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# Morocco, Tunisia, Egypt and Jordan after the End of the Multi-Fiber Agreement

Impact, Challenges and Prospects

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## SUMMARY AND RECOMMENDATIONS

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The phase-out of the Multifibre Arrangement (MFA) under the Agreement on Textiles and Clothing (ATC) on January 1, 2005, has led to a significant decline in international prices of textile and clothing (T&C) products, benefiting consumers worldwide. But the lifting of remaining T&C quotas has also created tremendous pressures for retailers, distributors, and producers. Some of the most efficient producers, such as China and India, now free of quantitative limitations, are increasing their shares in major import markets at the expense of other countries.

This report investigates the impact of the MFA's lapse on the T&C sectors in four countries of the Middle East and North Africa region: Egypt, Jordan, Morocco, and Tunisia (the MENA-4). In all four countries, the T&C sectors play a crucial role in trade, foreign exchange earnings, and job creation. These countries are key partners in the Euro-Mediterranean Partnership and, through the Agadir Agreement, in the Greater Arab Free Trade Area group. In both contexts, specific industry and trade policies could maximize the opportunities presented by MFA removal. This report analyses the early effects of MFA removal on the MENA-4 and formulates concrete policy recommendations on how to mitigate its impact.

### **The MENA-4 countries have lost market share in the newly liberalized T&C market**

**One year after expiration of the MFA, the MENA-4 countries are losing export market positions in the European Union.** Overall T&C exports to the European Union from Tunisia, Morocco, and Jordan have declined by 5.8, 7.4, and 13 percent, respectively, since the removal of remaining MFA quotas. Egyptian exporters to the EU experienced only a marginal decline of 1 percent in the value of T&C products. The loss of market share by the MENA-4 countries in the EU T&C market has occurred against the background of a dramatic increase in Chinese exports (41.5 percent), a significant rise in Indian exports (18 percent), and good performance by Turkey (3.8 percent) and Bulgaria (3.2 percent).

**Despite the overall decline in MENA-4 exports to the European Union, exports in the 35 recently liberalized T&C product categories have not been as disappointing as expected.** Tunisia experienced a drop in exports of liberalized products of just 3.7 percent, compared to a decline of 12.3 percent in quota-unrestricted products. Similarly, the drop in Egypt's exports was significantly less pronounced for the newly liberalized products than for T&C products as a whole. Morocco is the only MENA-4 country for which the decline in the liberalized products was larger than that in quota-free products. Morocco's poor performance in liberalized products reflects a high proportion of low-end exports that compete directly with Asian products.

**Egypt and Jordan experienced strong export performances in the U.S. market after MFA removal.** Exports to the United States from the two countries increased by 8 percent and 13 percent, respectively, in 2005. Those results were largely due to the preferential access that Egypt and Jordan enjoy in the U.S. market through their respective Qualified Industrial Zone Agreements. Tunisian exports to the United States also increased (by 15.5 percent) after the quota removal, but from a negligible basis. In contrast, Morocco -- also a small supplier in the U.S. market -- suffered a 20.6 percent decline of exports in 2005.

**The MENA-4 export trends confirm important differences between the EU and U.S. markets.** The European market remains highly segmented along national lines, requires fast turnaround, and is less reliant on the large orders that are typical of U.S. retailers. Other characteristics are a high degree of customization of orders to the needs of consumers and the emergence of products that require fashion adjustments within a single season. These characteristics tend to favor efficient and specialized proximate suppliers that are able to cut lead time and respond quickly to orders. In the U.S. market, the distinctions between different segments of the market are less clear, and price differences among suppliers narrower. Order sizes are generally larger, providing more room for significant efficiencies and economies of scale. The scope for competition is thus much larger, and even distant suppliers may not be disadvantaged, as the success of Jordan shows.

**While many T&C jobs were lost in the MENA-4 countries after the removal of the MFA, parallel job creation in the sectors is gaining speed.** In Morocco and Tunisia, investment and employment indicators have worsened in recent years, compared with the 1990s. Yet sectoral analysis of investment flows indicates that restructuring of the sector has accelerated since January 2005. New factories are being opened, even as others are being closed. Jobs are being shed as uncompetitive firms exit the market, but new ones are being created in both the textile (fabric and yarn) and clothing segments of the sector.

The future of the T&C sector in the four countries has yet to be determined. With the right policies, decision makers can take advantage of the ongoing processes of “creative destruction.” Policies should be devised to accentuate investment flow and employment creation, to mitigate the impact of employment losses, and to strengthen the international competitiveness of the sector.

### **Can the MENA-4 countries compete in a post-MFA world?**

**Competition among textile and clothing exporters has intensified since January 2005 and will further increase when the safeguards against China’s exports expire by 2008.** To improve their competitiveness, MENA-4 producers will have to continue to lower labor costs, increase productivity, and improve access to cheap inputs. Labor costs in Egypt and Jordan are lower than or comparable to those of most Asian exporters. Labor costs in Morocco and Tunisia are lower than those of some Eastern European countries and Turkey, but significantly higher than those of their Asian competitors. Productivity differences in the industry of the four countries are not large, with the exception of Egypt. Egyptian textile companies exhibit low levels of productivity, particularly in the public sector, due to overstaffing and underinvestment.

For clothing, the cost of fabric typically represents 60 percent of free-on-board prices. Producers of clothing in Jordan face a simple and transparent trade regime and pay no duty on imports of fabrics, such as denim. In the other three countries of the MENA-4, however, the combined effects of tariff protection of textiles and restrictive rules of origin in the association agreements with the European Union raise the cost of fabric inputs. In Egypt, for example, protection of the inefficient domestic textile industry raises the cost of inputs and undermines the competitiveness of the clothing sector. For the countries of the region to be competitive in today’s global markets, further reductions of tariff and nontariff barriers will be crucial.

**Survival of the clothing sector in the MENA-4 countries depends on the ability to better exploit the advantages of proximity to the European Union.** Proximity allows buyers and suppliers to build strong relationships and permits a better understanding of customer preferences. Firms in the



MENA-4 countries can be competitive in exporting time-sensitive, replenishable products to the European market because their inventory costs and risks are lower than those of distant suppliers. They can exploit focus on products that must be replenished quickly during the selling season. Reducing lead time—the time required from receipt of an order to shipment to markets—is a key priority. To take advantage of the comparative advantage of proximity, the MENA-4 countries need to ensure that their firms have quick and reliable access to competitively priced inputs. They also must enhance productivity by investing in technology and skills while further improving trade facilitation and logistics. As they make these improvements, they should strengthen their ties with large retailers, focusing on their ability to replenish orders quickly in response to demand. More standardized apparel will face increasing competition from firms in locations where labor is cheaper. For firms that compete in this segment of the market, improving time to market and reducing production costs will be critical.

### **Domestic reforms can help firms in the MENA-4 countries compete internationally**

**Short-term policies are needed in several key areas.** Of utmost importance are *measures aimed at reducing the cost of yarns, fabrics, and other inputs* used in the production of clothing. These measures include acceleration of ongoing tariff and customs reforms and the negotiation of less restrictive rules of origin with the European Union. The free trade agreements that Morocco, Tunisia, and, most recently, Egypt have signed with Turkey should be quickly implemented. At the same time, the MENA-4 should speed up the implementation of the Agadir Agreement (a free trade agreement among the four countries) in order to benefit from “diagonal cumulation” in the Euro-Med area. Alternatively, each MENA-4 country should ensure that the terms of the Pan-Euro-Med protocol on rules of origin are applied in its association agreement with the European Union. The MENA-4 countries should also negotiate a third-party rule that gives them flexibility to source fabric from anywhere in the world.

**To facilitate trade and enhance export competitiveness, the MENA-4 countries need to improve their trade logistics.** Both short- and long-term measures should be taken. Lowering the cost and increasing the speed of flows of T&C inputs and products to and from the MENA-4 will require (a) further improvements in customs, (b) more efficient port services, and (c) more efficient transport. On *customs*, the number of documents and signatures needed to process imports should be lowered still further. On *port services*, despite many recent reforms, delays still occur—there is a need for further streamlining in every agency involved in the process. A new port that is scheduled to open in Tangier in 2–3 years will offer cheaper transit to Europe and the United States, and a trade free zone nearby will allow companies to import material and export finished clothes free of tax. *Maritime transportation* is still very costly, partly because of the low volume of trade, which often implies the shipment of containers that are not fully loaded and several stops in Mediterranean ports by international carriers. Deeper regional integration would help increase trade volume. Such integration would also create a larger regional market, leading to efficiency gains and foreign investments.

**Other urgent short-term policy measures include safety nets to reduce the social cost of adjustments in T&C sectors.** Although the early impact of the expiration of the MFA on employment has been less dramatic than predicted, in part because quotas have been reimposed on Chinese goods through 2007, social safety nets are still needed. This is particularly true for women, especially those with the lowest levels of skill and education. Job opportunities for low-skilled women are often limited to domestic service, street vending, and farm work. Of particular concern is the employment situation in some regions and localities of the MENA-4 countries (particularly Morocco and Tunisia) where a few firms contribute significantly to total local employment.

## **Long-term policies to improve competitiveness and boost exports are needed as well**

**A comprehensive policy for fast export growth requires political stability, a trade-conducive macroeconomic environment characterized by low inflation, and a realistic exchange rate. It also requires continuing trade reforms and liberalization of the financial sector.** Most policies advocated in this report are important for the enhancement of competitiveness across the economy, not just in the T&C sector. For the latter, deeper regional integration and deeper integration with the European Union would facilitate the movement of goods and services and improve the attractiveness of the region to foreign investors. At the same time, MENA-4 firms should improve their business strategies, invest in new management techniques and information technologies, and attempt to move up the value chain. Governments have a facilitating role to play in this process, especially through investment in education and skill-development programs.

**Effective implementation of the reforms discussed above can have important impacts on welfare, T&C outputs, employment, and wages.** Simulations using a standard model developed by the Global Trade Analysis Project show that an investment of just 0.1 percent of national GDP in the trade capacity of the Euro-Med countries— Bulgaria, Egypt, Jordan, Morocco, Romania, Tunisia, Turkey—would have a strong, positive impact on the welfare, output, and employment of each member. The implementation of the remaining tariff-reduction commitments in MENA-4 association agreements (when the Pan-Euro-Med system of cumulation is used) would induce a large positive effect on T&C output, employment, and wages in Morocco and Tunisia, translating into a net welfare gain for the two countries. Egypt, by contrast, would suffer a large welfare loss due to trade diversion in favor of the European Union. Therefore Egypt would be better off if it lowered its most-favored-nation tariffs while opening up to the European Union. In sharp contrast with the implementation of its association agreement with the European Union, Egypt would capture a large welfare gain from a free trade agreement with the United States. Finally, Morocco stands to reap a small welfare gain from its free trade agreement with the United States. The impact of that agreement on output, employment, and wages in the T&C sector is likely to be negligible.

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## I. EARLY IMPACTS OF THE MFA REMOVAL IN MENA-4

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### A. Importance of T&C in MENA-4 Countries

1. Textiles and clothing are of crucial economic importance for MENA-4 countries with large contributions to industrial output and employment. The T&C sector provides between 17 percent (Morocco) and 42 percent (Tunisia) of industrial value added in MENA-4 (see Table 1.1). The sector's contribution to overall GDP ranges from 3 percent in Egypt to 9.4 percent in Jordan. In all MENA-4 countries, the T&C sector absorbs a large share of low-skilled industrial labor and affects, directly and indirectly, the incomes of millions of people. In Egypt, the sector absorbs as much as 30 percent of the country's industrial labor force.<sup>1</sup> In Morocco and Tunisia, more than 200,000 workers depend on T&C for their livelihood and income. Although relatively young, Jordan's T&C industry provides about 30,000 jobs in that country.

