

Copenhagen Economics

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Table of contents

Pr	Preface		
Ex	ecutive summary	4	
1	The global value chain for branded clothing	8	
1.1	Background and policy context	8	
1.2	Segments of today's clothing industry	10	
1.3	The business models of branded clothing firms	12	
1.4	Geographic distribution of the value chain	13	
1.5	Future trends for branded clothing business models	17	
1.6	Factors influencing the location of economic activity	18	
1.7	Key policy factors influencing value creation	19	
2	The economic contribution in Europe	20	
2.1	Contribution to GDP	20	
2.2	Contribution with respect to trade	25	
2.3	Contribution to employment in Europe	31	
2.4	Contribution beyond GDP	36	
2.5	Summary of findings	39	
3	The trade environment	41	
3.1	The current tariff barriers	41	
3.2	Non-tariff barriers and other barriers	45	
3.3	Trade protection when production is globally fragmented	47	
3.4	Impact of barriers for global branded clothing firms	49	
3.5	Economic potential for Europe from further trade liberalization	50	
3.6	Summary of findings	53	
Re	ferences	54	

Unchaining the supply chain Copenhagen Economics

Preface

This study looks at branded clothing companies. The study focuses on global branded clothing firms with a significant presence in Europe.

The study addresses branded clothing firms with a presence in Europe regardless of whether they are of European origin (such as Inditex or H&M) or of foreign origin (such as Levi Strauss or Nike, Inc.).

The common denominator is that these firms have global value chains and high share of their sales, development activities and value added in Europe.

We have been asked to assess the economic footprint in Europe from the branded clothing companies, and have been asked to suggest how European trade policies can help maximising that footprint in Europe.

The views expressed in this report are those of the authors and cannot be taken as an expression of the view of the client or the companies mentioned in the report.

Executive summary

This report assesses the economic footprint of what we call *branded clothing*, which comprises the whole value chain from manufacturing of apparel, shoes, bags, and accessories to textiles, leather and fur. We also include the very important *research*, *design and development activities* preceding the manufacturing stage as well as the stages following manufacturing, namely the *distribution* part with transport, logistics, wholesale and retail. Furthermore we distinguish between branded and non-branded segments of the value chain.

Tide is turning: Branded clothing becoming a net contributor to jobs

The economic footprint of the modern branded clothing industry looks very different to the traditional textile, leather and clothing manufacturing sector. It shows an economic footprint, which combines a low-skilled and declining manufacturing element, and a growing high-skilled and high-value added element in non-manufacturing parts of the value chain represented in Europe.

Historically the industry has been painted as an outsourcer, with jobs leaving Europe rather than being created here. This view neglects somewhat the creation of other jobs in other parts of the supply chain. It also fails to acknowledge that some of the major players have never produced in Europe, and in fact started their business with Asian manufacturing. However, we now see growth in this sector, and increasing recognition that employment in post- and pre-manufacturing stages are now making up for the manufacturing jobs being outsourced, and in certain countries, the branded clothing value chain is starting to become a positive net job creator.

Furthermore, there is clear evidence of a rapidly changing composition of the jobs with many new high-skilled and high value added jobs being created within the branded clothing value chain in Europe.

Quantifying the economic footprint

Branded clothing is the centrepiece of Europe's fashion industry, which again is a significant part of Europe's creative economy. We measure the economic footprint in four parts:

- Contribution to jobs
- Contribution to gross domestic product (GDP)
- Contribution to trade
- Contribution beyond GDP

Contributing with 4 million jobs in Europe

Europe's branded clothing industry supports 4 million jobs. According to EU Commission reports, the European fashion industry supports 5 million jobs. Around 80 percent of the fashion market is branded clothing, and consequently, we estimate that 4 million of the 5 million jobs in the fashion industry are in the branded clothing segment. Furthermore, we estimate that 1.5 million of the branded clothing jobs are in manufacturing (37 percent),

while 2.5 million jobs (63 percent) are found in other parts of the value chain, mainly in the distribution part – logistics, wholesale and retail related to the fashion industry.

So while branded firms have many manufacturing jobs outside the EU, the sector is still supporting manufacturing jobs equivalent to more than 5 percent of total employment in the manufacturing sector.

Contributing with 2.4 percent of European GDP

We estimate that the branded clothing value chain contributes 2.4 percent of the EU27 gross domestic product (GDP). This is composed of a contribution derived from the manufacturing part of 1.2 percent of total GDP, including the value added in inputs to the manufacturing, and 1.2 percent of total GDP in the remaining part of the value chain. European Commission reports show that the fashion industry as a whole accounts for 3 percent of the EU's GDP, and our results show that 80 percent of that contribution can be attributed to branded clothing.

Given a contribution of 2.4% and based on the latest GDP data for the EU27 for the year 2012 our results show that the activities in the branded clothing value chain generate value added across the region in the order of €300 billion, and thereby significantly contribute to the European economy and growth.

When we take a value chain approach and estimate how value added is generated in the different parts of the value chain, we find that although a large share of the actual manufacturing takes place outside Europe, a significant share (50-80%) of the value added derived from final consumption in Europe stays in Europe. The numbers presented in this report show that well over half of the total value added in the value chain still accrues to the EU, even though manufacturing is outsourced.

In the case of global branded clothing it does not seem that outsourcing is pulling the high value added jobs with it to destinations outside Europe. The central functions of research, design and development are still very much centred in Europe, and similarly, a significant part of the value added being generated in the logistics, wholesale and retail parts of the value chain also stays within Europe.

Contributing to increased trade

Textiles and clothing are among the most traded goods in the global economy and the EU dominates high quality markets.

The EU27 remains the world's second largest exporter of textile and clothing products after China¹. In 2012, the combined EU27 exports of clothing and textile products to non-member countries totalled €41.2 billion, while imports from non-member states totalled €88.7 billion. Exports of footwear to non-member countries were valued at €7.5 billion in the same year, while imports of footwear reached a total of €15.6 billion.

World Trade Organisation: International Trade statistics 2012.

In this study, using a new and novel database published in January 2013 by the WTO and OECD, we go beyond analysing gross trade flows and also examine the content of EU value added in both exports and imports.

We find that **the domestic share of value added embodied in** *gross imports* **of textiles, clothing and footwear products averages around 25 percent** across the EU. This illustrates the global aspect of the value chain well. Even though products are manufactured outside of the EU, a significant part of the value added may still have been generated within the EU. Products may for example have been designed or developed by European enterprises or even manufactured using intermediate inputs originating from the EU.

Contributing beyond GDP

The globalisation of the branded clothing firms has contributed to Europe's economy beyond what can be measured in terms of GDP.

Clothing and footwear is an important part of the household budget for an average European family. Between 5 and 7 percent of total household expenditure is on clothing. Analysis of the price levels for clothing and footwear in comparison with prices of all other products purchased by households shows a significant price drop for clothing and footwear over the past 15 years. During this period, prices of clothing and footwear products have fallen by 27 percent compared to the general price level. We argue that globalisation of the value chain for branded clothing has led to significant consumer benefits in the shape of lower prices and an increased variety of goods to choose from.

Maximising the economic footprint

Branded clothing companies located in the EU can obtain certain competitive advantages related to the ability and tradition of high quality products and the proximity to advanced and trend setting markets allowing for fast reaction to changing trends. Furthermore, branded clothing firms can build on the availability in Europe of technological and non-technological innovation in the various European fashion and design clusters, which also constitutes the hotspots for creativity and the skills and *savoir-faire* that is key to success in the branded clothing industry.

Design and creativity, however, are not the only keys to success in an industry where production and competition is becoming ever more global and integrated. To create jobs and value in Europe, branded clothing firms also need to operate very large and very advanced value chains at a global scale. The vertical cooperation across the supply chain, from design to manufacturing to retail is complex, but pivotal in enabling branded clothing firms to survive and grow.

Despite a very pronounced globalisation of all parts of the value chain, significant parts of the value chain are still very much present in Europe, and as we will show in this report, further globalisation and removal of trade barriers is essential for maximising the economic footprint in Europe of the branded clothing firms.

The role of trade policies for maximising the economic footprint

We found that despite the recent removal of quantitative restrictions on imports of textile, leather and clothing products, the industries are still among the most protected in the EU, with average ad valorem tariffs of roughly 11 percent on apparel products.

The global organisation of production and the high trade-intensity of branded clothing products make the industry especially vulnerable to trade barriers. Tariffs and other types of trade barriers imposed at each border add to the cost of the final product and may affect the organisation of the global value chain. Furthermore, a country's own producers may actually benefit from trade liberalisation rather than suffer from it.

Operating a global value chain, as illustrated by the global branded clothing firms, still generates significant value to the European economy, as most of the higher value added activities are located in the EU. However, in terms of trade policy, manufacturing is still the stage that determines origin. The implication of this is that European consumers end up paying higher prices and that producers, which in all other aspects than manufacturing are European, are taxed for organising their production in the most cost-effective manner.

Looking into the future for a favourable policy environment

Protectionist measures such as antidumping duties or high tariffs on imports into Europe will not serve the economic interests of European consumers since it will hinder the deployment of an effective global sharing of tasks.

We would thus recommend that the EU needs to pursue and deliver on an ambitious free trade agenda which includes tariff liberalization through a combination of FTAs and multilateral agreements with harmonised and flexible RoOs. Furthermore, to maximise the economic footprint of the branded clothing value chain in Europe, the EU should reject a simplistic approach to trade defence instruments such as antidumping duties, and it should also address the key NTBs in the sector in particular TBTs in the form of certification, labelling and testing requirements which significantly hinder market access of branded clothing products.

A favourable policy environment would be one with more free trade, low or no tariffs on a much broader range of textiles, leather and clothing products and with much more flexible rules of origin than is the case today.

Looking into a future with such a favourable policy environment would allow the sector to increase its contribution to the European economy.

Overall this suggests that future EU trade policy should take account of a value chain based approach incorporating *inter alia* the above features. We find that taking this approach would lead to more positive effects of trade liberalisation, and support the conclusion that more trade liberalisation, not less, is needed to maximise the economic footprint of the textile and clothing value chain in Europe.

Chapter 1

The global value chain for branded clothing

This report focuses on what we call *branded clothing*. Branded clothing is in fact more than just clothing. In our definition, branded clothing comprises the manufacturing of *fashion goods* (apparel, shoes, bags, and accessories), the *fashion led industries* (textiles, leather and fur), *design activities* as well as *distribution* (both wholesale and retail). Furthermore we distinguish between branded and non-branded segments, cf. Figure 1.

Figure 1 Example: Branded and non-branded



In this chapter we describe the global value chains for branded clothing firms. To do so, we rely on interviews conducted with a selection of members of EBCA as well as findings in the existing literature and publicly available information from annual reports and other financial information.

1.1 Background and policy context

Branded clothing is the centrepiece of Europe's fashion industry, which is a significant part of Europe's creative economy.² Europe's fashion industry counts 850 000 companies and supports 5 million jobs, according to EU Commission reports, which also show that the fashion industry as a whole accounts for 3 percent of the EU's GDP and thereby significantly contributes to the European economy and growth.³

As branded clothing constitutes around 80 percent of the EU clothing market, we estimate that 4 million out of the 5 million jobs in the fashion industry are in the branded clothing segment. Based on data from Eurostat, we further estimate that out of these 4

See European Commission Staff Working Document, "Competitiveness of the European high-end industries", SWD(2012) 286.

See European Commission Staff Working Document, "Policy options for the competitiveness of the European fashion industries — Where Manufacturing Meets Creativity", SWD(2012) 284 final/2.

million jobs, 1.5 million (37%) are in manufacturing, while the remaining 2.5 million (63%) are found in other parts of the value chain. This is mainly in distribution – logistics, wholesale and retail activities - related to and supported by the fashion industry.

