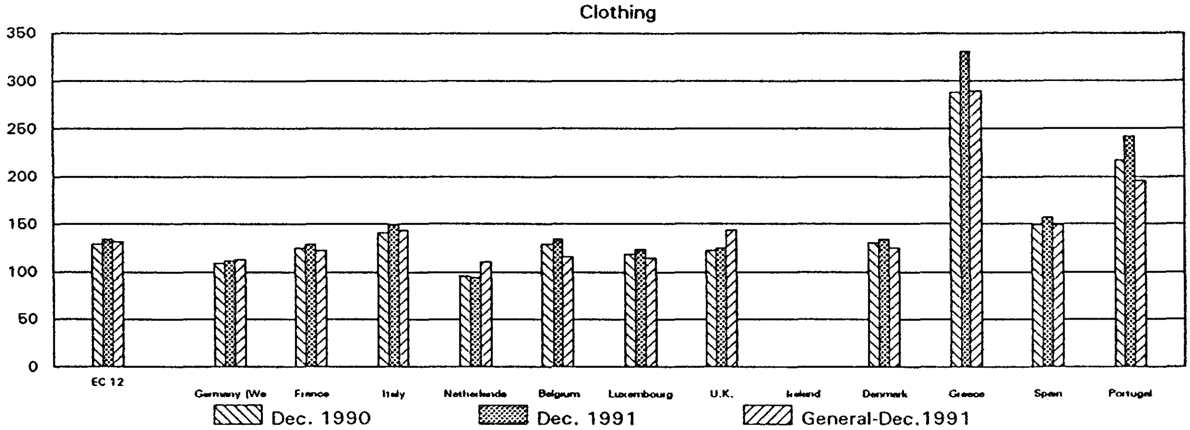
National Currencies

Country	CLOTHING		GENERAL	
	Dec. 1990	Dec. 1991	Dec. 1990	Dec. 1991
EC 12	128.3	133.8	125.6	131.6
Germany (West)	108.3	111.3	108.1	112.6
France	125.3	129.0	117.9	121.6
Italy	141.3	149.1	135.4	143.7
Netherlands	95.3	94.5	105.4	110.6
Belgium	128.3	133.5	112.6	115.7
Luxembourg	117.7	122.8	111.2	114.1
U.K.	121.8	125.1	137.3	143.4
Ireland	-	-	-	-
Denmark	129.9	133.6	122.5	125.3
Greece	288.5	330.6	245.9	290.1
Spain	149.4	157.0	140.5	148.4
Portugal	217.2	243.0	179.6	195.5

SOURCE: SOEC, CRONOS ICG. (OETH)

Indices of Consumer Prices

Clothing



Indices of Producer Prices (1985 = 100)

National Currencies

Country	TEXTILES (NACE 43)		CLOTHING (NACE 459)		MANUFACTURING	
	Dec. 1990	Dec. 1991	Dec. 1990	Dec. 1991	Dec. 1990	Dec. 1991
Germany (*)	102.7	104.1	111.0	113.0	104.5	106.4
France	104.0	104.3	118.2	121.9	110.5	110.9
Italy	117.3	117.7	121.4	127.0	121.7	123.6
Netherlands	103.0	105.0	110.2	114.2	97.3	99.7
Belgium	92.4	92.1	113.5	116.8	95.1	93.7
Luxembourg	-	-	-	-	96.4	94.6
U.K.	125.0	129.3	122.7	128.6	123.8	126.4
Ireland	115.7	116.6	-	-	114.5	116.4
Denmark	113.0	115.0	117.1	122.1	108.9	110.3
Greece	179.1	187.4	219.8	254.4	204.0	230.0
Spain	106.2	107.7	134.3	141.6	111.9	112.3
Portugal	225.7 (**)	-	-	-	-	-
EC 12	114.4	115.9	122.6	127.8	114.0	115.8

SOURCE: CRONOS, ISTI (OETH)

(*): West
(**): estimated annual average

Producer Prices in Textiles & Manufacturing
(1985 = 100)

