STRATEGY AND ACTION PLAN PROJECT
FOR THE EGYPTIAN TEXTILE and CLOTHING INDUSTRY

INCEPTION REPORT

JULY 2006
# CONTENT

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Objectves of the study</td>
<td>7</td>
</tr>
<tr>
<td>1.1 The Textile value chain</td>
<td>9</td>
</tr>
<tr>
<td>1.2 Some of the definitions used in the project</td>
<td>9</td>
</tr>
<tr>
<td>2. The global environment of the textile and garment industry</td>
<td>10</td>
</tr>
<tr>
<td>2.1 Global international trade</td>
<td>13</td>
</tr>
<tr>
<td>2.2 Global trade in textile and garments</td>
<td>13</td>
</tr>
<tr>
<td>2.3 The driving force in global trade in textiles and garments</td>
<td>18</td>
</tr>
<tr>
<td>2.4 The future outlook</td>
<td>53</td>
</tr>
<tr>
<td>3. Egyptian Cotton</td>
<td>62</td>
</tr>
<tr>
<td>3.1 Cotton production</td>
<td>63</td>
</tr>
<tr>
<td>3.2 Cotton exports</td>
<td>65</td>
</tr>
<tr>
<td>3.3 Cotton Imports</td>
<td>65</td>
</tr>
<tr>
<td>3.5 Grading of cotton</td>
<td>65</td>
</tr>
<tr>
<td>Availability to local market</td>
<td>65</td>
</tr>
<tr>
<td>4. The Egyptian textile industry</td>
<td>66</td>
</tr>
<tr>
<td>4.1 Summery if the Egyptian textile industry</td>
<td>68</td>
</tr>
<tr>
<td>4.2 Analysis of the textile industry along the value chain</td>
<td>70</td>
</tr>
<tr>
<td>4.3 Positioning of the Egyptian textile industry</td>
<td>73</td>
</tr>
<tr>
<td>4.4 The Egyptian spinning, weaving, knitting, processing and garmenting</td>
<td>77</td>
</tr>
<tr>
<td>4.5 The Egyptian textiles imports and exports</td>
<td>80</td>
</tr>
<tr>
<td>4.6 Benchmarking Egyptian costs to panel countries</td>
<td>84</td>
</tr>
<tr>
<td>5. International agreements</td>
<td>89</td>
</tr>
</tbody>
</table>
Glossary and acronyms

Im  linear meter
bn  billion
mn  million
MMF man-made fibre
CAGR compounded annual growth rate
mt  metric ton
MFA Multi-Fibre Arrangement
Pcs Pieces
CMT Cut Make Trim
Euromed Eastern Europe, North Africa, Turkey
US$ US Dollar
Introduction.

The Egyptian textile industry has gone through several changes throughout its existence, from its start in the last century, through its nationalization, the decline of the public sector, the rise of the private industry and today it is facing the globalization challenge head-on. Across those stages, factors have affected the industry, have shaped it and have brought it to where it is; but today, the industry is looking to take those factors into its own hands and to shape its environment to fulfil its true potential.

Planning a strategy and an action plan is only half the job, the other half is in the implementation; and implementation is of no value if not supported by the entire industry, the government and all the players. Changes need to be global, coordinated and maintained; a difficult job that only the industry can accomplish; neither the government nor development agencies can replace the role of the true beneficiaries in shaping their own sector.

The objective of this project is to develop a strategy and an action plan to develop the real potential behind the textile industry in Egypt; to take it from less than 1% of world trade in textiles to the regional and international player it could be. The strategy adopted by the industry put a target for 2010 of US$ 5 billion in exports, we believe that this target can be brought further to US$ 10 billion in 2015, increasing the value of Egyptian exports by almost 10 folds and creating over 5 million jobs affecting the lives of 15 million people.

The inception phase of this project was implemented with the purpose of establishing a starting point for the strategy (local review) and a long term positioning of the Egyptian industry in the world market (global review). The intention is not to prepare another report on the industry but rather to understand the local scene and the Egyptian industry within a global perspective.

Even though we have identified several challenges and weaknesses in the industry - which are reviewed in this report – we feel the need to highlight one main issue which needs to be addressed swiftly and conclusively and that is the lack of qualified human resources.

The lack of qualified middle and upper management is affecting all aspects of the industry, bringing down productivity and quality, increasing production costs, limiting marketing and R&D capabilities. Whereas, some immediate solutions can be used such as expatriate workforce, the true potential behind the textile industry can not be achieved without a local and qualified workforce. Long term solutions – which will not bare immediate rewards – are the only way to guarantee the sustainability of the sector and the full exploration of the advantages of the young Egyptian population.

In this inception report we have highlighted other challenges facing the industry as well as the strengths it enjoys, however, significant focus was placed on the interpretation of the international scene to present stakeholders with the basis for the development of our strategy for the Egyptian textile industry.
OBJECTIVES
OF THE STUDY
1. Objectives of the study

As stipulated in the Terms of Reference, the main objective of this project is to create the VISION 2020, a Long Term Strategy and an Action Plan for the Textile and Clothing Industry in Egypt.

The outcome of the study will be a strategic Blue Print to enhance the competitiveness of the total Textile Sector in all its sub-sectors such as:

- The COTTON sub-sector
- The TEXTILE sub-sector
- The GARMENT sub-sector

Special emphasis is given to the following tasks:

- To assess the reasons of the downward trend in the textile industry
- To benchmark the Egyptian Textile Industry with competing countries
- To make concrete proposals on remedial measures for improving the short and medium term performance of the textile and garment industry
- To set strategic targets to be achieved in order to boost exports
- To indicate the interventions by government – and, possibly, the industry - required to eliminate distortions in the policy framework & in implementing recommendations of the project
- To prepare a Strategic Action Plan with clear quantifiable targets for the revival of the industry and to enhance its competitiveness within the world textile environment
- Egypt has many of the prerequisites needed for developing a successful textile and clothing industry: a huge growing domestic demand; locally available or imported raw materials; abundance of a young and very competitively priced labour force and a long tradition in textiles. The evidence of this is provided by the existence, in most sub-sectors, of companies that meet world standards. These companies are constrained by a number of factors as will be shown. Further the Public Sector Mills (27) mostly do not make a positive contribution to a modern, competitive industry.
- It is, we believe, the first time that Egypt, the industry and all main stakeholders have agreed to find a common policy platform, through the Gherzi study.
- Although several points remain controversial, there is, we believe a substantial consensus on the broad objectives of the project and of the approach proposed. This is therefore an opportunity that should not be missed. The positive energies of the whole country, entrepreneurs, workers, government need to be channelled and converted into action in the next few years to ensure the future viability of the textile industry.
- The "Revival Programme", when implemented, will allow an expansion of the Industry to reach a VISION of US$ 10 bn in exports by 2015 and more by 2020.
1.1 The Textile Value Chain

The textile value chain has the following value addition stages:

![The Textile Chain Diagram]

1.2 Some of the Basic Definitions used frequently in the Project

- **Spinning**: The process by which cotton or Man-Made staple fibres are transformed into yarn

- **Weaving**: The process by which the yarn is transformed into fabrics

- **Processing**: The process by which yarn and fabrics are:
  - Bleached, mercerized
  - Dyed
  - Printed and Finished according to need

- **Knitted products**: The process by which yarn is knitted into fabric, dyed/finished and sewn into T-shirts, polo shirts, underwear, sportswear, etc...

- **Made-ups**: The process by which dyed or printed and finished fabrics are made into home textiles (bedsheets, table linen, terry towels, etc)

- **Garmenting**: The process by which woven or knitted fabrics are made into trousers, shirts, blouses, dresses, etc
2

The global environment of the textile and garment industry
2. The Global Environment of the Textile and Garment Industry

In this chapter we review the present international situation and future trends as a backdrop to understand the market’s driving forces that shape the evolution of the global textile- and garment industry.

The textile industry is evolving world-wide in three directions:

- **Consolidation**:

  A strong consolidation process is under way at all stages of the textile chain, from fibre production to retail. With the exception of the US situation (where consolidation has already taken place) the textile sector is still very fragmented in almost all countries. Economies of scale, traditionally related to investments in production technology, have become a determining factor in many corporate activities like sourcing, marketing, management processes, finance.

- **Integration**:

  Integration between different stages of the textile chain may provide great advantages in terms of speed of response to market demands and suppression of non-value-added (or duplicated) activities along the chain. These may impact on such items as product development, sampling, sales organisation, marketing and promotion, administration, quality control, productivity, sales volumes, leftovers of finished products and raw materials. A successful integration strategy, that is usually labelled as Efficient Consumer Response, may involve cost advantages up to 25% of total cost. Integration may take place both in the form of strategic alliances between companies at different stages of the textile chain, and through mergers and acquisitions. The number of textile companies across the world that are investing in clothing and retail is rapidly increasing. Parallel to that, Efficient Consumer Response is becoming the strategy among companies of high wage countries to counteract low cost competition.

- **Globalisation**:

  The two components of this macro-trend are the globalisation of markets and the regionalisation of sourcing. While textile consumption in industrialised countries (USA, Europe, Japan) is generally stable or declining, new markets are emerging in Asia, South America, Eastern Europe and the Middle East, characterised by the growing demand for quality goods. The globalisation of major brands is clearly visible around the globe. This phenomenon has been further fuelled by the regionalisation of sourcing, where the low local wages of developing countries are often coupled to the availability of raw materials, the abundance of labour and the existence of a long established tradition in textiles. For example Indonesia has labour costs of US$ 0.35/hour against 0.50 in Egypt: Some countries have power costs and interest rates substantially lower, combined with higher labour productivity than others. These differences in factor costs, which vary greatly among producing countries, have enormous consequences on corporate decisions today and in future.
The following figure illustrates the various issues in product, technology and market which are responsible for the global trends.

**Industry and Market Global Trends**

**Product Issues**

1. Life cycles are shortening
   - Product upgrades are more frequent (incremental development)
   - Product families are introduced simultaneously, on a global basis
2. Product proliferation is increasing
   - Numbers of variants/options are increasing
   - Different market segments are served by differentiated products
   - Consumers are demanding more specific features
3. Prices are eroding faster
   - Product proliferation accelerates price erosion on recently introduced products
   - Larger volumes allow for managing experience curves faster
   - Consumers are becoming more price-sensitive
4. Product performance is increasing
   - Consumers are becoming progressively more sophisticated
   - Technologies allow for reaching higher performance level at equal or lower costs
   - Products are used in more complex environment

**Technology Issues**

1. Technology complexity is increasing
   - Technologies are becoming more sophisticated
   - Technologies have a stronger impact on manufacturing processes
2. Resources required are expanding
   - Technology developments require more multidisciplinary skills
   - New technologies require more systematic investments in manufacturing processes
3. Technology life cycles are shortening
   - Substitution technologies appear more frequently
   - Intervention between technologies create new opportunities more frequently

**Market Issues**

1. Markets are becoming global
2. New markets are emerging
3. Consumers are becoming more sophisticated

**Life cycles are shortening**

- Competition is becoming more global
- Markets are progressively served by multi-national companies capitalizing on larger scale opportunities
- Norms and standards tend to be harmonized
- Countries are collectively creating market communities (EU, NAFTA, ASEAN, etc.)

**Technology issues**

- Eastern Europe, Asia Pacific, South America markets are becoming very attractive and accessible
- New market needs are triggered by 1990s social issues (evolution of age pyramid, population growth, etc.)

**Local consumers are becoming more sophisticated**

- Local requirements are expressed more strongly by consumers
- Consumers are more aware of new - competitive - opportunities
2.1 Global International Trade

Globally, Textiles and Garment have an important role in the economy and in international trade of manufactured goods as shown in figure n°2.

<table>
<thead>
<tr>
<th>World Merchandise Exports by Products in 2005</th>
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</thead>
<tbody>
<tr>
<td>Unspecified</td>
</tr>
<tr>
<td>Other consumer goods</td>
</tr>
<tr>
<td>Garment</td>
</tr>
<tr>
<td>Textiles</td>
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<tr>
<td>Machinery and transport equipment</td>
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<tr>
<td>Other semi-manufactured goods</td>
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<tr>
<td>Chemicals</td>
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<tr>
<td>Iron and steel</td>
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<tr>
<td>Mining products</td>
</tr>
<tr>
<td>Agriculture products</td>
</tr>
</tbody>
</table>

Source: World Trade Organisation

It is estimated that the textile and garment industries have a share of about 15% in world employment.

2.2 Global trade in textiles and garments

Global trade in textiles and clothing which was only US$ 96 bn in 1980, increased to US$ 212 bn by 1990, to US$ 351 bn in 2000 and to US$ 452 bn in 2004. As the world population increases, further growth is expected (projections for world fiber demand included in this section).

The other remarkable phenomenon is the impressive growth of clothing trade compared to textile trade from 51% in 1990 to 57% in 2004, showing the growing importance of finished product exchange.
2.2 Global trade in textiles and garments

The following figure illustrates this trend consisting of an irreversible in textile trade vis-à-vis clothing trade.

2.2.1 Global trade in textiles

The change in direction of exports becomes evident if we look at Germany as an example. In the year 1999 Germany had textile exports of US$ 11.9 bn, China of US$ 13.0 bn. In 2004, China had an export of US$ 33.42 bn (growing at 257% in 5 years) and Germany’s exports reached US$ 13.58 bn (growing 14% in 5 years). In this same period China’s imports increased from US$ 11.1 bn in 1999 to US$ 15.03 in 2004 (35% growth in the period).

As the industry in the US continues to shrink, its imports have increased by 44% from 1999 to 2004 from US$ 14.3 bn to US$ 20.66.

The following tables, show some interesting relationships in the world trade of textiles. Many of the leading textile exporting countries are also important importers of textiles.
This shows on the one side the importance of the countries in the world trade, on the other hand it reflects on the level of specialisation which exists in the country.

### Leading Textile Exporting Countries

<table>
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</thead>
<tbody>
<tr>
<td>Germany</td>
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<td>12.7</td>
<td>11.8</td>
<td>15.19</td>
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</tr>
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<td>11.9</td>
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<td>10.03</td>
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<td>7.3</td>
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<td>6.6</td>
<td>7.14</td>
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<tr>
<td>UK</td>
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<td>5.2</td>
<td>4.5</td>
<td>5.2</td>
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<td>Pakistan</td>
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<td>4.5</td>
<td>6.1</td>
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<tr>
<td>India</td>
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<td>4.4</td>
<td>4.5</td>
<td>6.85</td>
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<td>Netherlands</td>
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<td>3.5</td>
<td>3.9</td>
<td>4.2</td>
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<tr>
<td>Turkey</td>
<td>-</td>
<td>2.5</td>
<td>3.5</td>
<td>6.4</td>
</tr>
</tbody>
</table>

*Source: WTO*

Germany imports include considerable volumes of grey fabrics that are then dyed/bleached/printed & finished textiles Germany.

China, on the other hand, imports considerable volumes of finished fabrics, for conversion into garments. The processing sector in China cannot yet supply in volume or quality to the Chinese garment industry.

It was noted earlier China imported textiles to the value of US$ 15.3 bn in the year 2004. This is quite an exceptional development for a developing economy. However this strategic move by the Chinese Authorities to delink the development of their textile industry from the development of the garment industry is one of the major success factors for the dramatic development of Chinese Garment Exports.

In other words the Chinese Garment Industry did not wait until all the fabrics needed by a world class garment industry were available locally from Chinese fabric manufacturers before expanding.

Exports in textiles by the industrialised countries are still significant. Exports from EU and China reached US$ 104.72 bn in the year 2004 which represented 53.8% of world foreign trade; USA textile exports represented 6.2%.
Exports on the other hand from countries like China, India, South Korea, Taiwan, Pakistan and Turkey reached only about US$ 73.63 bn.

<table>
<thead>
<tr>
<th>Leading Textile Importing Countries</th>
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<tbody>
<tr>
<td>(US$ bn)</td>
</tr>
<tr>
<td>Germany</td>
</tr>
<tr>
<td>China</td>
</tr>
<tr>
<td>USA</td>
</tr>
<tr>
<td>UK</td>
</tr>
<tr>
<td>France</td>
</tr>
<tr>
<td>Italy</td>
</tr>
<tr>
<td>Japan</td>
</tr>
<tr>
<td>Belgium/Lux</td>
</tr>
<tr>
<td>Netherlands</td>
</tr>
<tr>
<td>Canada</td>
</tr>
<tr>
<td>Spain</td>
</tr>
<tr>
<td>Poland</td>
</tr>
<tr>
<td>Mexico</td>
</tr>
<tr>
<td>Turkey</td>
</tr>
</tbody>
</table>

Source: WTO

2.2.2 Global trade in garments

In world garment exports, the following picture emerges:

- In 1980, Germany exported garments valued at US$ 2.9 bn- almost double the exports of China (US$ 1.6 bn); only Italy (US$ 4.6 bn) and Hong Kong (US$ 4.7 bn) had higher exports than Germany.

- Germany’s exports in 2004 were US$ 11.2 bn, i.e. Only about 2 fold increase compared with 1980. China on the other hand increased its garment exports over the same period from US$ 1.6 bn to US$ 61.9 bn, i.e. an increase of 38.7.

- China’s garment exports increased at an annual rate of 14% to reach US$ 61.9 bn in 2004 or 24% of world exports. India’s garment exports increased from US$ 2.5 bn 1990 to US$ 7.2 bn in 2004.

- Italy was the 3rd strongest world exporter with about US$ 17.9 bn or 6.6% of the world garment export.

- Also the export of garments of the EU-25 states reached US$ 74.92 bn in the year 2004 which represents about 29% of the world trade in garments. During the period 2000-2004 exports grew annually by 9%
Imports of garments showed some dramatic developments:

- EU (25) garment imports increased from US$ 82.7 bn to US$ 121.7 bn in 2004 (47.1% of world trade in garments).