The 1.5 million jobs generated in manufacturing constitute 5 percent of employment in the entire manufacturing sector in the EU27.

The branded clothing industry has a much bigger economic impact when one considers the indirect impacts and the positive spillover effects to other industries such as: fashion media, events, stylists, model agencies, make-up artists, photographers and tourism, and also when considering the upstream linkages in the form of purchasing inputs from other sectors.

Branded clothing companies located in the EU can obtain certain competitive advantages related to the ability and tradition of high quality and high value added products, the proximity to advanced and trend setting markets allowing for fast reaction to changing trends. Furthermore, branded clothing firms can build on the availability in Europe of technological and non-technological innovation in the various European fashion and design clusters, which also constitute the hotspots for creativity and the unique skills and savoir faire that is key to success in a fast moving business.

Design and creativity, however, are not the only keys to success in an industry where production and competition is becoming ever more global and integrated. To create jobs and value in Europe, branded clothing firms also needs to operate very large and very advanced value chains at a global scale. The vertical cooperation across the supply chain, from design to manufacturing to retail is complex, but pivotal in enabling branded clothing firms to survive and grow.

Despite a very pronounced globalisation of all parts of the value chain, significant parts of the value chain are still very much present in Europe, and as we will show in this report, further globalisation and removal of trade barriers is essential for maximising the economic footprint in Europe of the branded clothing firms.

Nevertheless, the recent communication on Promoting cultural and creative sectors for growth and jobs in the EU⁴, and the accompanying Staff Working Document on the competitiveness of the EU fashion industries⁵, says nothing about how future trade policies of the European Union intend to support and foster this development. This report is proposing to close this gap.

http://ec.europa.eu/enterprise/newsroom/cf/_getdocument.cfm?doc_id=7666

See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: "Promoting cultural and creative sectors for growth and jobs in the EU", COM(2012) 537 final.

http://ec.europa.eu/culture/our-policy-development/documents/communication-sept2012.pdf

Commission staff working document Policy options for the competitiveness of the European Fashion industries — 'where manufacturing meets creativity'

1.2 Segments of today's clothing industry

To analyse how future trade policy can be designed to maximise the economic footprint of branded clothing in Europe, we will need to understand the current and future operations of branded clothing firms. We need to appreciate that there are many differences in how branded firms operate and create value. Branded clothing is indeed an industry where one size does *not* fit all.

Branded clothing constitutes the majority of the clothing market with around 80 percent; the remaining 20 percent of the market is non-branded or private labels. The exact shares for branded versus non-branded segments are difficult to estimate and it can vary slightly from year to year. Our estimate is based on industry interviews and data on the sales of apparel by distribution channel, cf. Figure 2. To gauge the share of branded clothing it can be assumed that sales in the largest channel, namely the apparel specialist retailers are almost entirely attributable to the branded clothing segment. Likewise it can be assumed that sales from the department store sales channel is also branded clothing. Sales through the grocery retail channel, on the contrary, can be assumed to be predominantly non-branded. The sales through internet retailing and other channels are assumed to be an equal split between branded and non-branded apparel. Adding these estimates, the share of branded clothing is thereby around 80 percent.

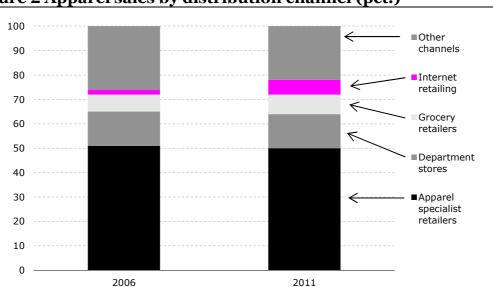


Figure 2 Apparel sales by distribution channel (pct.)

Note: Market shares are based on estimates for apparel distribution by sales channel.

Source: Quartz+Co analysis based on data from Euromonitor.

The retail brands are actors in different market segments, thus acting under different market conditions, and these can also be assessed based on industry insights and approximate market shares can be estimated. Again, this shows an approximate market size of the branded segment of around 80 percent, cf. Figure 3.

The so-called *global vertical retailers* control the entire value chain from production to retail in own shops and they have an almost global span of their operations and presence. This is expected to be the fastest growing segment of the industry in the years to come and the segment has an estimated market share of 25 percent. The key factors of success are speed in the value chain and the ability to adopt new designs and products to rapidly changing consumer demands.

The *global and premium brand* segment is estimated at around 15 percent share of the market and is estimated to grow at solid rates of 2 to 4 percent per year in the coming years. The key success factors are to build the brand and protect the brand. The firms in this segment use a combination of own stores and other retail outlets.

The *mid-market brands and regional verticals* is the largest segment of the clothing industry with an estimated market share of around 40 percent and with an estimated growth rate of 2 to 4 percent per year in the years to come. The main success factors in this segment are to reduce costs by reducing the complexity in the value chain and at the same time build the brand value.

The *mass-market* segment is the non-branded clothing segment of approximately 20 percent of the market. The growth is slower and the main focus is on low cost and low price.

Figure 3 Market se	egments within	the clothing	industry
		the crothing	,

Retail brand categories	Brand examples	Estimated growth CAGR, 2012-2016	Key success factors	Estimated market share
Global vertical retailers	• H&M • Zara	4-6%	SpeedCustomer adoption	25%
Global and premium brands	• Boss • Prada • North Face	2-4%	Brand building Brand protection	15%
Mid-market brands and regional verticals	Saint Tropez Vans Eastpack	2-4%	Complexity reductionBrand building	40%
Mass-market brands	Hyper markets Non-branded Private label	0-1%	Price Cost reductions	20%

Note: Market shares are based on estimates. CAGR is short for the Cumulative Annual Growth Rate.

Source: Quartz+Co analysis.

1.3 The business models of branded clothing firms

The purpose of this section is to provide insight into the predominant business models within the branded clothing segments, i.e. excluding the non-branded segment. Even though the global branded clothing companies share many similarities, there is still much variation in their business models.

At a general level there are two predominant global branded clothing business models which differ in their market approach. One takes a *retail-driven* approach (vertically integrated) while the other is rooted in a *wholesale-driven* approach (design/wholesale). The two business models primarily differ in their approach to ownership and brand control of the retail channels and this impacts on the requirements for design and product development and the agility of the supply chain.

Retail-driven business models, such as for example INDITEX, H&M and Grupo Cortefiel, have very high retail shares of the total net revenue (>90%), a relatively low number of global sales points and many self-owned stores, while wholesale-driven firms, such as NIKE inc., VF and Levi's, have retail shares of total revenue at around 20-50%. They have many sales points (e.g. in department stores) and fewer self-owned stores, cf. Table 1.

Business model	Examples (annual net revenue, billion €)	Retail share of total net revenue	Typical number of sales points per firm	Typical number of own stores per firm
Retail driven	Inditex (€14 bn) H&M (€12 bn) Cortefiel (€1 bn)	Above 90%	2.000-5.000 sales points globally	1.500-5.000 own stores globally
Wholesale driven	NIKE inc. (€20 bn) VF Corporation (€7 bn) Ralph Lauren (€5 bn) Levi Strauss (€4 bn)	Between 20% and 50%	20.000-50.000 sales points globally	Less than 1.000 own stores globally

Note: Based on publicly available information from the firms listed in the table for latest financial year (mostly 2011). Retail stores include Owned & Operated stores (i.e. direct to consumer stores).

Source: CE and Quartz+Co analysis based on annual reports of the firms.

1.4 Geographic distribution of the value chain

Based on the publicly available information on the pattern of global sourcing and manufacturing, the majority of manufacturing takes place in Asia, while some manufacturing is also carried out in Europe and the Americas. The activities that make up the global value chain for branded clothing companies are shown in Figure 4.

Figure 4 The value chain for branded clothing companies

Brand & product development	Sourcing	Manufacturing	Logistics	Sales & marketing	Retail channels
Brand, product & marketing strategy Collection design Fabric R&D Fitting	Demand planning and merchandising Planning of produc- tion and sourcing Sourcing of fabrics and final clothing	Manufacturing of fabrics and final clothing	Inbound and outbound transportation* Distribution center Return center	Market/sales support (regional and local) Wholesale / 3 rd party distribution Customer service Marketing execution	Branded stores (O&O channels and franchise channel) 3 rd party channels (e.g. multibrand stores)

Note: Inbound transportation takes place from suppliers to the distribution centre and outbound transportation from the distribution centre to the sales channels.

Source: EBCA member interviews; Quartz+ Co analysis.

In terms of the geographical location of each activity, our industry research revealed the following about each of the above activities:

Brand & product development

This activity is closely tied to the brand's cultural identity and geographical origin. The majority of these activities are therefore located in the country where the brand originates.

Sourcing

A high share of the sourcing activities takes place in sourcing offices located in proximity to the manufacturing sites, e.g. China, India or Hong Kong.

• Manufacturing

The vast majority of this activity takes place outside the EU27.

Logistics

All their logistics activities serving Europe are located in Europe.

Sales and Marketing

Fully located in Europe.

• Retail Channels

The retail channels located in EU27 by definition leads to activities in these countries.

Our analysis of the selected branded firms shows that the geographical split of the revenues differs between the two business models. The retail-driven firms we have researched incidentally tend to have a high share of their total revenue in Europe with around 70 percent to 85 percent of total revenues from Europe, which also corresponds to the geographical split of their own stores. Based on the researched firms operating a wholesale-driven business model, we see that these firms have a lower share of total sales in Europe, of around 20 percent to 25 percent, cf. Table 2.

Business model	Examples Annual net revenue, billion €	Typical share in Europe (revenue) % of total revenue, 2011	Typical share in Europe (number of stores) % of total retail stores, 2011
Retail driven & European origin	Inditex (€14 bn) H&M (€12 bn) Cortefiel (€1 bn)	70%-85%	~ 80%
Wholesale driven & non-European origin	NIKE inc. (€20 bn) VF Corporation (€7 bn) Ralph Lauren (€5 bn) Levi Strauss (€4 bn)	20%-25%	Not available

Note: Based on publicly available information from the firms listed in the table. Retail stores include Owned & Operated stores (i.e. direct to consumer stores).

Source: CE and Quartz+Co analysis based on Annual Reports and company websites.

It should be noted that the firms in our sample operating a retail-driven business model are of a European origin, while the firms used as examples of the wholesale-driven business model are of a non-European origin.

Furthermore we stress that this does not necessarily imply that the global branded clothing firms of a non-European origin have a smaller economic footprint in Europe than the firms originating from Europe. A large global branded clothing and footwear firm like NIKE inc. have sales of €4 billion to €5 billion per year in Europe which implies a significant share of the retail and transport and logistics work being carried out in Europe as per the above analysis of the location of the economic footprint along the value chain.

While the manufacturing of the products tends to take place outside Europe, the above value chain analysis suggests that a significant amount of the activities that take place after manufacturing, are fully located within Europe, while the location of those activities that take place before manufacturing depends on the origin of the brand.

There is also a significant economic footprint in Europe in the processes lying before the manufacturing step in the value chain, namely the brand, design and product development part of the value chain. Global branded clothing firms vary in their level of brand and product development activities in Europe. There is no one-to-one relation between location of production and the location of the brand and product development activities, because they are closely tied to the brand's cultural identity and geographical origin. Hence, global branded clothing firms whose brands originate in the US have the majority of their brand and product development located in the U.S. whereas the European originated brands (INDITEX, H&M and Grupo Cortefiel) have the majority of these activities located in Europe. However, again there are exceptions to this pattern, and some of the U.S. originating firms have design centres in Europe as well.