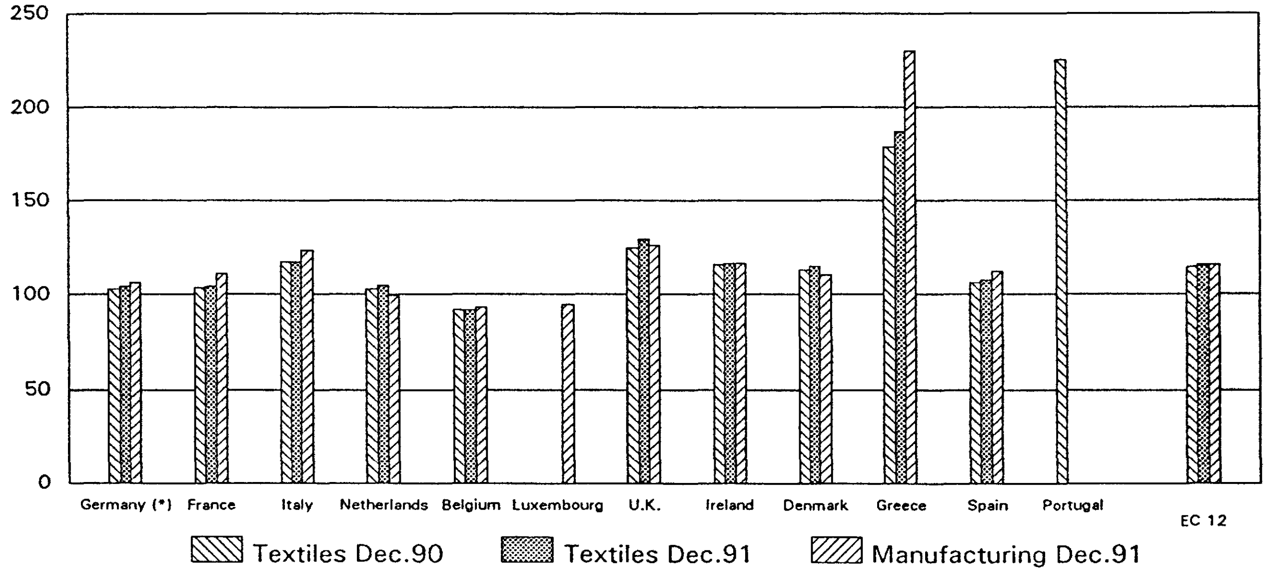


TABLE 14

EC: Structural Data on the Textile and Clothing Industry

	Textile (NACE 43+455)			CLOTHING (NACE 453+454)		
	1988	1989	1990	1988	1989	1990
Total employment	1,696,964	1,648,355	1,589,393	1,270,778	1,213,928	1,185,186
Employment, firms with over 20 empl.	1,386,305	1,332,581	1,284,340	816,562	778,401	758,962
Total number of firms	62,358	62,612	62,440	82,161	82,846	79,518
Number of firms , with over 20 empl.	15,758	15,581	15,345	10,177	10,279	10,268
Investment (M. ECU) current	5,005	5,068	5,021	1,048	1,115	1,160
Turnover (M. ECU) constant	107,244	111,398	111,590	53,378	53,051	54,132
Value of prod. (M. ECU) constant	103,054	107,262	107,664	51,974	51,220	52,301

Source: Data calculations by OETH, based on SOEC and Associations' sources. (OETH)

Notes:

|Textiles: Investment data for Netherlands, Belgium, U.K., and Greece, are of firms with more than 20 employees only.
|Clothing: Investment data for Germany, Italy, Belgium, U.K.,Greece, and Portugal are of firms with more than 20 employees only.

|Data for Germany is West Germany only.