**Table 1.1 Contributions of T&C in MENA-4 Economies**

	<i>Morocco</i>	<i>Tunisia</i>	<i>Egypt</i>	<i>Jordan</i>
Contribution to overall GDP (%)	5.1	5.6	3	9.4
Contribution to industrial value added (%)	17	42 <sup>a</sup>	30 <sup>b</sup>	20
Employment (number)	203,800 <sup>c</sup>	220,000	1,000,000	30,000
Share of clothing in T&C employment (%)	45	nd	30	20 <sup>d</sup>
Share of women in clothing employment (%)	65	80	25	70

*Source:* a. Basti and Bechet (2005); b. Ghoneim (2005); c. Hamri and Belghazi (2005); d. Kardoosh and Khouri (2004).

2. The gender structure of employment varies across countries by sub-sector (textile or clothing), and firm size. In Morocco, 93 percent of workers in micro- and small- enterprises are involved in textile production are women. Within the same sector, employment is more evenly distributed between males and females in the medium to large enterprises—46 and 54 percent, respectively, with higher concentrations of men in the very large enterprises (200 employees and above). Similarly, the clothing sector is the main employer for women. Female employment in the industry represents 65, 70 and 80 percent of total employment in Tunisia, Jordan and Morocco, respectively.<sup>2</sup> Data for Egypt also suggests a large concentration of women in micro-and small enterprises. In Tunisia, women also constitute the bulk of employment in the medium - to large clothing enterprises.

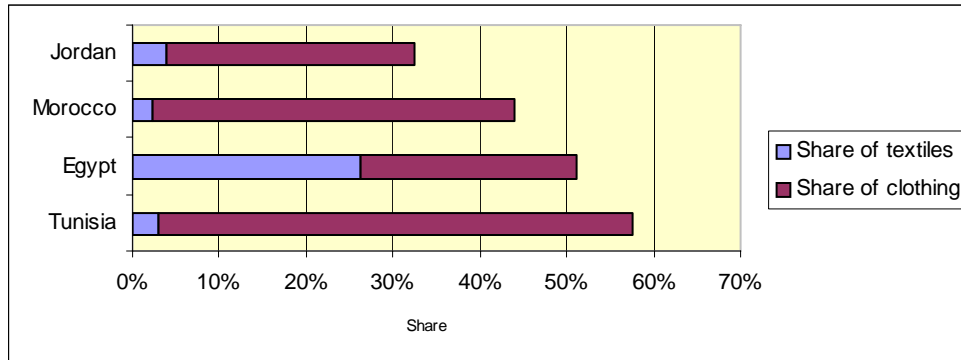
3. The T&C sector is also a major source of foreign exchange for MENA-4. T&C account for fifty-eight percent of Tunisia's total non-oil exports (Figure 1.1). In Egypt and Morocco, the share is smaller than in Tunisia, but the T&C sector still accounts for 52 and 42 percent of non-oil export earnings, respectively. Even in Jordan, where the rise of the clothing sector dates back to 1997, 32 percent of non-oil exports comes from T&C. Clothing itself comprises about 95 percent of total T&C exports in Jordan, Morocco, and Tunisia. In Egypt, clothing represents 46 percent of T&C exports, followed by yarn and fabrics (38 percent), and carpets (16 percent).

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<sup>1</sup> Ghoneim (2005).

<sup>2</sup> Data for Morocco and Tunisia from Hamri and Belghazi (2005); Basti and Bechet (2005). Data for Jordan from Jordan CGA (2005).

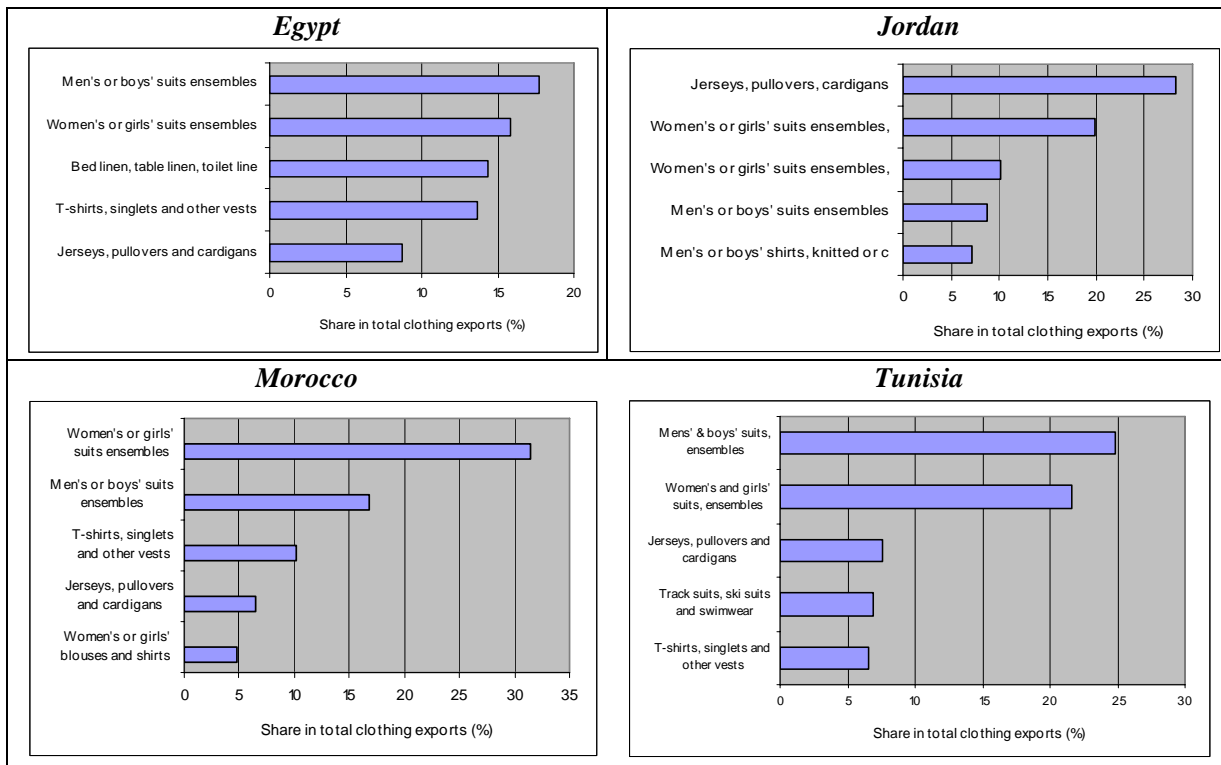
**Figure 1.1 Contribution of Textiles and Clothing to Total Non-Oil Exports, 2004 (%)**



Source: UN Comtrade database.

4. Overall, MENA-4's T&C exports to the world market are highly concentrated around a few export categories. At the four-digit level, the top-five exports make up between 60 and 80 percent of total exports in these countries (Figure 1.2). For Morocco and Tunisia, men's and boys' suits and ensembles along with women's and girls' suits and ensembles, stand out as the most important items in the export basket, representing 47 percent of exports in each country. At this level of aggregation, however, Morocco's exports appear less diversified than those of the other MENA-4 countries. Indeed, Morocco is the only country where one category (women's and girls' suits and ensembles) accounts for about a third of total exports. Egyptian and Tunisian exports appear to be more diversified, with each of its top-five exports contributing between 8 and 18 percent of total exports.

**Figure 1.2 Top Five MENA-4 Clothing Exports, 2004**



Source: UN Comtrade.

## B. The Performance of the T&C Sectors in MENA-4 Before 2005

5. For MENA-4 as well as for many developing countries, the world market is confined to the EU and the United States, which together represent more than 50 percent of world T&C imports.<sup>3</sup> While Morocco and Tunisia are strongly integrated into EU production networks and each sell about 95 percent of their garment exports to the EU, the importance of the U.S. market is crucial for Jordan, with 93 percent of its exports shipped there. The U.S. and the EU markets absorb 40 percent and 38 percent of Egypt's exports, respectively.

### 1. In the EU Market

6. Strong competition has been a main feature of the EU T&C market since the end of the 1990s contributing to an average FOB price decline of some 59 percent between 1997 and 2004. Increased competition in the EU market has also brought about some changes in the relative positions of the main T&C players (Table 1.2). Greater China and South Asia have become the top-two EU suppliers with market share of over 42 percent. Turkey and Eastern Europe (namely Bulgaria and Romania) have also increased their EU market from 18.2 percent in 1997 to over 27 percent in 2004.<sup>4</sup> In contrast, the market shares of MENA-4 countries (except Egypt) since 1997 have declined on the EU market in 1997, the overall share of MENA-4 stood at 105 percent of Turkey's share, and in 2004, it was only 70 percent. While in nominal terms T&C exports of Tunisia and Morocco have increased from 1997 to 2004, the market shares of each of the countries have declined: from 5.7 to 5.1 percent in Tunisia and from 5.3 to 4.8 percent in Morocco. Only Egypt's market share has increased slightly, from 0.5 percent in 1997 to 0.66 percent in 2004.

**Table 1.2 Exports and Market Share among Major Suppliers in the EU Market, 1997–2004**

<i>Exporting country or region</i>	<i>1997</i>		<i>2004</i>	
	<i>Export (mln US\$)</i>	<i>Market share (%)</i>	<i>Export (mln US\$)</i>	<i>Market share (%)</i>
Greater China	13,486	23.3	25,390	26.9
South Asia	9,020	11.2	16,063	15.5
Turkey	6,646	11.1	13,347	15.0
Eastern Europe	3,596	7.4	8,474	11.2
North Africa	5,723	11.5	7,934	10.8
Tunisia	2,652	5.7	3,736	5.1
Morocco	2,384	5.3	3,399	4.8
Egypt	662	0.5	785	0.66
Jordan	23	0.05	13.7	0.02

Source: Eurostat.

Note: Eastern Europe = Bulgaria, Croatia, Romania, Russia, and Ukraine, South Asia = Bangladesh, India, Pakistan, and Sri Lanka, Greater China = China, Hong Kong, and Macao.

7. Given the EU T&C market share dynamics, has the expansion of market share of Bulgaria, Romania, and Turkey occurred at the expense of MENA-4 countries? To answer this question, we use export similarity indexes and identify the countries directly competing with Egypt, Morocco, and

<sup>3</sup> Examples of notable exceptions include China and Thailand, which export large shares of output to developing countries.

<sup>4</sup> As new EU members, the Czech Republic, Hungary, and Poland have been excluded from this list.

Tunisia in the EU market.<sup>5</sup> The more similar two countries' exports to a given market are, the stiffer the competition between them in that market.

8. Export similarity indexes calculated at the six-digit HS level (Harmonized Commodity Description and Coding System) show that Romania, Bulgaria, and India appear to be the closest competitors of Morocco and Tunisia in the EU market (Table 1.3). This suggests that MENA-4 has indeed lost ground to Romania and Bulgaria in the EU market in recent years. While China and Turkey appear to be direct competitors to Morocco and Tunisia in most export categories, competition from Bangladesh varies across products, with the EU category 6 (Woven breeches, shorts and other swimwear, trousers and slacks, of wool, of cotton or of synthetic fibers) being the most sensitive one.

**Table 1.3 Export Similarity Indexes in the EU Market, 2004**

<i>Country</i>	<i>Tunisia</i>	<i>Morocco</i>	<i>Egypt</i>
Tunisia	100		
Morocco	28	100	
Egypt	12.5	8.0	100
Romania	26	33	10.2
Bulgaria	32	28	12.0
India	26	27	7.0
China	23	23	12.1
Turkey	21.5	21	10.0
Jordan	3.4	6.0	6.9
Bangladesh	7.8	9.0	6.0

Source: U.N.'s Comtrade.