- Another major surge in garment imports was by the USA: from US$ 66.3 bn in 2000 to US$ 75.73 bn in 2004 (29% of global trade in garments)

### Leading Garment Exporting Countries

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<td>30.0</td>
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### Leading Garment Importing Countries

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</tbody>
</table>

*Source: WTO*
2.3 The Driving Forces in Global Trade in Textiles and Garments

The evolution of the textile and clothing industries has been a combination of parameters that have shaped the global business environment and the competitive environment. These parameters include:

- The emergence of international trade agreements (MFA, ATC)
- National economic strategies prepared by governments and international institutions such as the World Bank
- Demand and technology
- The development of international communications
- The revolution of the Retail Industry in developed countries
- The strategies chosen by machine manufacturers and chemical companies

A brief overview of each of these important factors is a pre-requisite in order to better understand the dynamics of global change in the textile and apparel industry.

2.3.1 Government policies – The example of India

Government policies have an immediate impact on the development of the textile and garment industries. All the successful exporting countries in textiles and clothing have formulated clear textile policies for their countries as confirmed by the Textile Vision in India presented hereafter:

Faced with new challenges and opportunities in a changing global trade environment, the Government of India (GOI) unveiled its National Textile Policy 2000 (NTP 2000) on November 2, 2000. NTP 2000 aims to improve the competitiveness of the Indian textile industry to attain textile and garment exports of US$ 50 bn per year by 2010. NTP 2000 opened the country’s garment sector to large firms and allowed FDI of up to 100% in the RMG sector, to develop state-of-the-art manufacturing facilities and to reach economies of scale to withstand competition from low-cost countries and increase apparel exports to US$ 25 bn by 2010. GOI has de-regulated knitting mills from the small-scale industry sector.
As part of its overall economic reform, GOI has liberalized its investment policies for the textile industry. The Reserve Bank of India (RBI) now grants automatic approval within 2 weeks for all proposals involving foreign equity of up to 51% in the manufacture of textile products in the composite mills and the production of waterproofed textile fabrics. RBI also gives automatic approval to these mills for technology collaboration agreements provided (1) Lump sum payments for technology transfer do not exceed US$ 2 mn; (2) Repatriated royalty payments are limited to 5% for domestic sales and 8% for exports; (3) Royalty payments do not exceed beyond 7 years from the start date of commercial production.

FDI in India’s textiles industry has been relatively small because GOI did not permit it until the early 1990s, when large funds were being invested in other Asian countries such as China, Indonesia, Thailand and Cambodia. Between 1994 and June 1998, India approved 402 textile FDI projects totalling US$ 650 mn. 63 of these projects involved technical assistance and 339 financial assistance. The actual FDI totalled US$ 143 mn, or 22% of the approved amount. This can be attributed to India’s infrastructure deficiencies and its relatively late effort attempts to attract FDI.

In NTP 2000, GOI acknowledged that over-regulation and targeted tax benefits to the Small Scale Industry on the one hand and to decentralized sector units on the other were harmful to the expansion of the country’s textile industry. NTP 2000, therefore, liberalized government controls and regulations, so that different sectors within the textile and garment industry functions in a more competitive environment. Additionally, GOI took a decision to close the loss making, public sector, National Textile Corporation (NTC) mills that had ever-increasing debts. This decision had been under consideration by successive governments for many year but it was only recently that it was decided that this was a burden on the economy that was unsustainable. The mills are now closed.

The NTP 2000 has generated great results for the Indian textile and clothing industry with exports growing from US$ 9.3 in 1999 to US$ 13.47 in 2004 showing an increase of 44% during the period. Such growth projected forward will put India in the US$ 22-25 bn it was targeting with the NTP 2000.

2.3.2 Demand, Technology and International Communications

Industrialized countries attract the vast majority of garments global demand. These countries show similar trends:

- Markets are increasingly segmented and complex
- Fashion trends are sophisticated, frequent and difficult to predict
- Quality, service and value for money are now business cliches
- Markets in Developing Countries are still difficult to access
- Trends moving towards industrialized, urban, consumer and casual lifestyle
The sources of these changes have been trade liberalization and improved international communications. Multi-national media (especially films, television and internet) low travel and communications costs are accelerating the diffusion of new ideas and tastes between nations.

The result is the emergence of international market segments. The ability to identify and exploit new trends internationally have been behind the global success of international brands such as Ralph Lauren, Calvin Klein or the GAP, and of global products, such as jeans, suits, and several sportswear items.

On the supply side, new information technologies (IT) and management systems such as ISO 9000 have improved long-distance supply capabilities. Through standardization, ISO 9000 has provided a more open and transparent market place by creating new benchmarks that suppliers and customers can adopt to guarantee performance.

Leading textile and apparel retailers have established virtual exchange bases to set Internet communication standards for textile and garment products in a move to cut-out third parties. Internet developments have, in other words, enabled each stakeholder’s role to be reconsidered, as suggested in the following figure.

---

### Projection of new roles following e-commerce

**Traditional Roles:**
- **Manufacturer**
  - Brand management
  - Product management
  - Channel management

- **Distributor**
  - Inventory financing
  - Break bulk logistics
  - Reseller management

- **Reseller**
  - Physical locations
  - Merchandising
  - Selling
  - Customer service

---

**New Roles:**
- **Manufacturer**
  - Sales initiation
  - Customer relationships

- **Distributor**
  - Assemble-to-order
  - Drop-ship

- **Reseller**
  - Sell virtual inventory
  - Set up virtual stores

---

**Inventory management**

**Customer relationship management**

---

Source: Forrester “Disintermediation Realities”
New rules of the game for modern garment makers can be anticipated based on the examples of North-American practices

- Reliability in quality
- Consistency in fabric supply (shading, shrinkage, etc.)
- International cost comparison for fabrics and garments

- Export in DLP (Duty Land Paid) instead of FOB (Free On Board)
- Logistics excellence
- Garment makers are responsible for the whole sourcing process including delays in fabric deliveries
- High level of chargebacks penalties when contracts are not respected

- Deliveries in 30 days when POs are confirmed
- Capacity to always deliver faster - Speed-to-market become the key for success
- Troubleshooting procedures

- Capacity to innovate
- Quick product development process
- Quick sampling process
- Co-development operations

Stakeholders of the textile value-added chain must adapt themselves to faster and more complex sourcing cycles, i.e « design - purchase - delivery - sales »

Source: Gherzi research, industry
2.5 Impact of International Strategies being pursued by Retailers

2.5.1 The Retail Revolution

The evolving internationalisation of retailing methods over recent years will accelerate further as global economic integration proceeds and as domestic market saturation stimulates more retailers to seek growth opportunities in other countries. Mergers of retailers from different countries will become more common, though national champions will precede international integration. The diversity of consumer lifestyles will continue to support different retail formats and distribution channels to the markets.

However, despite the progression of virtual shopping, fixed site retailers will retain leading positions with their roles as a leisure activity and improved services. Retail competition will continue to intensify as consumer choice expands. Strong competitive pressures, shifting and ever more complex consumer requirements together with market and channel diversity will press retailers to put more emphasis on managing brands and channels, as they develop multiple channels (stores, catalogues, merchant websites) for private label merchandise.

Source: OETH, Textile ConsumerTM, INSEE, Federabbigliamento
An important development in non-store retailing will be «home» shopping. Home shopping will be interactive, on demand, with «infinite» channels and choices. Wireless personal communicators will allow consumers to shop anywhere, anytime – customers will even be shopping in «virtual» stores where they will be able to try on various colors and sizes, etc… In this world, all retailers will:

- Have value embedded in their offer
- Be connected to the consumer electronically for customized service and marketing feedback
- Be connected to their suppliers electronically for product planning, sales forecasting and automatic replenishment
- Collaborate with designers, developers and distributors, forming virtual entities and eliminating non-value adding, redundant functions

There will be no definitive lines between channels as they exist today. Although some retailers will succeed and some will fail, the fact remains that: electronic shopping signals a strong change for retailing in the future.

Source: Gherzi, MC
2.3.3 Supply Chain Strategies

To optimise their margins, garment contractors in developed countries are re-defining their supply chain managements: not only do they select sourcing zones and their co-sourcing manufacturing partners more carefully, they also aim to master the difficult technique of combining three distinct delivery schedules, i.e. (i) long-term, (ii) mid-term and (iii) short-term.

Long term collections are conceived one year in advance, mid-term collections are mini-collections identified six months in advance, whilst short-term collections are designed in response to the season's initial results.

The general trend amongst prime contractors is to delay engagements, fractioned orders and smaller quantities. It is, of course, to their advantage to place orders as late as possible, so that they can get the best possible information on new market developments. But this practice places a heavy burden on garment manufacturers and their fabric suppliers.

The long term remains the basis for the vast majority of delivery schedules, especially with European countries. In the future it will also provide a structure to the collections and to the marketing efforts of the brands.

Short term order demands will increase rapidly. Requirements for ultra-fast response lines will be met by only a limited number of suppliers.

Mini-collections that are already strongly developed in northern Europe, will become common across Europe. These mini-collections are designed mid-season, are supplied continuously on a few products in the stores, but give the impression that there is always something new on offer.

- Criteria influencing European contractors

The textile industry’s demands are now extremely important and diversified. Partnership frameworks have become more and more complex and the identification of « who has the real decision power » along the textile chain remains complex.
Distributors and Brands secure their Sourcing

What is their fundamental need? This remains the price. Price pressure, particularly important for the low-end market segments, decreases in the medium- and high-end segments. This pressure directs sourcing research to areas with competitive prices in distant countries (especially in Asia) and a research for creativity and quick response in the neighbouring regions (In Europe, Maghreb, Eastern Europe and Turkey).

Regional approaches divide Europe in two zones

Does Europe have a common approach to sourcing? No, each country has its own approach. Regional cultures dictate specific approaches to partnerships and sourcing frameworks.

Taking into consideration both the price need and the different cultures, a clear divide appears between Northern Europe and Southern Europe.

The Northern Europe Zone

The main buyers in Northern Europe (Germany, UK, Belgium, Netherlands, Denmark, Sweden) focus more on what they consider to be their core business: i.e. design and marketing of garments. They believe that they have a better chance to improve their margins and to escape crippling price competition when they act more as designers/ prime buyers and less as production drivers:

- They look for competitive prices, especially in Asia, or in neighbouring countries as in the case of Germany, i.e. in E. Europe and Turkey
- They have developed strong partnerships
- They mainly work with co-sourcers (fabric purchase is the responsibility of the garment maker) or in a pure trading framework (purchase of finished products)
- Short-term means for them complete new collections within a given season to refresh their stores' product offers or to “stick” to changing fashion trends. These mini-collections are generally designed and prepared 6 months earlier.

The Southern Europe zone

In Southern Europe (France, Italy, Spain, Portugal), great emphasis is given to product realization and production management.
The main buyers are purchasers / production pilots:

- In order to manage the production process, close proximity of the buyers to the manufacturers is a pre-requisite. The majority of the sourcing solutions come from neighbouring regions such as the Maghreb countries, Turkey and Eastern Europe.

- Co-sourcing and outsourcing are both used depending on the financial strength of their garment producers.

- Information sharing is not common except in Italy with its long established use of manufacturing clusters.

- Short turn-around times: On-going adjustments within a given season on quantities coming from Italy or replenishment / actualization designed on a very short-term in France and Spain.

- Buyers are very cautious « pilots » when deciding the whole production process. Their options are conditioned by the prospect of carrying expensive stocks.

- Sourcing zones are globally stabilized: New competitive countries with low labour costs are most unlikely to emerge.

- The decision between sourcing at a distance or near to is dictated by the indirect price variations caused by fluctuations in the US$ exchange rate.

Potential gains in margins do not relate to low labour costs, which in any case are already optimized, but to a fine-tuning of the supply chain process including the costs of sub-standard products.

➤ A strong phenomenon for secured purchasing:

- Rationalization of the number of suppliers, reinforcement of partnerships with the most efficient and reliable players,

- Development of the co-contracting in order to avoid the “fabric” risk,

- Purchase sequencing and development of mini-collections.

The specialization “designer-purchaser” tend to progressively dominate in Europe. Distributors and brands tend indeed to:

- Integrate the design with internal resources,
• Outsource the production and management of the production process

In view of the restricted transparency of the changes in sourcing textile and clothing sourcing evolutions, fabric suppliers are revamping their positions in the textile chain.

Despite initiating changes and anticipating their customers’ requests, many fabric suppliers are influenced increasingly by purchasers’ demands.

Buyers are willing to work in partnerships with strong “upstream market weavers or knitters” who offer creativity, competitive prices, flexibility and security.

➢ European Fabric Suppliers tend to offer specific solutions with:

  • a creative touch (Italy)
  • a security/quality approach (Germany)
  • strong partnerships (UK)
  • “quality” benefits (Portugal)
  • “service” benefits (Spain)
  • Very competitive fabric prices (France) where the key buyers have issues coordinating the links between marketing and manufacturing.

➢ Fabric Suppliers’ Market – Two segmented Zones:

  • The proximity market that includes Europe and the pan Euro-Med region is of interest to European buyers. Strong competition from Turkey and Asia has also developed.

  • The long-distance export (USA, Japan) is usually well exploited by Italian, German and British weavers and insufficiently used by the French

Co-sourcing is increasing everywhere. Through the framework, the weaver’s direct customer is not the decision maker of the collection design. If the co-sourcer has a decision power regarding the fabric, the decision chain becomes even more difficult for the weaver.

➢ Weavers will need to establish commercial relationships with both co-sourcers and the main buyers:

  . In the UK, the co-sourcer is usually a fabric specifier

  • In Italy, Spain and Portugal, co-sourcers can be asked by their purchasers to be their fabric specifiers,
In all cases, a given co-sourcer who has charge of fabric selection, garmenting, production and delivery lead times will tend to establish relationships with the most reliable weavers. This distribution of responsibilities revamps the usual definition of the current players taking part of the textile and clothing value added chain:

- Key buyers focus their activities on the design function as they are the key decision makers

- Co-sourcers are in charge of all production processes. They symbolize the link between contractors and weavers in the production processes. They are the “connecting players”.

- Weavers ‘sophisticate’ their offers by including more services-orienting the collections by bringing new marketing and product development ideas

The following figure illustrates the differences between sourcing modes:

**Source:** Gherzi
The following figure illustrates the difficulty of the textile chain by segmenting the issues arising when describing the sourcing of garments or textile products.

### Textile Chain Complexity

<table>
<thead>
<tr>
<th>Supply mode</th>
<th>The partners</th>
<th>Garmenting origin</th>
<th>Final consumer market</th>
<th>Supply chain mode</th>
<th>Distributor category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Own production</td>
<td>Wholesaler</td>
<td>Europe (EU+EFTA)</td>
<td>Domestic market</td>
<td>Pronto moda</td>
<td>Price-driven chains</td>
</tr>
<tr>
<td>Local sub-contracting</td>
<td>Converter</td>
<td>Eastern Europe</td>
<td>Export market</td>
<td>Actualization</td>
<td>Fashion chain stores</td>
</tr>
<tr>
<td>Foreign sub-contracting</td>
<td>Finisher</td>
<td>China</td>
<td></td>
<td>Replenishment</td>
<td>Modern distribution</td>
</tr>
<tr>
<td>Co-contracting</td>
<td>Weaver</td>
<td>Asia</td>
<td></td>
<td>Medium term</td>
<td>Department stores</td>
</tr>
<tr>
<td>Trade</td>
<td>Knitter</td>
<td>Turkey</td>
<td></td>
<td>Long term</td>
<td>Independent stores</td>
</tr>
<tr>
<td></td>
<td>Garmenter</td>
<td>Maghreb / Africa</td>
<td></td>
<td></td>
<td>Others</td>
</tr>
<tr>
<td></td>
<td>Purchasing corporation</td>
<td>USA / Mexico</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Design studio</td>
<td>South America</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Implied questions

- **Who owns the decision power?**
- **Which added value does my customer bring to the textile chain?**
- **Does the garmenting origin have a direct impact on the fabric sourcing?**
- **Which organization needs to be settled?**
- **Which are the demands in terms of services?**
- **Which marketing approach needs to be implemented?**

Source: Gherzi

In such a complex chain, the decision making for the purchase of fabrics, accessories and finished products is becoming more complicated and the choice of suppliers is influenced by the various players within the buying organization. The above questions are answered by the buying team. The following graph & table show the distribution of the buying decision in brands:
The traditional role of a single buyer is being replaced by a decision group. Due to brands’ sensitivity to fashion, stylists are the key decision makers for all the process, the other players in the buying department support their decision and implement it. Even at the stage of choice of suppliers, the stylist plays the most significant role, exceeding that of the sourcing director.

### Brands: Distribution of the decision making

<table>
<thead>
<tr>
<th></th>
<th>Stylist</th>
<th>Product manager</th>
<th>Director of collection</th>
<th>Sourcing director</th>
<th>Commercial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assortment plan</td>
<td>75%</td>
<td>43%</td>
<td>38%</td>
<td></td>
<td>26%</td>
</tr>
<tr>
<td>Sketch selection</td>
<td>73%</td>
<td>37%</td>
<td>34%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fabrics selection</td>
<td>71%</td>
<td>29%</td>
<td>22%</td>
<td></td>
<td>17%</td>
</tr>
<tr>
<td>Fabrics decision</td>
<td>78%</td>
<td>34%</td>
<td>27%</td>
<td></td>
<td>22%</td>
</tr>
<tr>
<td>Choice of suppliers</td>
<td>49%</td>
<td>34%</td>
<td>42%</td>
<td></td>
<td>24%</td>
</tr>
</tbody>
</table>

*Source: Industry*
## Pros and Cons of Asian Textile and Clothing Sourcing

<table>
<thead>
<tr>
<th>Price</th>
<th>Quotas and administrative back-office</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fabrics and garments are imported into Europe with a 50% price difference from local sources. Asian suppliers are nearly obligatory sources because of the final customer's price pressure.</td>
<td>Sourcing from Asia needs secure administrative processes (Letter of credit, taxes, ...). The quota volumes, especially on trousers are sometimes extremely tight.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quality</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The fabric and quality gap between Asia and Europe is rapidly shrinking. The establishment of purchasing offices managed by large American brands has contributed to a general increase in the standards of Asian manufacturers.</td>
<td>Shipping by sea increases lead times by &gt;one month. Shipping by air increases the costs by &gt;10%. But shipping by air is used more and more and can be cheaper than local source replenishment.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Commercial relationships</th>
<th>Payment conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening capacities, flexibility, openness and commercial aggressiveness are the key characteristics used by customers to describe Asian players.</td>
<td>Many small chains are reluctant to switch their sourcing to Asia due to the volatility of the transactions in US Dollar.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Local textile industry dynamism</th>
<th>Minimum quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian countries benefit from their integrated industries - the one location offering raw materials, yarns, fabrics and garments. This possibility is available in several countries, e.g. China and India, where quality standards have recently improved.</td>
<td>Asian manufacturers impose large minimum quantities in order to rationalize the distance with Europe. It is one of the main obstacles for European customers who cannot manage replenishment orders from Asia.</td>
</tr>
</tbody>
</table>
2.3.4 Impact of International Strategies pursued by Textile Machine Suppliers

Machine suppliers have played a key role in intensifying international competition in the textile and apparel sectors. In pursuit of global positions, these international companies have ensured that new machines and technologies have been introduced world-wide.

