



Textile and clothing industry

Innovation and internationalisation as success factors

July 13, 2011

In the last few decades the German textile and clothing industry has undergone continuous structural changes. These were dominated by falling domestic production and offshoring. Firms are also concentrating more on technically demanding textiles, innovative products and strong brands, as well as orienting themselves more internationally.

German companies are global leaders in the technical textiles segment: their market share is around 45%. The demand for (technical) textiles is being stimulated by long-term global trends. These include the rising population; higher disposable income and increasing industrialisation, particularly in the developing countries; growing mobility requirements; the trend to increasing environmental protection and energy efficiency; and rising health spending.

The production of technical textiles in Germany has grown by 40% in real terms since the mid-1990s. Close connections with textile research institutes are beneficial for this. Local production also benefits because many of the customer industries also produce in Germany and because German industry is particularly good at integrating industrial sectors for complex product solutions.

The liberalisation of trade in textiles and clothing is progressing, albeit only slowly. More free trade is of essential importance for German textile and clothing firms, in order for them to gain better access to new growth markets with their strong brands in consumer-oriented sectors as well with innovative technical textiles.

Problems in sourcing textile raw materials and their increasing prices are currently a challenge to the sector. In the medium to longer term, firms will need to be even more active in retaining and attracting qualified staff, in order to maintain their good market position in the technical textile segment.

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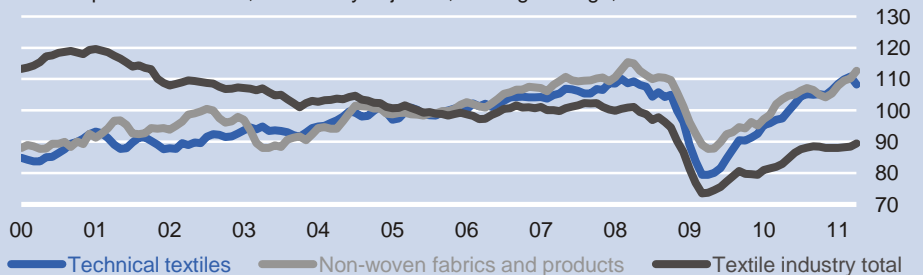
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Technical textiles* grow, against the trend

German production index, seasonally adjusted, moving average, 2005 = 100

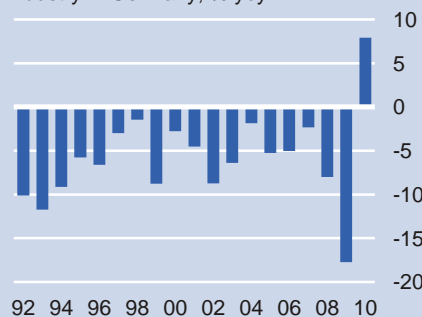


* According to the German textile and fashion industry association, non-woven fabrics are also defined as technical textiles.

Source: Federal Statistical Office

First production increase since unification

Production index, textile and clothing industry in Germany, % yoy



Source: Federal Statistical Office

1

1. Introduction

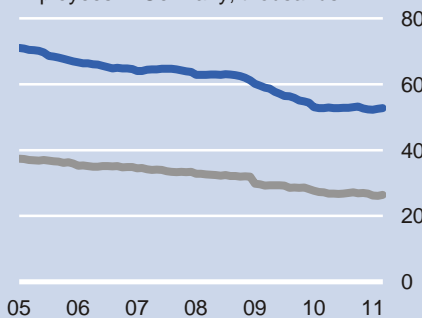
In the last few decades the German textile and clothing industry has undergone intensive structural changes, dominated by falling domestic production, transfer of production to foreign lower-wage economies (“offshoring”), continuing stiff competition and a shift of focus in home production towards higher-quality, technically challenging textiles. The firms have tackled the structural change head on. They countered it by methods including internationalisation and focussing on innovative products and strong brands, which have led to the development of new customer groups and key markets.

The sector still spans a broad range of fields, from traditional segments grappling with the pressures of stiff international competition right through to the newer and markedly expanding segments of technical textiles which are setting the pace of innovation.

In section 2 of this report we outline the structural changes in the sector, together with their importance for the industry in Germany. The third section focuses on the innovative, technical textiles in which German firms are international leaders. We also investigate the drivers of increasing demand for technical textiles, giving examples of their application. As gaining new growth markets is of essential importance for German textile and clothing firms, both with their strong brands in the consumer-oriented sectors and with innovative technical textiles, in the fourth section we analyse the most important aspects of current trade policy. Finally, we deal with other current challenges to the sector.

Employment declining

Employees in Germany, thousands



Source: Federal Statistical Office

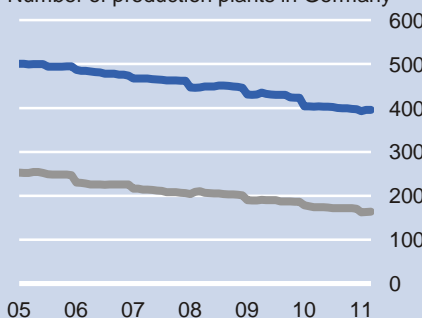
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2. Structural changes in the textile and clothing industry

The structural changes in the German textile and clothing industry were driven by the global realities in the sector, dominated by factors including stiff competition and the major importance of wage costs, particularly in the clothing industry. In the course of these structural changes, the German textile and clothing industry has become more international and flexible and has oriented itself towards higher-quality and innovative products. In particular, the sector has taken the international lead in the field of so-called technical textiles, which are linked with a high level of research activity.