The jobs created in Europe by the activities of the branded clothing firms tend to be highly specialised and highly skilled jobs in e.g. logistics management, marketing or design. In terms of the value added generated in each stage of the chain, some activities create more value added than others. This is illustrated in Figure 5, where each stage of the global value chain is plotted against the value added that it brings to the final product (see Box 1 for a description of each step in the value chain). The actual manufacturing of the product (a shoe, a shirt or a coat) is the stage that accounts for least of the value added, while activities taking place both before and after manufacturing are the most important in terms of value added (see section 2.1 for a quantitative analysis of this).

As shown above, Europe has shifted away from the parts of the value chain which contributes least value, and enhanced activities in the parts of the value chain where the most value is generated. This is a trend that, from an overall socio-economic perspective, should be continued and strengthened.

Box 1 Definition of the different steps in the value chain in the clothing sector

R&D

R&D is the first step in the value chain and includes activities related to product and process innovation in addition to research on consumer markets. Examples of jobs generated in this stage include technical professionals such as engineers and natural scientists (development of new textiles etc.).

Design

The design of the product and its components is an important stage of the apparel value chain and provides the product with a strong competitive advantage. Jobs in this step of the value chain are often highly specialized and creative jobs.

Purchasing

This step of the value chain includes purchasing and transporting textile products for further processing. Logistics and the management of supply chain coordination are an important activity in this step.

Manufacturing

This step includes the actual manufacturing of the product. Examples of job functions include production workers, craftsmen and machine operators.

Distribution

In this step the final product is distributed and sold via wholesalers, etc. Examples of job functions include logistics and sales.

Marketing and Sales

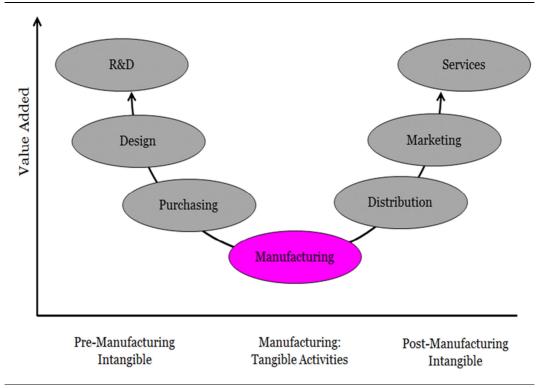
This step includes all activities associated with pricing, selling and distributing the product to the final consumer. Jobs within branding, advertising and sales are important activities in this step.

Services

This includes international business or fashion consulting.

Source: Copenhagen economics using information from Fernandez-Stark, Frederick and Gereffi (2011) and Economix (2007).

Figure 5 Value added in the global value chain in the clothing sector



Note: Fernandez-Stark et al. (2011) refer to manufacturing as production. Source: Modified from Fernandez-Stark, Frederick and Gereffi (2011).

1.5 Future trends for branded clothing business models

Based on company interviews we have identified six key industry trends impacting the future for branded clothing business models:

- 1) Increasing global expansion
- 2) Increasing share of branded retail/branded space
- 3) Continued focus on cost competitiveness
- 4) Continued focus on product innovation
- 5) Increasing focus on sustainability and CSR and
- 6) Extracting value from online and multichannel retail.

Figure 6 Key trends affecting the branded clothing businesses

- Increasing global expansion
- To pursue further growth clothing companies expand their activities to existing and emerging international markets with particular focus on Asia
- Increasing share of retail / branded space
- There is increasing focus on Own & Operated retail space, but also branded concepts (e.g. franchise stores or shop-in-shop) at the expense of traditional multibrand retail channels. This is driven by the wish to strengthen the brand and the pace of revenue growth, but also to control the distribution, increase consumer contact and insight
- Continued focus on cost competitiveness
- Recent years' challenging macro economic environment and the volatility in the costs of fabrics and increasing labour costs (particularly in 2010 and 2011) have increased pressure on branded clothing profits and have led companies to increase their focus on cost competitiveness
- Continued focus on product innovation
- The growing competition in the market place among branded clothing brands stimulates increased focus on innovation both for fast fashion brands (e.g. design, style, collaborations) and for functional sports/outdoor brands (e.g. innovation in fabrics and functionality)
- Increasing focus on sustainability and CSR
- Branded clothing companies must accommodate the increasing focus on sustainability and CSR (e.g. environmental impact, fair trade, factory worker wages and health, child labour, chemicals in the end product etc.) from end consumers, NGOs and public authorities
- Extracting value from online and multichannel retail
- Branded clothing companies' online revenue has taken off and there is increasing focus on extracting the brand and revenue potential from multichannel branding and sales positions which also includes access to data on end consumers' shopping behaviour*

Source: Annual reports; Interviews; Quartz+Co analysis.

The increased international expansion and focus on retail increases the complexity of the business models both in the supply chain and in the management of sales channels. Altogether, this increases the need for responsiveness throughout the value chain.

1.6 Factors influencing the location of economic activity

Our analysis points to a number of factors driving the choice of location for the various parts of the value chain. CSR compliance and sufficient manufacturing capacity are prerequisites for choosing where to source from and locate manufacturing. Other key factors are competences and quality as well as the speed and flexibility of the value chain.

Clearly, the weight attributed to these factors varies from firm to firm. When these critical factors are fulfilled the aggregate cost level is decisive for choosing where to source from or locate manufacturing. Although the costs and complexity derived from trade policies are important for the aggregate cost level, the by far most important cost factor is labour costs.

The clothing category and product type have a great influence on design, sourcing and manufacturing processes and the flexibility in substituting between suppliers. From the interviews with global branded clothing firms it is evident that the product type is important for the cooperation with suppliers. For highly complex and technical clothing products, e.g. outdoor and footwear and to some degree also denim and leather with a high degree of craftsmanship, the branded clothing firms enter into close cooperation

with suppliers both in the fabric R&D and product development phase and also in the sourcing and manufacturing phase. Accordingly, for these products branded clothing firms have limited flexibility in switching between suppliers and become more dependent on these suppliers. In comparison, the dependence on suppliers is limited for less complex product types, cf. Figure 7.

Figure 7 Flexibility in substituting between suppliers



Source: EBCA member interviews; Quartz+Co analysis

1.7 Key policy factors influencing value creation

Overall, we see three key factors influencing the sourcing decisions made by branded clothing:

- EU trade policies affect, but are not decisive for, the sourcing and manufacturing decisions.
- Manufacturing capacity, competences and quality and the cost of labour are the key drivers for sourcing from Asia.
- There is currently no scope for moving large scale branded clothing sourcing or manufacturing to Europe, since neither manufacturing capacity nor competences are available in Europe.

EU trade policies add further costs and complexity to the global supply chain and particularly to sourcing and manufacturing planning and processes for major global branded clothing companies. Global branded clothing firms would in general benefit from further liberalisation of trade barriers, which would lead the branded clothing companies to invest more and grow their businesses in the EU.

Chapter 2

The economic contribution in Europe

Due to increasing globalisation of the value chain and a sharp increase in imports, the branded clothing industry in the EU27 has undergone significant structural changes over the last decades.

In this chapter we analyse how this process has affected the industry as a whole and its economic footprint within the EU27. In order to quantify the economic impact of the sector, we provide two distinct analyses, which allow us to determine the direct and indirect effects of the branded clothing value chain on EU27 GDP and employment.

Finally, we analyse developments in the trade position of the EU27 in the apparel industry. While imports have risen relatively more than exports, resulting in an increased trade deficit in the sector, the value of the products exported from the EU27 have risen relatively more than the products imported. Based on previous findings from Belgium, we argue that this is consistent with import competition as a source of quality upgrading in the EU27 industry.

2.1 Contribution to GDP

We apply two distinct approaches to assessing the economic contribution of the branded clothing industry in Europe.

In the first, we take a manufacturing oriented approach and we conduct a so-called inputoutput analysis, which allows us to determine the direct and indirect effects of the manufacturing parts of textile, clothing, leather and footwear on EU27 GDP and employment. We do so for the period since 1995 which allows us to comment on changes through time. We find that, while the manufacturing-driven contribution has declined over time, it is still significant in size.

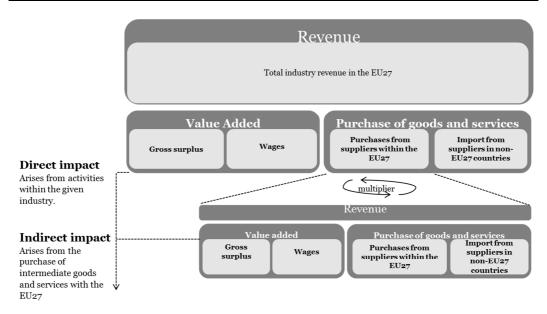
In the second, we take a value chain approach and assess the value creation by working our way backwards from final consumption of branded clothing products and estimate how this final consumption generates value added in different parts of the value chain. This analysis shows that although a large share of the actual manufacturing takes place outside Europe, a significant share (50-80%) of the value derived from final consumption in Europe stays in Europe.

Input-output based analysis of manufacturing-driven contribution

In this section we analyse the direct, indirect and wider impacts of the manufacturing parts of the European textile and clothing industry combined, and of the European footwear and leather industry alone, on the EU27 economy.⁶

The direct impact on the combined *Gross Domestic Product* (GDP) of the EU27 comes from the value added that is generated by activities within the industries themselves. Indirect effects arise through the purchases of intermediate goods and services from suppliers within the EU27, who may, in turn, also purchase parts of their inputs from within the EU27. This process is illustrated in Figure 8.

Figure 8 Illustration of the direct and indirect impacts of the TLC industries on the combined GDP of the EU27



Note: A minor component of the firms' revenue is production taxes less subsidies. We do not include this

component in the industries' contribution towards GDP.

Source: Copenhagen Economics.

In order to calculate the direct and indirect impact of the TLC sectors we conduct a socalled input-output analysis. To do so, we use data from *The World Input-Output Database (WIOD)*, which combines the purchases of goods and services by industries within countries, with trade data on the purchase of goods and services between countries. The

To ensure comparability across countries and time, statistical agencies and databases classify industries and products on the basis of a standard set of codes. In the WIOD database, the textile and clothing industry is aggregated into textiles and textile products while the Footwear and leather industry is included separately. Due to this set-up, we conduct our analysis jointly for the textile and clothing industry and separately for the Footwear and leather industry.

database covers all 27 EU countries and 13 other non-EU countries over the period since 1995.⁷

The results for the most recent year show that across the region, activities within the EU27 clothing and textile industry generated value added of 1.5 percent of the region's total GDP.

The equivalent results for 1995 show that the direct and indirect impact of the textile and clothing industry and the leather and footwear industry, accounted for 2.8 percent of the combined GDP of the countries that make up today's EU27.

It is important that the above assessment only covers the direct and indirect GDP contribution from the manufacturing part of textile, clothing, leather and footwear in Europe and the pre-manufacturing purchases related to these activities in terms of suppliers to the manufacturing process.

Bringing these results forward to the most recent year, 2012, we find a significant larger impact when taking all activities throughout the value chain into account. This is done in a recent report from the European Commission, in which it is estimated that the fashion industry as a whole (including jewellery and accessories in addition to textiles, clothing, leather and footwear), contributes 3 percent to European GDP.³ Given that the branded segment covers approximately 80 percent of the market, we estimate that this segment alone contributes 2.4 percent to European GDP.³ This contribution is composed of value added generated through activities within manufacturing enterprises and their EU suppliers, (contributes with 1.2% to total GDP) as well as through activities in the remaining part of the value chain (also 1.2% of total GDP).