### Major technological changes in textile Manufacturing

#### Spinning
- Significant changes in technology have resulted in productivity increases for superior quality
- Latest Air Jet spinning technology provides higher productivity for specific products
- Technological development will continue
- Ongoing modernisation required

#### Weaving/ Knitting
- Significant improvements
  - Machine efficiencies
  - Machine changes
  - Design changes
  - Speeds
  - Quality

#### Garmenting
- Garmenting will remain labour intensive despite automation of certain elements and work station engineering
- Automation in:
  - Design (CAD)
  - Fabric laying / cutting (CAM)

#### Processing / Finishing
- Significant changes in technologies have resulted in increased productivity and enhanced quality
- Concerns on environmental issues have spearheaded technological changes
- Increased use of microprocessor based technology for colour matching and reduced dyeing cycle times

### Evolution of Textile Production: 1960-2005

- **Yarn**
  - Productivity increased by 12 times

- **Fabric**
  - Productivity increased by 20 times

- **Garmenting**
  - Basic garments production increased by 15 times

- Spinning and weaving production significantly transformed to capital intensive industries
- Garmenting continues being highly labour intensive

*Source: Gherzi*
2.3.5 Impact of International Strategies pursued by Dye and Chemical Suppliers

New environmental regulations have spurred considerable product development and has increased interest in recovery, recycling and re-use operations. Chemical suppliers are moving away from the use of objectionable solvents, heavy metals, salt and other chemicals that release formaldehyde, volatile organic compounds and other regulated materials into the environment.

As well as constraining the volume demand for chemicals, this trend offers opportunities for companies to develop products that reduce environmental pollution during textile production. The new chemicals include high fixation dyes, auxiliaries which increase the efficiencies and performances of dyestuffs and finishing operations; low-formaldehyde finishes, water-based polymers, non-chlorine bleaches and enzymes are typical examples. Although limited at the present time, the re-use of dyebaths could be practical and would lower the consumption of dye auxiliaries and dyestuffs, although this is likely to be a long time in the future.

The outlook for textile end use markets plays a key role in both volume and mix of textile chemical consumption. At present, the best prospects are expected in the areas of medical products, especially value-added nonwovens, high-performance industrial textiles, such as coated fabrics, as well as in carpets and rugs.

Import penetration into these markets has been minimal as US textile producers maintain production advantages based on the use of automation and other advanced machinery. Many of these products are less labour intensive but have high specifications. In contrast, garment markets will experience below-average gains due to the high import penetration in the market and the depressed outlook for traditional dye consumption.

However, the apparel market, due to its fashion focus and fast-changing requirements, will continue to demand new, high performance, high-value chemical treatments. Many companies supply of chemicals to the textile industry, ranging from large, multinational conglomerates such as BASF to small, niche formulators such as Piedmont Chemical.

However, despite this diversity, sales are dominated by the large dye, chemical and polymer producers, with three companies -- BASF, Ciba and DyStar -- alone controlling nearly one-quarter of the total market. Whilst large chemical companies such as ICI and BF Goodrich are important volume suppliers, speciality companies such as Apollo Chemical and IVAX are key players with their strong focus on textile applications, close customer contact with an important role in new formulation developments.
2.3.6 Trends in Final Consumption

2.3.6.1 Evolution of World Population Growth

**World population may grow to approx. 11 bn people**

Recent studies have shown that population growth will continue during the next 50 years. It is, however, unclear whether global equilibrium will settle down at 10 or 11 bn people; indeed, it is not established whether the stabilisation of human population can be fully achieved by the year 2100.

As standards of living and education improve, birth rates will fall and the rate of world population growth will slow down. However, a huge worldwide bulge of fertile youth (mostly in poorer countries) is a key parameter to be taken into consideration in order to anticipate future trends.

Even with the prospect of smaller families, the effects of the medical revolution - which will provide and is providing longer lifespans – mean that there is a long way to go before world population stops growing.

It is clear that the increasing pressure of population on natural resources will be one of the major problems of the 21st century.

**World population structural changes**

<table>
<thead>
<tr>
<th>Year</th>
<th>Asia (bn)</th>
<th>India (bn)</th>
<th>China (bn)</th>
<th>Africa (bn)</th>
<th>Developed countries (bn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>0.40</td>
<td>0.16</td>
<td>0.20</td>
<td>0.04</td>
<td>0.50</td>
</tr>
<tr>
<td>1990</td>
<td>0.44</td>
<td>0.18</td>
<td>0.22</td>
<td>0.06</td>
<td>0.54</td>
</tr>
<tr>
<td>1995</td>
<td>0.46</td>
<td>0.19</td>
<td>0.23</td>
<td>0.07</td>
<td>0.57</td>
</tr>
<tr>
<td>1997</td>
<td>0.47</td>
<td>0.20</td>
<td>0.24</td>
<td>0.08</td>
<td>0.59</td>
</tr>
<tr>
<td>1998</td>
<td>0.48</td>
<td>0.20</td>
<td>0.24</td>
<td>0.08</td>
<td>0.60</td>
</tr>
<tr>
<td>1999</td>
<td>0.49</td>
<td>0.21</td>
<td>0.25</td>
<td>0.09</td>
<td>0.61</td>
</tr>
<tr>
<td>2000</td>
<td>0.50</td>
<td>0.22</td>
<td>0.25</td>
<td>0.09</td>
<td>0.62</td>
</tr>
<tr>
<td>2001</td>
<td>0.51</td>
<td>0.22</td>
<td>0.25</td>
<td>0.10</td>
<td>0.63</td>
</tr>
<tr>
<td>2002</td>
<td>0.52</td>
<td>0.23</td>
<td>0.26</td>
<td>0.10</td>
<td>0.64</td>
</tr>
<tr>
<td>2003</td>
<td>0.53</td>
<td>0.23</td>
<td>0.26</td>
<td>0.11</td>
<td>0.65</td>
</tr>
<tr>
<td>2004</td>
<td>0.54</td>
<td>0.24</td>
<td>0.26</td>
<td>0.11</td>
<td>0.66</td>
</tr>
<tr>
<td>2005</td>
<td>0.55</td>
<td>0.25</td>
<td>0.26</td>
<td>0.12</td>
<td>0.67</td>
</tr>
<tr>
<td>2010</td>
<td>0.58</td>
<td>0.28</td>
<td>0.28</td>
<td>0.13</td>
<td>0.70</td>
</tr>
</tbody>
</table>

**Growth rate p.a.**

- Asia: 1.90%
- India: 1.58%
- China: 1.32%

*Source: US Bureau of Census*
2.3.6.2 World GDP growth by regions

The skewed consumption position reflects the global economic imbalance between rich and poor nations.

However, despite the recent Asian crisis, overall economic and population growth rates have remained higher in the developing countries.

The following figures shows some projections regarding the development of poor populations in the World and suggests that the only region which is not going to improve its current situation is Africa. All the others should see their poor population ration decrease over the next 10 years.

Source: World Bank
2.3.6.3 Evolution of Fibre Demand

World population is continuing to grow mainly in the developing and emerging economies. At the end of the second millennium, more than 40% of the World population lived in China, India and Brazil; that figure now approaches 50%. Since an increase in purchasing power is also evident in these countries, global fibre consumption is growing at a faster rate than the world population.

The current per capita consumption of fibres in North America, Western Europe, Japan, Taiwan, South Korea and Turkey is more than 10 kg per year. 1 bn people live in these richer countries as shown in the following figure. Annual per capita consumption of fibres in the rest of the World is less than 10 kg.

However the rest of the World accounts for more than 80% of the global population. A comparison of fibre consumption between industrialised countries and developing countries reveals striking growth potential for fibres, yarns and textiles.

Rising population figures and economic growth are therefore still regarded as the driving force of the textile and garment industries.

Per capita Consumption of Textile Fibres

Source: Rieter Link - 3/2000
Per capita consumption of fibre should increase by 2% annually

Population growth (approx. 1.32% per annum) will contribute to some 40% of the increase in fibre consumption, whilst economic growth and the rise in disposable income will account for 60% for the overall increase.

Annual per capita consumption of fibres rose from 8.6 kg in 2000 to 10.1 kg in the year 2005. This is equivalent to an annual growth rate of 3.2%. New end-uses in Industrial and Technical Textiles have added significantly to fiber consumption in the last years and will increase further in the future.

The following figure indicates clearly the export potential of Asia. In the mature markets of the West and Japan, the self-sufficiency ratio is declining thereby opening the countries to further import penetration.
2.3.6.4 Natural Fibres versus MMF

➢ The Development of MMF

Global fibre demand rises as a function of population growth and per capita usage. In 1982 the world managed its textile and garment requirements with 30 mn tons of fibre; 50% of it being cotton. 18 years later world fibre consumption stood at 55 mn tons and with a cotton share of 35%.

Development of polyester since its introduction in the mid 1950s is one of the explanations for this rapid change. The driving factor for the strong growth in PES are macro-economic growth (population and economical development):

- Easy and cheap to produce
- Availability of raw material (PTA and MEG)
- Easy processing, easy to wear and long-life garments
- Flexibility in end-use
- And of course strong innovations fueled by R&D efforts engaged by strong oil and chemical companies (Shell, Dupont, etc...)

<table>
<thead>
<tr>
<th></th>
<th>1982</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cellulosic fibres</td>
<td>10%</td>
<td>4.1%</td>
</tr>
<tr>
<td>Wool</td>
<td>5%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Cotton</td>
<td>50%</td>
<td>58.8%</td>
</tr>
<tr>
<td>MMF</td>
<td>35%</td>
<td>35.2%</td>
</tr>
<tr>
<td>MMF</td>
<td>10.15</td>
<td>31.7</td>
</tr>
<tr>
<td>Total</td>
<td>29.52</td>
<td>54.91</td>
</tr>
</tbody>
</table>

Source: Gherzi
**World-wide consumption of fibres (kg/capita)**

<table>
<thead>
<tr>
<th>Year</th>
<th>MMF</th>
<th>Natural fibres</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>8.4</td>
<td>3.6</td>
</tr>
<tr>
<td>1998</td>
<td>8.4</td>
<td>3.5</td>
</tr>
<tr>
<td>1999</td>
<td>8.4</td>
<td>3.4</td>
</tr>
<tr>
<td>2000</td>
<td>8.6</td>
<td>3.4</td>
</tr>
<tr>
<td>2001</td>
<td>9.0</td>
<td>3.5</td>
</tr>
<tr>
<td>2005</td>
<td>10.1</td>
<td>3.7</td>
</tr>
<tr>
<td>2010</td>
<td>11.2</td>
<td>3.8</td>
</tr>
</tbody>
</table>

Source: PCI Fibres

**Fibre Trade until 2010**

MMF trade will remain global - whereas developed countries will focus on high function fibres, developing countries will concentrate on mass production of commodity fibres.

**Market priority**
- Technical and functional textiles

**Special modified fibres**
- North America
- Western Europe
- Japan

**Market priority**
- Apparel and home textiles
- Geotextiles and hygiene

**Commodity fibres**
- Mass fibres of:
  - Polyester
  - Polyamide
  - Polyacryl
  - Polypropylene

**Fibre characteristics**
- Modified fibres for special functions through:
  - chemical changes
  - physical changes

Source: Gherzi
2.3.6.5 The Evolution of MMF

**PES dominates the world of MMF**

The worldwide market for MMF is dominated by polyester fibres which reported a production volume of approximately 19 million tons in 2000.

This total volume corresponds to a 60% market share.

Polyamide fibres ranked second with its output of about 4 million tons, which corresponds to a 13% market share.

The next positions are occupied by:

- Polypropylene fibres
- … followed closely by cellulosic fibres,
- acrylic fibres…
- … and other synthetics fibres such as elastane, aramide and carbon fibres

Filament yarns make up about 54% of the MMF market and staple fibres having 46%.

The following figures show some interesting developments of the MMF industries in the past and in the future.

**World-wide Production of MMF**

<table>
<thead>
<tr>
<th></th>
<th>Production annual growth rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1960-2000</td>
</tr>
<tr>
<td>Japan</td>
<td>0,2%</td>
</tr>
<tr>
<td>Western Europe</td>
<td>2,4%</td>
</tr>
<tr>
<td>USA</td>
<td>3,4%</td>
</tr>
<tr>
<td>Asia and others</td>
<td>8,1%</td>
</tr>
</tbody>
</table>

*Source: Lenzing, PCI Fibres, Gherzi*
Proportion of Staple-Fibre to Filament

Source: Ghezi's analysis based on PCI fibres

Fibre Trade to 2010

Effect: Cotton-fibre production countries with developed infrastructure and low labor costs will attract spinners and other following players of the textile value chain. Cotton orientated countries, e.g. Uzbekistan will record a significant growth for their textile industry.

Effect: Man-made commodity fibre producers are in strong competition to each other. In order to survive, they need to move to countries with a high potential of demand. The production of high tech fibres, however, will remain where industrial knowledge is available.

Source: Gherzi
### Fibre Production 70.5 Mio tons (81.9)

<table>
<thead>
<tr>
<th>Fiber Type</th>
<th>Volume</th>
<th>(2004)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Synthetics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Filament</td>
<td>38.2 Mio</td>
<td>(48.9)</td>
</tr>
<tr>
<td>Polyester</td>
<td>14.3</td>
<td>(18)</td>
</tr>
<tr>
<td>Polyamid</td>
<td>3.6</td>
<td>(4.2)</td>
</tr>
<tr>
<td>Polypropylene</td>
<td>6</td>
<td>(8.0)</td>
</tr>
<tr>
<td><strong>Staple</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polyester</td>
<td>14.6</td>
<td>(18.7)</td>
</tr>
<tr>
<td>Polyamid</td>
<td>10</td>
<td>(13.2)</td>
</tr>
<tr>
<td>Polyacrylic</td>
<td>2.7</td>
<td>(3.0)</td>
</tr>
<tr>
<td>Polypropylene</td>
<td>1.5</td>
<td>(2.0)</td>
</tr>
<tr>
<td><strong>Cellulose</strong></td>
<td>2.5 Mio</td>
<td>(2.5)</td>
</tr>
<tr>
<td>Filament</td>
<td>0.5</td>
<td>(0.5)</td>
</tr>
<tr>
<td>Staple</td>
<td>2.0</td>
<td>(2.0)</td>
</tr>
<tr>
<td><strong>Cotton</strong></td>
<td>22 Mio</td>
<td>(22)</td>
</tr>
<tr>
<td><strong>Other fibers:</strong></td>
<td>7.5 Mio</td>
<td>(8.5)</td>
</tr>
<tr>
<td>Sisal</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>Coco</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>Jute</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>Glass, Carbon, Aramid...</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>


- **Woven textiles:** 31 Mio tons (33)
  - Filament: 17-23%
  - Colour: 5-10%
  - Greyfabric: 55-60%
  - Wool-Worsted: 2-5%
  - Household: 5-10%
  - Terry Towel: 2-5%
  - Sportswear: 5-10%

- **Knitted textiles** 22 Mio tons (26)

- **Technical textiles:** 18 Mio tons (23)
  - Fabrics: 31% (27%)
  - Nonwoven: 30% (35%)
  - Composites: 19% (21%)
  - Others: 20% (17%)

**Note:** Black numbers are related to the year 2004 / Red numbers (in brackets) are related to the year 2010

**Source:** Gherzi reasearch
Consumer perception

<table>
<thead>
<tr>
<th></th>
<th>Positive</th>
<th>Neutral</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>W C</td>
<td>V E P</td>
<td>A P V</td>
</tr>
<tr>
<td>Women</td>
<td>W C E V</td>
<td>V E P A</td>
<td>A P V</td>
</tr>
<tr>
<td>Children</td>
<td>W C E A</td>
<td>W E P A</td>
<td>W A V P</td>
</tr>
</tbody>
</table>

W = Wool
C = Cotton
V = Viscose
A = Acrylic
P = Polyester
E = Elastomer

Source: Industry, IWTO
2.3.7 The Importance of Trade Pacts in International Trade flows of Textiles and Garments

2.3.7.1 General Overview

The markets in Asia and South America and, at a later stage, also those in the former Soviet Union, have considerable potential for growth. Whilst economists maintain that the current turbulence in the world may delay these development to some extent, it will by no means stop it.

In the year 2010, the major developing countries will generate some 50% of the gross national product (GNP) of today's industrialized world: 150 million Indians will have an annual income with a purchasing power comparable to income in Spain and 200 million Chinese with income levels such as the USA and Canada.

Contrary to several warnings, trading zones such as NAFTA and the EU have developed successfully. Mercosur is in the process of establishing itself but with continuing political issues. Asia was thrown off balance by the Asian crisis in the late 1990s and is still recovering in some sectors. International textile trade will also grow as a result of quota-free textile trading in 2005. More trading groups operating world-wide will grow, since they will be able to achieve better economics of scale by virtue of improved market coverage.
Inception Report – July 2006

Examples of regional trade blocks

In a world which is characterised by trade pacts, it is important that Egypt is the member of a regional trading block which it actually dominates...