Fewer plants

Number of production plants in Germany



Source: Federal Statistical Office

3

The structural changes can be illustrated in figures: for instance, the output of the textile and clothing industry in Germany fell by nearly 70%, in real terms, between 1991 and 2010. The clothing sector, which suffered an 85% decline, performed considerably worse than the textile industry (down 50%). Structural factors were primarily responsible for this decline in production. The sector had begun to shift production plants abroad at a very early stage, well before German unification. This is particularly the case with the clothing industry, where wage costs are a decisive success factor. Over the years, an ever-increasing proportion of textile production has been transferred offshore. It became a matter of business survival for many firms to cut back production in Germany and to build production plants abroad instead, or to commission foreign firms directly (outward processing).

As a consequence of the structural changes, the number of production plants and the number of employees both fell. Between 1995 and 2005, the decline was almost 50%. From 2005 to 2010 the



Insolvency rate around average

Insolvency rate* in Germany, %



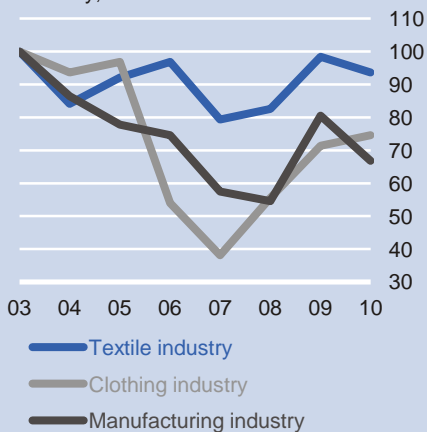
*Proportion of VAT-registered companies starting insolvency proceedings.

Sources: Federal Statistical Office, DB Research

4

2009 recession drives insolvency figures

Insolvency proceedings started in Germany, 2003=100



Source: Federal Statistical Office

5

Recession hits the sector hard – 2010 recovery

Real turnover, Germany, % yoy



Source: Federal Statistical Office

6

number of plants and employees fell by almost another quarter.¹ A peculiar feature of this is that the insolvency rate in the sector is little different from the industrial average. Textile industry insolvencies have actually been lower than average in the last few years. It is therefore evident that the decline in the number of production plants in Germany does not inevitably mean that firms are going out of business. In the final analysis, for Germany it is a – painful but nevertheless unavoidable – consequence of international orientation. For the majority of firms, retaining only their domestic plants has been a less successful strategy.

In 2010, production in Germany (the combined output of the two sectors) rose for the first time since the country's unification. This compensated partly for the declines in 2009. In 2011, too, we consider that a slight increase in production is possible (+2%).

Statistics for foreign activities poorly recorded

The process of transferring production plants abroad is well advanced – particularly in the clothing sector. Less than 5% of the clothing sold in the home market now comes from domestic factories. Products still being made in Germany are mainly high-quality, or small production runs. Superior functions (research and development, design, marketing etc.) are also still being based in Germany. Domestic production plays a larger part in the more capital-intensive textile sector. The research-intensive technical textiles, which will be referred to later in this report, are important in this respect. In this field, domestic production has increased by 40% in real terms since the mid-1990s, although technical textiles (e.g. products for the automotive industry) were also hit by the most recent recession.

The structural relocation of production plants means that domestic production is no longer a suitable economic indicator for the sector. Real turnover figures give a somewhat better reflection of the economic trends in the sector, as in some cases they also take into account re-exports of previously imported goods (some of which are from the firms' own production abroad). In comparison, the long-term (1991 to 2010) decline in the clothing industry, down by "only" 64%, appears to be less bad than the trend of production.

No economic indicator of the major importance of foreign production under German overall control is available. The German textile and clothing industry employs more than twice as many workers abroad as at home: this does not include the staff employed in undertakings that manufacture only under contract from German firms. All in all, foreign production by German firms may have risen in the last few years, although this is not explicitly verifiable by statistics.

In reality, all German clothing manufacturers also have production plants abroad. They take advantage of the lower costs there, as well as the closer proximity to the growing markets. This is because the populations of the developing and newly-industrialised countries that are used as production centres have considerable unsatisfied demand for consumer-oriented products. The internationalisation strategy is consequently an economic necessity.

¹ A restructuring of the official statistics at the end of 2005 makes it difficult to comment on the trends of the numbers of firms and employees during the whole period 1995 to 2010. We have therefore divided this into two periods.



7



8

Medium-term prospects divided – intense competition

In the medium term, clothing production in Germany could fall further from its already low level. The number of firms and workers will continue to decline. However, due to their already low levels, these are admittedly not convincing indicators for the economic state of the sector. In the textile industry the previous, also declining, trend could be halted or even reversed, as the proportion of technical textiles will be increased – in particular if the sectors that are important customers for technical textiles retain their German locations. In both segments the sector is also characterised by booming activity at individual companies. Foreign production by German textile and clothing firms could also increase further.