Note: Index values are six-digit Harmonized Commodity Description and Coding System level.

## **2. In the U.S. Market**

9. U.S. demand for T&C imports has increased dramatically over the past 15 years, in terms of both value and volume. However, annual rates of increase in the value of imports have declined over the past few years, contributing to a steady fall of FOB prices. Between 1997 and 2004, average FOB prices dropped by about 50 percent in the U.S. market.

10. Since the early 1990s, Greater China, Mexico, and the CAFTA countries, with a cumulative market share of 48 percent in 2004, have dominated the U.S. market (see Table 1.4). Compared with these countries, Egypt, Morocco and Tunisia are very small players in the U.S. market with a cumulative share of 0.83 percent in 2004. Among MENA-4, only Jordan has a prominent place on the U.S. T&C market with a market share of 1.5 percent in 2004. This is a nontrivial achievement for a country that was almost absent from that market in 1997. Jordan's exports to the United States fell to USD 1 billion in 2004, from USD 4 million in 1997.

<sup>5</sup> Export similarity indexes are measured as:  $Similarity(A, B) = \sum_i INF(\frac{X_{Ai}}{X_A} * 100, \frac{X_{Bi}}{X_B} * 100)$ , with  $X_{Ai}$  the total export of product  $i$  by country  $A$

and  $X_{Bi}$  the total export of the same product by country  $B$ . The index is equal to 100 if products exported by countries  $A$  and  $B$  are identical and equal to 0 if they are completely different.

**Table 1.4 Changes in Market Share among Major Suppliers in the United States 1997 and 2004**

<i>Exporting country or region</i>	<i>1997</i>		<i>2004</i>	
	<i>Export (ml US\$)</i>	<i>Market share (%)</i>	<i>Export (ml US\$)</i>	<i>Market share (%)</i>
Greater China	14,613	21.5	24,856	23
CAFTA-DR	7,247	16.4	9,984	14.7
Mexico	6,541	14.8	8,701	10.0
South Asia-4	6,813	10.5	11,124	10.5
Jordan	4.2	0.01	1,006	1.48
Egypt	410	0.72	601	0.65
Morocco	55.6	0.12	80.2	0.11
Tunisia	14.5	0.03	50.3	0.07

Source: Eurostat.

Note: South Asia-4 =Bangladesh, India, Pakistan, and Sri Lanka, CAFTA-DR = Costa Rica, Salvador, Guatemala, Honduras, and Nicaragua, plus the Dominican Republic and Caribbean Basin Initiative (CBI) countries, Greater China = China, Hong Kong, and Macao.

11. Export similarity indices for Jordan and Egypt at the six-digit HS level reveal that El Salvador is their major competitor in the U.S. market. Interestingly, Egypt itself appears to be a potentially serious competitor of Jordan in the U.S. market, while China's or Mexico's direct competition with these two MENA countries is negligible (see Table 1.5).

**Table 1.5 Export Similarity Indexes in the U.S. Market, 2004**

<i>Country</i>	<i>Jordan</i>	<i>Egypt</i>
Jordan	100	
Egypt	11.8	100
Morocco	11.9	13.5
Tunisia	16.9	13.5
El Salvador	37.4	21.34
India	10.5	3.5
Bangladesh	9.2	16.7
Colombia	9.0	7.9
Mexico	6.9	6.2
China	3.5	7.3

Source: U.N.'s Comtrade.

12. In sum, the analysis of MENA-4's export performance in the EU and the US markets in the run-up to the complete MFA removal leads to the following observations:

- In the EU market, while proximate suppliers (such as Bulgaria, Romania, and Turkey) have greatly reinforced their position, MENA-4's largest suppliers in that market (Morocco and Tunisia) have suffered losses in their market shares.
- Disaggregated export data suggests that Romania, Bulgaria, and India are the strongest direct competitors to Morocco and Tunisia in the EU's T&C market.
- Jordan, MENA-4's largest supplier to the US, has experienced an impressive increase in volumes and market shares on the U.S. market since 1997. Exports from Egypt, the only other relatively significant exporter to the United States, stalled in the period 1997–2004.
- Interestingly, Jordan's position in the U.S. market is not threatened by China and Mexico, the two largest suppliers in the U.S. market. Rather, El Salvador appears to be Jordan's most serious contender. The other countries that might compete with Jordan in the U.S. market are potentially other MENA-4 countries.

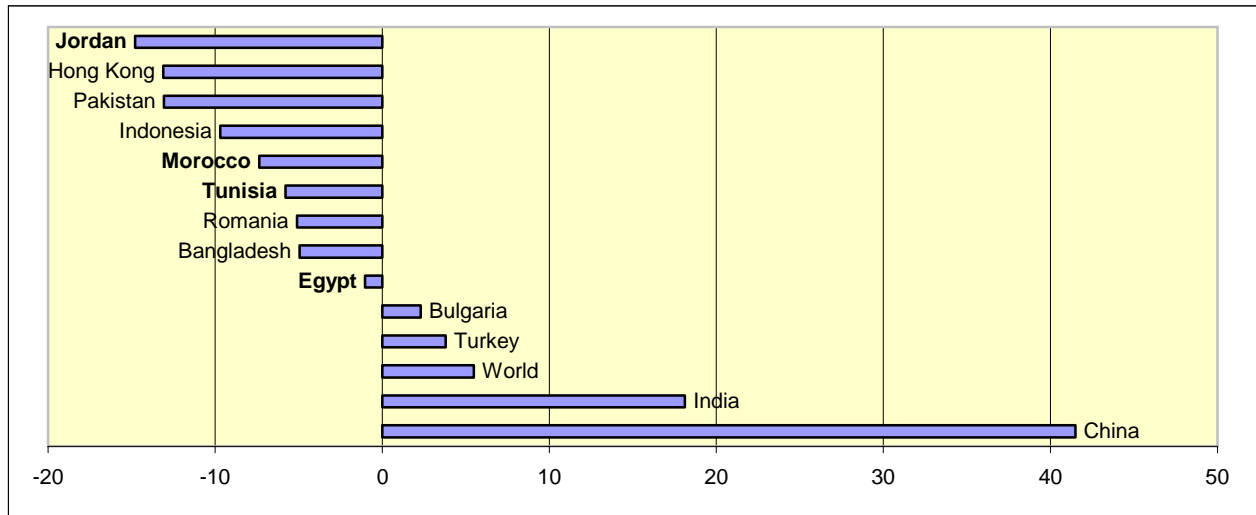
### C. Early Impacts of the Complete Phase-out of Quotas under ATC

13. January 2005 marked the final stage of the ATC phase-out schedule, under which the remaining T&C categories were liberalized in both the EU and the United States (See Box 1.1). Subsequently, in June and July 2005, the EU and the US reimposed quotas on China’s exports of some strategic products. The analysis in the following sections investigates the early impacts of the ATC phase-out on liberalized products and quota-reimposed products. This is done by isolating the 35 product categories that were still restricted by quotas during the third phase of the ATC phase-out from liberalized ones in January 2005.

#### 1. Impact of Quotas Phase-Out on Exports and Prices in the EU Market

14. Although EU imports of textile and clothing have increased (by 3.7 percent in value and 4.9 percent in volume) between the first twelve months of 2004 and the corresponding months of 2005 exports from MENA-4 countries have lost ground in the EU market in 2005 compared to 2004 (see Figure 1.3). Morocco suffered the largest decline (-7.4 percent), followed by Tunisia (-5.8 percent), and Egypt (-1 percent). These declines occurred against the background of a dramatic increase in Chinese exports (41.5 percent), a significant rise in Indian exports (18 percent) and a good performance of exports from Turkey (3.8 percent) and Bulgaria (2.3 percent).<sup>6</sup>

Figure 1.3 Changes in the Euro Value of Exports to the EU Market, 2004 – 2005



Source: Eurostat.

<sup>6</sup> Because these territories were less quota-constrained than China, Chinese exporters used to find it worthwhile to perform some operations in Hong Kong, thus establishing origin in Hong Kong, and then to move the unfinished garments to China where the other operations—often the greater portion of work—were carried out. The result was a garment that was legally “made-in-Hong Kong” with a high percentage of Chinese content. In 2004, China officially accounted for 85 percent of Greater China’s exports (USD 21.6 billion worth of export) against 13 percent for Hong Kong (USD 3.1 billion) and 2 percent for Macao (USD 576 million). In absolute terms, exports from Hong Kong, Macao, and Taiwan have experienced the largest decline on the EU market in 2004-2005 (see Figure 1.3). The sharp decline of Hong Kong’s and Macao’s exports was expected as prior to January 1<sup>st</sup> 2005, considerable quantities of made-in-China garments were transhipped through these two countries among others.



### Box 1.1 The ATC Phase-Out

The ATC came into force in 1995 with the WTO agreement (Uruguay Round Agreement) and created special interim rules to govern trade in textiles and apparel among WTO countries. It provided for the gradual elimination of quotas on textiles and apparel established by the United States, the EU, Canada, and Norway under the Multi-Fiber Agreement (MFA), an arrangement that governed most world trade in textiles and apparel between 1974 and 1994. The quota system under the MFA violated GATT's nondiscrimination obligation and contradicted GATT's general principle of abolishing absolute quantitative limits. The objective of the ATC was thus to bring trade in textiles and clothing under GATT discipline.

The WTO 1995 agreement required countries to integrate textile and apparel products into GATT 1994 in four steps over a 10-year transition period ending on January 1, 2005. As they did so, countries were required to eliminate any quotas on such goods and could not establish new quotas on the integrated products, except as provided under normal GATT rules. For quotas that were not eliminated in one of the first three stages of integration, the ATC required importing countries to increase the base annual growth rates applicable to each such quota, which were specified in the bilateral MFA agreements in place in 1994.

The table below shows the specified timetable by which both the integration and the quota expansion were to be undertaken. In the first stage (1995–97), WTO members were required to integrate not less than 16 percent of the level of their 1990 imports of textile and clothing products. On January 1, 2005, all remaining products (up to 49 percent) were to be automatically integrated.

#### Steps of the ATC Phase-Out Process

<i>Period and Starting Date</i>	<i>Share of trade to be integrated (%)</i>	<i>Increase in quota growth rate (%)</i>
Stage 1 (1995–1997) Jan. 1, 1995	16	16
Stage 2 (1998–2001) Jan 1, 1998	17	25
Stage 3 (2002–2004) Jan 1, 2002	18	27
Stage 4 (2005- ) Jan 1, 2005	49	..

Source: ATC (Uruguay Round Agreement)

The ATC provided importing countries considerable flexibility in selecting the specific products for GATT integration at each stage. Although it requires them to integrate products from each of four categories (tops and yarns, fabrics, made-up textile articles, and apparel) at each stage, it does not specify any allocation percentages. Because the major importing countries deferred integration of the most sensitive products until the end of the 10-year transition period, what could have been a gradual adjustment turned into a major shock in early 2005.

15. Reflecting the heavy back loading of the MFA removal, the EU's total imports of the 35 newly liberalized products represented 64 percent of total EU imports in 2004. In the first half of 2004, the 35 products made up 40 percent of China's exports to the EU, 80 and 74 percent of Morocco and Tunisia's shipments to the EU, respectively. While China's exports of unrestricted products grew roughly by only 13 percent, exports of newly liberalized products increased by 82 percent. Turkey also performed better in the newly liberalized products than in the unrestricted ones. However, exports from MENA-4 to the EU largely fell in the newly liberalized categories. Egypt and Tunisia did better in exports of the newly liberalized products. Tunisia's exports of newly liberalized products dropped by 3.7 percent, although the decline in quota-unrestricted products was significantly larger at 12.3 percent. Similarly, the decline in Egypt's exports was less pronounced for the newly liberalized products than in the quota-unrestricted groups. Morocco is the only MENA-4 country that suffered a decline in the liberalized products lower than that experienced one in the quota-free products.