The value chain and its economic contribution in Europe

To capture a more comprehensive and detailed picture of the entire value chain, we assess the value creation from the perspective of the final consumption. To illustrate, we use the example of a pair of women's summer shoes, taken from a study by the Swedish Board of Trade, Kommerskollegium (2007). The shoes are produced by a Dutch shoe company (Intermedium) and the manufacturing takes place in China. It should be noted, that all figures are obtained by Kommerskollegium from Intermedium and are based on the cost-structure of a real pair of shoes, sold in the EU market in summer 2007 (Kommerskollegium, 2007).

In Figure 9 we illustrate the geographical distribution of the various costs involved in the production. The retail price is €19.95, and in the analysis we walk our way through the value chain to see how these shoes create value at the various steps in the chain both in Europe and abroad.

Despite the availability of data from 2009, we use that from 2008, as 2009 was at the height of the crisis and may therefore be a somewhat atypical year.

European Commission Staff Working Document. 2012. "Policy options for the competitiveness of the European fashion industries – 'Where manufacturing meets creativity'".

Given that the value added generated in such parts of the value chain as design, R&D and marketing is likely to be larger for branded clothing than non-branded, we see this as a conservative estimate.

In the top part of the figure, the value chain is divided into five stages including RDD (Research, design and development), material inputs, production, logistics and distribution and retail. Each of these are in turn divided into EU and Non-EU, with the size of each rectangle indicating the share of the final value of the shoe (retail price), that is accounted for by each stage and geographical region.

The first stage of the value chain (Research, Design and Development, RDD) includes the design and the physical development of the shoe, which takes place in the EU. This is followed by production and quality controls carried out by Europeans in China, where the sample production takes place (Kommerskollegium, 2007).

The actual production of the shoe also takes place in China using materials from, most likely, Pakistan. Hereafter, the shoe is shipped to the EU, which Kommerskollegium (2007) note is often done by the Danish-owned Maersk Line. In addition to shipping, other costs include insurance, tariffs (8% which also accrue to Europe) and transport to the retailer. The retailer buys the shoes at €6.65 a pair and sells them to the final consumer for €19.95 (Kommerskollegium, 2007).

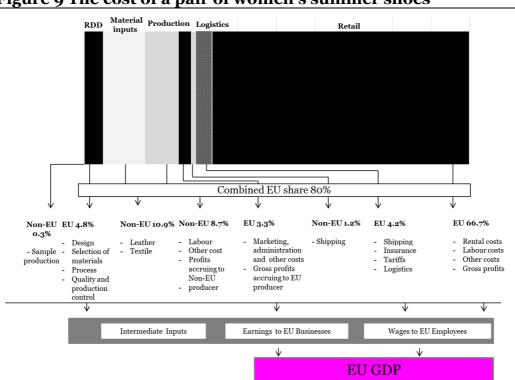


Figure 9 The cost of a pair of women's summer shoes

Note: Kommerskollegium (2007) have obtained all underlying figures from Intermedium. They relate to a real pair of shoes selling on the EU market in the summer 2007. In Kommerskollegium (2007), none of the costs of the production stage accrue to the EU, as the gross profits of the EU company and its costs of marketing and administration are included separately. We have instead chosen to treat these as part of the production costs. *RDD* is short for Research, design and development.

Source: Copenhagen Economics using data from Kommerskollegium (2007)

In terms of the share of value added that go to the EU, the Kommerskollegium (2007) calculates this to be 55 percent. However, this is based on the price that the retailer pays (€6.65) and do not include the additional value added that is generated in the retail stage in the shape of wages to employees and profits to shop owners, which in turn would increase the EU value added. If we calculate the EU share of value including the value in the retail part, we find that 80 percent of the value accrues to Europe, while the shoe is produced in China.

The figure is, as mentioned, based on a pair of shoes belonging to the cheaper segment of the market, where R&D and design costs may be significantly lower than for a pair of high quality branded shoes. Based on approximate costs provided by a number of more highend EU-based shoe companies, the Kommerskollegium (2007) provide similar calculations for other segments of the market. Again, the EU share of value added is calculated based on the price that the retailer pays and not the final consumer price, cf. Table 3. However, in order to provide the reader with a point of reference, we have included the final consumer price in column two.

Table 3 T	he EU share of	value added
6	Consumer	Chara FULValue

Company	Consumer price	Share EU Value added	Produced in
Traditional manufacturer		100%	The EU (Italy, Spain etc)
Camper	N/A	Roughly 80%	China and Morocco
DC Company	€149.95	79%	Vietnam and China
Brownings	€44.95	67%	China and Vietnam
Heerkens	€89.95	58%	China
Intermedium	€19.95	55%	Almost only China
Traditional importer	€19.95	34%	Mostly in China and Vietnam

Note:

The underlying cost figures for each named company, aside from *Intermedium*, are based on *approximations* provided by each company to the Kommerskollegium (2007). No figures were provided by *Camper*. The EU share of value added is instead estimated by *Camper* themselves, based on their average shoe (Kommerskollegium, 2007).

Source: Adapted from Kommerskollegium (2007) by Copenhagen Economics to include the consumer price.

Aside from shoe models by specific companies, the table also include the generic 'traditional manufacturer' and 'traditional importer'. The former refers to a shoe company that produces their shoes within the EU27 as opposed to outsourcing their production to regions outside of the EU, as is the case for all other models included (see column 4 in Table 3). As all stages of the production are assumed to occur within the EU, the EU share of value added will necessarily sum to 100 percent, regardless of the cost structure.

The 'traditional importer' on the other hand is the case of a shoe company based outside of the EU. The share of value added accruing to the EU is calculated by the Kommerskollegium (2007), based on the cost-structure of the cheapest pair of shoes, provided by *Intermedium*. It is assumed that the only part of the total costs that go to beneficiaries within the EU (aside from retailing, which is not included) are the costs associated with logistics and distribution in addition to tariffs and some profits. However, even without any of the design and R&D activities taking place in the EU, the value added is still 34%, not

including the additional value added that is generated through activities in the retail sector.

While it is important to underline that the cost-structure of other parts of the branded clothing sector may differ from the above example, it illustrates the relative economic importance of the various stages of the global value chain well.

Finally, the above analysis shows that the global branded clothing firms, regardless of their origin and ownership structure, contributes significantly to the European economy through the various stages of the value chain. Indeed, these firms did outsource a significant part of their manufacturing to locations outside of the EU, but they are still generating significant activity in areas such as R&D, design and marketing.

The jobs that are now being generated are high value added jobs that are very strongly correlated with the success of the branded clothing firms. As noted by the OECD (2013a) in reference to the very same example, such jobs may therefore exist *because* of outsourcing, which allows the branded clothing firms to keep costs down and stay competitive enough to remain in the market. Similarly, the post-manufacturing stages of the value chain (transport, logistics and retail activities) also contribute positively to jobs and value added in Europe, and again the volume growth of the market driven by lower costs and lower prices to consumers also generates more transport, logistics and retail related jobs, which are bound to be located in Europe.

Hence, while globalisation on the one hand has led to a decrease in manufacturing activity within Europe, as shown in the previous analysis, it also provides opportunities for the European textile, leather and clothing (TLC) sector and supports the development of high value added activities within Europe.

2.2 Contribution with respect to trade

The EU27 is the world's second largest exporter of textile and clothing products after China¹⁰. In 2012, the combined EU27 exports of clothing and textile products to non-member countries totalled €41.2 billion, while imports from non-member states totalled €88.7 billion. Exports of footwear to non-member countries were valued at €7.5 billion in the same year, while imports of footwear reached a total of €15.6 billion.¹¹

Including Intra-EU exports, the EU27 accounted for 30.4% of the world's export of textiles and 32.5% of the world's export of clothing products.¹²

The largest export markets for EU textile and clothing products, outside of the European Union, include Switzerland (11.2%), the US (10.5%), Russia (10.3%), Turkey (6%), China (5.8%), Hong Kong (4.6%), Japan (4.5%), Tunisia (3.5%) and Morocco (3.4%).

World Trade Organisation: International Trade statistics 2012

Copenhagen Economic using data from Eurostat [DS-016894]. Products are defined according the HS2 classification scheme. Textiles include product groups 50-60 + 63 while clothing include product groups 61+62 and footwear include product group 64.

World Trade Organisation: International Trade statistics 2012.

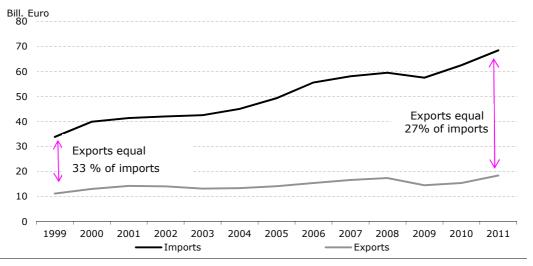
These are also the main destinations for footwear products, with the largest being the US (16%), followed by Russia (15%), Switzerland (14.2%), Japan (5.6%), Hong Kong (5.4%), Turkey (4.8%) and Norway (3.4%).

Imports mainly come from Asia, with China alone accounting for 39% of EU imports of textile and clothing products from Non-EU countries followed by Turkey (13%), Bangladesh (9.6%), India (7%), Pakistan (3.2%), Tunisia (2.7%) and Morocco (2.5%).¹³

Net export

In this part of the report, we look closer at trade in apparel products. Figure 10 shows the development in the export and import aggregated over all current EU27 member countries. Trade flows are measured in current euro values and excludes intra-EU27 flows. As the figure shows, imports have risen relatively more than exports over the period. Thus, in 1999, exports constituted 33 percent of imports, whereas this had fallen to 27 percent in 2011, at which point total EU27 import of apparel products exceeded exports by €50 billion.

Figure 10 Extra-EU27 trade in apparel product (Euro, billion)



Note: Extra-EU27 trade current values. The apparel sector covers product groups 61 (articles of apparel and clothing, knitted or crocheted) and 62 (non- knitted or crocheted) according to HS2 classification.

Source: Copenhagen Economics, using data from Eurostat [DS-016894].

As mentioned, the origin of goods arriving into the EU27 reflects the increasing role of Asia and especially that of China. In Figure 11, we show the change in the share of EU imports from non-member states from 2000 – 2011. The figure shows the changes only for the most important partners, defined as those from which at least 5 percent of the total EU import of apparel products from non-member states originated in the year 2000. The share of apparel products imported from China rose from 19 percent of all non-EU imports of apparel products in year 2000 to 44 percent in 2011.

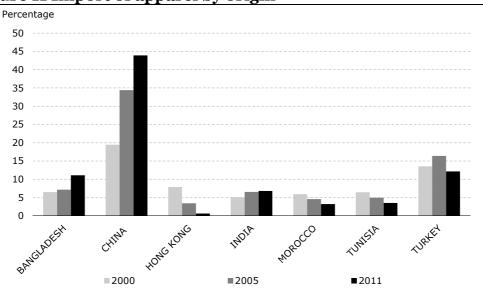


Figure 11 Import of apparel by origin

Note: The apparel sector covers product groups 61 (articles of apparel and clothing, knitted or crocheted) and 62 (non- knitted or crocheted) according to HS2 classification.

Source: Copenhagen Economic using data from Eurostat [DS-016894]..

Increased import competition and quality upgrading

The removal of quantitative restrictions on imports of textiles and apparel into the US and the EU27 in 2005 has been studied by a number of authors. Findings by Monfort et al. (2008) point towards a positive association between the increase in import competition from China and a move towards a more skill intensive industry producing higher quality products, Box 2.

Box 2 Import competition and quality upgrading in the Belgian textile industry

Monfort et al. (2008) study the effect of Chinese import competition on the Belgian textile industry. Using product level trade data, they find evidence of a widening gap between the unit values of Chinese and Belgian textile exports to the EU15 over time. Significant increases occur in 2001 when China became a member of the WTO and in 2005 when quotas on the imports of textiles and apparel products were removed from the EU market. As unit values are commonly used as a proxy for price and thereby product quality, the results are suggestive of an increased gap in the quality of the products that are imported and those that are produced and exported from Belgium.