Competition continues to be very stiff, particularly in the volume segment, e.g. for basic items of clothing. For example, in the last few years the discounters have gained a considerable market share of clothes retailing in Germany. The sector is also confronted by stiffer competition abroad, as an adjunct of the gradual liberalisation of world trade (see chapter 4). The pressure on prices and competition can be cushioned by special product qualities, innovative niches – particularly in the field of technical textiles – or strong brands.

3. Technical textiles as drivers of growth

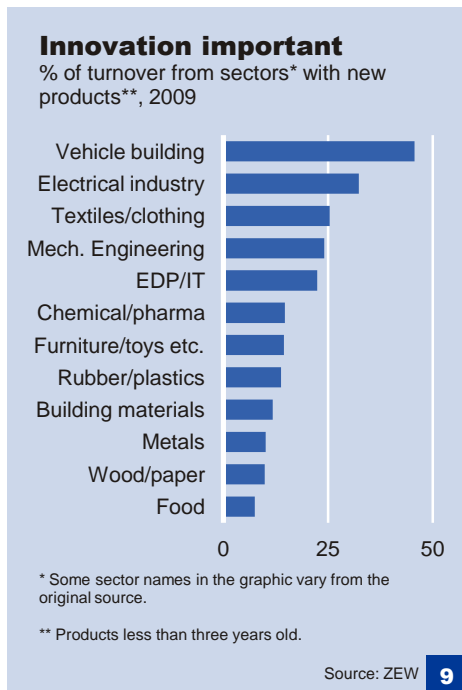
At an early stage, the German textile and clothing industry had already recognised that innovation should be able to make a significant contribution to the development of new growth potential, moderate the cost pressure in the sector and enable production plants in Germany to be operated successfully in the long term. Measured by proportion of turnover from new products, the textile and clothing industry in Germany is more than 25% above the industry average (see graph 9). Technical textiles are of particular importance to this. According to industry association figures, they account for more than 50% of the turnover of the German textile industry. Ten years ago, according to the IVGT (industry association for finishing, yarns, fabric and technical textiles), it was only about a third. Abroad, technical textiles currently account for a smaller proportion of turnover: around 30 to 35%. In developing and newly industrialised countries the proportion is much lower still. Technical textiles are a classic cross-application technology. The products are used in many – partly fast-growing – industrial sectors, where they optimise the specific product qualities.

Production in Germany is competitive

The manufacture of technical textiles in Germany benefits from the fact that many client sectors produce there and because German industry is able to integrate different industrial sectors particularly well. This cross-sector production system gives Germany a strategic advantage in comparison with other countries. As already stated, domestic production of technical textiles in Germany has increased by 40% in real terms since the mid-1990s. In the same period, growth in non-woven fabrics, which according to industry association definitions are also included in technical textiles, was as much as 67%. The risk of “economically unavoidable” transfers of production abroad is lower than in other segments of the textile and clothing industry. Nevertheless, the sector has its own production capacities abroad. The higher staff costs associated with technical textiles are mainly due to the above-average proportion of engineers.



**Drivers for technical textiles:
Demography, mobility, environmental
protection, energy efficiency,
industrialisation, infrastructure,
health**



**Protective and work clothing based
on technical textiles**

Megatrends drive demand for technical textiles

In the past, demand for technical textiles had already been stimulated by a series of long-term and global trends. They will continue to be the crucial drivers in coming years. Increasing population and higher disposable incomes, particularly in the emerging global economies, are important factors. This will enable people to buy higher-value products which also contain fibre-based materials. Those profiting from this include e.g. the manufacturers of sport and outdoor clothing, but also brand-name manufacturers outside the technical textiles field. Increasing global mobility requirements are also leading to increased demand for technical textiles. The product attributes of many vehicles, as regards efficiency, weight, safety and comfort can be improved by technical textiles. In the automobile industry, technical textiles could also make a contribution to compliance with EU directives for the reduction of specific CO₂ emissions. As technical textiles are also used in the construction industry, the sector could also benefit from the globally-increasing demand for infrastructure. In many countries, where industry as an important consumer of technical textiles (e.g. conveyor belts, filters, tarpaulins) is still in its infancy, increasing industrialisation will boost the demand for technical textiles. The global trend towards greater environmental protection and energy efficiency also has a positive effect on the demand for technical textiles, which have many applications in those areas. By 2020, the EU would like to increase the energy efficiency of the economy by 20%. Textile-based materials could contribute to this. Finally, global expenditure by the health sector is increasing by around 3 to 4% p.a., as a result of technical advances, higher incomes and the increasing proportion of older people. Technical textiles, which have multiple applications in the medical field, will profit from this.

Varied fields of application

The range of possible fields of application for technical textiles is immense and is continually growing.² In the following passage we present some examples of the application of technical textiles:

- Clothing: The application of technical textiles to the clothing industry is particularly obvious. Garments based on technical textiles protect their wearer from external influences (temperature changes, poisonous substances, mechanical effects, radiation etc.) or help to regulate body functions. Protective and work clothing, as well as sports apparel, are some of the best-known fields of application. There are also innovative niches, such as clothing with integrated electronic components, for instance to deliver warmth to the body, for the use of electronic gadgets (e.g. MP3 player, mobile phone) or to monitor bodily function by incorporating sensors in the clothing.
- Household textiles: Examples of technical functions include, for instance, material for sun blinds or curtains that, due to special coatings (e.g. containing nanoparticles) are dirt- or water-repellent, have a high sun protection factor, or reflect heat radiation. Heat-conducting and antibacterial textile fibres can improve the hygiene of mattresses (e.g. for the prevention of infestation by house mites). Spacer fabrics – double-faced textiles – improve the comfort of mattresses. Fitted carpets could be treated in order to transform pollutants (e.g. nicotine) in the

² See: Forschungskuratorium Textil (2010). Textile Revolution. Im Abendkleid unterm Autohimmel. Berlin. Also: Forschungskuratorium Textil (2008). Textile Revolution. From Nylons to Fuselage. Berlin.