**Table 1.6 Changes in the Value of Exports for Liberalized versus Quota-Free Products (EU market)**

<i>Country</i>	<i>All products 2004-2005 (% change)</i>	<i>Liberalized in Jan 2005 products 2004-2005 (% change)</i>	<i>Quota-unrestricted products before Jan 2005 2004-2005 (% change)</i>	<i>Share of liberalized products in Jan.–June 2004</i>
Morocco	-7.4	-8.9	-1.2	80
Tunisia	-5.8	-3.7	-12.3	74
Egypt	-1.0	-0.9	-1.4	77
China	41.5	82.0	12.7	40
India	18.1	18.2	18.0	61
Turkey	3.8	4.3	2.2	76
Romania	-5.1	-7.4	3.7	77
Bangladesh	-5.0	-5.6	7.4	94
Pakistan	-13.1	-11.2	-17.8	na
Total Import change EU25	5.5	6.7	3.3	63

Source: Eurostat.

16. To explain the export and competition dynamics behind the results from Table 1.6, we disaggregate export flows and examine unit prices as well as value, volume, and price changes across the sample.<sup>7</sup> Using average unit prices as a basis, the EU market features two distinct groups of suppliers and market segments for these categories: the low-price, mostly Asian distant suppliers, and the high-price proximate suppliers from Eastern Europe or around the Mediterranean.<sup>8</sup> Although distant sources compete essentially on price, products from proximate suppliers such as MENA-4 are generally in demand for their special fashion characteristics or a highly-desirable label.<sup>9</sup> Although proximity makes such products easily replenishable, MENA-4 has not necessarily taken advantage of this segment of the EU market. For example, while Tunisia is definitely in the group of high-price suppliers, Morocco either borders or falls largely in the lower segment of the market.

17. A strong correlation exists between the level of unit price (or segment of the market a supplier evolves in) and the change in unit prices (see Table 1.8). While low-price supplier countries have witnessed sharp declines in unit prices of these categories, higher-price suppliers have experienced an increase in unit prices. This symmetric movement of prices is at the heart of the observed changes in export values. All low-price Asian suppliers have sharply increased the volumes exported, enough to compensate for lower prices. However, in the case of Morocco and Ukraine, with a few exceptions, both the volumes and unit prices have declined. The only case in which Morocco's unit prices increased is category 6; not accidentally, it is the category of high-price, high-margin, fashion-oriented supplies. Indeed, high-price suppliers have, without exception, all seen a drop in export volumes largely mitigated or compensated for by price increases.

<sup>7</sup> Unit prices are not a perfect indicator of quality, but it is often reasonable to assume that higher-quality products are more expensive than lower-quality goods. Several authors have focused on the analysis of export unit values as the most precise indicator of export product quality (Hallack 2004; Schott 2004; Timmer 2000), using it to address various issues related to trade specialization (Hallack 2004; Schott 2004), export competitiveness (Aiginger 1998; Brunner and Allen 2005; Landesmann and Poeschl 1996; Timmer 2000), and product innovation (Aiginger 2001; Kaplinsky and Readman 2005).

<sup>8</sup> This classification is even more accentuated if more categories are included. The price gap between these two groups widens significantly if categories 7 and 8 are included in the average.

<sup>9</sup> Replenishable products are fast-moving, high-value products that large retailers order in relatively small quantities but reorder frequently. As discussed in chapter 2 and 3, proximate suppliers of those products have a natural advantage over distant cheap suppliers.

**Table 1.7 Unit Prices of MENA-4's Top Exports in the EU Market, 2004**

Country	Category 4		Category 5		Category 6		Average Unit Price
	Share in total exports to the EU (%)	Unit price (euro)	Share in total exports to the EU (%)	Unit price (euro)	Share in total exports to the EU (%)	Unit price (euro)	
Bangladesh	21	1.3	18	3.8	19	3.7	2.9
China	3.0	2.5	2	7.1	2	4.6	4.7
India	7.0	2.9	3.5	4.0	2	7.1	4.7
Ukraine	5	2.0	4	3.9	12	6.4	4.1
Morocco	8	2.2	4	5.0	22	8.3	5.2
Egypt	13	2.4	2	4.6	13	10.9	6.0
Turkey	15	3.6	6	6.7	10	9.0	6.4
Bulgaria	4.5	2.8	6.5	7.2	8	9.7	6.6
Romania	3	3.1	8	7.1	18	10.2	6.8
Tunisia	5	3.3	6	6.5	25	10.8	6.9

Source: Eurostat.

Note: Category 4 = Shirts, T-shirts, polo, pullovers, undervests, and the like, knitted or crocheted.

Category 5 = Jerseys, pullovers, waistcoats, cardigans, anoraks, knitted or crocheted.

Category 6 = Woven breeches, shorts and other swimwear, trousers and slacks, of wool, of cotton or of synthetic fibers.

**Table 1.8 Changes in Volumes Exported and Unit Price of Top Export Products in the EU Market**

Country	Category 4			Category 5			Category 6		
	Change in volume (%) Jan/Sept 04/05	Change in Price (%) Jan/Sept 04/05	Unit price 2004	Change in volume (%) Jan/Sept 04/05	Change in price (%) Jan/Sept 04/05	Unit price 2004	Change in volume (%) Jan/Sept 04/05	Change in price (%) Jan/Sept 4/05	Unit price 2004
Bangladesh	4	-0.6	1.3	-8.2	-2.5	3.8	-18.8	-0.7	3.7
China	253	-36.1	2.5	533	-31.7	7.1	573.4	-21.5	4.6
India	101	-19.2	2.9	-16	-7.6	4.0	120.9	-26.9	7.1
Ukraine	-31.2	-33.2	2.0	-12.5	-13.9	3.9	-11.9	8.12	6.4
Morocco	-7.7	-10.6	2.2	-6.4	-6.4	5.0	-18.1	5.6	8.3
Egypt	116	-49.2	2.4	-30.9	2.9	4.6	-14.9	4.8	10.9
Turkey	5.5	0.4	3.6	-0.8	0.7	6.7	-6.1	11	9.0
Bulgaria	-3.5	6.0	2.8	-13.9	16.3	7.2	-9.9	2.9	9.7
Romania	-1.5	2.5	3.1	-19.2	2.8	7.1	-17.1	7.3	10.2
Tunisia	-14.6	5.1	3.3	-19.8	7.9	6.5	-10.6	10.3	10.8
EU	23.9	-13.06		16.9	-7.38		23.5	-12.9	

Source: Eurostat. Mirrored export data.

Note: Category 4 = Shirts, T-shirts, polo, pullovers, undervests, and the like, knitted or crocheted.

Category 5 = Jerseys, pullovers, waistcoats, cardigans, anoraks, knitted or crocheted.

Category 6 = Woven breeches, shorts and other swimwear, trousers and slacks, of wool, of cotton or of synthetic fibers.

## 2. *Impact of Quotas Reimposition on China's Exports to the EU*

18. In June 2005, the EU reimposed quantitative restrictions on Chinese exports in 10 product categories in accordance with the safeguard provisions of China's WTO accession agreement.<sup>10</sup> The 10 specific categories addressed by the MOU were T-shirts, pullovers, men's trousers, blouses, bed linen, dresses, bras, table linen, kitchen linen, and flax yarn. In the first half of 2005, these MOU products represented 40 percent of Chinese exports to the EU. For MENA-4, the MOU accounted for 59, 56, 44, and 23 percent of exports of Morocco, Tunisia, Egypt, and Jordan, respectively (See Table 1.9). Since the MOU agreement between China and the EU was reached on June 10, 2005, in the following section we analyze the evolution of exports between the period January–June ("quota-free trade") and the period July – December (managed trade with respect to China). The difference is assumed to capture at least part of the impact of the reimposition of a quota on Chinese exports.

**Table 1.9 Changes in the Value of Exports of MOU Products**

<i>Country</i>	<i>Change in exports of MOU products Jan-June 2004-2005</i>	<i>Change in exports of MOU products July-Dec 2004-2005</i>	<i>Share of MOU products in total exports Jan-June 2004</i>
China	198	106	15
Egypt	3.7	1	40
Jordan	-66.2	-16	65
Morocco	-17.6	6	59
Tunisia	-2.3	5	56
Romania	-12.7	6	51
Bangladesh	-7.6	-2	81
Turkey	4.7	8	52

*Source: Eurostat, mirrored export data.*

19. As Table 1.9 reports, the MOU fell squarely on the products for which Chinese exports increased the fastest in the first semester of 2005 (198 percent increase in value). The results also show that in the second half of 2005, the rate of growth in Chinese exports had decelerated to 106 percent in value as quotas were being filled. Further desegregation of the data shows that this has been a gradual process, since no deceleration was detected until November and December when the quotas of 7 out of 10 MOU categories were filled.

20. The deceleration of China's exports in Europe has affected the MENA-4 competing suppliers. For example, large part of Morocco's export especially in the low end of the EU market was constrained by China's dramatic export growth in the first half of 2005. This is also true, to a lesser extent, for Jordan, Romania, Bangladesh and Tunisia. Egypt, on the other hand, did better in the first half of 2005 suggesting that China has not been a direct threat to its competitiveness in the EU market.<sup>11</sup>

## 3. *Impact of Quotas Phase-Out on Exports and Prices in the U.S. Market*

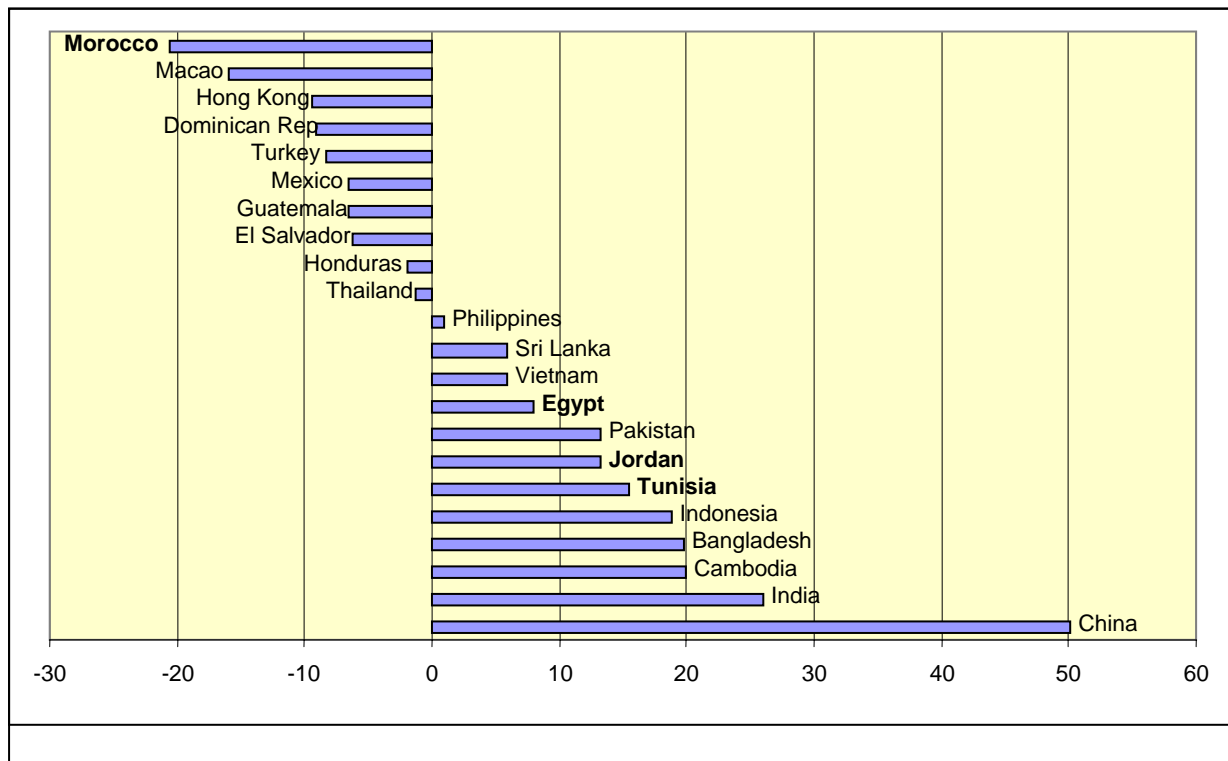
21. Import demand in the U. S. increased by 6.1 percent in 2005 leading to some shifts in market share positions of its main export suppliers, including MENA-4 (see Figure 1.4). China's and India's exports expanded dramatically in the US market after the quota removal, increasing by 50 percent and

<sup>10</sup> This MOU allows WTO members threatened by market disruption from increased Chinese exports to reimpose quotas on China on specific products until 2008 (WTO 2002). The significance of this transitory safeguard mechanism lies in the fact that, contrary to normal WTO safeguard measures, it is discriminatory and does not require a lengthy investigation to prove injury to an import-competing industry.