- NAFTA
  - USA
  - Canada
  - Mexico

- Caricom
  - Pact of 14 Caribbean countries

- Andean Pact
  - Colombia
  - Venezuela
  - Bolivia
  - Ecuador
  - Peru

- Mercosul
  - Argentina
  - Brazil
  - Uruguay
  - Paraguay

- European Union
  - Germany
  - Belgium
  - Luxemburg
  - France
  - Italy
  - Spain
  - Portugal
  - Ireland
  - United Kingdom
  - Netherlands
  - Greece
  - Austria
  - Sweden
  - Finland
  - Denmark

- EFTA
  - Switzerland, Norway and Iceland

- CIS
  - Former Soviet Union States excluding 3 Baltic States

- OCE
  - Turkey
  - Iran
  - Pakistan
  - 6 Muslim CIS States

- SAARC
  - India
  - Bangladesh
  - Buthan
  - Pakistan
  - Nepal
  - Sri Lanka
  - Maldives

- African Pacts
  - CMESA (Eastern and Southern Africa)
  - ECOWAS (West Africa)
  - IOC (Indian Ocean)
  - SACU (Southern Africa)
  - CEEAC (Central Africa)
  - SADC (Southern Africa)

- APEC
  - (Asia-Pacific)
  - 18 countries (including Japan and Australia)

- United Kingdom

- Germany

- USA

- Canada

- Mexico

- United Kingdom

- Netherlands

- Greece

- Austria

- Sweden

- Finland

- Denmark

- EFTA

- Switzerland, Norway and Iceland

- CIS

- Former Soviet Union States excluding 3 Baltic States

- OCE

- Turkey

- Iran

- Pakistan

- 6 Muslim CIS States

- SAARC

- India

- Bangladesh

- Buthan

- Pakistan

- Nepal

- Sri Lanka

- Maldives

- African Pacts

- CMESA (Eastern and Southern Africa)

- ECOWAS (West Africa)

- IOC (Indian Ocean)

- SACU (Southern Africa)

- CEEAC (Central Africa)

- SADC (Southern Africa)

- APEC

- (Asia-Pacific)

- 18 countries (including Japan and Australia)

Source: Gherzi
2.3.7.2 The MFA and the ATC

As a measure of successes of the newly developing country, textile and garment exports became the engine drivers of their economies. In the early 1970s, the developed countries grew increasingly protectionist and introduced quotas. Under the Multi-fibre Arrangement (MFA), 1974-2004, textile and garment importers established bilateral import quotas in a variety of individual product categories to restrict imports. These were imposed whenever a trading partner’s exports to its domestic market threatened its interests.

This system of regulated textile and garment trade helped to spawn increased internationalization of production of these very products. As quotas were up in one exporting country, international clothing entrepreneurs sought new production platforms from which to establish commercial relations with existing manufacturers or even to establish new manufacturing operations all together. Exports grew quota-risk free from a new platform for some time, before attracting the attention of importers. This “quota-hopping” behavior of the international garment industry is one of the factors which enhanced the establishment of garment operations in developing countries.

Today, the MFA is dead and international textile and garment trade is managed by the Agreement on Textiles and Clothing (ATC), signed as part of the Uruguay Round Agreements Act (URAA) when the World Trade Organization was created. The ATC laid out the process of liberalization of the bilateral import quotas over a ten-year period, from 1994 through 2005. This obligation applies to the four countries (or country groupings) which maintained restrictions under the MFA, namely Canada, the European Community-25, Norway and the United States. It also applies to fifty-five countries which chose to use transitional import safeguard mechanisms. The US maintains bilateral textile agreements with non-WTO member trading partners such Taiwan, Vietnam and Cambodia.

With the end of the MFA, developed countries are putting more and more non-tariff barriers to protect their local industries, which is further complicating penetration into those markets. Nevertheless, countries such as China and India have increased their export significantly since 2005 and will continue to grow in light of the removal of quotas.
2.3.8 The Global Spinning and Weaving Industry

The textile and clothing industry is one of the most globalized industries, imposing its own rules on all participating players.

• The textile and garment industry is one of the industries in the world economy common to almost all countries

• As one of the key industries in the international division of labour, it is one of the major battle grounds within and between industrialised and developing countries

• The importance of the textile industry can be measured by its size. It ranks number 3 after food and construction industries.

2.3.8.1 Flow of Investments

A strong indication for change in the international division of labour in the primary textile industry is the pattern of investments and the resulting installed capacities.

A brief analysis shows a dramatic decline of the installed capacities in industrialised countries along the textile chain. South America has shown a moderate increase; Africa stagnated; South East Asia increased its share in the world capacities over the period 1985-1999.

In the year 1999 : In the year 1985 it was :

• 70% of Ring spinning capacity ... 53%

• 29% of Rotor capacity ... 11%

• 38% of the shuttleless weaving capacity in Asia ... 29%

Africa showed the following picture : In the year 1985, it was :

• 7% of the Ring spinning capacity ... 5%

• 2% of the Rotor spinning capacity ... 2%

• 3% of the shuttleless weaving capacity ... 3%
2.3.8.2 Installed world capacities - short-staple spinning and weaving

The installed world capacities are described in the following table:

<table>
<thead>
<tr>
<th>Region</th>
<th>Ring Spindles (millions)</th>
<th>Rotors (millions)</th>
<th>Shuttle less looms ('000)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1999</td>
<td>%</td>
<td>2003</td>
</tr>
<tr>
<td>North America</td>
<td>8.6</td>
<td>6</td>
<td>6.6</td>
</tr>
<tr>
<td>South America</td>
<td>9.8</td>
<td>6</td>
<td>8.8</td>
</tr>
<tr>
<td>Western Europe</td>
<td>5.8</td>
<td>4</td>
<td>4.9</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>10.0</td>
<td>6</td>
<td>7.6</td>
</tr>
<tr>
<td>Turkey</td>
<td>5.5</td>
<td>4</td>
<td>0.41</td>
</tr>
<tr>
<td>Africa</td>
<td>7.1</td>
<td>5</td>
<td>6.4</td>
</tr>
<tr>
<td>Asia</td>
<td>108.8</td>
<td>70</td>
<td>134</td>
</tr>
<tr>
<td>Total</td>
<td>155.6</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: ITMF

2.3.8.3 Installed capacities - ring spinning short-staple

In 1985, 12.4 mn ringspindles or 8.3% of world-wide installed capacity was installed in Western Europe. By 1999, the capacity had reduced to 5.8 mn ring spindles (3.2% of world ring spindles population) and, in 2003, the spindles numbered 4.9 mn (2.8%).

During the same period, North America lost about 11 mn ring spindles. Mexico showed a slight increase as did South America.

Africa reveals a decrease in capacity and in share of the world.

Only Asia showed a continuing build up of capacity from 78 mn ring spindles in 1985 to 109 mn ring spindles 1999 and 134 mn in 2003.

Today, more than 70% of the world’s short-staple ring spinning capacities are located in Asia and about 44% of long staple ring spinning capacities.
Short staple spinning - installed ring spindles 1999 and 2003 (mn spindles)

North America
- USA: 3.71
- Cuba: 0.6
- Canada: 0.3
- El Salvador: 0.26
- Guatemala: 0.15
- Nicaragua: 0.04
- Dom. Rep.: 0.035
- Costa Rica: 0.014

South America
- Brazil: 5.52
- Argentina: 1.4
- Columbia: 0.95
- Peru: 0.7
- Venezuela: 0.55
- Chile: 0.4
- Ecuador: 0.2
- Bolivia: 0.05
- Uruguay: 0.04
- Paraguay: 0.03

Western Europe
- Italy: 1.50
- Spain: 1.02
- Portugal: 1.01
- Greece: 0.88
- Germany: 0.49
- France: 0.28
- Switzerland: 0.22
- Austria: 0.2
- UK: 0.13
- Belgium: 0.04
- Netherlands: 0.01

Turkey

Africa
- Egypt: 2.45
- Nigeria: 0.81
- South Afr.: 0.52
- Sudan: 0.5
- Morocco: 0.45
- Tanzania: 0.4
- Algeria: 0.3
- Ethiopia: 0.245
- Tunisia: 0.15
- Ghana: 0.12
- Ivory Coast: 0.12
- Zimbabwe: 0.12
- Kenya: 0.105
- Zambia: 0.1

Asia & Australasia
- India: 36.9
- China: 33.8
- Pakistan: 8.44
- Indonesia: 7.1
- Thailand: 3.7
- Japan: 3.4
- Taiwan: 2.8
- Bangladesh: 2.5
- Iran: 2.1
- Korea: 1.9
- Usbekistan: 1.4
- Philippines: 0.95
- Vietnam: 0.89
- Syria: 0.71
- Malaysia: 0.65

Eastern Europe & Russia
- Russia: 3.4
- Romania: 1.55
- Ukraine: 0.9
- Yugoslavia: 0.7
- Bulgaria: 0.64
- Poland: 0.44
- Czech Rep.: 0.42

Source: ITMF
2.3.8.2 Installed capacity - Rotor Spinning

Rotor spinning, which for many years was the domain of industrialised countries is losing out to developing countries.

On the basis of a rotor to rotor comparison Western Europe's share is static. Considering the increased output of the last generation machines, there may be an increase in output.

Turkey had a spectacular increase in its OE rotor spinning capacity from 416,000 rotors in 1999 to 543,320 rotors in 2004.

Eastern Europe's installed capacity of OE rotor spinning was 2,873,640 in 2004.

The USA and Mexico had an increase in capacities from 37,000 rotors to more than 1 mn rotors.

Africa showed only a small increase.

Asia, a continent where ring spinning is the preferred technology, increased its rotor capacities 4 folds and now has 2.2 mn rotors or about 30% of the world rotor population.

2.3.8.3 Installed Capacities – Shuttle less Looms

The shuttle-less loom population of a country is a good indicator of its international competitiveness in terms of fabric availability for garment production.

Asia had a 3 fold increase in shuttle less looms with the majority installed in China and Indonesia. China has about 25% of the Asian capacity.

Turkey had a 4 fold increase in shuttle less looms since 1999.

South America increased its loomage by a factor of 3.

Europe retained its position not in numbers but in production capacity.

The USA showed a slight decline of its loom population, at the same time Mexico showed a 40% increase. This may be partly on account of DFI from the USA.
Rotor spinning 1999 and 2003 - installed capacities (mn rotors)

North America
- USA 0.895
- Canada 0.04
- Guatemala 0.02

Mexico
- 0.1

South America
- Brazil 0.292
- Argentina 0.03
- Columbia 0.025
- Venezuela 0.025
- Peru 0.018

Western Europe
- Italy 0.09
- Spain 0.08
- France 0.08
- Germany 0.05
- Portugal 0.04
- Greece 0.035
- Austria 0.13
- UK 0.07
- Belgium 0.03

Eastern Europe & Russia
- Russia 1.685
- Romania 0.096
- Ukraine 0.275
- Bulgaria 0.068
- Belarus 0.068
- Czech Rep. 0.095
- Moldavia 0.065

Africa
- Egypt 0.04
- Nigeria 0.026
- South Africa 0.025
- Sudan 0.02
- Morocco 0.04

Asia & Australasia
- India 0.442
- China 0.593
- Pakistan 0.146
- Indonesia 0.056
- Thailand 0.058
- Japan 0.068
- Taiwan 0.102
- Iran 0.056
- Uzbekistan 0.324

Source: ITMF
Shuttleless looms - installed capacities 1999 and 2003 (´000)

Source: ITMF
2.4 The Future Outlook

2.4.1 Mill Fibre Consumption and Final Consumer Demand

Projections for fibre mill consumption and final consumption levels are shown in the following figure. The analysis suggests the following:

- China and South-East Asia will double their fibre mill consumption in 10 years.
- North America and Europe should still record a significant increase in their final demand whilst their mill demand will decrease.
- India should record impressive growth rate both in mill and final consumption whereas Africa/Middle-East will continue to grow steadily.

Source: Gherzi, PCI fibres
**Final Consumer Demand (1/2)**

![Graph showing fibre balance and self-supporting ratio for different regions.](image)

*Pakistan, Bangladesh, Indonesia, Malaysia, Philippines, Sri Lanka, Thailand, Vietnam*

_Source_: PCI fibres, Gherzi analysis

**Final Consumer Demand (2/2)**

![Graph showing net exporter and net importer for different regions.](image)

*Pakistan, Bangladesh, Indonesia, Malaysia, Philippines, Sri Lanka, Thailand, Vietnam*

_Source_: PCI, Gherzi analysis
2.4.2 Demand and location of textile industry

The internationalization of marketing and production operations has been a major parameter in the evolution of the textile and garment industry. As foreign competition has intensified in their domestic markets, companies have sought to establish a presence in international markets either through exporting, foreign manufacturing operations or licensing. The most rapid movement has been in the garment sector where cost differences are greatest and which is relatively mobile. Movement in textiles has been slower. However, textile manufacturing is clearly being drawn to be close to garment operations to satisfy cost and speed requirements but also because of local FGN incentives.

As a example, consequences to this phenomenon have been - and will be - massive investments in spinning equipment as shown in the following figures.

### Future Prospects for Installed Capacities in Short-Staple Spinning

<table>
<thead>
<tr>
<th>Region</th>
<th>1999 (mn spindles)</th>
<th>2010 (mn spindles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USA</td>
<td>3.71</td>
<td></td>
</tr>
<tr>
<td>Cuba</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>El Salvador</td>
<td>0.25</td>
<td></td>
</tr>
<tr>
<td>Guatemala</td>
<td>0.15</td>
<td></td>
</tr>
<tr>
<td>Nicaragua</td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td>Dom. Rep.</td>
<td>0.035</td>
<td></td>
</tr>
<tr>
<td>Costa Rica</td>
<td>0.014</td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>3.5</td>
<td></td>
</tr>
<tr>
<td>South America</td>
<td></td>
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<tr>
<td>Sudan</td>
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<tr>
<td>Morocco</td>
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<tr>
<td>Tanzania</td>
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<tr>
<td>Ghana</td>
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<td></td>
</tr>
<tr>
<td>Ivory Coast</td>
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<td></td>
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<tr>
<td>Zimbabwe</td>
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<tr>
<td>Kenya</td>
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<td></td>
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<tr>
<td>Zambia</td>
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<td></td>
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<td>Others</td>
<td></td>
<td></td>
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<tr>
<td>Australasia</td>
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<td></td>
</tr>
<tr>
<td>India</td>
<td>33.8</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>8.44</td>
<td></td>
</tr>
<tr>
<td>Pakistan</td>
<td>7.1</td>
<td></td>
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<tr>
<td>Indonesia</td>
<td>3.7</td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>3.4</td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>2.8</td>
<td></td>
</tr>
<tr>
<td>Taiwan</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td>Bangladesh</td>
<td>2.1</td>
<td></td>
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<tr>
<td>Iran</td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Korea</td>
<td>1.9</td>
<td></td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>1.4</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: ITMF, Gherzi assumptions
2.4.3 The development of technical textiles

- **Definition of technical textiles**

The technical textiles industry is a diverse and dynamic one, embracing a wide range of materials, processes, products and applications. It also shares a number of technologies and has overlapping interests with other materials industries such as glass, plastics, films, membranes, metals, composites and paper.

The following definition is given by the Textile Institute:

*Textile materials and products manufactured primarily for their technical performance and functional properties rather than their aesthetic or decorative characteristics*

- **A promising future**

The technical textile sector represents a significant proportion of world textile manufacturing and trade. Recent studies within this field indicate that an estimated 40% of fibre consumption within developed countries is consumed in the manufacture of technical textiles.
Developments within the technical textile sector have been characteristic of high added value products, high technology and performance and a niche market orientation. Additionally, technical textiles are utilised in a broad cross-section of industries and applications.

Technical textiles are expected to continue to grow at a higher rate than any other segment of the textile market.
The 12 main application areas of technical textiles

<table>
<thead>
<tr>
<th></th>
<th>Mobiltech</th>
<th>Indutech</th>
<th>Hometech</th>
<th>Medtech</th>
<th>Buildtech</th>
<th>Agrotech</th>
<th>Clothtech</th>
<th>Packtech</th>
<th>Geotech</th>
<th>Sporttech</th>
<th>Oekotech*</th>
<th>Protech</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Transportation textiles (road, rail, marine and aerospace)</td>
<td>Industrial textiles (including filtration, hoses, cleaning, etc…)</td>
<td>Functional textile components of furniture, household textiles and floor covering</td>
<td>Medical textiles (including health and hygiene)</td>
<td>Construction and architectural textiles</td>
<td>Agricultural textiles (including horticulture and forestry)</td>
<td>Functional textile components of garments and footwear</td>
<td>Packaging textiles</td>
<td>Geotextiles and some geomembranes</td>
<td>Sports and leisure textiles</td>
<td>Environmental textiles (included in other segments)</td>
<td>Protective textiles (personal and property)</td>
</tr>
</tbody>
</table>

Source: DRA

Evolution of the Technical Textiles Market by segments

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobiltech</td>
<td>2.220</td>
<td>+16%</td>
<td>21%</td>
<td>20%</td>
<td>18%</td>
<td>+12%</td>
</tr>
<tr>
<td>Indutech</td>
<td>1.875</td>
<td>+23%</td>
<td>16%</td>
<td>17%</td>
<td>17%</td>
<td>+25%</td>
</tr>
<tr>
<td>Hometech</td>
<td>1.803</td>
<td>+35%</td>
<td>15%</td>
<td>16%</td>
<td>17%</td>
<td>+25%</td>
</tr>
<tr>
<td>Medtech</td>
<td>1.374</td>
<td>+17%</td>
<td>13%</td>
<td>12%</td>
<td>12%</td>
<td>+20%</td>
</tr>
<tr>
<td>Buildtech</td>
<td>1.026</td>
<td>+21%</td>
<td>9%</td>
<td>9%</td>
<td>9%</td>
<td>+23%</td>
</tr>
<tr>
<td>Agrotech</td>
<td>895</td>
<td>+21%</td>
<td>8%</td>
<td>8%</td>
<td>7%</td>
<td>+14%</td>
</tr>
<tr>
<td>Clothtech</td>
<td>731</td>
<td>+13%</td>
<td>7%</td>
<td>6%</td>
<td>6%</td>
<td>+13%</td>
</tr>
<tr>
<td>Packtech</td>
<td>533</td>
<td>+26%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
<td>+23%</td>
</tr>
<tr>
<td>Geotech</td>
<td>400</td>
<td>+59%</td>
<td>3%</td>
<td>4%</td>
<td>4%</td>
<td>+44%</td>
</tr>
<tr>
<td>Sporttech</td>
<td>310</td>
<td>+31%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
<td>+26%</td>
</tr>
<tr>
<td>Oekotech*</td>
<td>228</td>
<td>+37%</td>
<td></td>
<td></td>
<td></td>
<td>+34%</td>
</tr>
<tr>
<td>Protech</td>
<td>159</td>
<td>+36%</td>
<td>1%</td>
<td>1%</td>
<td>2%</td>
<td>+35%</td>
</tr>
</tbody>
</table>

*: Included in other groups

Source: DRA
2.4.4 Impact of China’s entry to the WTO

➢ The negotiations’ results

As a result of the negotiations, China has agreed to undertake a series of important commitments to open and liberalize its regime in order to better integrate in the world economy and offer a more predictable environment for trade and foreign investment in accordance with WTO rules.