TABLE 15

EC: Employment and Investment in the Textile Industry 1990 (*)

Countries		Total Employment	%	Total Investment (mio ECU)	Investment per employee (ECU)	
Germany (**)		254,559	16.0	1,031	4,050	
France		185,360	11.7	761	4,106	
Italy		468,078	29.5	1,478	3,158	
Netherlands		22,764	1.4	120	5,739	(***)
UEBL		56,057	3.5	328	6,561	(***)
U.K.		216,254	13.6	557	2,877	(***)
Ireland		11,871	0.7	39	3,285	
Denmark		13,769	0.9	65	4,721	
Greece		50,741	3.2	151	3,321	(***)
Spain		170,000	10.7	263	1,686	
Portugal		139,940	8.8	228	1,629	
EC 12		1,589,393	100.0	5,021	3,159	

SOURCE: Data calculations by OETH, based on SOEC and Associations' sources. (OETH)

(*): Knitwear included
(**): West only
(***): Investment per employee of firms with more than 20 employees.

TABLE 16

SPINNING MACHINERY

Continent of destination	1990 Installed Capacities (1000)			Shipments 1982-91 as % of 1990 installed capacities			Shipments 1991 as % of shipments 1982-91		
	Spindles		O-E Rotors	Spindles		O-E Rotors	Spindles		O-E Rotors
	Short Staple	Long Staple		Short Staple	Long Staple		Short Staple	Long Staple	
AFRICA	8,003	231	158	20.9	61.5	63.9	14.1	11.3	4.0
AMERICA NORTH	14,989	836	782	8.5	20.9	105.8	7.6	1.1	6.4
AMERICA SOUTH	11,936	580	247	15.3	17.9	57.9	8.8	13.5	11.2
ASIA & OCEANIA	99,684	6,664	1,254	18.6	23.5	76.8	16.5	11.3	6.4
EUROPE - EC	9,480	5,817	489	33.4	23.3	129.9	8.4	7.0	4.6
EUROPE - EFTA	927	145	31	59.7	44.8	129.0	7.0	1.5	2.5
EUROPE - E. EUROPE & CIS	16,746	1,043	4,836	6.8	44.7	91.3	47.1	33.1	4.3
EUROPE - OTHERS	3,774	624	125	33.2	36.2	91.2	14.8	7.1	11.4
TOTAL	165,539	15,940	7,922	17.7	25.7	91.4	15.6	11.6	5.1

SOURCE: ITMF (OETH)