<sup>11</sup> Many other factors during this period may have come into play as well.

26 percent, respectively. Jordan and Egypt also increased their exports by 13 and 8 percent, respectively. Egypt's performance was largely due to the Qualified Industrial Zones (QIZ) Agreement of December 2004 with the US and Israel.<sup>12</sup> According to the QIZ protocol, Egyptian garments containing 11.7 percent Israeli inputs can enter duty-free into the US market. Jordan's strong export performance was due to comparatively lower labor costs in the country. In addition, Jordan has signed a Free Trade Agreement with the United States, which allowed duty-free access for made-in-Jordan garments. An exceptional feature of this agreement is its liberal rules of origin, which allow Jordan to source cheap inputs from anywhere in the world and still qualify for duty-free access to the United States.<sup>13</sup> The rest of MENA-4 exports (Morocco and Tunisia) to the U.S. in 2005 are very small: Exports of Morocco and Tunisia to the US stood at USD 60 million and USD 54 million, respectively. Hence, small variations in the value of exports induces large proportionate changes from one year to another. Morocco's exports fell by 20.6 percent, Tunisia's increased by (15.5 percent). However, these reflect a tiny level of these countries' exports in the U.S. market.

**Figure 1.4 Changes in the US Dollar Value of Exports to the United States, 2004 to 2005**



Source: U.S. International Trade Commission (USITC).

22. The scope for competition in the U.S. market seems to be larger than in the EU market. The distinction of low-price versus high-price suppliers is not as pronounced on the U.S. market as on the

<sup>12</sup> Qualified Industrial Zones (QIZs) are geographically designated areas in Egypt (determined by the Egyptian government and approved by the U.S. government) where industrial products that originate in Egypt and satisfy agreed-upon Israeli content—under predefined rules of origins mostly based on relevant WTO rules—are granted free entry into the U.S. customs territories. The agreement came into effect in February 2005 (see <http://www.qizegypt.gov.eg>).

<sup>13</sup> The liberal nature of the Agreement is motivated by the need to enhance the Jordan-Israel partnership and plausibly quantifies the dividends from the peace process that accrue to the two countries. It is unlikely that the same set of preferences can be replicated for the other MENA-3 countries, as one can see from the Morocco-US FTA. The only major requirements for garment exports to enter the United States duty-free are (a) that garments should be produced in qualified industrial zones (QIZs) (these QIZs must be registered and licensed) and (b) that the final product contains at least 8.5 percent Israeli content. However, some small restrictions exist. For instance, part of the FTA permits garments to be produced outside the QIZs, but not all of these garments can be imported into the United States duty-free. For example, synthetic fiber knits will not have duty-free access.

EU one and proximate suppliers (Mexico and CAFTA) are clearly among the high-cost producers. Many distant suppliers, such as India, Jordan, and Sri Lanka also fall into this category (see Table 1.10, reporting FOB prices in the U.S. for the first half of 2005).<sup>14</sup> At the same time, distributions of gains and losses of market share following the MFA removal cut across the market segmentations.

**Table 1.10 Average FOB Prices in the U.S. Market**

<i>Country</i>	<i>Average FOB price Jan–June 2005</i>	<i>Market share in U.S. market Jan–June 2005</i>
Morocco	1.9	0.08
Bangladesh	2.0	4.6
Egypt	2.1	0.57
Pakistan	2.1	1.7
Tunisia	2.4	0.09
CAFTA	2.4	13.8
Greater China	2.9	28
Mexico	3.5	8
Sri Lanka	3.6	3.4
India	3.7	4.6
Jordan	4.1	1.5

*Source:* U.S. International Trade Commission (USITC).

*Note:* Unit totals for FOB prices for total garment imports to the U.S. are measured in square meter equivalents.

#### **4. Impact of the Reimposition of Quotas on China's Exports to the U.S.**

23. Following the EU lead, in July 2005 the U.S. reimposed quotas on China on six strategic categories: cotton T-shirts, cotton trousers, woven shirts, underwear, synthetic fiber female T-shirts, and synthetic fiber female trousers.<sup>15</sup> All these categories (except 340/640) were embargoed between early July and early August.

24. Export data of the six MOU products in the United States reveal that the products under quantitative restriction are those for which China registered the highest increase in exports in the first half of 2005 (See Table 1.11). For instance, export of cotton trousers to the United States has increased by 761 percent in the six months following the removal of quotas compared with the same period in 2004. The share of these six export categories in total Chinese exports to the US jumped from 15 percent to 36 percent in the same period.

25. To analyze the effects of the reimposition of quotas on China, Table 1.12 breaks down the period January–October into two sub-periods, January–June and July–October. China's exports to the United States decelerated during the July–October period, but still enjoyed a high rate of growth. So did exports from South Asia-4, which were largely driven by India and Bangladesh. Jordan and Egypt did well, with export growth of 11 and 15 percent, respectively, during the summer months. For Jordan, this represented a deceleration from the first part of the year, when it registered a 24 percent growth in exports. Tunisia's exports stagnated, with a 42 percent fall in January–June 2005 period. These export dynamics were realized against a slowdown of U.S. imports during the summer of 2005, with import growth declining from 19 to 11 percent.

<sup>14</sup> FOB prices do not include the duty paid or shipment costs and thus are used here as an imperfect proxy of unit prices of various suppliers. Nevertheless, they provide some indication on the final prices in the US.

<sup>15</sup> Seven additional safeguard actions were subsequently requested by the U.S. T&C industry in October 2005. However, the total export value of these categories is relatively small, and the quota is expected to be large. As a result, these additional limitations will simply keep Chinese exports at the 2005 level.

**Table 1.11 Chinese Garment Exports to the United States (note to be revised later, ml)**

<i>Category</i>	<i>MOU Product</i>	<i>2004</i>	<i>Jan.–June 2004</i>	<i>Jan.–June 2005</i>	<i>% Change</i>
	Total exports	8,928	3,755	7,404	97.18
338/339	Cotton T-shirts	216	82	596	626.83
340/640	Cotton shirts	161	66	224	239.39
347/348	Cotton trousers	272	118	1016	761.02
352/362	Underwear	137	64	205	220.31
638/639	Synthetic fiber knitted shirts & blouses*	235	97	353	263.92
647/648	Synthetic fiber female trousers	288	119	308	158.82
Total of six categories		1,309	546	2,702	394.87
Share in total Chinese exports (%)		15	15	36	

Source: U.S. Office of Textiles and Apparel (OTEXA).

26. Countries and regions that previously had difficulty competing on the U.S. market found those difficulties exacerbated (e.g., Korea and the Philippines), and free trade agreements did not guarantee U.S. market success in the post-quota-free era (Mexico, CBI, AGOA countries). However, countries with competitive garment industries, such as Bangladesh, India, Indonesia, and Sri Lanka could easily sell on the U.S. market and in fact increased their market share there.

**Table 1.12 Changes in Exports of Various Suppliers to the U.S. Market (2004 to 2005)**

<i>Exporter</i>	<i>Jan.–June 2004, Jan.–June 2005 (%)</i>	<i>July–Oct. 2004, Jan.–June 2005 (%)</i>	<i>Jan.–Oct. 2004, Jan.–June 2005 (%)</i>
China	66	45	56
Hong Kong	-27	0	-12
Macao	-28	-12	-20
Mexico	-4	-9	-6
South Asia-4	21	12	17
CAFTA-DR	4.2	-12	-3
Jordan	24	11	18
Egypt	1	15	7
Morocco	-18	-29	-23
Tunisia	42	-4	20
Indonesia	15	21	18
Turkey	-2	-10	-6
Israel	1	-7	-2
World	19	11	16

Source: U.S. International Trade Commission (USITC).

Note: CAFTA-DR = CAFTA countries + Dominican Republic, South Asia-4 = Bangladesh, India, Pakistan, and Sri Lanka

## D. Recent Business Creation and Employment in the T&C Sector

### 1. Business Creation

27. Business entry and exit data in Egypt, Morocco, and Tunisia suggest that there has been a healthy process of creation and destruction in the T&C sector of these countries. In Tunisia, even if the absolute number of enterprises created has been diminishing over the past few years, more enterprises were created than closed in 2005. According to data from the Ministry of Industry, 95 projects of business creation in the T&C have been received, compared with 87 notifications of closure. Among the new investments, some large ones are notable. For instance, Benetton invested about TD 5 million in 2005 and TD 30 million in the coming years to develop their activities in Tunisia. Important investments from France, Italy, and Portugal are also being made, namely in yarn spinning and fabric weaving. With 18.1 percent of total investment in the manufacturing sector in 2004, T&C was the third largest recipient of investment in this sector, after the agro-business sector, mechanics and electrical industries.

28. In Morocco, new investments with embedded technical components and innovation are important for the modernization of the sector. It is noteworthy that some new projects are in the textile segments of yarn spinning or fabric weaving, which represent the weakest part of the T&C sector in Morocco. For instance, an Irish group is investing USD 140 million in Morocco. Such investments typically carry important intangible benefits too, such as marketing links, know-how, and expertise. Despite the increased level of FDI, Morocco registered a higher number of firm closures compared to the number of new firms. In the first half of 2005, 67 enterprises were either created or extended, compared to 74 closures, restructurings, or downsizings (see Table 1.16).

29. In Egypt, investment and employment in domestic-oriented firms have to be distinguished from investment and employment in the QIZs and Free Zones. While the public sector has lost ground (the relative weight in T&C production has declined from 87percent in 1980/81 to 28 percent in 2002/03), it is still predominant in the key sub-sectors of spinning and weaving. Public sector enterprises produce 90 percent of Egyptian yarn, 60 percent of fabrics, and 30 percent of apparel.<sup>16</sup> However, these public companies suffer from lack of investments, outdated technology, and overstaffing.

30. The T&C export-oriented sector in Egypt is dominated by private sector companies, which operate mainly within the export processing zones or in the newly created QIZs. Since, December 2004, the QIZs have witnessed important T&C business creation (Table 1.13). New areas are expected to be included in the QIZ, and existing areas will be widened. Important new investments have also been made in Egyptian free zones in recent years (Table 1.14).

**Table 1.13 Number of T&C Companies Created in Egyptian QIZs**

	<i>Phase 1 (Feb. 2005)</i>	<i>Phase 2 (May 2005)</i>	<i>Phase 3 (Aug. 2005)</i>
Total number of textile companies created	355	33	18
Percentage of textile companies to total companies	80	69	94.7

Source: General Authority for Investment, Information Center.