Amongst some of the commitments undertaken by China are the following:

• China will provide non-discriminatory treatment to all WTO Members. All foreign individuals and enterprises, including those not invested or registered in China, will be accorded treatment no less favorable than that accorded to enterprises in China with respect to the right to trade.

• China will eliminate dual pricing practices as well as differences in treatment accorded to goods produced for sale in China in comparison to those produced for export.

• Price controls will not be used for purposes of affording protection to domestic industries or services providers.

• The WTO Agreement will be implemented by China in an effective and uniform manner by revising its existing domestic laws and enacting new legislation fully compliant with the WTO Agreement.

• Within three years of accession all enterprises will have the right to import and export all goods and trade them throughout the customs territory with limited exceptions.

• China will not maintain or introduce any export subsidies on agricultural products.

While China will reserve the right of exclusive state trading for products such as cereals, tobacco, fuels and minerals and maintain some restrictions on transportation and distribution of goods inside the country, many of the restrictions that foreign companies have at present in China will be eliminated or considerably eased after a 3-year phase-out period. In other areas, like the protection of intellectual property rights, China will implement the TRIPS (Trade-related Aspects of Intellectual Property Rights) Agreement in full from the date of accession.
➢ **Special provisions regarding textiles**

Upon accession China will become a party to the Agreement on Textiles and Clothing and will be subject to its rights and obligations.

As for all WTO members, quotas on textiles ended at 31 December 2004, but a safeguard mechanism is in place until the end of 2008 permitting WTO Member governments to take action to curb imports in case of market disruptions caused by Chinese exports of textile products.

### 2.4.5 Global financing markets

Short term evolutions of the global financing markets can follow the following scenario:

- The world economy and above all the G-8 economies are struggling with serious structural problems. If the authorities do not take action then low inflation can turn into deflation. Given the heavy debts burdens this would be disastrous.

- Much of the fiscal and monetary room for manoeuvre has already been used up

- The €/US$ should continue to trade within a range of 1.00-1.30

- Both US$/JPY and the €/JPY should head towards 140 over the coming months to quarters

- The US economy is weak. It has not responded to monetary and fiscal stimulation and the war with Iraq is not improving the situation

- If other forces hamper US economic growth then the situation will be a sluggish world economy exacerbated by possible conflicts in the Middle-East and surging oil prices

### 2.4.6 The emerging competitive scenario

Competitive pressures acting within the textile and apparel industries will continue to intensify. This will be a result of low barriers to entry, the international diversity of companies and the high strategic stakes being played for as companies and national industries compete for their share of world markets.
Low entry barriers to world markets will continue to encourage many new entrants. The enduring characteristics of the global textile and apparel industries in terms of their ease of entry, through the ability to combine low cost labour with older technology; the encouragement received from national governments; and the sourcing policies of international retailers, trading companies and manufacturers, is likely to continue.

In addition, an increasing number of companies will gain easier access to international customers via internet.

Competition will continue to escalate in the upper market segments as design and marketing capabilities of companies in Asia and elsewhere catch-up with those in Europe and in the US, and as consumers seek greater diversity. Consequently, brands from outside Western Europe and the USA will expand their share of international markets. Another factor is likely to intensify pressures in higher value market segments will be the growing ability of consumers to design and source their own products.

On choosing strategy, companies will consciously select a market position based upon servicing global, regional, national or local market segments.

With escalating international competition the emphasis will be on continuous innovation and on providing products and services with a customised element. In this environment, the trend towards focusing on core products, customers or market segments is also likely to grow. An exception to this may be in technical textiles, where higher research and development needs and interdependencies between products and markets in terms of technology and service requirements may sustain diversified groups. A key factor for success will be either the forging of a few closer partnerships or the creation of a looser network of alliances with other companies to create and deliver innovative and made-to-order products at high-speed and low-cost.
3

EGYPTIAN COTTON
3. The raw material supply in Egypt

3.1 Cotton production

Egypt is the largest cotton producer in Africa and a market leader in LS and ELS cottons with a 30-40% market share of LS and ELS production and trade in the world.

Egypt’s share of ELS production and trade has decreased over the period from 2001 to 2005. Additionally, according to industry sources; varieties of Egyptian cotton especially in ELS have experienced some deterioration in both quality and yield. Egypt’s share of LS and ELS cotton production is shown below:

<table>
<thead>
<tr>
<th>Production in 000 tons</th>
<th>2001</th>
<th>2004</th>
<th>2005</th>
<th>% change 200 to 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>All cottons - world</td>
<td>21541</td>
<td>26350</td>
<td>24982</td>
<td>+ 16</td>
</tr>
<tr>
<td>% share all cottons</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>L/ELS - world</td>
<td>771.1</td>
<td>746.4</td>
<td>615.7</td>
<td>-20.0</td>
</tr>
<tr>
<td>share L/ELS - world</td>
<td>3.6%</td>
<td>2.8%</td>
<td>2.5%</td>
<td>-1.10</td>
</tr>
<tr>
<td>L/ELS - Egypt</td>
<td>313.7</td>
<td>290.62</td>
<td>215.35</td>
<td>-31.4</td>
</tr>
<tr>
<td>Egypt share of world cotton</td>
<td>1.46%</td>
<td>1.1%</td>
<td>0.9%</td>
<td>-0.56</td>
</tr>
<tr>
<td>Egypt share of world L/ELS</td>
<td>40.7%</td>
<td>38.9%</td>
<td>34.9%</td>
<td>-5.80</td>
</tr>
</tbody>
</table>

Whereas, one of Egypt’s main competitive advantages is the availability of fine cotton, the crop is deteriorating in terms of quantity and quality. Industry sources indicate that there has been limited research in cotton farming and, therefore, limited progress in the introduction of new varieties or increases in yield.

An examination of yields of Egyptian Cotton over the past 25 years shows significant year to year fluctuations while the average yield has remained the same at 7.53 Cantars/ Feddan. On the other hand the yield of US Pima cotton has averaged between 12-14 Cantars/ Feddan. Similarly, the cotton growing area has shrunk over the past 25 years from 1.2 mn Feddans in 1981 to an average of 0.7 mn Feddans in recent years:
**Egyptian Cotton Yield 1981 - 2005**

Average Yield: 7.53 Cantars/Feddan

**Cotton Growing Area 1981 - 2005**

Production has declined by 0.5 mn feddans

*Source: Alcotexa / Catgo*
3.2 Cotton Exports

Since the privatization of cotton trading in mid 90’s Egyptian both cotton exports and prices have increased and Egypt has become a more reliable supplier of cotton. However, 76% of exports go to India, Pakistan, China, Italy, Turkey and the USA, all of which are competing textile manufacturing countries.

3.3 Cotton Imports

Egypt’s imports of shorter staple cottons have increased significantly in recent years, with Greece, Syria and Sudan being the largest suppliers. Imported cotton represented 15.6% of mill consumption in 2004 and 23% in 2005.

### Cotton Exports, Imports and Mill Consumption 2000 – 2005 (tons)

![Cotton Exports, Imports and Mill Consumption 2000 – 2005 (tons)](chart)

3.4 Grading of cotton

Grading of Egyptian cotton remains complicated and several proposals were developed to simplify the grading system which remain to be implemented.

3.5 Availability to local market

Several players have indicated that premium quality cottons are being exported while the lower grades are being sold locally and in many cases the cotton is being monopolized by the government for the public sector mills.
4

THE EGYPTIAN TEXTILE INDUSTRY
4. The Egyptian Textile Industry

Preface

The textile and garment industry in Egypt has evolved over many centuries. In the 1950s the industry was nationalized under the centrally planned economy of the time. Single mills were formed from groups of adjacent companies, some of which were already integrated in themselves. The products were hardly marketed but transferred to other socialist economy countries; productivity levels were not considered to be of importance, rather to employ people even if there were not real jobs for them. The labour laws, that continue until now, were set so that it was difficult for companies to reduce the numbers of workers without procedures that were time consuming and costly. Hence the over-manning levels of 40% that persist in the Public Sector Mills today.

When more countries switched to market economies, the Egyptian industry had to make policy changes so as to place their products into new markets. Unfortunately, the earlier experience of the Public Sector Mills had not prepared them for these changes in the markets. The mills had no selling experiences let alone marketing backgrounds and so they effectively became dependent on buyers coming to Egypt and buying the mills’ capacities. Always a sign of weakness, this resulted in low prices, limited knowledge of the markets’ dynamics and losses. The Public Sector Mills continues to be a financial drain on the country’s economy, the main supplier of poor quality yarns and fabrics to many local companies despite having the world’s best cotton as a natural resource.

Egyptian cotton is used in only 2% of Egypt’s garment exports; 30% of Egyptian cotton is exported as lint cotton to competing textile producing countries (India, Pakistan, China, Turkey and the USA) who produce added value products often with the name tag of “Egyptian Cotton”.

Ready-made garment exports, mostly from the Private Sector, amounted to about US$ 800,000 in 2005 (the major part to the US) and divided between woven and knitted garments. Increasingly, the knitted garments are made from imported yarns and local, private sector knitting, dyeing & finishing and stitching units. Woven garment exports are mostly based on imported finished fabrics that limits the flexibility of companies and requires lead times that buyers are less and less inclined to wait for.

The 4,000s textile companies supplying the local market are mostly in weak positions; many retail buyers want to pay cash without invoices; import penetration from formal and, especially smuggled goods, is rising; many raw materials are supplied by the public sector at high prices/ low quality and with no guarantee of delivery on time; the companies are often quite small, work with older machines and for limited hours per day.

Many countries with competitive labour costs and who do not grow cotton have invested in garmenting to meet their own local market needs or to develop an export trade, e.g. Bangladesh, Laos, Sri Lanka. These and other countries have developed garment industries with the creation of many thousands of jobs; generated the major part of the countries’ foreign currency earnings and have often become the major contributor to poverty reduction in the countries. Many of these countries are now investing in backward integration to be more self-sufficient in fabric supplies for garmenting. This should be the next step in Egypt.
4.1 Summary of the Egyptian Textile Industry

Spinning:
- Ringspinning: 2,300,000
- OE rotors: 35,000
- Long staple: 98,000

Fabrics:
- Shuttleless looms: 3,800
- Shuttle looms: 4,500
- Circular knitting: 3,800

4000-4500 companies across the various sub-sectors. There is a percentage of Informal establishments in operation supplying the local market.

The majority of the primary textile sector remains still in the Public Sector. 35% of the installed spinning capacity lies in the Private Sector (mostly for export). 20% of the weaving capacity sits in the Private Sector.

Direct employment in the textile sector is currently about 700,000 persons. The figure does not include indirect employment by the sector which adds up to over a million persons.

Egypt's installed cotton ring spinning capacity has a share of 36% of Africa's installed capacity, 17% of open end spinning and 40% of long staple spinning. Egypt's share of shuttle less looms is 23% of Africa's installed shuttle less and 6% of shuttle looms.

In 2004, Egypt consumed 238,000 tons of fibers of which 26,800 tons were exported in the form of yarns and 15,500 tons in the form of fabrics.

The Primary Textile Industry produces Apparel fabrics, Terry Towels, Bed Linen, Furnishing Fabrics, Industrial/ Technical Fabrics and Non-Woven Fabrics. The Export-Oriented Woven Ready-Made Garment Sector (RMG) is a separate industry in many ways as it is almost totally dependent on imported finished fabrics. Integrated Knitted RMG companies use imported and local yarns.

Competition in the clothing and home textile export markets is intense, especially from China, India, Pakistan and Bangladesh. The local market has high penetration from formal/ informal imports and has issues with high cost/low quality inputs from the Public Sector Mills and the demand for cash sales without invoices.
A majority of products either from the public sector or the private sector are basic items targeting the lower and middle market segments in Europe and US. Small share of Egyptian cotton in garment production but a significant share in hometextiles.

Public sector quality is generally poor except for some yarns and some basic constructions in grey woven fabrics.

Most garments and home textiles are exported to the USA, the EU with some to the Gulf Countries. Although Egypt is a member of COMESA, there are few exports to these countries. Most exports are via brokers or general importers.

In 2005 total exports were in the range of US$ 1.2 bn with around US$ 0.92 bn in garments (35% EU – 48% USA – 17% Others). US$ 0.14 bn in cotton hometextiles.

There are 27 public sector companies, fully integrated employing in the range of 100'000 workers.

Private sector enjoys state of the art technologies. The Public Sector machines are old (at least 25 years old) and in bad condition due to poor maintenance. Dyeing, Printing and Finishing is weak, especially for woven fabrics (wide and narrow widths).

Egyptian cotton remains one of the countries biggest competitive advantages, nevertheless, there is a significant decline in both the quality and the quantity produced every year. 30% is being exported in raw form.

Human resources are a major impediment to the growth of the textile sector. There is a reluctance by the workforce to join the sector, technical education is limited and is not consistent with industry needs. Absence of in company training other than machine operator and lack of supervisor and middle management.

Major utility costs are significantly cheaper than competing countries. Cotton prices are high due to quality. However, imports of yarns and fabrics for re-exporting is permitted. Cost of finance is exceptionally high even for technology upgrade. Labour unit cost is competitive, nevertheless offset by low productivity.
4.2. Analysis of the textile industry along the value chain

### 4.2.1. Public Sector

27 mills, 106,247 employees

<table>
<thead>
<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of technology</td>
<td>Low - High</td>
<td>Low - Medium</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td>Age of equipment</td>
<td>Mostly old &gt;25 years</td>
<td>Mostly old &gt;25 years</td>
<td>Old &gt;25 years</td>
<td>Old &gt;25 years</td>
<td>Old &gt;25 years</td>
<td>Old</td>
<td>None</td>
<td>Old</td>
</tr>
<tr>
<td>Cost Competitiveness</td>
<td>None</td>
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<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Ability to manage quality required for exports</td>
<td>Limited amount</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Core competencies</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td>Present export potential</td>
<td>Small quantities</td>
<td>Weak</td>
<td>Weak</td>
<td>Weak</td>
<td>Weak</td>
<td>Weak</td>
<td>Weak</td>
<td>Weak</td>
</tr>
</tbody>
</table>

Source: Gherzi

In 2006, the 27 companies employ 106,247 persons. Salaries in 2006 amount to LE1,250,000,000 (LE 900,000,000 in 2001/2002). Individual’s salaries are generally 40% to 50% higher than in the private sector with a very high average age- mature ladies work in public sector garment production in contrast to the private sector where teenage girls stay for 3 years before marriage only.

The most recent looms were purchased in 1988 and there has been no investment in dyeing and finishing for 20 to 25 years.
4.2. Analysis of the textile industry along the value chain

4.2.2. Private Sector Exporters

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of technology</td>
<td>High</td>
<td>Medium</td>
<td>Medium</td>
<td>Medium</td>
<td>Good</td>
<td>Good</td>
<td>400 mills</td>
</tr>
<tr>
<td>Age of equipment</td>
<td>Modern</td>
<td>Modern</td>
<td>Medium</td>
<td>Medium limited</td>
<td>Modern</td>
<td>Modern</td>
<td>400 mills</td>
</tr>
<tr>
<td>Cost Competitiveness</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
<td>400 mills</td>
</tr>
<tr>
<td>Ability to manage quality required for exports</td>
<td>Satisfactory</td>
<td>Excellent</td>
<td>Good if not relying on public sector yarn</td>
<td>Weak as Most capacity in public sector</td>
<td>As for Printing</td>
<td>Very good</td>
<td>400 mills</td>
</tr>
<tr>
<td>Investment environment</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>Good essential</td>
<td>Good essential</td>
<td>Good</td>
<td>400 mills</td>
</tr>
<tr>
<td>Core competencies</td>
<td>Good</td>
<td>Good</td>
<td>Weak</td>
<td>Weak</td>
<td>Good</td>
<td>Good</td>
<td>400 mills</td>
</tr>
<tr>
<td>Present export potential</td>
<td>Good</td>
<td>Good</td>
<td>Fair</td>
<td>Weak</td>
<td>Weak</td>
<td>Good</td>
<td>400 mills</td>
</tr>
</tbody>
</table>

Source: Gherzi
4.2. Analysis of the textile industry along the value chain

4.2.3. Private Sector: Local market suppliers

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of technology</td>
<td></td>
<td>Limited productn for local market</td>
<td>Poor (Public Sector)</td>
<td>Poor (Public Sector)</td>
<td>Poor (Public Sector)</td>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td>Age of equipment</td>
<td></td>
<td>Old (Relying on Public Sector)</td>
<td>Weak</td>
<td>Weak</td>
<td>Weak</td>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td>Cost Competitiveness</td>
<td>Weak</td>
<td>Too costly</td>
<td>Weak, relying on public sector</td>
<td>Weak, relying on public sector</td>
<td>Medium</td>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td>Ability to manage quality required for exports</td>
<td>Weak</td>
<td>Furnishings Good</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Investment environment</td>
<td>No</td>
<td>Definite need</td>
<td>Definite need</td>
<td>Definite need</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Core competencies</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>Weak</td>
<td>Weak</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td>Present export potential</td>
<td>None</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Good</td>
<td>Goods</td>
</tr>
</tbody>
</table>

Source: Gherzi

The 4,000 local manufacturers for the local market are mostly in a weak position as they are dependent on Public Sector Mills for yarn and fabric supplies (grey, dyed, printed and finished) that are high in price, low in quality and unreliable in service. They are mostly small in size and operate for only 1 or 2 shifts per day. Above all, they face demands for cash sales without invoices and bureaucratic procedures for needed import materials at the ports.
4.3. Positioning of the Egyptian Textile Industry

In the following table we present the main challenges facing the Egyptian Textile Industry—strengths, weaknesses, threats and opportunities.