The authors complement their sector analysis with firm-level data on Belgian textile producers. Their results show that China's entry into the WTO in 2001 and the subsequent removal of quotas in 2005, led to a restructuring of the Belgian textile industry towards smaller firms with a higher reliance on skilled workers and an increase in the capital intensity of production.

Source: Monfort et al. (2008).

While it is possible that part of this may be due to an increase in the outsourcing of low-quality goods, the findings suggest that a more liberalized trade regime may lead producers in high-wage countries to move further 'up the quality ladder' towards the production of high value added goods, instead of killing off production completely.

The theory underlying these findings suggest that instead of competing for the same segment of the market, producers in low-wage countries will specialize in the production of lower quality goods that are produced using low-skilled labour, while producers in high-wage countries will move towards a more capital intensive and high-skilled labour production, which are factors that are relatively scarce in low-wage countries (Monfort et al. 2008).

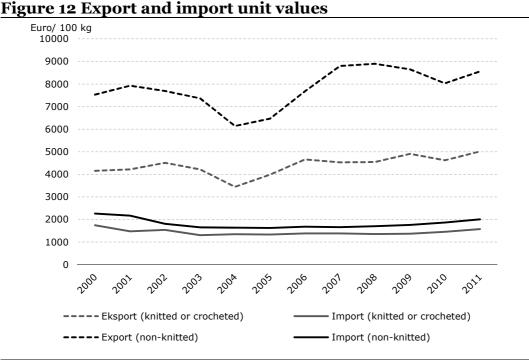
In order to give a first indication of whether there is any evidence of a similar quality upgrading in the EU27 apparel industry, Figure 12 shows the evolution of the unit values of EU27 exports and imports of knitted and non-knitted apparel products. Data comes from Eurostat, in which units are measured in 100's of kilos and values are given in current prices¹⁴. In order to account for possible changes in the composition of specific goods within each product group, the unit values are calculated at the 6-digit level and averaged across each product category.¹⁵

Comparisons between the export and import series, within each product group, shows that the unit values of the EU27 exports have risen relatively faster than the unit values of imports. Hence, the value of one unit of exports of knitted or crocheted apparel exceeded the value of one unit of import in the same product group by a factor of 2.4 in 2000 and a factor of 3.2 in 2011. The observed increase in the differences in unit values may of course be driven by other factors than quality differences, such as for example exchange rates. ¹⁶ However, the observed evolution is in line with the hypothesis of quality upgrading. Evidence of a development towards a more skill-intensive industry, presented in section 2.3, adds further support to this conclusion.

¹⁴ Comparisons through time should therefore be limited to developments in exports relative to imports.

By using this methodology we follow Monfort et al. (2008)

Monfort et al. 2008 point towards the possibility and mention the appreciation of the Chinese Renminbi-yuan as a factor to consider.



Note: The unit values are calculated as the weighted average of the unit prices of all HS 6-digit products, within each 2-digit product group (knitted and non-knitted). The weight assigned to all 6-digit products is the products share in total exports of the 2-digit product group. Unit prices are shown in current values.

Source: Eurostat Comext (DS-016893).

Trade in value added

When production is globally fragmented, traditional measures of gross trade flows have some clear disadvantages. As goods are counted every time they cross a border, gross export flows may be a poor indicator of the value that is generated domestically (OECD-WTO, 2013).

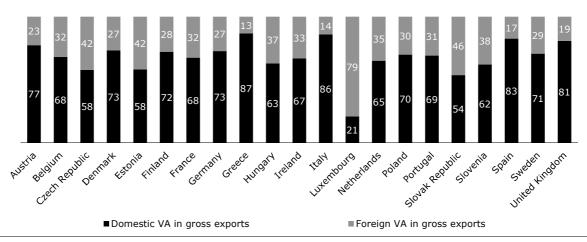
One of the most cited examples of this is the production of Apple's *iphone*, which like many textiles and apparel products, is assembled in China, but which uses inputs from all over the world. According to conventional measures of gross export flows, China is the main beneficiary of exports of *iphones*. However, as shown by Xing and Detert (2010), the actual assembly of the product only accounts for 3.6% of the production costs.

Furthermore, as was illustrated through the example of the shoes above, imports may contain a significant share of domestic value added. Imports may also be an important source of competitiveness for exporters, who rely on imported intermediate inputs in their production. Neither of these aspects are evident in gross measures of imports (OECD-WTO, 2013).

In recognition of such limitations, the WTO and the OECD has published a new database, measuring trade flows in terms of value added. This allows us to distinguish between the share of domestic and foreign value added in the exports and imports of TLC products in

the EU27. In Figure 13, we show the split between foreign and domestic value added contained in gross exports by the TLC sector across 21 EU-member countries. Aside from Luxembourg, it is clearly the case that the majority of value added accrues to domestic sources. However, the share of foreign value added is not insignificant, ranging from 13% in Greece to 46% in the Slovak Republic, underlining the globalisation of the value chain and the role that imports play in generating exports.

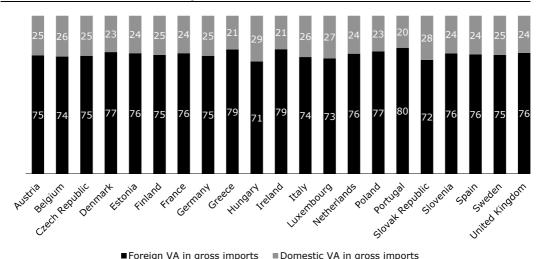
Figure 13 Domestic and foreign value added in gross exports in the TLC industries 2009 (%)



Source: WTO-OECD (Trade in Value Added database)

Similarly, besides bringing significant consumer benefits, imports also generate domestic value added. Imports are generally not considered as a source of domestic value added, but in the case of the branded clothing value chain, this is indeed an important feature. As can be seen from Figure 14, the domestic share of value added, embodied in gross imports, range between 20% in Portugal to 29% in Hungary and averages around 25%.

Figure 14 Domestic and Foreign value added in gross imports in the TLC industries 2009 (%)



Note: Domestic value added in gross imports is calculated as gross imports less foreign value added embod-

ied in gross imports.

Source: OECD/WTO (Trade in Value added database)

2.3 Contribution to employment in Europe

In this section, we look closer at the employment changes in the TLC industries in the EU27. We begin by discussing changes to employment in the EU27 TLC industries, which only include firms engaged in the manufacturing of TLC products. Hereafter, we move on to other parts of the value chain, including retail. The statistics presented show that while employment in the manufacturing part of the value chain has been in decline over the last decade, employment within the retail part of the value chain is starting to increase.

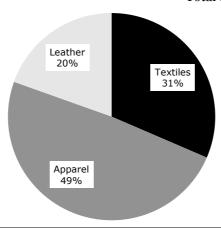
While the size of the industries has decreased significantly across the EU27, important changes have also occurred in the type of jobs that are being undertaken. As shown and discussed in Economix (2007), the type of jobs that are generated within this industry is increasingly higher skilled jobs, with an increase in management, engineers and other professionals in the 'old' member states.

In 2010, the TLC industries employed a total of 1,9 million people across the EU27, equivalent to 7 percent of total employment in the manufacturing sector. The distribution of employment across the three industries is shown in Figure 15.¹⁷ The clothing industry is by far the greatest source of employment and accounts for almost half of the total number of employees.

^{1.5} million of these jobs were accounted for by the branded segment of the market, according to our estimate. This is calculated on the basis that the branded segment accounts for 80% of the market.

Figure 15 Employees by industry in EU27, 2010

Total 1.9 million employees



Note: Employees only include persons who work for an employer, who have a contract of employment and who receive compensation. Sectors are classified according to NACE Rev 2.

Source: Copenhagen Economics using data from Eurostat [sbs_na_ind_r2]

While the industries still account for a significant share of employment in the manufacturing sector, both their relative and absolute importance as a source of employment has been decreasing over time.

The picture of an industry that is becoming more skill intensive also emerges when we look at changes in the distribution of skill type among the employees. In Figure 16, we plot the share of hours worked by low-, medium- and high-skilled employees in the textile and apparel industries in France, Italy, Spain, Portugal, Poland and Hungary in 1995 and 2009.

The data used comes from the WIOD database. Based on labour force surveys from EU-ROSTAT, the authors of the database have estimated the share of all hours worked by skill-type. The latter is based on the level of education attained by the employee according to the 1997 International Standard Classification of Education. According to this classification system a person with a primary or lower secondary education is defined as low-skilled, while medium-skilled persons are those with an upper secondary education and high-skilled persons are those with a tertiary education.

100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0% Portugal 1995 Spain 1995 Potuga 2009 France 1995 14211 1995 TX214 2009 Poland 1995 ■ High_skilled Low-skilled ■Medium-skilled

Figure 16 Increasing skill intensity in the clothing industry

Note: Hours worked by skill type (percentage). The shares are estimated by the authors of the WIOD database.

Source: WIOD, socio-economic accounts.

As part of a series of sector specific studies on skills and jobs, commissioned by the European Commission in 2007, Economix (2007) examine employment and occupational trends in the TLC sector, including likely developments until 2020. Conditional on the continuation and strengthening of the current growth in international trade, allowing firms to take advantage of the global division of labour, the authors argue that jobs within the TLC sector in the EU will be focused on specific areas such as product innovation, value chain management, design, marketing and sales, whereas manufacturing will continue to move to low-cost countries in Asia. The high-skilled occupations that will benefit from this development lie in both the technical and commercial part of the value chain. In particular, the authors point to an expected increase in demand for employees in areas such as engineering, natural sciences (development of new textiles), designers, business professionals, managers, computer specialists and employees within the area of service and sales.

The changing skill-structure of the industry adds further support to the conclusion of quality upgrading. Furthermore, it is in line with studies which find that firms which engage in outsourcing or so-called offshoring, tend to increase their share of high-skilled employees domestically, as the demand for headquarter services or functions such as R&D increases (see Box 3 for a short overview of the employment effects of Irish ODI).

Box 3 The employment effects of Irish ODI

In 2007 Copenhagen Economics carried out a study on the effects of Outward Foreign Investment (ODI) on indigenous enterprises in Ireland, including enterprises in the textile sector.

The study made use of in-depth interviews and econometric (statistical) methods. The key results indicate that ODI has a positive effect on labour demand and productivity within the enterprises themselves. All else equal, firms that engage in ODI were found to employ, on average, 60% more employees domestically and be up to 50% more productive than firms not engaging in ODI.

The results indicate a positive correlation between ODI intensity and the change in skill structure towards a higher proportion of high-skilled workers in the enterprises' domestic operations, in especially the manufacturing sector. With regard to the textile industry, which was found to have a high ODI-intensity and to have offshored a large number of jobs, this was found to be the industry that had increased their share of high skilled employees the most in Ireland.

Source: Copenhagen Economics.

Increasing focus on innovation and e-commerce

Furthermore, while the TLC sectors are traditionally seen as being very low-tech, evidence suggests that, at least for parts of the industry, this is no longer true. According to Economix (2007), between 35 percent and 50 percent of enterprises in the sector are now engaged in either product or process innovation. This is particularly true for the branded clothing firms who are investing heavily in developing their brands, and in innovations to improve the value chain efficiency. By investing heavily in their brands, the branded clothing industry helps to increase overall demand for clothing, leather and shoes, and thereby not only increasing their own sales, but also the sales of the mass-market, non-branded producers.

Dachs, Zahradnik and Weber (2011) also find firms in the TLC industries, which can be compared to firms in 'high-technology' sectors in terms of their engagement in innovative activities. Furthermore, they argue that part of the incentive to invest in innovation activities and advanced production technologies comes from the globalisation process. Increasing competition on the domestic market, arising from imports and inward investments, forces EU producers to become more innovative and focus on different segments of the market, while outward investment by EU producers may require the development of new types of products (Dachs et al. 2011).