<sup>16</sup> Ministry of Public Enterprise 2003; Madger 2005.



**Table 1.14 Investments in Egyptian Free Zones**

	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>Jan.–Aug. 2005</i>
Number of newly registered companies	8	11	5	6	23	15
Investment costs (US\$ million)	37.7	60.7	4.1	4.0	45.2	51.6

Source: General Authority for Investment, Information Center.

## **2. Employment**

31. Many analysts expected not only sharp decreases in the T&C exports, but also massive employment losses in the sector. However, just as in the case of T&C exports, these expectations did not materialize entirely. While the evolution of employment in Jordan, Morocco, and Tunisia accentuates recent years' export trends, in Egypt, the evolution of employment is more reflective of domestic factors than the removal of the MFA.

32. Table 1.15 shows the evolution of employment in Tunisia's T&C sector. According to government data, employment has been increasing steadily from 2001 to 2004, although at a continuously declining pace, which slipped into a net loss of employment. About 3,500 jobs or 1.1 percent of employment was lost during the period—a loss far lower than what had been predicted by most forecasts.

**Table 1.15 Recent Evolution of Employment in Tunisia**

	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005 (Jan-Aug)</i>
Entirely exporting enterprises	148,356	159,234	167,614	174,058	178,766	178,192
Partially exporting enterprises	23,834	24,459	24,740	25,404	25,996	24,368
Total employment	172,190	183,693	192,354	199,462	204,762	202,560
% change	-	6.7	4.7	3.7	2.7	-1.1

Source: Investment Promotion Agency Survey (2005).

Note: The survey was administered to enterprises with at least 10 employees.

33. Available data show a sharp decline in employment in the Moroccan T&C sector. Table 1.16 shows the evolution of business creation, restructuring, and closings in recent years, and the associated impact on employment. Even cautious interpretation of these results indicates that a typical process of creation and destruction is underway with a consistent dominance of the latter, resulting in a significant loss of employment. Indeed, though there is not much difference in the number of enterprises created, restructured, or closed each year, closures systematically involve a larger number of employees, resulting in a net annual employment loss.

**Table 1.16 Creation and Loss of Employment in Moroccan T&C Sector**

	2000	2001	2002	2003	2004	2005 (Jan-June)
<b>Closing, downsizing, and reducing work time</b>						
Number of enterprises	82	112	121	107	90	74
Number of jobs	10,420	13,818	19,830	12,437	11,754	9,000
<b>Reopening, expanding, and increasing the number of hours worked</b>						
Number of enterprises	82	113	120	84	67	67
Number of jobs	4,251	6,204	5,729	5,280	3,187	3,187
<b>Net business creation</b>	0	1	-1	-23	-23	-7
<b>Net job creation</b>	-6,169	-7,614	-14,101	-7,157	-8,567	-5,813

Source: Ministry of Labor, Morocco.

34. In Egypt, the large and heterogeneous T&C sectors are partly controlled by the government and mostly domestic oriented. Employment changes thus reflect government policies and domestic demand conditions, except in the export-oriented QIZs and free zones, where employment creation continues. Indeed, the extension of the QIZs is expected to help create a total of 350,000 jobs in the near future. However, the government has been slow in closing or privatizing public T&C enterprises for fear of the associated social costs, given the high geographical concentration of employment in a few regions (e.g. Mahalla Kobra) and limited alternative job opportunities.<sup>17</sup> So far the problem of overstaffing is mostly addressed through an early retirement programs. By 2003, the government was able to complete the early retirement program for 24,071 workers at a cost of 513.7 million Egyptian pounds. The plan for the near future is to retire around 18,000 more workers who are distributed among the different public sector firms.

## E. CONCLUSION

35. This chapter has investigated the earlier impact of the end of MFA in MENA-4. Without exception, all MENA-4 countries lost ground in the EU market during 2005. Morocco, the second largest MENA exporter to the EU suffered the largest decline among the main EU suppliers (-7.4 percent). Tunisia's exports declined by 5.8 percent. Egypt witnessed a relatively small (one percent) drop in its exports to the EU market. These declines occurred against the background of a dramatic increase in Chinese exports (41.5 percent), a significant rise in Indian exports (18 percent) and a notable expansion of exports from Turkey (3.8 percent) and Bulgaria (3.2 percent) both counting with similar proximity advantages to the ones of MENA-4.

36. However, these trends in exports do not reveal a good overall performance of MENA-4 on the 35 product categories that were liberalized in January 2005. In these products, Chinese exports increased by 82 percent (against 12.3 percent on the unrestricted products). Tunisia experienced a drop in exports of only 3.7 percent, compared to a decline of 12.3 percent in quota-unrestricted products. Similarly, the drop in Egypt's exports was significantly less pronounced for the newly-liberalized products. Morocco is the only MENA-4 country for which the decline in the liberalized products was larger than in the

<sup>17</sup> Since the announcement of the privatization program in 1991, only five firms were privatized prior to 1999. Up to 2003, the results were as follows: three companies sold in the stock market, two companies sold to anchor investors, and four companies were totally or partially leased (Ghoneim 2005). Even with the appointment of the new cabinet starting September 2004, the privatization efforts have not been impressive. Ministry of Public Enterprise, 2003, quoted in Ghoneim 2005.

quota-free products. Morocco's poor performance reflects the high proportion of exports that fall in the low-end of the market. An important finding of the chapter is the high correlation between the level of unit price in the particular segment in which a supplier sells and the change in unit price after the MFA removal. While low-price supplier countries have witnessed sharp declines in unit prices of these categories, higher-price suppliers have experienced an increase in unit prices. Unlike Morocco, large Asian suppliers have increased the volumes of exports, enough to compensate for their lower prices.

37. In the US market, the distinction between the different segments of the market is less clear, and price differences from different suppliers are narrower than in the EU market. As a consequence, both proximate suppliers (Mexico and CAFTA) and many distant suppliers (Jordan, India, and Sri Lanka) are among the high-cost, high-end producers. Therefore, the distribution of gains and losses following the MFA removal cuts across the market segmentation. In spite of their distant location, Jordan and Egypt experienced impressive export performance after the MFA removal. Exports from Jordan increased by 13 percent during 2005. Egypt's export grew by 8 percent in the same period. There is no evidence that the reimposition of quotas on China in July 2005 has affected the performance of these countries. For MENA-4's minor players in the US market, Morocco and Tunisia, export performance has been shallow. While Morocco suffered a decline in its exports, Tunisia witnessed an increase. The performance of both countries is, however, very sensitive to small shifts in orders, given their small presence in the US market.

38. Overall, the performance of the various suppliers in the EU and the U.S. underscores an important difference between the two markets. The EU remains highly-segmented along national lines, is more fickle, requires faster turnaround times, and is less reliant on large orders that are typical of U.S. retailers. These features tend to favor smaller and more efficient firms from proximate suppliers. In the U.S. market, the size of orders is generally large; thus, significant efficiencies and economies of scale can be achieved. The scope for competition is much larger, and competitive distant suppliers are not significantly disadvantaged, as the success of Jordan shows.

39. Recent trends in investment flows and employment are consistent with the dynamics of export for the different countries. In Egypt, no negative social impact of the MFA removal was felt at least by the private sector designated in the QIZ areas. In fact, thousand of jobs have been created in these areas, particularly in the T&C sector, during 2005. In Morocco and Tunisia, the investment and employment situation has worsened compared to the 1990s. Yet, the analysis of the sectoral level suggests the existence of a healthy "creative destruction" process occurring in these countries, with factories being opened as others are being closed. Jobs are being shed but new ones are being created. From a policy standpoint, it is important that decision makers in these countries properly capture the process of creative destruction processes and devise accompanying policies. In particular, specific policies should be envisaged to accentuate the creative part (e.g., investment flow and employment creation) and help mitigate the effects of the destructive part (e.g., employment losses).



## II. ANALYSIS OF MENA-4'S TEXTILES AND CLOTHING SECTOR COMPETITIVENESS

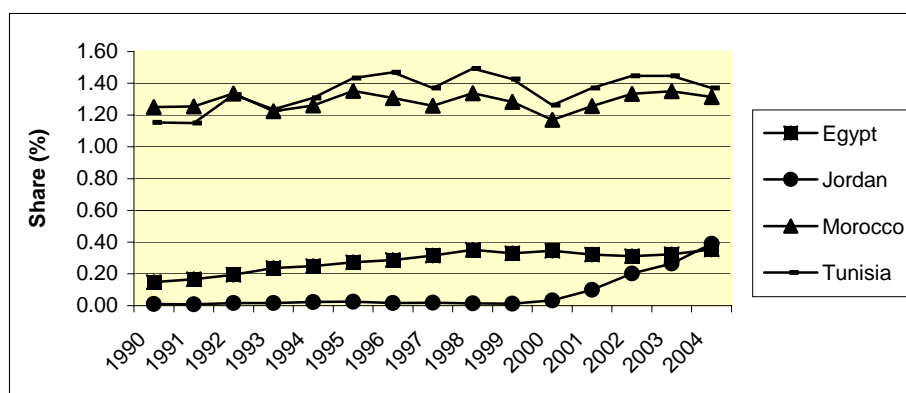
40. Chapter 1 discussed how the removal of MFA quotas has further intensified competitive pressures in the global market for textile and clothing. This chapter looks at the relative competitiveness of the textile and clothing sector in the MENA-4 countries by analyzing trends and drivers of market shares. It also assesses the factors that *directly* affect cost competitiveness (cost of yarns and fabrics, production costs, market access costs and shipping costs) as well as the factors that *indirectly* affect competitiveness (lengthy import procedures, efficiency of customs and ports). We examine outcome-based indicators of both international and domestic competitiveness. The former focuses on export performance, trends in market shares, and standard trade tools such as the constant market share analysis (CMS). The latter examines the domestic cost factors underlying performance and benchmarks MENA-4 against their major competitors in world markets.

### A. MENA-4 Export Performance in World Markets

#### 1. Trends in Exports (1990-2004)

41. T&C market shares of Morocco, Tunisia and Jordan grew strongly in the 1990s, but much more modestly in the early 2000s (see Fig. 2.1). The export performance of Jordan is notable: from close to zero in 1997, this country's market share increased by 38 percent between 1990 and 2004, reaching 0.39 percent. In Egypt, market share for clothing has remained around 0.3–0.4 percent during the second half of the 1990s and early 2000s.

**Figure 2.1 Evolution in MENA-4 Market Shares in World's Clothing Markets, 1990–2004**



Source: UN Comtrade. SITC Rev 1, Class 84.

42. Mirroring the above trends in market shares, Morocco and Egypt declined in rank among the world's clothing exporters while Tunisia improved its rank from the 22<sup>nd</sup> to the 19<sup>th</sup> place (see Table 2.1). On the other hand, Jordan jumped from the 90<sup>th</sup> to the 38<sup>th</sup> position in the ranking. These evolutions occurred in a context where Romania, Bangladesh and Mexico dramatically gained market.

**Table 2.1 Changes in MENA-4 Ranks among the World Clothing Exporters (1990 and 2004)**

<i>Country</i>	<b>1990</b>		<b>2004</b>	
	<i>Rank</i>	<i>Share in world exports (%)</i>	<i>Rank</i>	<i>Share in world exports (%)</i>
Tunisia	22	1.15	19	1.32
Morocco	21	1.25	21	1.21
Jordan	90	0.01	38	0.41
Egypt	55	0.15	58	0.09
China	1	14.47	1	24.90
Hong Kong	3	8.86	2	10.12
Italy	2	10.71	3	7.51
Germany	5	5.26	4	4.51
Turkey	9	3.17	5	4.50
France	6	3.83	6	3.17
Mexico	30	0.66	7	3.01
India	10	2.42	8	2.67
United States	16	1.55	10	2.04
Romania	37	0.45	12	1.90
Indonesia	19	1.38	13	1.81
Bangladesh	26	0.76	14	1.78
Pakistan	25	0.85	20	1.23

Source: UN Comtrade, 2005. SITC Rev 1 and Rev 2.