The Egyptian Textile Industry can be positioned as follows...

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Threats</th>
<th>Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The Industry has unit labour cost advantages together with cheap power, gas and water prices. Can these be developed to the country's advantage?</td>
<td>• 400 private mills meet international standards.</td>
<td>• Absence of unified effort by key players</td>
<td>• The woven RMG exports are under threat as buyers demand shorter lead times but the companies depend on imported finished fabrics.</td>
<td>• To revive retail market and recover market share in local market</td>
</tr>
<tr>
<td>• Egypt has many Free Trade Agreements with the main export markets. Can these be fully exploited, especially to the EU, the US and the Gulf States?</td>
<td>• 4,000 private mills supplying the local market can possibly be converted to exporters.</td>
<td>• Public Sector Mills</td>
<td>• A strong local market is needed to support strong export markets</td>
<td>• To expand textile exports significantly to grow economy and create jobs.</td>
</tr>
<tr>
<td>• Can the disturbing influence of the Public Sector Mills in the markets and the cost to the country be stopped?</td>
<td>• Abundance of labour</td>
<td>• Technical education does not meet industry's needs in numbers or quality of graduates.</td>
<td>• A change in cotton policy needed to make it easier to import shorter staple cottons.</td>
<td>• Be a major supplier to the EU. (Improve transportation to EU countries—e.g. “roll-on, roll-off” ferries?)</td>
</tr>
<tr>
<td></td>
<td>• “The best cotton in the world”.</td>
<td>• Private mills working for local market.</td>
<td>• Smuggled imports (fibres, yarns, fabrics, consumer goods) are a threat in the local market</td>
<td>• Attract more FDI to fuel growth of industry</td>
</tr>
<tr>
<td></td>
<td>• Privileged access to the EU and the US</td>
<td>• Woven dyeing, finishing and printing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• COMESA, AGHADIR &amp; Arab FTA once ratified.</td>
<td>• Mills dependent on imported woven finished fabrics.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Cost of finance</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Restrictions on imported cotton</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Limited and weak MMF production</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Focus on lower market segments</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.3.1. Yarn and Fabrics

The production of textile materials by the Export Oriented Private Sector companies meets international standards, as the products are based mostly on modern machines and technologies.

The Public Sector Mills mostly produce low quality yarns and fabrics, especially dyed and finished fabrics, as the machines used are at least 25 years old and the mills are poorly managed. Selling prices do not relate to costs and production planning is weak, so deliveries are unreliable.

The Private Sector Companies serving the local market have some problems related to the Public Sector Mills. The use (or mis-use) of local long staple cotton for coarse to medium count yarns impacts adversely on prices that are too high for local manufacturers but they have little choice but to buy from the public sector. Some of these companies make speciality fabrics, e.g. furnishings of a high standard for the local retail market and hotels (with some exports). They are characterized as small, speciality mills working less than 3 shifts and with excess personnel that they cannot reduce under the present labour laws.

The general product quality from these 4,000 local manufacturing companies is less than export standard to a considerable degree because of the low quality of yarns/ fabrics they are obliged to source from the Public Sector Mills and the nature of the local retail market which favors price over quality.

4.3.2. Cotton

Egyptian cotton (long and extra long staple) is recognized world-wide as being amongst the best of cottons. About 30% of the crop is exported as lint cotton with 75% of exports shipped to competing textile countries (India, Pakistan, China, Turkey) to be made into added-value products, using the name Egyptian Cotton. Only 2% of Egypt's garment exports are Egyptian cotton.

The Private Sector Spinning Mills have full export order books into the future. The Public Sector Spinning Mills convert local cotton into fine yarns as well as into coarser to medium count yarns, resulting in more costly yarns sold into the local market. Some Public Sector Mills produce quality fine yarns of export standard.

4.3.3. Human Resources

Egypt has abundant unemployed man-power that needs persuading the private sector textile industry offers long term, stable careers.

Especially, is there a need for trained managers in all disciplines working in companies that have to recognize the importance and need for structured management teams.

The Mubarak-Kohl Initiative has for the last 10 years assisted in the training of Production Workers and the new TVET Programme will assist in directing graduates to specific careers in industry.
4.3.3. Human Resources (cont’d)

Management, at all levels, is the major weakness of the Textile Industry. The Public Sector Mills have excess of management but who are seemingly unable to manage the mills correctly whilst the Private Sector companies are too often run as one-man-shows without any management structures.

The universities (Alexandria and Helwan) produce a quite small number of graduates who are considered, by the industry, to be too theoretical whilst the technological institutes offer courses in Engineering, e.g. 10th of Ramadan City Institute has 6,000 engineering students but only 14 students study textile engineering (and these are mostly the sons of textile company owners). The practical training facilities (workshops and laboratories) available are very simple.

The need to expand and improve facilities for an increasing number of students is crucial if the industry is to grow to meet the requirements of VISION 2020.

An additional problem, dating back to the times of earlier regimes, is the wish of most people to work for the Government in some capacity, where jobs are held for life even though the pay rates may be less than in the private sector. There is an urgent need for this mindset to be changed through selling the concept that the private sector offers long-term, meaningful careers at all levels.

The industry faces other problems such as absenteeism and low productivity but these can usually be related to the quality of management in the companies and the methods of training.

The RMG companies require large numbers of female workers to operate sewing machines and the like. However, the Egyptian culture is such that girls give up outside employment when they marry and so companies lose their crucial resource after an average of only 3 years work. This issue could probably be resolved if RMG companies were located close to areas of population, e.g. villages, so that it was not necessary for girls to travel 1 to 2 hours both in the morning and evening from Cairo.

4.3.4. Textile Education

As discussed above, this is an acute problem in Egypt. Not only are the numbers of graduating students far too few to meet the needs of today’s textile companies but the quality of education is less than that required by the industry. It is understood that Secondary Education in Egypt is weak and this inherent weakness is compounded at Higher Education Levels. Textile Engineering courses are offered at both Alexandria and Helwan Universities with the latter recently starting fashion/design courses but the graduates do not meet industry’s needs, as they are too theoretical.

The National Technological Institutes have the potential to increase the numbers of students but they have been unable to attract many students to textile engineering (or other textile courses). The workshop and laboratory facilities available for practical training are less than adequate.

The Textile Consolidation Fund (Alexandria) offers training, testing and textile information from excellent up-dated facilities. It has lost its way in the last years; it has become a “white elephant” that is “over-resourced but under-utilized.”
4.3.5. Foreign Direct Investment

There are 175 companies with foreign investors in the textile sector in Egypt, employing 25,000 workers, with total investment value of EGP 1.43 bn and total production value of EGP 1.74 bn. Syrian investors are the largest in terms of numbers of companies with a 48% share of the number of companies and 19% share of the total investment, while US companies are the largest investors in terms of value of investment with 27% share.

The figures are collected from the Industrial Development Organization for the status in 2005. It is expected that significant investments in the sector are underway from Turkish, European and Asian investors, however figures for these investments are not available.

Nevertheless, FDI in the textile sector is weak both in comparison to other textile manufacturing countries as well as in comparison to the potential that Egypt has in attracting FDI. Foreign Investment represents 8% of the total investment in the sector (EGP 16.9 bn\(^1\)) and in order for Egypt to reach its production and export targets both the total investment and FDI in the sector need to be increased significantly.

Egypt enjoys several advantages that if capitalized on will result in significant increase in FDI, such as manufacturing costs (labour, utilities, etc.), trade agreements, Egyptian cotton and proximity to major markets. On the other hand, several issues need to be addressed:

- Government procedures and bureaucratic red-tape
- Availability of industrial land
- Labour market (education, work-culture and labour law)
- Gaps in the supply chain (dyeing & finishing for woven fabrics)
- Hidden costs (transportation costs and utility set-up costs)
- Shipping and logistics

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4.4. The Egyptian Spinning, Weaving, Knitting, Processing and Garment Industry

4.4.1 Companies distribution

There are between 4000 – 4500 companies operating in the textile industry of which 27 are public sector mills and about 400 are export oriented, private sector companies. The following two graphs show the distribution of companies (numbers of companies) across the various sub-sectors as well as the distribution of manufacturing capacities between public and private sector in 2001:

It is to be noted that in 2005, mill Egyptian cotton consumption was used 55.5% by the public sector mills. Showing a growing share of private sector spinning. However, similar figures are not available for the other sub-sectors and therefore the 2001 figures were used as a benchmark.

4.4.2 Location of the industry

Most companies are located around Cairo, Delta, Alexandria and in cities along the Suez Canal close to the ELS and LS fields and ginning. Several industrial cities/zones are available, however, RMG companies remain largely concentrated in highly populated areas.

There is very limited number of companies located in Upper Egypt, where wages are lower and land prices are cheaper. This is largely due to the lack of infra-structure, distance from ports and sources of raw materials and the nature of labour market in upper Egypt. However, there is a significant potential for developing a cost efficient labour base in Upper-Egypt, especially in the garmenting sub-sector.
4.4.3 Textile capacities installed in Egypt

4.4.3.1 Spinning

In 2003 Egypt had a share of 1.3% of the world ring spinning capacity. In 2004 only 0.39% of the world newly installed spindles were in Egypt. Additionally, Egypt’s share was 0.33% of the world’s installed capacity between 1995 and 2004. This indicates that:

a) There is a decline in Egypt’s share of the world spinning capacity and
b) In 2004 Egypt had no more than 5% of its spindles less than 10 years old.

Further, if we compare mill consumptions of cotton in 2005 (0.176 mn tons) to the world consumption of cotton in 2005 (21.5 mn tons), Egypt’s share is 0.8% compared to an installed capacity of 1.3% in same year, highlighting the fact that idle capacity amounts to about roughly 39% of installed capacity.

4.4.3.1 Weaving

Egypt’s share of shuttle-less looms was 0.48% of world capacity in 2003. In 2004, only 0.06% of the world’s new looms were installed in Egypt and in the period between 1995 and 2003 Egypt installed only 0.7% of the world’s new looms.

This indicates that in the past 10 years Egypt has increased its share of the world capacity of shuttle-less looms and is currently enjoying a growing portion of its capacity in new looms (less than 10 years old):

<table>
<thead>
<tr>
<th>Region</th>
<th>2003 Installed Ring</th>
<th>2003 Installed Rotors</th>
<th>Shipments 2004 Ring</th>
<th>Shipments 2004 Rotors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>6 366 400</td>
<td>211 700</td>
<td>94 600</td>
<td>38 700</td>
</tr>
<tr>
<td>North America</td>
<td>6 562 000</td>
<td>730 000</td>
<td>25 300</td>
<td>370 200</td>
</tr>
<tr>
<td>South America</td>
<td>8 810 900</td>
<td>450 200</td>
<td>55 700</td>
<td>191 700</td>
</tr>
<tr>
<td>Asia and Oceania</td>
<td>133 964 800</td>
<td>2 662 100</td>
<td>7 502 400</td>
<td>1 230 800</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>7 576 900</td>
<td>3 058 100</td>
<td>6 900</td>
<td>62 200</td>
</tr>
<tr>
<td>Western Europe</td>
<td>4 894 300</td>
<td>420 500</td>
<td>40 600</td>
<td>240 600</td>
</tr>
<tr>
<td>Others Europe</td>
<td>6 337 600</td>
<td>525 000</td>
<td>448 100</td>
<td>444 900</td>
</tr>
<tr>
<td><strong>World</strong></td>
<td><strong>174 512 900</strong></td>
<td><strong>8 057 600</strong></td>
<td><strong>8 173 600</strong></td>
<td><strong>2 579 000</strong></td>
</tr>
<tr>
<td><strong>Egypt</strong></td>
<td><strong>2 300 000</strong></td>
<td><strong>35 000</strong></td>
<td><strong>30 400</strong></td>
<td><strong>1 560</strong></td>
</tr>
</tbody>
</table>

Source: ITMF
## 4.4.3.3 Circular Knitting

Egypt has maintained its position at 2% of world installed capacity and in 2004 Egypt's share of shipments of new machinery has remained the same. Considering other sub-sectors, Egypt's share is the largest in circular knitting. The below table indicates shipments from 95-04 and shipments in 04, this includes Single Cylinder < 24, Single Cylinder > 26, Double Cylinder <24, Double Cylinder >26 and Electronic Jacquard circular machines.

### World weaving installed capacities and cumulative shipments

<table>
<thead>
<tr>
<th>2003 installed weaving capacities</th>
<th>Shipments 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shuttle-less</td>
<td>%</td>
</tr>
<tr>
<td>Africa</td>
<td>16 710</td>
</tr>
<tr>
<td>North America</td>
<td>57 090</td>
</tr>
<tr>
<td>South America</td>
<td>54 670</td>
</tr>
<tr>
<td>Asia and Oceania</td>
<td>446 820</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>156 170</td>
</tr>
<tr>
<td>Western Europe</td>
<td>44 410</td>
</tr>
<tr>
<td>Others Europe</td>
<td>18 000</td>
</tr>
<tr>
<td><strong>World</strong></td>
<td><strong>793 870</strong></td>
</tr>
<tr>
<td><strong>Egypt</strong></td>
<td><strong>3 800</strong></td>
</tr>
</tbody>
</table>

Source: ITMF

### World Circular Knitting Machinery

<table>
<thead>
<tr>
<th>Shipments 1995 - 2004</th>
<th>Shipments 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of machines</td>
<td>%</td>
</tr>
<tr>
<td>Africa</td>
<td>3 727</td>
</tr>
<tr>
<td>N. America</td>
<td>16 026</td>
</tr>
<tr>
<td>S. America</td>
<td>7 228</td>
</tr>
<tr>
<td>Asia/Oceania</td>
<td>57 641</td>
</tr>
<tr>
<td>E. Europe</td>
<td>1 474</td>
</tr>
<tr>
<td>W. Europe</td>
<td>15 178</td>
</tr>
<tr>
<td>Others Europe</td>
<td>9 677</td>
</tr>
<tr>
<td><strong>World</strong></td>
<td><strong>110 951</strong></td>
</tr>
<tr>
<td><strong>Egypt</strong></td>
<td><strong>1 995</strong></td>
</tr>
</tbody>
</table>

Source: ITMF
4.5 Egyptian Textile Imports and Exports

4.5.1 Total Exports

In 2005 Egypt’s total exports were EGP 6.87 bn\(^1\) or US$ 1.2 bn, with 75% (US$ 0.98 bn) of exports going to garments. Around 45% of total exports went to the US and 45% to the EU.

Garments are the predominant product imported by both the EU and the US, however, the EU had 13% of its imports in yarns as opposed to 3% for the US and 5% in fabrics as opposed to 2% for the US, explaining the decline in the exports of yarns and fabrics (reviewed later in the report) in light of the shrinking in the European textile industry.

With 90% of exports going to the EU and the US, Egypt is hardly benefiting from its regional trade agreements and nearby markets consuming both raw materials (yarns and fabrics) and finished products.

Hometextiles, which are mainly manufactured from Egyptian cotton represent 12% of total exports, confirming the fact that Egyptian cotton is yet to be capitalized on in Egypt’s plans for growth.

4.5.2 Total Imports

In the period from 2003 to 2005, total textile imports increased by 1.7 folds.

Drawback and temporary admittance imports stood at EGP 0.85 bn in 2005 showing an increase of 15% from 2004.

Several comments have been made by the industry regarding informal imports, however by calculating per capita consumption of declared fibers which is equal to 4.7 kg/person and the average per capita consumption of comparable countries (Africa Middle/East and Asia) 3.5 – 4.5 kg/person, it is possible that the problem of illegal imports is not as significant as is commonly believed.

Having said that, additional research is being undertaken to verify these conclusions and further understand the actual size of smuggling problem.

\(^1\) Excluding export of cotton
4.5 Egyptian Textile Imports and Exports (continued)

4.5.3 Yarn Exports

In 2005 Egypt exported 25.3 Thousand tons of cotton yarns with a value of EGP 523 million. 59% of yarn exports went to 5 main importing countries: Italy (30%), USA, Turkey, Germany and Spain. The textile industry in those countries is shrinking, which explains the fact that from 2001 to 2005 Egypt’s exports of yarns have decreased by 26%. However in that same period the average price per kilogram has increased from EGP 14.2 to EGP 20.67 (+ 45%) which corresponds with the increase in LS and ELS prices internationally but could also be attributed to the growing share of the private sector exports who is able to get better prices for their yarns than the public sector mills.

<table>
<thead>
<tr>
<th>Year</th>
<th>Value in million EGP</th>
<th>Volume in Thousand tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>523</td>
<td>25.3</td>
</tr>
<tr>
<td>2002</td>
<td>485</td>
<td>31.7</td>
</tr>
<tr>
<td>2003</td>
<td>741</td>
<td>35.5</td>
</tr>
<tr>
<td>2004</td>
<td>655</td>
<td>26.9</td>
</tr>
<tr>
<td>2005</td>
<td>523</td>
<td>25.3</td>
</tr>
</tbody>
</table>

Spinning production, on the other hand, has not experienced the same decrease as exports.

Between 2001 and 2004, spinning production increased by 40% with cotton representing 85% of total spinning output in terms of volume.