Technical textiles make vehicles lighter, more efficient, safer and provide increased comfort

ambient air into substances that are harmless to health. The latest efforts involve the integration of active lighting effects.

- Automobile manufacture: In vehicle construction, technical textiles are used, for example, to increase the safety and comfort of passengers or to reduce the energy consumption of vehicles. Well-known examples of technical textiles in the automobile industry include the airbag, safety belts, seat covers and convertible roofs. Textiles are also used in the manufacture of car tyres. In addition, conductive textiles could be used instead of metal wires for heated car seats. Spacer fabrics could be used for seat covers, to increase thermoregulatory comfort. Carbon-fibre reinforced plastics (CFRP) are used in aircraft construction, because of their low weight, high strength and lower susceptibility to temperature changes. In this sector they make a decisive contribution to the reduction in aircraft fuel consumption. For example, by using CFRP, the weight of the Airbus A 380 was reduced by around 25% compared with the traditional method of construction, making the lower kerosene consumption of the aircraft possible. In automobile manufacture there are also plans to make increased use of bodywork based on CFRP, even in the volume segment, due to its positive product qualities (in particular lower weight). To reduce the weight of a medium-class car by 100 kg can lower its fuel consumption by up to 0.3 litres per 100 km driven. CFRP are also in the ascendant as a material for bicycles. Technical textiles can also expect to see more use in shipping. In the future, for example, parachute-like sails might provide additional propulsion for freighters. A leading German company in this segment is holding out the prospect of an average fuel saving of 10 to 35%

Wide-ranging fields of application for technical textiles in the construction industry

- The construction industry: There are decisive reasons – both functional and visual – for the use of technical textiles in the construction industry. For instance, fibre-reinforced concrete (a replacement for steel as reinforcement) enables wider spans, e.g. for bridges, while needing smaller volumes and with lower susceptibility to corrosion. Seamless textile liners can be used to repair and renovate leaking sewers. Geotextiles based on natural materials (e.g. jute) are highly suitable for consolidating embankments and shore areas. Textile-based membranes make it possible to have translucent roofs. Textile façade systems provide buildings with privacy from the exterior, without affecting either the view out or the incidence of light. Textile-based insulating materials reduce the energy consumption of buildings.

Technical textiles improve air and water quality and make water usage more efficient

- Environmental industries: Various textile-based filters are among the traditional applications of technical textiles in environmental sectors. Less well known are underground irrigation systems, in which fabrics are used for water storage and distribution. These increase the efficiency of irrigation systems in comparison with traditional methods (sprinkling), which is of great interest to countries in dry areas of the world. Textile nets also enable water to be recovered from the air in dry but foggy regions. Textile membranes are used for desalination of sea water. The geotextiles already mentioned are very suitable for the consolidation of landfill sites.
- The energy industry: CFRP or glass-fibre reinforced plastics are used to make rotor blades for wind farms (low weight and high stability).



Modern medical technology makes use of technical textiles

- Medical technology: In medical technology the fields of application range from antimicrobial operating theatre textiles; wound dressings that no longer need to be changed and that can accelerate the healing process after certain types of injury and absorbable sutures for stitching internal wounds; through to artificial textile-based implants (e.g. vascular supports for blood vessels and nets for the treatment of hernias). Clothing based on antimicrobial textiles can also be used to alleviate neuro-dermatitis.

Product pipeline is well supplied – costs have to fall

The examples represent only a sample of the fields of application for technical textiles. New products are continually coming on to the market. All in all there are 16 textile research institutes in Germany, most of which are either attached to universities or work in cooperation with them. The research institutes organised in an association network are closely linked with industry. This form of public-private partnership could ensure that the product pipeline remains well filled in the future and that the lead German companies enjoy over their foreign competitors can be maintained.

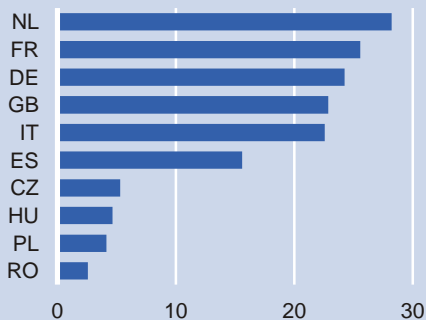
The long-term trends referred to could lead to growth of around 5% p.a. in global demand for technical textiles. Enormous opportunities at international level will result from the strong growth in industrial applications in many newly-industrialised countries. China, for instance, already has the world's largest car market, with continuing growth expected in the next few years. German companies will participate appreciably in the growth in global demand for technical textiles, due to their current, around 45%, share of the world market. Nevertheless, in the medium term technical textiles will gain importance in other countries as well. Therefore, in order to retain the lead over foreign competition in the future, it is important that sufficient numbers of young personnel can be attracted to this research-intensive sector. In addition, a proportion of the future global demand could also be served by local production plants.