## **2. Drivers of Trends in Market Shares**

43. Did the market share evolution reflect changes in world demand or gains in competitiveness? In order to answer this question and highlight the factors behind the market share dynamics, we undertake a standard Constant Market Share Analysis (CMS). This technique is based on the idea that export performance of any given country can be decomposed in two main determinants: (a) changes in demand, the so-called “structural effect;” and (b) changes in the competitive position of the country, the “competitiveness effect.” The residual effect captures a change in the composition of exports, i.e. the export bundle.<sup>1</sup>

44. Decomposition of the change in market share of clothing (SITC84) in the EU market suggests that for Morocco and, to a lesser degree, Tunisia, the slight increase in market shares between 1990 and 2004 has primarily been a result of increased EU demand (see Table 2.2). Greater competitiveness explains only 30 percent (Morocco) and 43 percent (Tunisia) of the change in market share in that period. In contrast, for China, Bangladesh, Turkey, Bulgaria, Jordan and Egypt, the competitiveness effect largely dominates, reflecting an improvement in these countries’ competitive position in the EU market. As seen in chapter 1, however, both Jordan and Egypt are minor players in the EU market.

<sup>1</sup> See Ng and Yeats (2001). As is customary when the analysis is conducted at the 2 digit level, we assume away the residual effect to focus on the structural and the competitiveness effects.

**Table 2.2 Decomposition of Export Performance in the EU Market**

	<i>Change in market share, 1990-2004 (%)</i>	<i>% of change reflecting a "Structural Effect"</i>	<i>% of change reflecting a "Competitiveness Effect"</i>
Morocco	0.2	70	30
Tunisia	0.4	57	43
Egypt	1.8	21	79
Jordan	1.9	21	79
Bulgaria	7.4	6	94
Romania	4.4	57	43
Turkey	0.7	40	60
Bangladesh	6.6	7	93
China	2.2	18	82
India	0.2	67	33

Source: UN Comtrade, 2005. SITC Rev 1 and Rev 2.

45. A decomposition of export performance in the US market confirms the remarkable performance by Jordan (see Table 2.3). Ninety-nine percent of Jordan's dramatic market share jump has been due to competitiveness gains. Egypt and Tunisia, have also fared well in the US market.

**Table 2.3 Decomposition of Export Performance in the US Market**

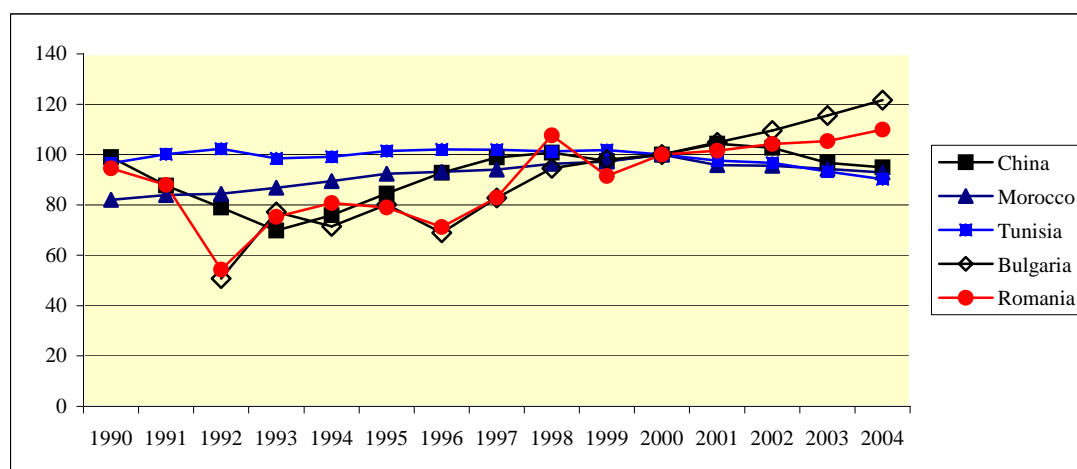
<i>Country</i>	<i>Change in market share, 1990-2004 (%)</i>	<i>Share of change attributed to "Structural Effect"</i>	<i>Share of change attributed to "Competitiveness Effect"</i>
Jordan	52.1	1	99
Egypt	1.4	32	68
Morocco	-0.04	107	-7
Tunisia	1.2	35	65
Mexico	2.5	20	80
Bangladesh	0.6	51	49
China	0.4	64	36
India	0.3	70	30

Source: Comtrade, 2005. SITC Rev 1 and Rev 2.

46. It is useful to contrast the above evolution of market shares with that of the real effective exchange rates (REERs), which provide a partial indication of a country's competitiveness relative to its principal competitors in international markets.<sup>2</sup> Figure 2.2 shows the evolution of the REER for Morocco, Tunisia, Egypt, Romania, Bulgaria and China. Clearly, recent declines in the market share of Morocco and Tunisia were not driven by unfavorable REER. Figure 2.2 also reveals that the robust market share growth of Romania and Bulgaria over the past few years has been obtained in a context of sharp appreciation of the REER. On the other hand, China registered a real depreciation over the past few years in spite of significant trade surpluses. Though these aggregate evolutions of the REER are not necessarily indicative of sectoral dynamics, the analysis in Fig. 2.2 suggests that recent exchange rate dynamics in Morocco and Tunisia may have undermined the competitiveness of the T&C sector. By contrast, the improvement in Egypt's competitiveness in both the US and the EU markets is associated with the devaluation of the exchange rate in the early 2000.

<sup>2</sup> The REER corresponds to the nominal effective exchange rate (NEER) deflated by selected relative price or cost deflators. For a given country, a rise in the indices represents an increase in the price of the country's exports relative to those of its competitors and thus indicates deterioration in that country's competitiveness.

**Figure 2.2 MENA-4 Favorable Evolution of Real Exchange Rates, 1990–2004**



Source: IMF.

### B. Assessing MENA-4's Cost-Competitiveness in T&C

47. Cost-competitiveness in the garment industry has traditionally been assessed by comparing free-on-board (FOB) or landed duty-paid costs (LDP).<sup>3</sup> Within this framework, a clothing industry is perceived to be competitive when it offers the lowest FOB or LDP cost. The focus on FOB versus LDP depends on the level of comparison. Within a given country, firms differ in cost-competitiveness by their level of FOB costs. However, for importers making sourcing decisions among different countries, the focus is on the LDP cost, e.g. on the FOB cost augmented by shipping cost and trade policy cost (duty, customs, and other taxes).

48. Table 2.4 illustrates a “standard” garment cost sheet under the traditional sourcing/assembly model. Fabric alone represents 60 percent of the FOB price, suggesting that availability of low-cost, high-quality fabric is essential to producing competitively priced apparel. In a fictitious world without trade restrictions and minimal transaction costs, the prices of fabrics should be fairly similar across countries because they are internationally tradable goods. In reality however, different domestic trade policies, non-zero trade transaction costs and restrictive rules of origin lead to cost differences in yarn and fabrics, resulting in significant consequences on cost and competitiveness. The primary factors of sewing garments, chiefly labor cost and productivity, are also crucial to secure an edge over other domestic suppliers. Labor cost represents the largest component of the cut-make cost (factory cost), which in turn accounts for 30 percent of the FOB. On top of the FOB costs, importers take into account tariffs and nontariff barriers, and shipping costs. In the example above, tariffs represents 12 percent of the LDP cost. Clearly, supplier countries with duty-free market access enjoy a substantial competitive advantage over competitors excluded from similar arrangements. Shipping costs, on the other hand, play a smaller role in competitiveness, reflecting the tremendous progress brought about by globalization in terms of falling transport costs. However, the importance of shipping costs is inversely proportional to the value of the garment exported.

<sup>3</sup> The price paid by a brand to a supplier facility at the factory door – before shipping and import fees – is known as the Freight-on-Board (FOB) price; it includes all labor and non-labor production costs of the factory, including factory overhead, cloth and other materials, labor, and profit. The final price paid by a brand or licensee for finished goods, including shipping, duty, delivery, insurance, and customs clearance costs, is called the “Landed-Duty-Paid” (LDP) price.



**Table 2.4 Standard Garment Costing Model: Cost Sheet for Women’s Fashion Jeans**

<i>Factors</i>	<i>Cost in USD</i>	<i>FOB (%)</i>	<i>LDP (%)</i>
Fabric (main raw material)	4.50	60	45
Production cost or Cut-Make Cost (incl. Labor, Overhead, Profit)	2.25	30	23
Trim cost	0.75	10	8
FOB	7.50	100	75
Agent commission (=10%)	0.75		8
Market access cost (duty = 16.6%)	1.25		12
Shipping cost (freight)	0.35		4
Clearance and inland freight	0.15		2
Subtotal LDP	10.00		100

Source: Birnbaum (2005).

49. Using the above framework, we analyze factors underlying each cost variable and benchmark MENA-4 countries against major competitors in world markets. To fully capture competitiveness however, it is necessary to go beyond basic cost comparisons and analyze factors determining the efficiency and speed with which firms deliver products. We thus examine a second set of factors that exert a strong indirect influence on competitiveness through the ability of suppliers to meet deadlines and minimize delays and warehousing. They include non-transport logistics (warehousing and import procedures) as well as the efficiency of operations at customs and ports.

### ***1. Cost Components Directly Affecting Competitiveness***

#### ***a) Cost of Yarns and Fabrics***

50. As fabric costs represent a large share of clothing FOB prices, timely and low-cost access to high-quality fabrics and yarns is key to competing on world clothing markets. Because of China’s immense capacity, low wages and the existence of other nearby textile suppliers, such as India and Pakistan, countries like Bangladesh are in a position to enjoy timely access to very inexpensive fabric. In contrast, in MENA-4, except for Jordan, importing fabrics is a costly activity because of high domestic tariffs, costly and cumbersome duty drawback systems, and restrictive rules of origin.

#### ***Protection of MENA-4’s upstream textile industries***

51. Table 2.5 shows the level of applied tariffs on T&C fabrics and yarns imports in MENA-4 and in some major competitors. Despite recent tariff reforms, applied tariffs on fabrics remain very high in these countries, well above the average MFN level applied by the main T&C producers in developing countries. Tunisia, Morocco and Egypt levy a MFN tariff of 27 and 25 percent respectively on imports of non-EU fabrics. The tariff on fabric in Egypt is only slightly lower, at 22 percent. In contrast, Jordan, China and Turkey, three high performers in clothing export markets, have low (Turkey and China) or zero (Jordan) tariffs on both yarns and fabrics. The 8 percent MFN tariff applied by Turkey is more than three times lower than the rates applied by Morocco and Tunisia (see Table 2.5). Although temporary admission schemes allow about two-thirds of Moroccan and Tunisian exporters to avoid paying the high duties, the system can be administratively costly.

**Table 2.5 Overview of Tariff Protection on Selected Imported Textile Inputs**

<i>Country</i>	<i>Origin</i>	<i>Cotton yarn (%)</i>	<i>Fabric (%)</i>	<i>Clothing (%)</i>
Morocco	MFN	17.5	25	50
	EU/USA	2.5	10	20
Tunisia	MFN	27	27	43
	EU	0	21	28
Romania	MFN	10	25	30
	EU	0	0	0
Bulgaria	MFN	9	17	22
	EU	0	0	0
Turkey	MFN	5	8	12
	EU	0	0	0
Egypt	MFN	12	22	40
Jordan	MFN	0	0	

*Source:* UNCTAD trains, EU Trade website, Ministry of Trade (Morocco) *Note:* Data refer to 2004, except for TRAINS data reported in December 2005 for Jordan. Data on Morocco also refers to 2005.