Production including all fibers amounted to 238’000 tons in 2003/2004 and in light of new investments in the spinning sector, this amount is projected to increase significantly over the coming years.

Spinning of MMF other than polyester for the local market is non existent. Considering the growth in MMF consumption and the tariff advantages in US markets, investments in this sector should be encouraged.

Source: CAPMAS
4.5 Egyptian Textile Imports and Exports (continued)

4.5.4 Fabric Exports

Fabric exports in 2005 reached EGP 131 million, climbing down from EGP 232 million in 2002 losing over 45% in value and 70% in volume (from 50 million lm to 18 million lm). Similar to yarn a majority of exports - 69% in 2005 - are going to European countries: Italy (37%), UK, France and Spain. Which again explains why the volumes have decreased significantly over this period.

The value per unit has - nevertheless - increased during this period. It is to be noted that 100% of exports were in woven fabrics with no recorded exports of knitted fabrics.

Regional trade agreements such as Aghadeer and the FTA with Turkey, should create a stronger demand for Egyptian fabrics, especially with the accumulation of origins which will give partner countries duty free access to EU markets. However, this will require significant investments in woven fabric processing in order to meet quality standards of EU buyers.

4.5.5 Garment Exports

Garment exports in 2005 reached US$ 918 million\(^1\) with US$ 390 million going to the EU\(^2\) with an increase of 32% from 2004 and US$ 443 going to the United States\(^3\) with an increase of 5% from 2004.

The figures from CAPMAS match to a large extent the figures obtained from the EU and US. In addition, comparing exports from drawback and temporary admittance to the value of the imported goods, we find a conversion factor of 4.9 times the value of the imported goods. Which supports the de-linking approach between the textile and garmenting industries as was adopted by China in its strategy to boost textile exports.

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1. Egyptian Export Council
2. EUROSTAT
3. OTEXA
4.5 Egyptian Textile Imports and Exports (continued)

4.5.6 Hometextile Exports

Hometextiles exports have experienced a significant increase from 2001 to 2005 growing by 81% during the period. However, the total volume remains small (US$ 140 million) and as share of total exports, hometextiles represent 12% which in consideration of its use of Egyptian cotton should be significantly higher. Furthermore, exports have stagnated during 2005.

Exports to the US have totaled US$ 40 million\(^1\) while for the EU US$ 110 million\(^2\). Terry towels have a share of around 35% with the balance going mainly to bed linen. However, due to the absence of wide width dyeing and finishing, most bed linen exports are in basic constructions and commodity fabrics. Printed bed linen which is the bulk of hometextile production in the world is non-existing in Egypt. Additionally, high thread count production – which requires fine yarn counts is a limited capacity.

Furthermore, due to wide width production being primarily controlled by the public sector, the cutting & sewing of quality bed linen is fairly basic and does not benefit from low labour cost for production of complex items and value added products with embroidery and hand work.

It is important to note that the custom duties on plain cotton hometextiles to the US are between 6% and 9% which is the bulk of the commodity market. To increase hometextile exports by benefiting from the QIZ agreement, the sector will need to focus on upscale products (with embroideries), blended fibers and high-end products where Egyptian cotton characteristics can be fully capitalized.

\(^1\) OTEXA
\(^2\) EUROSTAT
4.6 Benchmarking Egyptian cost factors with a panel of countries

In the following tables, we benchmark a number of cost factors with a panel of countries with which Egypt competes in an indirect way.

Generally, it can be said that Egypt has a very favourable cost rating for a developing economy as the following comparison shows.

### Utility Costs

<table>
<thead>
<tr>
<th>ITEM</th>
<th>CHINA</th>
<th>INDIA</th>
<th>TUNISIA</th>
<th>TURKEY</th>
<th>EGYPT</th>
<th>$/UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>WATER (RAW)</td>
<td>0.28</td>
<td>0.43</td>
<td>1.21</td>
<td>-</td>
<td>0.23</td>
<td>m³</td>
</tr>
<tr>
<td>ELECTRICITY</td>
<td>0.08</td>
<td>0.12</td>
<td>0.05</td>
<td>0.07</td>
<td>0.03</td>
<td>kw</td>
</tr>
<tr>
<td>NATURAL GAS M³</td>
<td>0.16</td>
<td>0.21</td>
<td>0.12</td>
<td>-</td>
<td>0.04</td>
<td>m³</td>
</tr>
<tr>
<td>MAZOTT, CRUDE TON</td>
<td>0.37</td>
<td>0.40</td>
<td>0.30</td>
<td>0.05</td>
<td>0.05</td>
<td>kg</td>
</tr>
<tr>
<td>DIESEL LT.</td>
<td>0.45</td>
<td>0.52</td>
<td>0.39</td>
<td>1.10</td>
<td>0.13</td>
<td>Lt</td>
</tr>
</tbody>
</table>

**Utility costs** in Egypt are significantly lower than competing countries. This is especially favourable for Spinning, weaving, knitting and dyeing and finishing industries, where utility costs constitute a larger percentage of the total industrial cost. Even though connection costs can in some cases become significantly high, they are absorbed by low unit costs. Power is fairly reliable and companies can have their own captive power which can in the medium term prove cheaper than the grid as increases in power costs can be expected.

### Cotton Yarn prices

<table>
<thead>
<tr>
<th>ITEM</th>
<th>CHINA</th>
<th>INDIA</th>
<th>TUNISIA</th>
<th>TURKEY</th>
<th>EGYPT</th>
<th>$/UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>YARN 30/1 NE RING SPUN COMBED</td>
<td>2.95</td>
<td>2.70</td>
<td>3.15</td>
<td>3.45</td>
<td>2.94</td>
<td>kg</td>
</tr>
<tr>
<td>YARN 40/1 NE RING SPUN COMBED</td>
<td>3.15</td>
<td>3.10</td>
<td>4.70</td>
<td>3.95</td>
<td>3.62</td>
<td>kg</td>
</tr>
<tr>
<td>YARN 50/1 NE RING SPUN COMBED</td>
<td>5.1</td>
<td>4.00</td>
<td>-</td>
<td>6.35</td>
<td>3.93</td>
<td>kg</td>
</tr>
<tr>
<td>YARN 80/2 NE RING SPUN COMBED</td>
<td>9.15</td>
<td>8.00</td>
<td>-</td>
<td>11.7</td>
<td>7.22</td>
<td>kg</td>
</tr>
</tbody>
</table>

**Yarn costs** in Egypt are less competitive in the coarser counts, however, for the finer counts, Egyptian yarns (primarily public sector yarns) are significantly cheaper than the competition. This is due to the low utility costs and the availability of LS and ELS cottons at lower costs than for competition.

On the other hand, several industry sources have complained about the availability of quality yarns and explained that quality yarns are exported and lower qualities are made available for Egyptian mills.
**Woven Fabric prices**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>CHINA</th>
<th>INDIA</th>
<th>TUNISIA</th>
<th>TURKEY</th>
<th>EGYPT</th>
<th>$/UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plain fabric 50/1 Unfinished</td>
<td>0.80</td>
<td>0.85</td>
<td>1.25</td>
<td>1.05</td>
<td>2.10</td>
<td>lm</td>
</tr>
<tr>
<td>Plain fabric bleached 50/1 finished</td>
<td>1.38</td>
<td>1.20</td>
<td>2.30</td>
<td>2.10</td>
<td>2.45</td>
<td>lm</td>
</tr>
<tr>
<td>Plain fabric dyed 50/1 Finished</td>
<td>1.80</td>
<td>1.85</td>
<td>2.85</td>
<td>2.65</td>
<td>2.75</td>
<td>lm</td>
</tr>
<tr>
<td>Plain Fabric yarn dyed 50/1 finished</td>
<td>2.30</td>
<td>2.50</td>
<td>3.75</td>
<td>3.20</td>
<td>3.50</td>
<td>lm</td>
</tr>
<tr>
<td>Plain fabric 80/2 Unfinished</td>
<td>2.35</td>
<td>1.50</td>
<td>4.05</td>
<td>3.05</td>
<td>4.30</td>
<td>lm</td>
</tr>
<tr>
<td>Plain fabric bleached 80/2 finished</td>
<td>2.45</td>
<td>2.50</td>
<td>4.55</td>
<td>3.55</td>
<td>4.45</td>
<td>lm</td>
</tr>
<tr>
<td>Plain fabric dyed 80/2 Finished</td>
<td>2.85</td>
<td>3.00</td>
<td>4.80</td>
<td>4.00</td>
<td>5.00</td>
<td>lm</td>
</tr>
<tr>
<td>Plain Fabric yarn dyed 80/2 finished</td>
<td>3.85</td>
<td>4.00</td>
<td>5.10</td>
<td>4.75</td>
<td>5.35</td>
<td>lm</td>
</tr>
</tbody>
</table>

**Knitted Fabric prices**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>CHINA</th>
<th>INDIA</th>
<th>TUNISIA</th>
<th>TURKEY</th>
<th>EGYPT</th>
<th>$/UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>KNITTED SINGLE JERSEY 30/1 GREY</td>
<td>3.20</td>
<td>3.20</td>
<td>4.00</td>
<td>3.35</td>
<td>3.4</td>
<td>Kg</td>
</tr>
<tr>
<td>KNITTED SINGLE JERSEY 30/1 BLEACHED</td>
<td>4.20</td>
<td>4.00</td>
<td>5.20</td>
<td>4.85</td>
<td>3.75</td>
<td>Kg</td>
</tr>
<tr>
<td>KNITTED SINGLE JERSEY 30/1 LIGHT COLOUR</td>
<td>4.30</td>
<td>4.20</td>
<td>6.15</td>
<td>5.80</td>
<td>4.3</td>
<td>Kg</td>
</tr>
<tr>
<td>KNITTED SINGLE JERSEY 30/1 DARK COLOUR</td>
<td>4.60</td>
<td>4.50</td>
<td>6.25</td>
<td>5.85</td>
<td>5</td>
<td>Kg</td>
</tr>
<tr>
<td>KNITTED PIQUE 40/1 GREY</td>
<td>4.35</td>
<td>4.35</td>
<td>5.00</td>
<td>4.40</td>
<td>3.9</td>
<td>Kg</td>
</tr>
<tr>
<td>KNITTED PIQUE 40/1 BLEACHED</td>
<td>5.10</td>
<td>5.05</td>
<td>6.90</td>
<td>6.15</td>
<td>4.3</td>
<td>Kg</td>
</tr>
<tr>
<td>KNITTED PIQUE 40/1 LIGHT COLOUR</td>
<td>5.50</td>
<td>5.30</td>
<td>8.30</td>
<td>7.00</td>
<td>4.8</td>
<td>Kg</td>
</tr>
<tr>
<td>KNITTED PIQUE 40/1 DARK COLOUR</td>
<td>6.50</td>
<td>6.10</td>
<td>8.50</td>
<td>7.10</td>
<td>5.3</td>
<td>Kg</td>
</tr>
</tbody>
</table>

**Knitted fabrics** have a clear advantage in Egypt. However, it is important to note that the above fabric costs are based on using imported cheaper yarns and not relying on Egyptian cotton yarns. This could be attributed to the large capacity in knitting which has brought commission knitting prices to as little as US$ 0.16.
Knitted Garment prices

<table>
<thead>
<tr>
<th>ITEM</th>
<th>CHINA</th>
<th>INDIA</th>
<th>TUNISIA</th>
<th>TURKEY</th>
<th>EGYPT</th>
<th>$/UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-SHIRT 30/1 125 G/M²</td>
<td>1.15</td>
<td>1.25</td>
<td>3.00</td>
<td>2.40</td>
<td>2.2</td>
<td>Pc</td>
</tr>
<tr>
<td>T-SHIRT 30/1 150G/M²</td>
<td>1.25</td>
<td>1.35</td>
<td>3.85</td>
<td>2.50</td>
<td>3.25</td>
<td>Pc</td>
</tr>
<tr>
<td>POLO SHIRT 40/1 180G/M²</td>
<td>2.10</td>
<td>2.40</td>
<td>4.35</td>
<td>3.50</td>
<td>3.38</td>
<td>Pc</td>
</tr>
<tr>
<td>POLO SHIRT 40/1 220G/M²</td>
<td>2.50</td>
<td>2.70</td>
<td>4.90</td>
<td>3.65</td>
<td>4.5</td>
<td>Pc</td>
</tr>
</tbody>
</table>

Source: Gherzi

Knitted Garments: Despite the fact that Egyptian knitted fabric costs are very competitive the costs of the finished garment is high compared to competition. The benchmarking is taking into consideration a fashion item in a medium colour produced in the selected countries.

Dress Shirt prices

<table>
<thead>
<tr>
<th>ITEM</th>
<th>CHINA</th>
<th>INDIA</th>
<th>TUNISIA</th>
<th>TURKEY</th>
<th>EGYPT</th>
<th>$/UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CASUAL SHIRT 50/1 LOW DENSITY</td>
<td>6.00</td>
<td>5.50</td>
<td>8.30</td>
<td>7</td>
<td>9</td>
<td>Pc</td>
</tr>
<tr>
<td>CASUAL SHIRT 50/1 HIGH DENSITY</td>
<td>6.20</td>
<td>6.00</td>
<td>9.80</td>
<td>7.5</td>
<td>11.4</td>
<td>Pc</td>
</tr>
<tr>
<td>DRESS SHIRT 80/2 LOW DENSITY</td>
<td>7.30</td>
<td>7.00</td>
<td>11.50</td>
<td>9.3</td>
<td>10.2</td>
<td>Pc</td>
</tr>
<tr>
<td>DRESS SHIRT 80/2 HIGH DENSITY</td>
<td>8.50</td>
<td>8.45</td>
<td>12.30</td>
<td>10.5</td>
<td>14.4</td>
<td>Pc</td>
</tr>
</tbody>
</table>

Source: Gherzi

Dress Shirt Costs are less competitive in Egypt than in the selected countries. Dress shirts are offer a unique opportunity for Egyptian manufacturers in the upper market segments with high density / fine fabrics made of Egyptian cotton.
Wages in Egypt are lower across the board than competition including India and China. However as was seen above, product costs are higher than in competing countries. Several industry sources attributed this additional cost to the low productivity of the labour, others have explained that it is due to the lack of economies of scale in the Egyptian industry thus raising overhead costs.

**BENCHMARKING TEXTILE TRAINING**

<table>
<thead>
<tr>
<th>POSITION</th>
<th>CHINA</th>
<th>INDIA</th>
<th>TUNISIA</th>
<th>TURKEY</th>
<th>EGYPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>MACHINE OPERATOR</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>OPERATOR ASSISTANT</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>SUPERVISOR</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>QC CHECKER</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>QC SUPERVISOR</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>ENGINEERS</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>ASSISTANT ENG.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>ADMIN ASSISTANTS</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>ADMIN MANAGERS</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FREQUENCY</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ON ENTERING ONLY</td>
<td>1</td>
</tr>
<tr>
<td>ONCE / YEAR</td>
<td>2</td>
</tr>
<tr>
<td>MORE THAN ONCE/ YEAR</td>
<td>3</td>
</tr>
</tbody>
</table>

Whereas the unit cost for labour is cheaper in Egypt than the selected panel, training in Egypt is very limited and is often restricted to operators and upon entry to the company. Continuous training is one of the main factors affecting productivity and quality. The lack of training could be considered one of the main reasons behind the high production costs seen earlier in the benchmarking.
Egypt's competitiveness position

The benchmarking is extracted from a report produced for the GTZ – SME Promotion Program, who have provided large support to the production of this inception report and have gladly allowed us to use these results in the project.

The Egyptian figures in the benchmarking are the result of 30 interviews with companies across the supply chain in Egypt, as well as 5 different seminars with industrialists to review and confirm the collected data. The participants were carefully selected to include exporters, local market manufacturers, fully integrated companies as well as small production units.

As can be seen in the comparisons, Egypt enjoys several cost advantages over competition in utility costs, labour costs and raw material prices. However, the prices of finished products are not as competitive as they start out to be. The reasons for these discrepancies will be identified upon the completion of the questionnaires that are being filled by the companies in this period and the value chain will be mapped to identify where productivity is lost and where costs are added to the products.

Nevertheless, some broad conclusions can be made on the causes:

- Low productivity due to untrained labour / supervisors / managers
- Poor maintenance leading to loss of capacity
- Absence of economies of scale in weaving
- Poor dyeing and finishing leading to higher waste
- Absence of modern scientific production management leading to loss of productivity
- High interest rates

In the development of the action plan for the industry, such issues will be dealt with on two levels, the first being to improve the industrial cost structure and the second will be to move the product focus to a higher market segment and/or higher value added production where Egyptian cost advantages can be fully explored.

Notes on benchmarking:

Benchmarking of product prices, operators productivity or raw material prices is often criticized as being theoretical and not necessarily reflective of the true picture as for every factor being measured there are varying ranges and various details that could change the costing parameters significantly and could give misleading results.

The prices in this benchmarking could be challenged by exporters as being too high and that similar products are produced cheaper in Egypt or the costs could be challenged by local manufacturers as being too low. However, the true value of the exercise is to be reflective of the entire industry. We acknowledge that cheaper prices are possible to find in Egypt and that higher costs are also incurred for other materials, nevertheless, there are 4000 companies in Egypt and the benchmarking is concerned not with a single group but with the industry as a whole in an attempt to understand the degree to which the entire industry can contribute to the development of the sector and in which ways.
5

INTERNATIONAL AGREEMENTS
3.8.3 Egyptian Trade Agreements

**THE EGYPT- EU ASSOCIATION AGREEMENT (2004)**

This Agreement evolved out of the Euro-Mediterranean Partnership [The EU and 12 Mediterranean countries – Algeria, Cyprus, Egypt, Israel, Jordan, Lebanon, Malta, Morocco, Palestine Authority, Syria, Tunisia and Turkey. Libya has observer status at some meetings.] The countries highlighted have individual Association Agreements with the EU.

The Association Agreement includes implementation of WTO and GATT regulations covering anti-dumping, subsidies and safeguard measures. It allows each party to enjoy MFN treatment from the other party in trading services and aims to increase the flow of foreign capital, expertise and technology to Egypt.