It is difficult to assess the differing growth potential and absolute market size of the individual segments in the technical textile field. By volume, applications in the areas of transport/mobility, industry and geotextiles could be some of the leading segments. In terms of growth prospects, the fields of medicine/health, environment and energy efficiency, and architecture are comfortably ahead.

In order for technical textiles to achieve a higher market share in their fields of application, there must be increased familiarity with fibre-based materials and the additional benefits they confer. Even closer and timely cooperation between the producers of technical textiles and industrial customers could contribute to textile materials being more strongly considered, even at the conceptual stage of new products. The cost of technical textiles also needs to fall further. So far, technical textiles have often been more expensive than the materials that they replace (e.g. CFRP in comparison with steel or aluminium), or many customers view the additional cost as being too high in relation to the discernible additional benefit (e.g. clothing based on technical textiles compared with traditional materials). Unit costs could be reduced by technical progress and economies of scale in the production process. Also, the prices of many competing materials could increase further or remain high during the next few years (e.g. metal raw materials, plastics). This would shift relative prices in favour of technical textiles.

Major differences between western and eastern Europe

Textile industry labour costs, EUR per hour

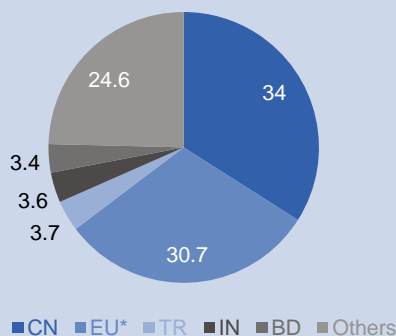


Source: Confederation of the German Textile and Fashion Industry

10

China and the EU ahead

% of global clothing exports by value, 2009



* Incl. Intra-EU exports. Exports outside the EU account for only 6.9%.

Source: WTO

11

4. Liberalisation of international trade is making progress, but only slowly

The end of the quota system favours China as a location for production

At the core of the Multifibre Arrangement and the Agreement on Textiles and Clothing was a quota system, which restricted the quantity of imports of textiles and clothing into individual countries from other states (and hence their exports). It was primarily designed to protect textile and clothing production in high-wage countries (the EU and US) from cheaper competition in developing and newly-industrialised countries (in particular China).

However, the protective effect was limited. As a result of the import quotas imposed on major producing countries (e.g. China), textile and clothing industries, sheltered by the quota, developed in many smaller countries that were not affected by the quota regulations or had not used up their quotas. In addition, because of the import restrictions, some textile and clothing firms, especially in southern European countries, did not take adequate steps to increase their international competitiveness. This was despite the fact that the ATC was conceived as a transitional period, with a definite end, on the way to a quota-free system.

After the expiry of the Agreement on Textiles and Clothing in 2004 (in the trade between the EU and China there was an extension of the quota rules for some product areas until 2009), as expected China was able to consolidate its supremacy in textile and clothing, as its export activities were those most heavily restricted by the quotas.

According to WTO figures, China increased its share of global textile exports from 17.2% in 2004 to 28.3% in 2009. Clothing exports grew from 24% to 34% in the same period. EU imports of textiles and clothing from China rose at a nominal annual average of around 19% between 2004 and 2009. On the other hand, the EU (including Eastern European EU countries), the USA, Mexico, Turkey and a few small producer countries lost market share.

One of China's major advantages is that it has the whole textile value creation chain on hand and that its firms are in a position to produce large runs with defined qualities. The country also benefits from its large potential labour force. However, in the case of wage costs, its competitiveness with countries such as India, Bangladesh and Vietnam has diminished: lower wages are paid in those countries and industrial wages in China rose by over 13% p.a. in nominal terms between 2000 and 2010, due to the sustained economic boom.

The textile and clothing sector is heavily globalised. As far back as the 1960s, firms in industrial countries began to build factories in countries with lower wage costs, or to have goods made there (outward processing). This was particularly true of the clothing industry. Over the years, the (labour-intensive) sections of textile manufacture have followed. Later it became necessary to follow the consuming sectors abroad: an important driver of internationalisation. In Europe, German firms in particular, with their high domestic wage costs, were some of the first to take advantage of the international division of labour. In contrast, firms in southern Europe, including Turkey, still make more use of domestic production plants. These differing strategies by individual EU countries are a reason for divergent interests in some parts of the EU trade policy (see below).

Quota system abolished – low EU tariffs

Despite the early onset of the trend towards globalisation in the global textile and clothing industry, international trade in the sector was and still is heavily regulated. For instance, up to the end of 2004, the WTO Agreement on Textiles and Clothing (ATC), which superseded the Multifibre Arrangement (MFA), was in force (see text box).³ Both limited the global trade in textiles and clothing by imposing quotas. Although these have now been abolished, there are still a vast number of product- and country-specific import tariffs. At WTO level, negotiations in the Doha Round, to achieve a general lowering of the level of tariffs, have not so far been successful. At the moment, a successful conclusion to the Doha round by the end of 2011 is considered to be unlikely.⁴