Using a limited sample of 64 textile and clothing enterprises located in Austria, Germany, the Netherlands and Switzerland in 2006, Dachs et al. (2011) examine the relation between offshoring and domestic innovation. Their results show that out of the group of firms that had moved parts of their production abroad (35%), a significantly higher share had introduced innovations in the previous two years compared to the group of non-offshoring enterprises. While this is an interesting finding, it should be noted that it does not establish whether firms become more innovative as a result of offshoring or whether the causality goes the other way. None the less, it does point towards a possible association between globalisation and innovation within these industries.

Increasing internet retailing

Branded clothing firms are also very much engaged in e-commerce, and thereby using new innovations in their relations with the final customers.

Internet retailing has given a boost to apparel sales. Despite initial concerns, consumers have bought into shopping for apparel online. The success of online sales is dependent on efficient delivery and returns systems and policies. Internet retailing is the fastest growing channel, rising by a CAGR of 20 percent between 2006 and 2011, corresponding to absolute growth in sales of US\$50 billion according to Euromonitor.¹⁸

North America and Western Europe are more developed markets and global retailers have historically focused on these regions when launching their internet presence. In fact, the market share for internet retailing in the apparel market in Western Europe increased from around 2½ percent in 2006 to a market share of around 7½ percent in 2011 according to Euromonitor's data. The increase in Eastern Europe was somewhat smaller going from a market share of one percent in 2006 to around 2½ percent in 2011.

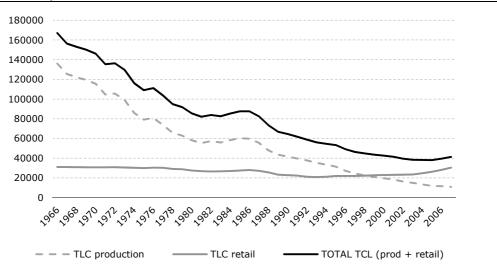
The internet offers an important new sales channel with lower costs and a wider immediate clientele than a store. Internet retailing will make the market place increasingly competitive, but not all major retailers have developed their e-commerce platform in a full range of languages so there is undoubtedly more growth to come as these stores come online. Still many branded clothing firms embrace this channel in order to maximise growth.

Employment outside of manufacturing is increasing

While the employment within the manufacturing part of the sector has been decreasing, employment has been on the rise in other parts of the value chain. According to a recent staff working document from the European Commission (2012), employment within the manufacturing part of the fashion industries (textiles, clothing, leather and fur products, footwear, jewellery and accessories) decreased by 1 million during 2004-2009, while at the same time ½ million jobs were generated in fashion distribution.

A similar picture emerges when we look at the development in employment within the retail part of the value chain. As EU27 wide statistics on employment in the retail sector, does not allow us to distinguish retail activities by specific products, we instead use data from Denmark, obtained from the Danish Statistical office, containing information on employment levels within both manufacturing and retailing of TLC products from 1966-2007. The development in each sector is shown in Figure 17. While the development in the manufacturing sector is similar to the overall European trend, **employment in the retail sector has been slowly increasing from 1998 – 2007, rising in total by 36%.** When we look at the development in employment levels in the manufacturing and retail sector combined, the data points towards the beginning of a positive trend arising due to a flattening out in employment levels in the manufacturing part of the industry combined with rising employment in retail.

Figure 17 Employment in TLC manufacturing and TLC retail in Demark 1966-2006



Note: Based on detailed labour market statistics. These data are not available after 2006.

Source: Copenhagen Economics using data from Statistics Denmark.

2.4 Contribution beyond GDP

Beyond the effects globalisation may have on the structure of the industry and thereby on the economic footprint within the EU, globalization leads to benefits for the consumer through lower prices and an increase in the variety of products offered.

Consumer benefits: lower prices and better choice

By increasing the competition on the domestic market, imports create downward pressure on the prices charged by domestic producers, leading to lower prices for consumers. This aspect of the recent liberalisation of the EU market for clothing and footwear products has been studied by Francois et al. (2007) (see Box 2). Their results indicate falling consumer prices for clothing and footwear products across the EU15, during the period 1996 – 2005 in which quantitative restrictions on imports to the EU15 were removed. Compared to the general price level, they find an average drop in the price of such products of 16.2% during the period of the study.

Box 4 Passing on the benefits of trade to consumers

Francois et al. (2007) studied the effects of the removal of the quotas on clothing and footwear products in the EU15 on consumer and producer prices, over the period 1996 – 2005.

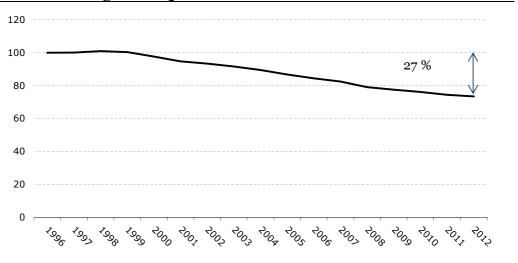
Their findings indicate that liberalisation led to a drop in both import and producer prices across the EU15. While they find a similar drop in *average* consumer prices, their findings also indicate significant variation between countries within the EU15. The magnitude of their estimates, suggests that, on average, 60% of the drop in import and producer prices, has been passed through to the consumer in the EU15. Across individual countries, the pass-through from producers to consumers has been greatest in Ireland and the UK, where the reduction in consumer prices has exceeded the reduction in producer prices. The countries where consumers have benefitted the least from increased import competition include Luxemburg, Germany, France and Belgium, where only 20%- 30% of the price drop has been passed on to consumers. For Spain, Italy and Greece, the authors did not find any significant effect of lower producer prices on prices paid by the final consumer.

Investigating the differential impact on consumer prices further, they find the degree of competition within the retail sector to be an important determinant of the degree to which consumers will benefit from lower import prices. Specifically, their results show that the benefit to consumers is greater in countries where the retail sector is characterised by a competitive environment, large stores and relatively high flows of foreign direct investment (FDI).

Source: François et al. (2007).

In Figure 18 we show the development in the consumer prices of clothing and footwear products in the EU27 over the period 1996 – 2012. To do so, we make use of the EU27 wide consumer price index for clothing and footwear products. To account for general price changes over the period, we follow the methodology by Francois et al. (2007) and deflate this index by the general price index. This gives us a picture of the changes in the consumer prices of clothing and footwear products relative to the general price level. As can be seen from the figure, prices have been falling steadily since 1999. Over the entire period prices of clothing and footwear products have fallen by 27 percent compared to the general price level.

Figure 18 Clothing and footwear consumer prices in the EU27, relative to the general price level



Note: The vertical axis shows the EU27 Harmonised consumer price index for clothing and footwear deflated by the EU 27 Harmonised general consumer price index, which is done to account for changes in the general price level.

Source: Copenhagen Economics using data from EUROSTAT [prc_hicp_aind].

Knock-on effects of lower prices

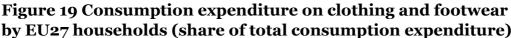
Clothing and footwear constitute a significant share of total private consumption (around 5-7%), and as shown, prices have dropped significantly as a result of the globalisation of the value chain. The large decrease in clothing and footwear consumer prices relative to the general price level has a number of positive implications both for the individual consumer as well as for the European economy.

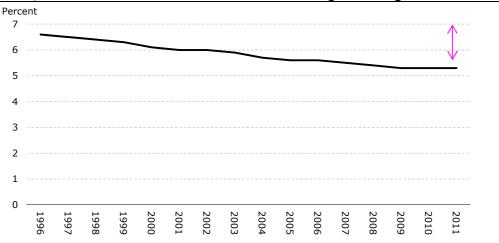
We highlight three positive knock-on effects of the globalisation and the lower prices for clothing and footwear:

- Generating additional demand in other sectors of the economy.
- Keeping the general price level down and so contributing to moderate nominal wage increases. This again helps to maintain Europe as a competitive location for production.
- Outsourcing is generating additional income abroad and consequently increasing demand from overseas consumers for European products.

To illustrate this, we examine changes in consumption patterns over the period in question. As can be seen in Figure 19, the average share of consumption expenditure on clothing and footwear products have decreased from 6.6 percent of total consumption expenditure in 1996 to 5.3 percent in 2011. In percentages, this is a decrease of 20 percent. In comparison to the relative decrease in consumer prices shown in Figure 18 (25% in the period 1996 – 2011), it is clear that consumers are now able to both purchase a greater quantity of clothing and footwear products than in 1996, while at the same time increase

their expenditure on other types of goods and thereby help push up demand in other sectors of the economy.





Note: The figure shows the share of consumption expenditure that is used on clothing and footwear products by EU27 households.

Source: Eurostat [nama_co3_c].

Furthermore, by pushing down the general price level, the relative price decrease alleviates the upward pressure on wages in the EU, which in turn contributes to keeping employment up and unemployment levels down. To illustrate the significance of this effect, one should assess the order of magnitude of this by combining the expenditure share and the relative price decrease. Had the price level of clothing and footwear products followed the general price level instead, income would have had to increase by an additional 1.6 percent over the period 1996 – 2011, in order for the share of consumption expenditure on clothing and footwear products to remain at 6.6% as in 1996. In other words, the isolated price decrease for clothing and footwear corresponds to a 1.6 percent increase in real wages, which in turn helps keeping Europe competitive on the global scene.

Finally, as was shown in Figure 11, China is the single most important origin of apparel imports to the EU from non-member states. At the same time, China is also becoming an increasingly important export market for many different sectors in Europe as demand in the Chinese market is rising due to higher incomes. This development is supported partly by the demand for Chinese exports, including TLC products.

2.5 Summary of findings

In this chapter, we have analysed the contribution of the TLC industries to the EU economy. We find that value added generated by activities in the part of the sector which is engaged in manufacturing activities within the EU was equivalent to 2.8% of EU27 GDP in 1995 and 1.5 percent of EU27 GDP in 2008.

However, once we take account of activities across the entire value chain, reports from the European Commission indicate that the fashion industry as a whole now contributes 3% to European GDP. We further estimate that the largest share of this contribution arises from the branded segment of the market, which, according to our estimates, contributes with 2.4% to EU GDP.

While employment in the manufacturing part of the value chain has been falling in the EU, our analysis also indicates a move towards a more skill intensive industry that is becoming more innovative and which produces higher quality goods.

Furthermore, we have shown that other parts of the value chain are becoming increasingly more important in the EU, with employment rising in areas such as distribution and retail. These are also among the parts of the value chain that generate the most value added and which remain located in the EU, despite an increasing tendency to outsource manufacturing. As we have shown through numerical examples, well over half of the total value added may still accrue to the EU, even though manufacturing is outsourced. Finally we have argued that globalisation has led to significant consumer benefits in the shape of lower prices and an increased variety of goods to choose from.

Chapter 3

The trade environment

The global organisation of production and the high trade-intensity of textile, leather, clothing and footwear products make the industry especially vulnerable to trade barriers (Morris and Barnes, 2009). Tariffs and other types of trade barriers imposed at each border crossing serve to increase the cost of the final product and may affect the organisation of the global value chain. Furthermore, a country's own producers may actually benefit from trade liberalisation rather than suffer from it. In this section we discuss the current trade environment, and ways to increase the economic contribution of this sector to the EU economy through policy change.

3.1 The current tariff barriers

Historically, international trade in the clothing and textile sectors has been regulated by the Agreement on Textiles and Clothing (ATC) at the multilateral level, while bilateral and regional trade agreements typically link the two sectors through rules of origin accompanying preferential market access. ¹⁹ The phasing out of import quotas through the ACT has liberalised trade in the textile and clothing sector but significant protectionism still remains (e.g. tariffs, anti-dumping measures and non-tariff barriers). The purpose of this section is to establish a common ground for an understanding that there continues to be scope for pursuing a more liberal trade policy agenda within the EU in a way that would allow companies to operate the global business chain model in a more optimal way.