A Free Trade Area is to be established over a 12 years period. Egyptian manufactured goods exported to the EU are exempt from import tariffs with the exception of some agricultural and processed agricultural products. Duties on EU exports of manufactured goods to Egypt will be eliminated in accordance with the lists and timeframes specified in the Agreement.

**Rules of Origin:** The Association is liberal in some aspects (e.g. 100% cotton yarn and threads, 100% cotton fabrics), requiring a Change in Tariff Headings to confer origin only if the yarn is spun in Egypt, without specific considerations to the origin of the cotton fibre. But, if the yarn, thread or fabric is mixed, i.e. less than 89% cotton by weight, [e.g. 75% Egyptian cotton/ 25% Korean polyester] the product is not considered to be of Egyptian origin.

The reason is that the product-specific process allows the use of certain non-originating fibres in excess of 10% by weight (but not polyester) so that the downstream product can meet the rules of origin in order that it may be granted preferential duty free treatment. As a result, trade diversion will persist if the EU is not the main supplier of the mixed yarn for the Egyptian products to confer origin.

The benefits of the liberal rules of origin determination in the Association Agreement can be nullified because of the issue of Duty Drawback. The Agreement establishes a broad prohibition on the granting of drawback, or any exemption from customs duties on imported inputs, when those inputs are used to manufacture products for export (to be applied 6 years from when the Agreement comes into force). However, all manufactured products may be granted the concession of a duty drawback refund in the range of 5% to 10% if the Egyptian authorities make an application.
The Egypt-EU Association Agreement (2004) - continued

The fact that the drawback refund has to be applied for by the Egyptian authority (possibly the customs authority) – and is not automatically granted to the exporter questions the effectiveness of the provision. This is particularly so when it is the exporter who has to convince the Egyptian Authority that the cause is a justified one.

The effectiveness of the provision will vary from one exporter to another depending on the usage of the imported inputs. It can be argued that the elimination of the existing duty drawback is likely to offset the benefits from tariff reductions obtained as a result of the Association Agreement.

There is obvious discrimination in the European treatment of other Mediterranean Non-Member countries (MNCs). Whist the prohibition was noted in the Free Trade Agreement between the EU and Israel, and in the EU Agreements with the Central and East European countries, it has not been the case with other countries. In the case of the MNCs and particularly of Morocco and Tunisia, no specific article was devoted to this issue in their Association Agreements with the EU.

On the positive side, there is the application of the roll-up system, similar to the one included in the European Economic Area (EEA) and in the European Association Agreements with Israel, Jordan, Morocco and Tunisia. This system relaxes the restrictiveness of the rules of origin in the Agreement. Further, the application also relaxes what is called the “general tolerance rule” (the de minimus provision) whereby inputs or factors of production from a third party who is not part of the preferential treatment related to the rules of origin described in the Agreement can be acquired in the production of the product granted the preferential treatment provided such value addition does not exceed 10% of the ex-works price.

This provision helps to relax the restrictiveness of the rules of origin. The Egyptian-European Association Agreement compares favourably with some regional trade agreements between developed-developing countries, e.g. NAFTA, as it demonstrates a more liberal approach.

No roll-up is provided in the NAFTA Agreement and the NAFTA general tolerance rule of 10% is less favourable than 7% in the Egyptian-European Agreement.
The Egypt- EU Association Agreement (2004) - continued

**Non Tariff Barriers (NTBs):** EU exporters face NTBs in some textile/clothing importing countries, e.g. Argentina, Australia, Brazil, Canada, Chile, China, Egypt, India, Indonesia, Japan, Malaysia, Mexico, Pakistan, the Philippines, S. Africa, S. Korea, Taiwan, Thailand and the USA.

Technical Barriers to Trade (TBT) and customs procedures are the most usual NTBs. The issues include trade facilitation (customs registration, customs documentation, minimum import prices, import licences, import restrictions) and, to a lesser extent, TBT (quality conformity, standards and sanitary requirements – except sanitary and phyto-sanitary (SPS) remain important in Asia (China, India, Japan and S. Korea).

As a leading producer and exporter to the Asian markets (HTS categories 61, 62 and 63) , the EU has a major interest in this issue. Between 1996 and 2002, EU textile exports amounted to Euros 16 billions and Egypt is considered to be an important market for the EU.

**The US Free Trade Agreements**

The US Trade Agenda is geared to working to open global markets (Doha WTO Trade Negotiations); regionally (the Free Trade Area of the Americas – FTAA); and bilaterally (e.g. the Central American Free Trade Area – CAFTA)

- The markets opened through the Chile and Singapore FTAs and the CAFTAS, Bahrain, Moroccan, SACU and Australian FTAs constitute the 4th largest US export market and the world’s 9th largest economy in terms of purchasing power.

- FTAA negotiations could result in the world’s largest free market as the US offers to eliminate import duties on the majority of industrial and agricultural imports from the West on entry into FTAA and offers broad access to its services, investment and government procurement sectors. Additionally, the US offers to make textile and clothing imports duty free from the region 5 years from the FTAA taking effect – provided the other member countries reciprocate.
➢ The US Free Trade Agreements - continued

o The US has pursued a global trade liberalization strategy through bilateral agreements. Negotiations have been held with SACU (Southern African Customs Union- Botswana, Lesotho, Namibia, South Africa and Swaziland); 5 Central American States (Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua); Australia and Morocco. Recently, discussions have been held with Colombia, Ecuador, Panama, Peru and Thailand.

o African Growth Opportunities Act (AGOA) – 17 Sub-Saharan African countries from whom clothing is imported duty free. [35 Sub-Saharan African countries are designated as AGOA beneficiaries.] 1800 different products from Sub-Saharan Africa enter the US duty free in addition to the 4,650 products eligible under GSP.

o There are 3 FTAs with MENA countries- Bahrain, Jordan and Morocco and Trade and Investment Framework Agreements (TIFA) with Kuwait, Qatar and The UAE. TIFAs are also in place with Algeria, Egypt, Jordan, Morocco, Saudi Arabia and Yemen.

Egypt has a total exports target to the USA of US$ 2 billions. However, without some form of market access arrangement it is believed that this target will not be realized. Other countries have preferential market access arrangements that disadvantage Egypt’s exporters. Additionally, the absence of special arrangements may, it is thought, deflect FDI to other countries that have beneficial arrangements, e.g. Bahrain, Jordan, Morocco. But the benefits to Egypt’s textile industry could be substantial if there were to be an Egypt-US FTA.

Qualifying Industrial Zones (QIZ) are seen as the vehicle with which to enter an FTA with the USA.

➢ Qualifying Industrial Zones (QIZ)

QIZs are designated areas that enjoy duty-free status between Israel, Egypt and Jordan with duty-free entry into the USA. Israel has an established (17 years) FTA with the USA. The QIZ extends the benefits of that FTA to industrial parks in Egypt and Jordan. An Act of Congress (1996) ensures the continued inclusion of the Palestinian Autonomous Area in Israel’s FTA. QIZs allow products with a combined 35% minimum ‘appraised value’ (the same %age required of Israel) duty-free entry into the USA.
Qualifying Industrial Zones (QIZ) - continued

At least 11.7% of the final product must be added by the manufacturer in the QIZ. In addition, at least 8% (7% for hi-tech products) of the 35% must come from Israel with the remainder from the QIZ country, Israel, West Bank/Gaza Strip or the US. The remaining 65% can come from anywhere else in the world. Alternatively, QIZ and Israeli manufacturers must each contribute at least 20% of the total cost of production of the product. QIZ manufacturers are allowed to ‘mix and match’ between the two methods to qualify.

The process of setting up a QIZ has 2 parts: firstly a bilateral agreement between Israel and a peace partner is concluded, stating the proposed locations of the QIZ and the mutually agreed %ages from each side concerning content contributions and production costs. Secondly, the agreement is presented to the Office of the United States Trade Representative (USTR). If approved, businesses located in the zones producing goods that meet the contribution requirements are eligible to export tariff-free (duty free) to the USA.

Differences between QIZs and FTAs

- Under the QIZ, exported goods are duty free and quota free. Under the FTA, some products enjoy the elimination of duties whilst others have to wait 10 years.

- Under the QIZ, production of goods is subject to an 11.7% input from the QIZ whilst under the FTA, products are subject to a 35% input for each product. And QIZs do not grant reciprocal treatment to US products entering Egypt.

- The QIZ is a designated area with an existing infra-structure whilst the FTA is country-wide, a distinction that can influence investor preferences in determining which preferential system to adopt.

Aghadeer Agreement

The Aghadeer Free Trade Agreement was entered into by Egypt, Jordan, Morocco and Tunisia in 2004 to establish, by 1st January 2006. The FTA allows for agricultural and processed agricultural products will be liberalized according to the agreement between Arab countries for setting up a Pan Arab Free Trade Area [PAFTA]. Pan Euro-Med rules of origin apply to goods traded under the FTA.
➢ Aghadeer Agreement - continued

The Aghadeer FTA and the Euro-Med agreement offers:

- Market Outlets – the South and East Mediterranean countries depend to a large extent on the EU market
- Ability to accumulate origins of products made in EU partner countries, thus creating a large market for Egyptian made intermediary products (yarns and fabrics).
- There has, for some time, been a close relationship between the textile and clothing industry in the EU and the Aghadeer countries. This relationship covers commercial, sub-contracting and investment ties.

**NOTE:** The agreement was finally endorsed by Morocco in July 2006 and is expected to go into implementation.

➢ COMESA- Countries of Eastern and Southern African Community

The history of COMESA began in December 1994 when it was formed to replace the former Preferential Trade Area (PTA) which had existed from the earlier days of 1981. COMESA's current strategy can thus be summed up in the phrase 'economic prosperity through regional integration'. With its 20 member states, population of over 374 million and annual import bill of around US$32 billion COMESA forms a major market place for both internal and external trading.

The FTA was achieved on 31st October, 2000 when nine of the member States namely Djibouti, Kenya, Madagascar, Malawi, Mauritius, Sudan, Zambia and Zimbabwe eliminated their tariffs on COMESA originating products, in accordance with the tariff reduction schedule adopted in 1992. Burundi and Rwanda joined the FTA on 1st January 2004. These eleven FTA members have not only eliminated customs tariffs but are working on the eventual elimination of quantitative restrictions and other non-tariff barriers. 22 countries within one Free Trade Area to reduce import tariffs in trade between them.

**NOTE:** Not yet operative as some countries have not ratified the Agreement, for reasons of protectionism.
Egypt - Turkey Free Trade Agreement - 2005

Not yet into implementation, the Egypt – Turkey Free Trade Agreement allows for the removal of duties over a period of 12-15 years. By 2008 Turkish textiles will be admitted duty free into Egypt. This will allow for the accumulation of origin for Egyptian products made with Turkish raw materials (yarns + fabrics) giving Egypt the ability to penetrate the EU market with higher value added products as well as encourage Turkish investments into Egypt.

Regional Trade Agreements

QIZ’s in Jordan

On March 6th, 1998, the United States Trade Representative (USTR) designated Jordan’s Al-Hassan Industrial Estate in the northern city of Irbid as the world’s first QIZ. Other industrial parks designated by the U.S. government as QIZs in Jordan include; the Al-Hassan Industrial Estate (Irbid), and Al-Hussein Ibn Abdullah II Industrial Estate (Al Karak), both owned and operated by the Jordan Industrial Estate Corporation. Also, the now privately owned and operated Al-Tajamouat Industrial Estate (Amman), Ad-Dulayl Industrial Park (near Zarka), Jordan Cyber City (Irbid), Al-Qastal Industrial Zone (Amman), and El-Zai Ready-wear Manufacturing Co. sub-zone (Zarqa). Other QIZs expected to be operational in the near future include the Gateway QIZ (northern Jordan-Israel border), Aqaba Industrial Estate (Aqaba), and the Mushatta International complex (Amman). Jordan has greatly benefited from direct foreign investment in the QIZs. Besides boosting exports to the U.S., it provided jobs for over 20 thousand of Jordan’s labor force, and transferred the technology know-how of different industries.

Since their inception, exports to the U.S. increased significantly. Back in 1998 QIZ exports to the U.S. were JD5.5 million. In 1999, they reached JD9.3 representing 0.88 percent of total Jordanian exports. In 2000 total exports to the U.S. reached JD44.8 million, an increase of approximately five folds from the year before. According to the QIZ Unit at the Ministry of Trade and Industry, QIZ exports to the U.S. have reached JD54 million up until the end of August 2001. Most QIZ investors in Jordan come from Asian countries like China and Pakistan, some are also from Arab countries. Exports from QIZs are primarily apparels and luggage goods.
US-Morocco Free Trade Agreement

A Yarn-Forward Rule of Origin: The U.S.-Morocco Free Trade Agreement (FTA) returns to the industry-supported "yarn forward" in a Middle Eastern trade agreement. The free trade agreements (FTAs) with Israel and Jordan allow for the use of unlimited third-country yarn and fabric in apparel eligible for duty-free treatment. As with other FTAs (including NAFTA, Singapore, and Chile), the agreement contains limited allowances for the use of yarn and fabric from a non-party under a Tariff Preference Level (TPL). But unlike NAFTA, the TPL in the Morocco FTA is temporary. It is set at an initial level of 30,000,000 square meters equivalent (sme) for the first four years of the FTA and is reduced over the next six years and eliminated entirely after ten years. The TPL is equal to less than 1% (0.08%) of total U.S. imports. After the TPL expires, all trade under the Morocco FTA must adhere to the yarn-forward rule of origin. U.S. exporters also have the same TPL access to Morocco's market, allowing U.S. fabric and apparel exporters some flexibility in their inputs. The agreement also contains a special allowance for the U.S. and Moroccan industry to use cotton fibers from least-developed sub-Saharan African countries, where those fibers are normally required to originate in a Party. This provision is supported by the domestic cotton industry.

Reciprocal Market Access: The FTA provides fully reciprocal market access for U.S. producers. On a product-by-product basis, the U.S. and Morocco will adhere to the same schedule for tariff elimination. If a U.S. tariff on any given product is eliminated immediately, Morocco's tariff on that same product is also eliminated immediately. For the majority of textile products, tariffs will be eliminated over six years. In addition, for selected items, the U.S. and Morocco will provide duty free treatment to designated quantities of products, an innovation that enabled the United States to obtain reciprocal access to Morocco's market.

A Special Textile Safeguard: Allows either party to re-impose MFN tariffs if imports from the other party damage domestic production. This safeguard allows longer periods of relief than the textile safeguards of any other U.S. FTA.

Special Enforcement Provisions: The agreement also contains special, state-of-the art customs enforcement and cooperation provisions for textiles, allowing the customs authorities of the parties to verify production in the event of a question, and ultimately to deny entry or deny duty preferences if production cannot be authenticated.
The US-Bahrain FTA

President Bush signed the United States-Bahrain Free Trade Agreement Implementation Act into law January 11, opening the way for tariff-free bilateral trade in all industrial and consumer goods and creating new opportunities for trade in services and agricultural goods. U.S. Trade Representative, Rob Portman, commented, "President Bush's signing into law of the U.S.-Bahrain Free Trade Agreement is good news for the United States, Bahrain, and our efforts to promote economic opportunity in the Middle East. Soon U.S. farmers, manufacturers and service providers will enjoy new opportunities in this growing market. The agreement also marks a milestone in strengthening ties and promoting freedom in the Middle East."

On September 14, 2004, representatives from the United States and the Kingdom of Bahrain signed a U.S. – Bahrain Free Trade Agreement in Washington. Once the agreement goes into effect, 100 percent of consumer and industrial products and 81 percent of U.S. agricultural exports will be duty free. This FTA will be particularly beneficial to U.S. exports of aircraft, machinery, pharmaceuticals, and agricultural products.

On November 17, 2005, President Bush submitted legislation to the U.S. Congress, encouraging them to pass one of the "most comprehensive" free-trade agreements to reduce barriers in services. The U.S. House of Representatives passed the measure 327-95 on December 7, 2005. Days later, the Senate also passed the Free Trade Agreement by a voice vote. The Bahraini Parliament overwhelmingly approved the passage of the U.S.-Bahrain Free Trade Agreement in a vote taken in July 2005. Ambassador Naser Al Belooshi, Ambassador of the Kingdom of Bahrain to the United States, stated that the vote further solidified the deep and multi-faceted relationship between the United States and Bahrain, and gave a clear indication of Bahrain's sentiment about the positive benefits of the agreement.

In July 2004, the U.S.-Bahrain Free Trade Agreement received nearly overwhelming support from a group of trade advisory committees representing a broad range of business, environmental and social interests.
The US-Oman FTA

The Office of the U.S. Trade Representative and the Minister of Commerce of Oman successfully concluded negotiations for a U.S.-Oman Free Trade Agreement (FTA) on Monday, October 3. Under this agreement, all bilateral trade in consumer goods and industrial products will become duty-free. The Agreement was signed on January 19, 2006. The U.S. Senate passed the agreement in June 2006 and it is currently pending a vote by the House of Representatives.

The U.S.-Oman FTA will benefit both the California and the United States. In 2005, California exports to Oman were over $20 million. California is one of the nation’s top exporters, with consistent growth in exports of computers, electronic products and machinery. The U.S.-Oman Free Trade Agreement will continue to increase our state’s exports in these areas, as well as, California’s agricultural and manufacturing industries.

This FTA will benefit U.S. exports of both goods and services. Oman is a potential market for U.S. oil equipment and services, transportation equipment, water and environmental technology, medical equipment, electrical and mechanical equipment, power generation and transmission equipment and services, telecommunications equipment and services, financial services, franchising, and U.S. poultry and beef. Bilateral trade between the United States and Oman totaled nearly over $1.1 billion in 2005. U.S. goods exports to Oman rose to $593 million last year, with significant growth in sales of aircraft and vehicles. An FTA with Oman will add to this success. A U.S.-Oman FTA would be the fourth U.S. agreement with an Arab country, following the U.S.-Jordan FTA signed in 2000, the U.S.-Morocco FTA signed in 2004, and the U.S.-Bahrain FTA which went into place in early 2006.