In contrast, at bilateral level (e.g. in EU free trade negotiations with India or South Korea) lower tariffs have been and still are the central matter of discussion. A basic problem for the price competitiveness of many EU companies is that the EU grants unilateral import tariff reductions ("preferential tariffs") to virtually all its trading partners. In the sector these are normally between 0 and 12%. There are also development policy grounds for this: the EU does not want to cut off its own market from imports from developing countries by imposing high import tariffs. The EU's autonomous generalised system of preferences (GSP) is aimed at strengthening the economic development of the favoured countries. An obvious advantage of the GSP is that European firms can satisfy their requirements for primary products at advantageous prices from the countries concerned. Nevertheless, preferential tariffs are also granted to countries whose textile and clothing industries are internationally competitive but that also protect their home markets by high tariffs or non-tariff trade barriers (e.g. China, India, Pakistan). A problematic side-effect of this is that, in any negotiations for the reduction of duties with those countries, the EU has little bargaining power because its own import tariffs are already low. A current example of this is India. At the moment, discussions are taking place in the EU concerning a reduction in the number of favoured developing countries, from 170 to around 80.

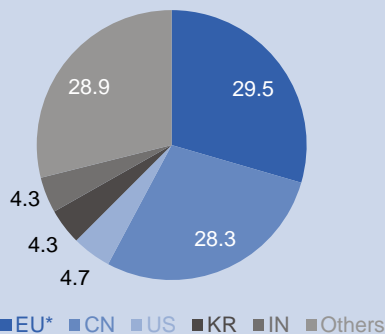
³ See: Heymann, Eric (2005). WTO textile agreement now expired: China maturing into the world's tailor. Deutsche Bank Research. Current Issues. Frankfurt am Main.

⁴ See: Deutsch, Klaus (2011). Doha or Dada: The world trade regime at an historic crossroads. Deutsche Bank Research. Current Issues. Frankfurt am Main.



EU still just ahead of China

% of global textile exports by value, 2009



* Incl. Intra-EU exports. Exports outside the EU account for only 8.9%.

Source: WTO **12**

Bilateral trade agreement

A current example of such bilateral negotiations is the recently-concluded free trade agreement between the EU and South Korea, which covers not only the textile and clothing sector. It facilitates access to the South Korean market by ending almost all import tariffs and is of importance to the sector in Germany, as South Korea is an important procurement market, e.g. for synthetic fibres. The agreement includes a regulation for duty drawback (repayment of customs duty) on re-export of products to other countries. It allows both trading partners to obtain reimbursement from the government of import duty paid on primary products if the completed products are resold in other countries. South Korea will benefit more from this than the EU countries, which can in any case buy primary products duty free from their own economic area. However, in many segments of the textile and clothing industry, South Korea is not one of the leading suppliers. The agreement has a more serious impact on other sectors and firms in the EU (e.g. the automobile industry). The current bilateral negotiations between the EU and India, which are expected to be concluded in 2012, are of greater importance for companies in the EU. This is because a successful conclusion (with a removal of duties and non-tariff trading barriers) will give easier access to a fast-growing mass market.

Further liberalisation would favour German suppliers

As well as import duties, non-tariff trade barriers also hamper trade in textiles and clothing. In particular they make it difficult for German and European companies to enter other national markets. A fundamental problem is that non-tariff barriers are less transparent and measurable than duties. A further liberalisation of the global textile and clothing trade would be advantageous for German firms: they could use their cross-border value-creation chains more efficiently and could profit from better market access to the emerging countries. Firstly, demand for consumer-oriented products could rise. European clothing brands are very popular worldwide and the number of people that can afford such clothing in developing and newly-industrialised countries is increasing. Secondly, the demand for technical textiles will also grow, as in many newly-industrialised countries newly-established industries provide the basis for the upswing. Local customers would also benefit from stronger liberalisation, in the form of lower prices, as duties are charged on the price of the final product.

As progress towards the liberalisation of world trade at WTO level remain limited for the time being, bilateral negotiations with the EU will continue to be of major importance in the future (see text box). For German and European firms, an important aspect of this is that duties and non-tariff trade barriers on both sides should be dismantled at the same speed.⁵

Reform of the preferential rules of origin in the Pan-Euro-Med zone pending

The revision of the rules of origin in the so-called Pan-Euro-Med preferential zone, unrevised since the 1960s/70s and currently being negotiated (see text box), is of major importance to German textile and clothing firms. There are differing positions on this question in the European textile and clothing industry. For instance, southern European countries (including Turkey) are endeavouring to retain the basic principles of the present system. They want to retain the necessity for at least two traditional production and processing steps to take place within the EU, in order that preferential origin of goods can be conferred. In contrast, Germany and other central and northern European countries are arguing that the rulebook should be organised more flexibly and in a more modern way. They also argue that, if required, only one step should be adequate, for example if this included high added value (e.g. finishing). One reason for the differing positions is that the southern European countries still have a large proportion of the textile value creation chain on home soil (and want to protect it). In contrast, the German textile and clothing industry, for instance, is already much more regionally diversified in its production plants and delivery chains.

Another bone of contention relates to the production and processing steps that should be accepted for the rules of origin. Many southern European countries are again interested in maintaining the status quo, under which in particular all the traditional stages of the value creation chain (e.g. spinning and weaving) are taken into account. In contrast, because of the greater importance of technical textiles, Germany is interested in more account being taken of modern technology (e.g. in the finishing and non-woven fabric sectors). When the current rules of origin were created in the 1960s/70s,

⁵ See: Gesamtverband der deutschen Textil- und Modeindustrie (2010). Textil + Modewelt 2010+11. Berlin.