Shipments 1982-91 as % of 1990 installed capacities

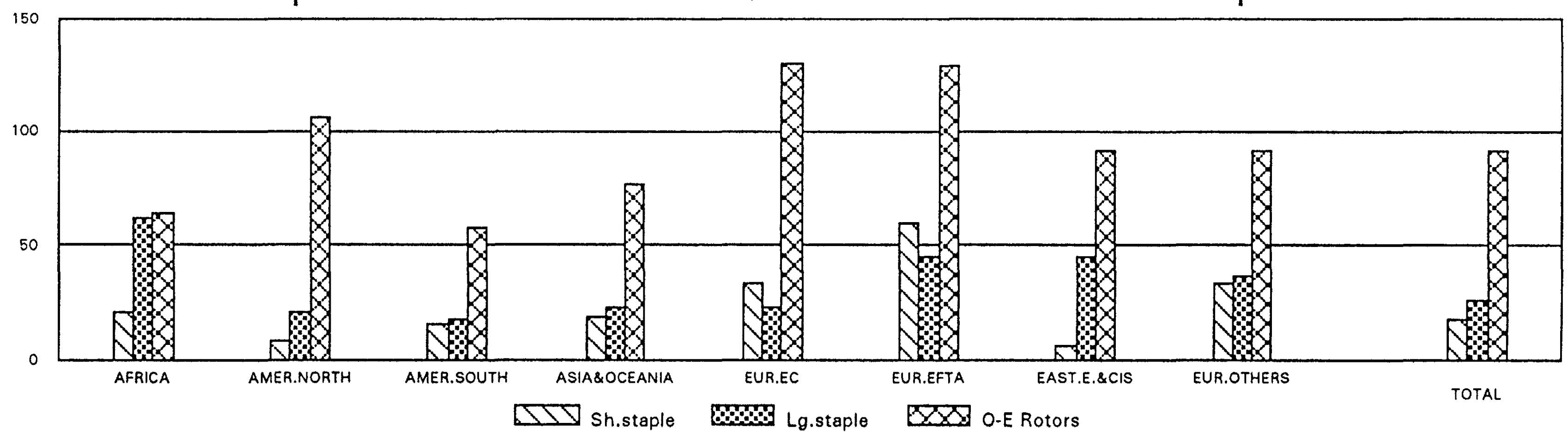


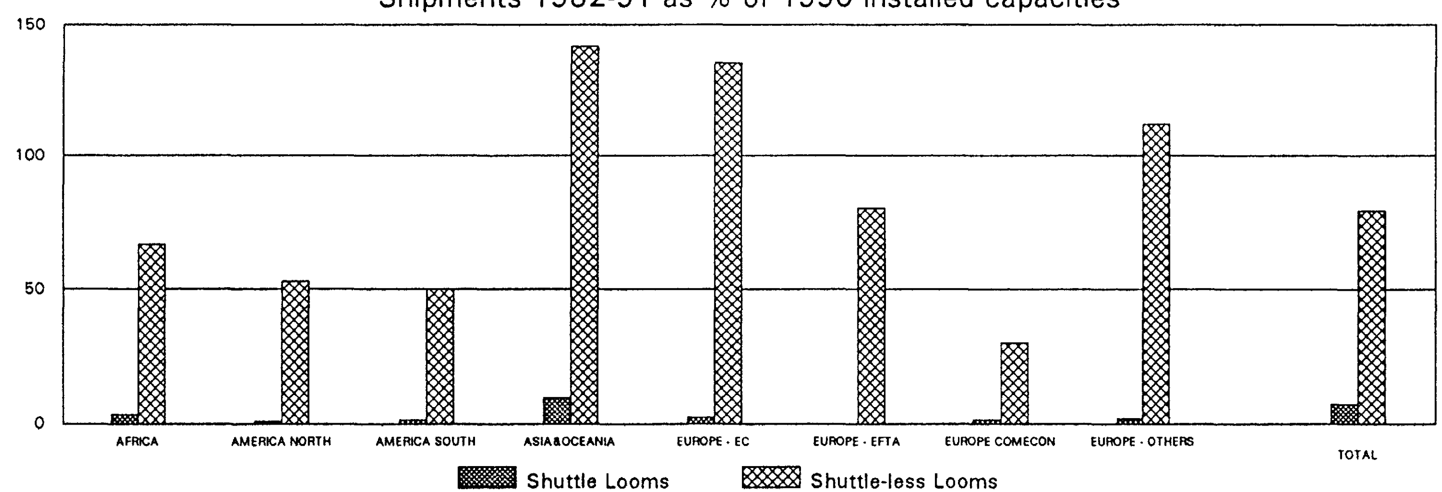
TABLE 17

WEAVING MACHINERY

Continent of destination	1990 Installed Capacities (1000)				Shipments 1982-91 as % of 1990 installed capacities	
	Looms					
	Shuttle-less	Shuttle	Filament Weaving	Wool Weaving	Shuttle-less Looms	Shuttle Looms
AFRICA	18	126		2	66.67	3.17
AMERICA NORTH	83	96		3	53.01	1.04
AMERICA SOUTH	28	187		21	50.00	1.60
ASIA&OCEANIA	158	1,499	786	65	141.77	9.87
EUROPE - EC	73	46	25	42	135.62	2.17
EUROPE - EFTA	5	2	1	1	80.00	0.00
EUROPE COMECON	227	149	27	31	29.96	1.34
EUROPE - OTHERS	8	53		6	112.50	1.89
TOTAL	600	2,158	839	171	79.00	7.41

SOURCE: ITMF (OETH)