Tariffs on imports

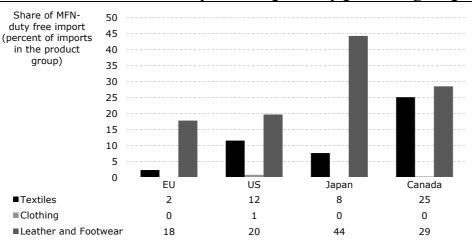
Despite the recent removal of import quotas under the ATC, textile, leather and clothing products are still among the most protected goods in the EU and elsewhere. In Figure 20, we show the share of imports of clothing, textile and leather and footwear products that enter the main consumer markets of the EU, US, Japan and Canada, with a Most Favoured Nation (MFN) tariff of zero.²⁰

Across all four markets, the greatest share of duty free imports are in leather and footwear products, while clothing products are highly protected, with basically no products entering with MFN-duty free. Relative to the other three markets, the EU is the most protected in all product groups according to this measure.

See Nordås, H. K. (2004), The Global Textile and Clothing Industry post the Agreement on Textiles and Clothing, World Trade Organisation Discussion Paper 5.

The *Most Favoured Nation* principle is one of the core principles of the WTO system. It simply means that WTO members cannot discriminate between their trading partners by lowering the tariff only for some members without applying it to all members. It should be mentioned that even if a product has a non-zero MFN tariff, it is still possible that it has been imported duty-free if the product for example originates in a country with which the importer has a bilateral trade agreement or if the exporting country is given preferential status through e.g. "Everything but Arms" in the EU or AGOA in the US.

Figure 20 Share of MFN-duty free imports by product group

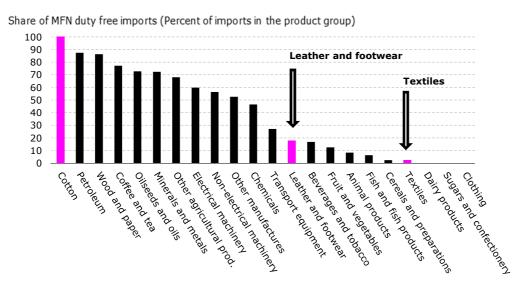


Note: The data refers to 2010/11

Source: Copenhagen Economics using data from WTO's Tariff Profiles.

When we compare this measure between products within the EU, all three product groups are again among the most protected products comparable only to a range of agricultural products.

Figure 21 EU27 imports that are MFN-duty free

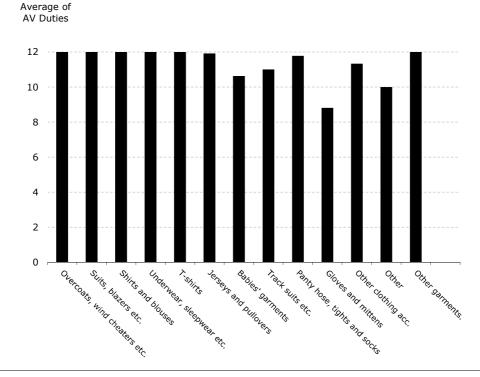


Note: The data refers to 2010/11

Source: Copenhagen Economics using data from WTO's Tariff Profiles.

In terms of the magnitude of the tariffs imposed, the average *Ad Valorem*²¹ (AV) rate for clothing products is 11.7 percent for knitted or crocheted articles and 11.3 percent for non-knitted or crocheted articles. Within each of these product groups, the average AV tariff ranges from 6.3 percent to 12 percent in the case of non-knitted or crocheted articles and from 8.8 percent to 12 percent in the case of knitted or crocheted articles (see Figure 22).²²

Figure 22 MFN Applied tariffs: Knitted or crocheted apparel



Note: The average AV duties are the average of the MFN applied tariff within each (2-digit) product group for 2011.

Source: Copenhagen Economics using data from WTO's Tariff Download Facility.

The tariffs applied to textiles (see Figure 23), are significantly lower, with average rates ranging from 3.1 percent in the case of *silk* products to 7.4 percent for products that fall in to the category of *special woven fabric*, which includes a range of specific items such as terry towelling, cut corduroy and gauze to name a few.

An Ad Valorem tariff specifies the percentage of the price of the product that is to be paid.

MFN Applied rate, average within 4-digit product groups 2011.

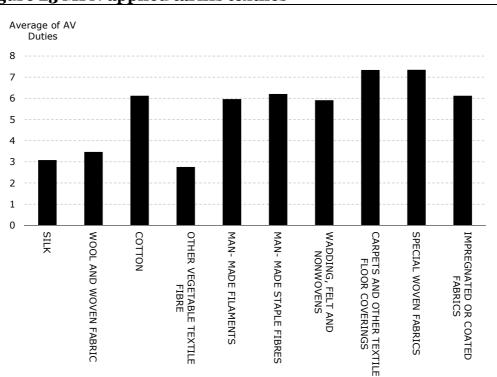


Figure 23 MFN applied tariffs textiles

Note: The average AV duties are the average of the MFN applied tariff within each (2-digit) product group for 2011.

Source: Copenhagen Economics using data from WTO's Tariff Download Facility.

Tariffs on European exports

European exporters are also facing tariffs in their export markets. Tariffs on clothing are above 10 percent in all major markets and are generally higher than for textiles and leather/footwear. Tariffs are generally higher in emerging markets than in mature markets, cf. Table 4. Furthermore, tariffs on clothing are generally higher than for other non-food manufacturing goods.

Table 4 High duties on main export markets

	Textiles	Clothing	Leather and footwear
European Union	6.6%	11.5%	4.2%
United States	7.9%	11.7%	4.0%
Canada	3.8%	16.9%	4.0%
Brazil	23.3%	35.0%	15.7%
Russia	10.7%	13.2%	7.6%
India	13.3%	15.1%	10.1%
China	9.5%	16.0%	13.2%

Note: Average MFN applied duties. Source: WTO World Tariff Profiles 2012.

3.2 Non-tariff barriers and other barriers

In addition to the high tariff barriers, trade in textiles, clothing, leather and footwear is also hindered by a number of non-tariff barriers. The non-tariff barriers create frictions in the global value chain in the form of:

- Technical barriers to trade (TBT)
- Antidumping duties and other trade defence instruments (TDI)
- Rules of origin (RoO)

Technical barriers to trade (TBT)

There are a number of less tangible factors that impact trade in textiles and clothing, particularly TBTs which abound in the textiles, leather and clothing sector in the form of certification requirements, labelling and testing requirements. Overly burdensome requirements can be considered as a technical barrier to trade and in certain cases it can significantly hinder market access and create costs for global value chains. Examples from the EU's market access database include:

- Registration requirements of textile products in Turkey
- Burdensome registration, documentation, customs procedures in Indonesia
- Raw Silk Quality Compulsory Certificate in China
- Labelling of quilted garments in Canada

This is a risk in new regulatory areas such as environment and sustainability requirements that several different approaches to this issue across major markets (eg EU, US, Japan and others) could increase complexity for industry.

Antidumping duties

Between 1995 and 2012, more than 300 antidumping cases were initiated by WTO members within the textiles and clothing sector. Textiles and clothing come in 4th in the WTO summary of AD cases during 1995-2012.²³

The purpose of such AD measures is to protect domestic producers. However, the large clothing companies operate global supply chains, and their competitiveness is dependent on being able to import textiles at prices comparable to their competitors.

The antidumping case on footwear illustrates the negative implications for both the producer and the final consumer. Kommerskollegium (2007) analysed the case of the EU anti-dumping duties imposed on shoes from China and Vietnam in October 2006 (see Box 5 for details).

The data presented are taken from the semi-annual reports of WTO Members to the Committee on Anti-Dumping Practices and cover the period January 1995 — June 2012. The tables are based on information from Members having submitted semi-annual reports for the relevant periods, and are incomplete to the extent Members have not submitted reports, or have submitted incomplete reports.

Box 5 Anti-dumping duties on 'EU' shoes

In October 2006 the EU imposed anti-dumping duties on certain types of shoes from China (16.5%) and Vietnam (10%).

Using the case of women's summer shoes referred to earlier, Kommerskollegium (2007) calculated the impact of the additional duties on the cost of this particular pair of shoes. According to their calculations, the additional anti-dumping duty on shoes from China, if passed on fully to the final consumer, would increase the price from €19.95 to €22.14. However, as the authors note, the cost increase is likely to be shared among the producer, retailer, consumer and perhaps the Chinese manufacturer.

In this example, 55% of the value added of the product (not counting the retail stage) accrues to the EU. Despite this, it is treated as a non-European product, with the implication that both the producer and the final consumer end up being taxed.

While the price increase in this case may seem to be relatively minor, it should be noted as the Kommerskollegium (2007) does, that this is a highly competitive industry where even small increases in cost can have significant implications. Aside from the cost factor, the authors further note that the companies, which they spoke to, pointed to the uncertainty of anti-dumping and the implications that this has on long-term investment decisions and commercial planning as the worst part of the process.

Source: Kommerskollegium (2007)

Rules of origin (RoO)

Rules of origin are used to determine the country of origin of a product. This is important for properly assessing tariffs, enforcing trade remedies (such as antidumping and countervailing duties) or quantitative restrictions (tariff quotas). Other commercial trade policies are also linked with origin determinations, such as country of origin labelling and government procurement regulations.

Rules of origin (RoO) can be very simple and noncontroversial as long as all of the parts of a product are manufactured and assembled primarily in one country.

However, as is the case for a significant part of the branded clothing firms, finished products use parts originating in several countries and under these circumstances, determining origin can be a very complex, sometimes subjective, and time-consuming process.

Non-preferential rules of origin are used to determine the origin of goods imported from countries with which the European Union has most-favoured-nation (MFN) status.

Preferential rules are used to determine the eligibility of imported goods from certain EU free trade agreements (FTAs) partners and certain developing country beneficiaries to receive duty-free or reduced tariff benefits under bilateral or regional FTAs and trade preference programs. Preferential rules of origin are generally specific to each FTA, or preference, meaning that they vary from agreement to agreement and preference to preference.

Certain key characteristics of the global branded clothing value chain are proving challenging to the RoO process. These key characteristics include multinational manufactur-

ing; the subcontracting of manufacturing; and the rapidly shifting and very competitive sourcing pattern between countries.

3.3 Trade protection when production is globally fragmented

Measures such as tariffs and other trade barriers protect domestic industries from foreign competition. However, in industries where production is globally fragmented, matters become more complicated and such measures may also impact on domestic producers, regardless of whether manufacturing takes place within the EU or is outsourced.

Producers that manufacture in the EU27

Tariffs on intermediate products will raise the cost of production for those producers that have retained their manufacturing facilities within the EU27 and may therefore have a negative effect on their ability to compete both domestically and internationally. As explained by OECD (2013), tariffs on imported intermediates used in the production of exports, are in fact equivalent to a tax on exports.

As already seen in chapter 2 (Figure 13), gross exports of TLC products from EU member countries embody between 13% and 46% of foreign value added, showing the sectors reliance on imported intermediates in general and the role they play in generating European exports. A different way to approach this issue is by illustrating the reliance on intermediate imports belonging specifically to the TLC sector, in the production of exports in general.

Based on the newly launched *Trade in Value Added* database by the WTO/OECD, we illustrate this in Figure 24. For 11 different product categories of intermediate imports, the figure shows the share that is used to produce goods or services for export. **In the case of textile products, the figures show that out of all imported intermediates that belong to this category, 22 percent end up in exports to non-EU27 countries.** Compared to the other import categories, this is a relatively high share and is only exceeded by the intermediate imports of *machinery and equipment*, *Basic metals and fabricated metals products* and *transport equipment*.