Reform of the Pan-Euro-Med zone and the preferential rules of origin

The Pan-Euro-Med zone comprises the EU and EFTA countries, Turkey and most Mediterranean states in the Near East and North Africa. There is a network of bilateral preferential agreements in this zone, i.e. lower import tariffs are maintained or duties are dispensed with. The overriding aim is to increase the competitiveness of the zone compared to other countries, by granting these reduced tariffs (preferences) among the member countries. The favourable tariffs are tied to the condition that certain rules of origin are complied with. For instance, for the reduced tariffs to apply, defined production and processing steps (list rules) must be carried out within the Pan-Euro-Med zone (i.e. have their origin there). The term "to confer preferential origin" is also used. Currently, in order for preferential origin to be conferred, at least two production and processing steps (e.g. spinning and weaving) must take place within the Pan-Euro-Med zone.

The following example illustrates this mechanism and the advantages for the partners involved. Germany and Egypt both belong to the Pan-Euro-Med zone. If a German textile company supplies fabric (with EU preferential origin) to a clothing manufacturer in Egypt, no duty is payable either on the import of the material into Egypt or on the subsequent export of the finished clothing back into the EU. This procedure is valuable for both the German textile company and the Egyptian clothing manufacturer: if the latter had purchased the fabric e.g. in the US, non-member-country tariffs would apply, as they also would on re-export to the EU. As preferences can be utilised in trade between both countries, the price competitiveness of the German textile supplier rises in comparison with competitors from other countries (no duties), as does the whole value creation in the Pan-Euro-Med zone.

These preference agreements must be distinguished from the EU's Generalised System of Preferences (GSP). In that case, preferential tariffs are independently granted by the EU to developing countries, provided that the goods to be imported are of preferential origin. Since the beginning of 2011, the preferential treatment granted to the least developed countries (LDC) extends even further. In this case, only one production step in the LDC is adequate in order for preferential tariffs to be claimed. This means that, for example, clothing produced in Bangladesh can be imported duty free into the EU, even if the fabric originally came from China.

Under the reform, the West Balkan countries should also be fully integrated into the Pan-Euro-Med zone.

these production processes were much less important than they are now. The German textile and clothing industry is therefore arguing that this rule should be made more flexible.⁶ The sector also complains that there are differences in the application and monitoring of the rules of origin between Germany and many southern European countries, which give rise to unfair competition.

All in all, it would be advantageous for German textile and clothing firms if the revision of the preferential rules of origin in the Pan-Euro-Med zone were to lead to a more liberal and flexible system. This would increase the sector's degrees of freedom on purchase and raise competitiveness for the export of high-quality products. From a regulative point of view and to decrease transaction costs, a system that completely abolished tariffs and preference rules would be far superior to the present system.

Other outstanding trade policy fields

Other aspects of trade policy are important for the European textile and clothing industry:

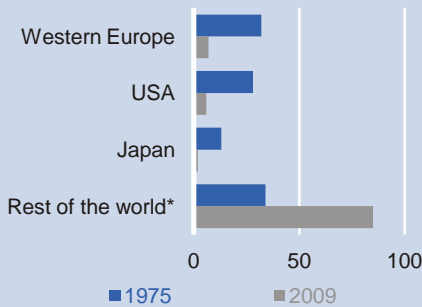
- In 2009, synthetic fibres accounted for 66% (by volume) of the production of textile raw materials. During the last few years the production of synthetic fibres in the EU has fallen steadily, primarily for reasons of cost. Between 2000 and 2009, polyester production in Europe fell by 46% and polyamide production by 44%. In the same period, China massively expanded its production and exports. The German textile and clothing industry's dependence on imports of synthetic fibres, which are the most important raw material (90%) for technical textiles, has therefore massively increased. Concurrently, the European synthetic fibre industry tried to protect its home market against imports from outside countries by means of anti-dumping measures. Nevertheless, for many types of fibre it would no longer be able to satisfy European demand in terms of quantity and quality, or to offer competitive prices. From that point of view, the import of synthetic fibres of the desired quality and quantity is a strategic challenge.
- The import of cotton, another important raw material, can also be made more difficult by trade policy restrictions and/or government interventions in the cotton market. The increasing worldwide demand for cotton has been confronted with a trend towards reduced cotton production in the last few years. As a result, some important producer countries (e.g. India, Pakistan) with vertically-integrated textile and clothing industries, have and/or are in the process of raising the price of their cotton exports (e.g. temporarily by means of export taxes) or limiting them (by quotas), in order to guarantee domestic supply. In China, textile and clothing firms have favourable access to cotton.
- Inadequate protection of intellectual property is a problem in the textile and clothing industry, as it is in other economic sectors. Production processes and product characteristics (inter alia) are affected by this. In the field of fashion clothing and/or brand-name goods (particularly for luxury brands), copies of original

⁶ An example illustrates the potential negative effects for German manufacturers. If a German company imports fabric from the US (not a member of the Pan-Euro-Med zone) and finishes it in Germany (high proportion of added value), despite the higher proportion of added value the finished fabric is not conferred with preferential origin when exported to countries in the Pan-Euro-Med zone. This has a negative effect on the competitiveness of the product.