Shipments 1982-91 as % of 1990 installed capacities



Labor cost comparisons
Spinning and Weaving

Country	Total Cost per hour (US$) Summer 1990	Total Cost per hour (US$) Summer 1991	Index (US = 100%) Summer 1990	Index (US = 100%) Summer 1991	1991/90 (%)
Germany West	16.46	17.00	164	164	100
Germany East	8.28	9.10	83	88	106
France	12.74	12.60	127	122	96
Italy	16.13	17.30	161	168	104
Netherlands	17.84	18.10	178	176	99
Belgium	17.85	17.40	178	168	94
U.K.	10.20	10.20	102	98	96
Ireland	9.15	8.80	91	86	95
Denmark	18.35	18.30	183	177	97
Greece	5.85	5.70	58	56	97
Spain	7.69	7.70	77	75	97
Portugal	2.75	3.20	27	31	115
Turkey	1.82	3.10	18	30	167
C.I.S.	1.88	0.25 - 0.40	19	2 - 4	13 - 21
Czech. & Slovak Rep.	3.10	0.31 - 0.71	31	3 - 7	10 - 23
Hungary	1.02	0.80 - 1.50	10	8 - 14	78 - 147
Poland	0.55	0.40 - 0.60	5	4 - 6	73 - 109

SOURCE: Werner International

(OETH)

TABLE 19

Spinning Manufacturing Costs/Total Yarn Costs*: 1991

Cost Element	Brazil	Germany	India	Japan	Korea	USA
	Ring	Rotor	Ring	Ring	Ring	Ring
Units of national currency per kg of yarn						
Waste	44	0.27	2.66	25	141	0.16
in%	11	11	9	10	17	10
Labour	33	0.6	1.69	72	76	0.48
in%	8	25	6	29	9	29
Power	34	0.4	3.04	32	94	0.11
in%	8	16	10	13	11	7
Auxiliary material	34	0.16	2.22	12	70	0.08
in%	8	7	8	5	9	5
Depreciation	127	0.55	7.8	62	265	0.54
in%	30	23	27	25	33	33
Interest	148	0.43	11.59	46	168	0.27
in%	35	18	40	18	21	16
Total manufacturing costs	420	2.41	29	249	814	1.64
in%	100	100	100	100	100	100
US $ per kg of yarn						
Total manufacturing cost	1.65	1.4	1.4	1.86	1.1	1.64
(INDEX: GERMANY = 100)	(118)	(100)	(100)	(133)	(79)	(117)
Raw material	1.79	2.05	1.4	1.94	1.97	1.72
TOTAL YARN COSTS	3.43	3.45	2.81	3.8	3.07	3.36
(INDEX: GERMANY = 100)	(99)	(100)	(81)	(110)	(89)	(97)

Source: ITMF (OETH)

(*): Yarn: Cotton; the product base in spinning is a Ne 20 (Nm 33/30 tex) carded yarn made of 100% cotton of 1 1/16'' staple length.

TABLE 20

Weaving Manufacturing Costs/Total Fabric Costs*: 1991

Cost Element	Brazil	Germany	India	Japan	Korea	USA
Units of national currency per yard of fabric						
Labour	6.8	0.355	0.504	19.2	26.4	0.132
in%	7	38	6	29	12	36
Power	6.7	0.102	0.632	8.4	24.4	0.031
in%	6	11	8	13	11	8
Auxiliary material	14.5	0.113	1.117	6.9	48.9	0.049
in%	14	12	13	10	21	13
Depreciation	40.3	0.23	2.763	20.7	81.9	0.099
in%	39	24	34	31	36	27
Interest	35.6	0.144	3.21	10.9	46	0.058
in%	34	15	39	17	20	16
Total manufacturing costs	103.9	0.944	8.226	66.1	227.6	0.369
in%	100	100	100	100	100	100
US $ per yard of fabric						
Total manufacturing cost	0.407	0.549	0.398	0.492	0.308	0.369
(INDEX: GERMANY = 100)	(74)	(100)	(73)	(90)	(56)	(67)
Raw material	0.39	0.447	0.305	0.423	0.43	0.375
TOTAL FABRIC COSTS	1.155	1.302	1.01	1.321	0.979	1.103
(INDEX: GERMANY = 100)	(89)	(100)	(78)	(102)	(75)	(85)

Source: ITMF (OETH)

(*): Fabric: cotton sheeting fabric construction of 60/60 threads per inch, and 63 inch grey width, made of the yarn referred to in Table 19.

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