% of total intermediate imports 30 25 20 15 10 Mining and quarrying Wood, paper products, metallic mineral products fabricated metal products equipment, Machinery and equipment, nec Electrical and optical Food products, beverages Transport equipment Textiles, textile products leather and footwear Chemicals and non-Basic metals and and tobacco and publishing

Figure 24 Re-exported intermediaries in EU27

Note: The figure shows the share of re-exported intermediates by import category. The import category of Textiles, textile products, leather and footwear include clothing articles.

Source: Copenhagen Economics using data from the Trade in Value Added database, jointly published by the WTO and the OFCD.

Producers that do not manufacture in EU27

As shown in chapter 2, using the example of shoes, the European share of value added may be significant even if the manufacturing is outsourced. However, a tariff on final apparel or footwear products affects both producers, with no operations in the EU as well as those that have all or most of their high-value activities within the EU but who outsource the actual manufacturing stage.

As the Kommerskollegium (2007) explain, the issue really comes down to how we define a European product. Based on the afore mentioned examples we saw that the European share of value added of a shoe manufactured in China, ranges between 34% and 80%, depending on the geographical location of the remaining activities in the value chain. Due to the globalization of the supply chain and the increased outsourcing of manufacturing activities, the traditional role of trade barriers as a protectionist measure benefitting domestic producers against foreign import competition is therefore no longer so straightforward. European producers, some of whom may only be able to remain in the market because they have outsourced manufacturing to low-cost areas, but who all make considerable contributions to the EU economy by generating jobs in areas such as design, marketing, shipping and retail are among those that are adversely affected by such measures.

3.4 Impact of barriers for global branded clothing firms

Branded clothing firms experience several detrimental effects from all of the above mentioned trade barriers, which add further complexity and costs to the supply chain of global branded clothing companies. The remaining trade barriers affect the global branded clothing firms in seven key areas:²⁴

Choice of where to source from and where to locate manufacturing

Different trade policies (tariffs, antidumping duties, free trade agreements, safeguards) impact the choice of where to source from or locate manufacturing.

Decisions of capacity investments

When there is a need for additional manufacturing capacity clothing companies may be inclined to agree with vendors with whom they have a strong partnership to locate in a country with low tariffs or favourable free trade agreements.

Uncertainty from pending legislation

Transparency about cost structures is very important to optimize sourcing and the location of manufacturing. Hence, when trade policy legislation is pending, e.g. when tariffs for certain countries are under scrutiny or if quantitative quotas are considered, it creates uncertainty about future product costs and uncertainty in the planning of sourcing and manufacturing.

Product design around technical barriers to trade

Technical barriers to trade which may impose product or technical requirements, impose higher tariffs on certain fabrics or favour certain manufacturing techniques over others, may induce the clothing companies to optimize their product design and manufacturing to comply with trade policies or to reduce the impact of tariffs – this compromises the product design, quality and may impose higher costs on the clothing companies.

No harmonization of international trade policy schemes

EU and US trade policies differ in terms of beneficiary countries and choice of policy instruments. This adds complexity to production planning for clothing companies with international sourcing and manufacturing, since manufacturing of each product style is mostly done at one manufacturing site which will then have to be chosen to optimize both EU and US trade policy schemes.

Some products will not be offered

Some branded clothing firms take the stand that when trade policy schemes become too adverse or costly for some products they may simply choose not to sell the particular product in a given region instead of searching for other ways to reduce costs e.g. by moving the location of manufacturing. This limits product variety at the expense of the consumer.

Some products become very expensive

High tariffs on some product categories, e.g. footwear, will feed into the consumer prices which may become adversely high, harming both consumers and clothing companies.

These points also have a serious adverse effect on the ability to operate global value chains. The supply chains of the global branded clothing companies are already complex due to the need to balance supply chain efficiency with flexibility in serving global markets and different sales formats (retail / wholesale).

The detrimental effects of EU trade policies add further costs and complexity to the global supply chain and particularly to sourcing and manufacturing planning and processes for major global branded clothing companies.

3.5 Economic potential for Europe from further trade liberalization

In this section we look at the potential increase in the economic footprint in Europe by the branded clothing firms, which would arise due to further trade liberalisation.

When assessing the impacts of further trade liberalisation on the clothing value chain and its impacts on the European economy, the following, partly opposing effects, need to be taken into account:

• **Consumer benefits:** Consumers and ordinary households are the prime beneficiaries of trade liberalisation. They will experience lower prices and more choice, and these benefits will be relatively more valuable to low income households where clothing and footwear makes up a large share of the expenditure.

The impact of trade liberalisation on companies operating in Europe within the clothing and footwear sector is more complex. The impact of trade liberalisation has traditionally been analysed through a standard sector approach which only captures the impact on manufacturing of textiles, clothing and footwear, and which does not take the impacts on global value chains into account.

In our view, the traditional sector-based approach for assessing trade liberalisation impacts for textiles, leather and clothing needs to be complemented by (and over time replaced by) a value chain based approach. As is shown in the previous chapter, this is indeed the case for branded clothing companies as they are operating very large, complex and rapidly changing value chains spanning many countries. The risk is that the traditional sector-based approach misses some of the main implications of trade liberalisation, mainly because the analysis does not fully capture the benefits accruing to global firms operating global value chains. We shall return to these benefits below.

Traditional sector-based analysis

The traditional sector-based approach captures the following impacts, which are still relevant, but decreasingly so:

- **More imports:** Further trade liberalisation will have the traditional effect of allowing foreign producers better access to the European market, and thereby increasing imports into Europe. This will, all other things being equal, lead to a decline in manufacturing of textiles, leather and clothing in Europe and reduce the sectors output. This is indeed the prediction made by the impact assessments for FTAs such as the ones between the EU and Korea, India and ASEAN.²⁵
- More exports: For certain FTAs, the initial tariffs and other non-tariff measures can be so high in the partner country that further trade liberalisation will *not* have the traditional effect of a reduction in European production because the market access improvement abroad dominates the import competition effect. For example the EU-Andean FTA (Peru and Columbia) shows a small increase in EU production output, which according to the study is mainly driven by textiles and which also shows an increase in EU production of wearing apparel as a result of the free trade agreement, cf. CEPR (2012). Production output in the traditional sector-based analysis also shows a positive impact in the FTA with other high-income economies such as Canada. The FTA impact assessment of the EU-Canada agreement shows an increase of EU exports of textiles and apparel to Canada of 70 percent and a net positive impact on the production of textiles and clothing in Europe as a result of a free trade agreement with Canada.²⁶

These FTA effects have been assessed by DG Trade in studies making use of global trade models (so-called general equilibrium models), in which the effect of reducing tariffs, non-tariff barriers and service barriers are accounted for. Although the studies vary in the scenarios analysed and the model assumptions applied, all studies show an increase in overall welfare levels in the EU, while some studies shows a small negative impact on the output of EU-based manufacturing of textile and clothing. There are, however, a number of positive aspects of trade liberalisation throughout the value chain, and the positive aspects from liberalisation in other parts of the value chain show up in the gains of other sectors such as transport and logistics, wholesale trade and in the retail sector. Consequently, only the negatives impacts are highlighted in a traditional sector-based analysis.

Boumellassa, Houssein, Yvan Decreux and Lionel Fotagné. 2006. "Economic Impact of a Potential Free Trade Agreement (FTA) Between the European Union and ASEAN". Report commissioned by the European Commission, Directorate-General for Trade. Final report 2006-05-03.

Decreux, Yvan, Chris Milner and Nicolas Péridy. "The Economic Impact of the Free Trade Agreement (FTA) between the European Union and Korea". Commissioned by the European Commission, DG Trade. Final Report May 2010. Decreux, Yvan and Christina Mitaritonna. 2007. "Economic Impact of a Potential Free Trade Agreement (FTA) Between the European Union and India". Report commissioned by the European Commission, Directorate- General for Trade. Final report 2007-03-15.

²⁶ Kirkpatrick, Colin, Selim Raihan, Adam Bleser, Dan Prud'homme, Karel Maynard, Jean-Frédéric Morin, Hector Pollitt, Leonith Hinojosa and Michael Williams. "A Trade SIA Relating to the Negotiation of a Comprehensive Economic Trade Agreement (CETA) Between the EU and Canda." Commissioned by the European Commission, Final Report June 2011.

Complementary value chain based approach

So far, no comprehensive analyses of FTA impacts have been conducted following a value chain based approach, so there is little information available about their quantitative impacts from that perspective. We note, however, an increasing interest from policy makers in this approach, and that several economic tools and databases are becoming available for this purpose.²⁷

A value chain based approach should address the following:

- The nature of the supply chain where the global branded clothing firms with a significant presence and economic footprint in Europe are dependent on flexible and efficient import and product approval procedures across a wide range of countries.
- Where ownership structures of foreign production facilities, e.g. in Asia are taken
 into account, and in a way which takes into account the repatriated income flowing back to Europe from these operations.
- Where the complications arising from complex rules of origin are accounted for.
- Where the impacts of the positive linkages between the various parts of the value chain are taken into consideration, whereby for example increased imports from Asia is a prerequisite for increasing the employment of R&D or both high and low-skilled workers in Europe, for example in the logistics, retail or marketing parts of the value chain.

The traditional sector approach misses these increasingly important features of the market and thereby creates a risk of misguided policy making.

The Trade in Value Added Database (TiVA) published jointly by the OECD and the WTO is a point in case. http://stats.oecd.org/index.aspx?queryid=40610

3.6 Summary of findings

Overall, our analysis suggests that future EU trade policy must take more of a value chain based approach incorporating *inter alia* the above features. We find that taking this approach would lead to the measurement of the more positive effects of trade liberalisation, and support the conclusion that more trade liberalisation, not less, is needed to maximise the economic footprint of the textile and clothing value chain in Europe.

In this chapter we have also shown that despite the recent removal of quantitative restrictions on imports of TLC products, the industries are still among the most protected in the EU, with average Ad Valorem tariffs of roughly 11 percent on apparel products.

Moreover, we have shown how 'defensive' trade barriers may in some cases affect EU producers negatively. For producers who still manufacture their products within the EU, the main issue is the duties imposed on intermediate inputs, while a tariff on final products is the main issue for producers that outsource the manufacturing stage of the value chain.

Given the global nature of these industries, the latter way of organising production is on the increase. However, as shown in chapter 2, such production methods still generate significant value to the European economy as most of the higher value added activities are located in the EU. However, in terms of trade policy, manufacturing is still the stage that determines origin. The implication of this is that European consumers end up paying higher prices and producers, whom in all other aspects than manufacturing are European, are taxed for organising their production in the most cost-effective manner.

Protectionist measures such as antidumping duties or high tariffs on imports into Europe will not serve the economic interests of European consumers since it will hinder the effective deployment of an effective global sharing of tasks.

The EU thus needs to pursue and deliver on an ambitious free trade agenda which includes tariff liberalization through a combination of FTAs and multilateral agreements with harmonised and flexible RoOs. Furthermore, to maximise the economic footprint of the branded clothing value chain in Europe, the EU should reject the use of trade defence instruments such as antidumping duties and it should address the key NTBs in the sector in particularly TBTs that take the form of certification requirements, labelling and testing requirements) and that significantly hinder market access of branded clothing products.

A favorable policy environment would be one with more free trade, low or no tariffs on a much broader range of textiles, leather and clothing products and with much more flexible rules of origin than is the case today.

Looking into a future with such a favourable policy environment would allow the global branded clothing firms to grow further and allow the sector increase its contribution to the European economy.

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