Triad falls behind

% of global synthetic fibre production, by volume

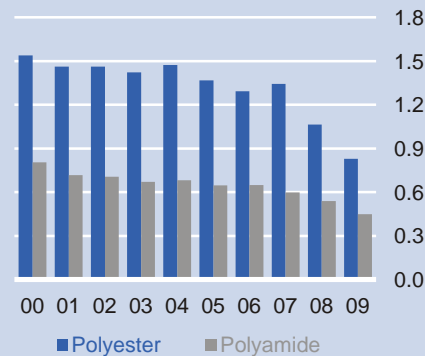


*China has the largest market share (ca. 60%) of the other countries.

Source: Industrievereinigung Chemiefaser e.V. **13**

Production declining

Production in Europe (by volume), million tonnes



Source: CIRFS (European Man-made Fibres Association) **14**

High cotton prices

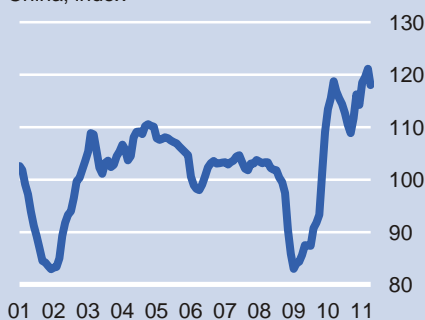
USD per pound of cotton



Source: United States Department of Agriculture **15**

Synthetic fibres dearer

Producer price index for synthetic fibres, China, index



Source: China Statistical Infor. and Service Center **16**

creations are widespread in Asia. The sector is directing its pleas primarily at politicians, to speak up more firmly for the protection of intellectual property against important trading partners.

5. Multifaceted challenges for the sector

It is not only the trade policy aspects of the imports of textile raw materials (synthetic and natural fibres) that are problematic. In the short term, the trend of prices of these raw materials is more important for the economic performance of the sector. In 2010, cotton prices (in USD) rose by almost 70% on annual average: in the first few months of 2011 they were up by around 130% yoy. This reflects the current imbalance between supply and demand. The sharp increase in prices is also a consequence of the low prices before the crisis, which caused a reduction in the amount of land being used to grow cotton, in favour of other agricultural produce. A short-term adjustment in production levels is therefore hardly possible. Most recently, however, prices have turned downwards. The prices of synthetic fibres also rose sharply in 2010, parallel with the rise in oil prices. Producer prices in China, the largest manufacturer of synthetic fibres, rose by more than a quarter in the last year.

As well as raw materials, the trend of energy prices is also of major importance to the sector. Compared with the industrial average, the textile industry, which still has an appreciable number of its own production plants in Germany, ranks as one of the energy-intensive sectors. In the textile industry, energy consumption, expressed as a proportion of gross output value, is more than 75% higher than the manufacturing industry average. Rising energy prices – resulting from market forces or triggered by government regulations – are a distinct burden for textile firms. In contrast, the clothing trade has very low energy requirements.

Finally, the threatened shortage of qualified personnel must be mentioned as a challenge for the textile and clothing industry. Demographic trends will lead, in the medium term, to a fall in the number of graduates in science (and other) subjects. Competition for such qualified staff (and for technicians and skilled labour) will also become stiffer. A drawback for the textile and clothing industry could be a consequence of the way its image has suffered due to the structural changes in the economy. The sector's concentration on innovative products is still not well known and therefore, in the eyes of potential staff, it is less attractive than, for example, the automobile industry or mechanical engineering. The fact that average salaries are lower than in other economic sectors also plays a part. Without adequate qualified personnel it would be difficult to develop the indispensable innovative textile products. One way of combating the threatened shortage of qualified staff would be greater internationalisation of the sector's research and development activities. This could contribute to the firms' long-term success.

6. Summary and outlook

The strategy of internationalisation will continue to contribute to the success of German manufacturers of textiles and clothing: there is enormous unsatisfied demand in the emergent economies in Asia and Latin America, populations there are growing and German (and European) brands are very popular. Foreign demand for technical textiles will also increase. It is therefore important for German manufacturers that politicians improve the conditions for successful

Wages and salaries below average

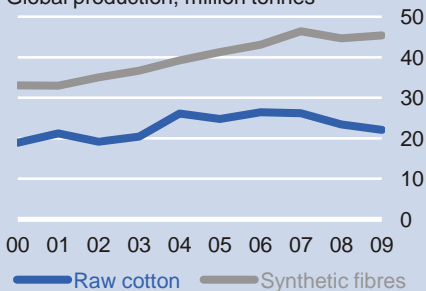
Annual gross wages and salaries per employee, thousand EUR



Sources: Federal Statistical Office, DB Research **17**

Synthetic fibres well ahead of cotton

Global production, million tonnes



Source: CIRFS (European Man-made Fibres Association) **18**

involvement abroad. Further liberalisation of the markets is advisable.

Domestic production could experience differing trends in the future. While production in the clothing sector could continue to fall – from its already low level – due to unavoidable structural problems, in the textile industry an increasing proportion of technical textiles could halt or even reverse the long-term decline in local production. In any case, technical textiles will remain the most dynamic segment.

The problematic access to textile raw materials and their increasing prices are current challenges for the sector. In the medium to long term, there should be increased efforts to recruit adequate numbers of qualified personnel and to maintain the good market position of the innovative technical textiles segment.

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