52. Egypt is the only MENA-4 country with a large fiber, yarns, and fabric industry. Egyptian long and medium-fiber cotton has a great reputation in world markets and commands a high price. While the domestic cotton price-fixing mechanism formerly taxed farmers and benefited the domestic spinning industry, the first liberalization of cotton prices in 2002 reversed this trend, leading to increased prices for Egyptian yarns in the domestic market. Efforts were subsequently made against overpricing. But domestically produced cotton has remained expensive. For example, while cotton yarn from India and Pakistan can be imported at USD2.75/kg, local Egyptian yarn is sold for USD4.5/kg.<sup>4</sup>

53. However, high-tariff and non-tariff barriers on imports of cotton fiber and yarn still constrain imports of cheaper yarns and fabrics from world market. When the Egyptian government lifted bans on most textile imports in January 1998, important new nontariff barriers were introduced. These include excessive technical certification (quality control) requirements and cumbersome and costly marking requirements. For example, the name of the importer is required to appear on every 30 meters of fabric. The technical barriers add tremendously to the costs of importing inputs. Mandatory inspection fees of 1 to 4 percent on some textile products further add to costs.

54. In July 2004, Egypt reduced its tariffs on apparel to 40 percent (HS 61-62), on home textiles to 35 percent (HS 63), on fabric to 22 percent, and on yarn to 12 percent. Additional tariff reductions were made for textile machinery and spare parts, including cotton, wool, or synthetic yarns; machinery, equipment and auxiliary materials. In spite of these reforms, the textile and clothing sectors continue to enjoy one of the highest rates of protection across all industry in Egypt (Table 2.6). While the high rate of protection of the textile industry undermines the competitiveness of Egyptian clothing exporters, the high protection rate on imports of finished clothing creates an anti-export bias and explains Egypt's small share in world exports of clothing.

<sup>4</sup> American Chamber of Commerce in Egypt 2004.

**Table 2.6 Protection Rates on Textiles and Clothing in Egypt**

<i>Sector</i>	<i>Nominal protection (%)</i>		<i>Effective protection (%)</i>	
	<i>2000</i>	<i>2004</i>	<i>2000</i>	<i>2004</i>
Manufacturing simple average (percent)	21.2	13	23.3	14.3
Textiles	24.0	9.2	27.6	10.3
Ready-made garments and footwear	38.3	26.7	43.4*	31.6
Leather products less footwear	30.0	29.5	34.4	36.1

Source: ECES 2005. \*The effective rate of protection (EP) is calculated based on Egypt's commitments and not on the applied tariff.

### ***Temporary Admission and Duty Drawback Systems***

55. T&C producers in Morocco, Tunisia, and Egypt could never compete in world markets without some mechanism to obtain reimbursement or exemption of exporters for the high duties paid on imported inputs used to produce final exported products. In Morocco and Tunisia, a large share of exports is realized under a temporary admission-without-payment scheme. In 2005, 80 percent of Tunisian firms produce exclusively for the export market. In Morocco, 85 percent of textile and clothing imports entered under a temporary regime in 2003. Among these, 68 percent remained under foreign ownership and were simply assembled in Morocco and sent back to the owners. In Egypt, exporters are reimbursed the duties paid on imports of inputs used for exportable products through a duty drawback system. In spite of recent progress, poor implementation often leads to delays in payment, and exporters have to incur other costs in terms of paperwork and time. More generally, firms complain about the lack of flexibility in cases of mistaken product's nomenclatures or changes in orders. The inefficient duty drawback system is often associated with delays in reclaiming the duties, which negatively affects exporters.

### ***Restrictive EU rules of origin raise the cost of fabrics in Morocco and Tunisia.***

56. Restrictive rules of origin often force suppliers to forgo cheaper inputs from third-country suppliers in order to qualify for duty-free entry to the importing country.<sup>5</sup> All four MENA partners have signed an association agreement (AA) with the EU, according to which barriers to trade in merchandise goods will be fully eliminated within a 12-year period.<sup>6</sup> EU's rules of origin in T&C impose the requirement that two stages of production be undertaken in the partner or qualifying area to confer origin—not only the sewing together of the fabric but also the production of the fabric itself. Clothing products using fabrics imported from third countries, such as China, will not satisfy the EU origin rules and will not qualify for tariff reduction. The EU's AAs with MENA countries, however, neither constitute a unified system of rules of origin nor a unified system of cumulation. The Maghreb countries (Algeria, Morocco, and Tunisia) operate under a system whereby total cumulation with the EU is possible. For instance, for Moroccan clothing products to satisfy EU rules of origin and qualify for duty-free access in that market, they must be made from domestically produced fabrics, fabrics from EU countries, or fabrics from Tunisia or Algeria (countries that are considered as qualifying areas through full cumulation). For Algeria, Cyprus, Egypt, Israel, Jordan, Lebanon, Malta, Morocco, Syria, Tunisia, Turkey and the West bank and the Gaza Strip taken

<sup>5</sup> Rules of origin define the conditions that a product must satisfy to be deemed as "originating" and thus qualify for preferential market access. Preferential (i.e. less than MFN tariffs) access to the U.S. and European markets is guaranteed only if the rules of origin provisions embedded in the FTAs are satisfied. In general, both the United States and the EU specify certain production processes that must have been used in order to qualify for preferential treatment (Brenton and Manchin 2003).

<sup>6</sup> Phase-out schedules vary by country. Tunisia signed the AA with the EU in 1995 and started its implementation unilaterally in 1996. Morocco signed its AA in 1998 and began its implementation in 2000. Jordan is part of the Euro-Mediterranean process and signed an FTA with the EU in 1997, which has been in force since May 2002. The Egypt-EU Association Agreement was signed in 2002 and has been in force since June 2004 (the chapter relative to T&C has been in force since January 2004).

together, the AAs allow in principle for diagonal cumulation. Diagonal cumulation is foreseen in the AAs with the EU, Art. 4 of the Egypt-EU Association Agreement and in the joint declaration on Art. 28 of the Jordan-EU Association Agreement. However, actual implementation of the requirements provided for in each of the AAs between the EU and Euro-Med Partners, as well as uniformity in ROOs between each pair of Member states, are necessary requirements to enable the Euro-Med Partners to rely on diagonal cumulation.

57. Because of their strong ties to production networks in the EU and the restrictive rules of origin in the AAs, both Morocco and Tunisia import about 90 percent of their fabrics from the EU. Yet, although the well-established EU textile industries produce world-class fabrics and yarns, these products are expensive. Morocco and Tunisia have both recently signed an FTA with Turkey, a country that is part of the Pan-Euro-Med System.<sup>7</sup> This implies that textile inputs can be imported tariff-free from Turkey and then exported duty free in the EU.<sup>8</sup> However, although these schemes can greatly help reduce the cost of inputs, they are no perfect substitute for a third-party rule that permits the flexibility to source fabric from anywhere in the world.

58. Requirements for rules of origin in MENA-4 FTAs with the United States are less restrictive than those included in the AAs with the European Union. The Jordan-U.S. FTA, for instance, allows duty-free access for made-in-Jordan garments. This FTA has special clauses that, taken together, provide benefits to Jordan that are not available to most other U.S. trading partners. In particular, it includes a third-party fabric rule that allows Jordanian producers to purchase fabric not only locally or from the United States, but from any source in the world.<sup>9</sup> In 2004, about half of Jordan's fabric imports were from China.

59. Similarly, the U.S.-Morocco FTA allows for third-party rule, thus enabling Moroccan producers to source from lowest-cost suppliers. However, there is a quantitative limit of importable textiles (36 million square meter equivalents per year), and the third-party rule clause in the U.S.-Morocco FTA is due to expire in 10 years.

60. Morocco, Tunisia, and Egypt have much to lose from keeping the still-high levels of protection on imports of textile inputs. They should therefore deepen the efforts to reduce and rationalize tariffs. Furthermore, Egypt should make a special effort to remove the remaining non-tariff obstacles to the imports of foreign cotton. It should also step up efforts to restructure the state-owned enterprises in order to promote new investment and technological modernization in the textile industry. Recent efforts aimed at simplifying customs procedures and duty drawback systems, such as in Morocco, should also be pursued. A significant liberalization of rules of origin would also allow MENA countries to better use the available preferences and reduce the cost of inputs.

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<sup>7</sup> Besides the MENA-4 countries, the Pan-Euro-Med scheme, include EU-25, EFTA countries, Turkey, Romania and Bulgaria.

<sup>8</sup> Tunisia's agreement with Turkey entered into force in July 2005, and Tunisian exporters are already benefiting from cheaper inputs from Turkey. For Morocco, the agreement entered into force in January 2006.

<sup>9</sup> The other conditions include (a) 35 percent local and Israeli content, the latter having to reach a minimum of 8.5 percent; (b) production of garments in Qualified Industrial Zones (QIZs). See footnote 13 in chapter 1 above.

**b) Production Costs in MENA-4 versus Major Competitors**

**Labor Cost**

61. Labor is the second largest cost item in garments. Table 2.7 shows average labor costs collected from T&C firms in a variety of comparator countries.<sup>10</sup> Bangladesh and Taiwan represent the low and high ends of labor costs for cutting and sewing, respectively.

**Table 2.7 Labor Costs in the T&C Industries: MENA and Comparators**

<i>Country</i>	<i>Total cost per operator hour<sup>a</sup></i>	<i>Normal hours operator/week</i>	<i>Normal equivalent days operator/year</i>	<i>Firm operating days/year</i>
Taiwan	7.58	42	250	350
Poland	3.80	nd	nd	nd
Turkey	2.88	46	277	322
<b>Morocco</b>	2.56	46	272	329
Mexico	2.19	na	na	na
<b>Tunisia</b>	2.05	48	282	312
Colombia	1.97	na	na	Na
Bulgaria	1.50	40	230	291
Thailand	1.29	48	286	333
Malaysia	1.18	48	295	338
Romania	1.07	na	na	na
<b>Egypt</b>	0.82	48	291	281
India	0.67	48	301	357
China (Coastal)	0.76	44	277	334
Indonesia	0.55	40	245	336
Mainland China	0.48	48	293	340
<b>Jordan</b>	0.46 <sup>b</sup>	na	na	na
Sri Lanka	0.46	45	269	340
Pakistan	0.37	48	280	351
Vietnam	0.28	48	290	350
Bangladesh	0.28	48	290	343

Source: Werner International 2005. a. Including all social charges. b. Based on a minimum wage of US\$3.75 a day in the QIZ; nd= no data.

62. While MENA-4's labor costs are lower than those of most Eastern European countries and Turkey (but not of Bulgaria and Romania), they are significantly higher than labor costs in the Asian competitors. Bangladesh's labor cost is as little as 11 percent of Morocco's. China (both Coastal and Mainland), India, Indonesia, Pakistan, Sri Lanka, and Vietnam all offer significantly lower total wage per hour than Morocco and Tunisia. Furthermore, the firms in Asia operate for a higher number of days per year compared to Morocco and Tunisia, up to 340 days per year in the cases of Bangladesh, Mainland China, India, Malaysia, Sri Lanka, Taiwan, and Vietnam. However, the average wage rates in Egypt and Jordan are comparable to - or lower than those in many Asian countries. For instance, the wage rate in Jordan is slightly lower than that in Mainland China's and far below the average wage paid in the clothing industries in Coastal China, but higher than in Bangladesh and Vietnam.

<sup>10</sup> Although most of the foregoing discussion centers on apparel, it is reasonable to consider textile wages as a proxy for wages paid to apparel workers. The wage rates in table 3.5 include social labor costs.

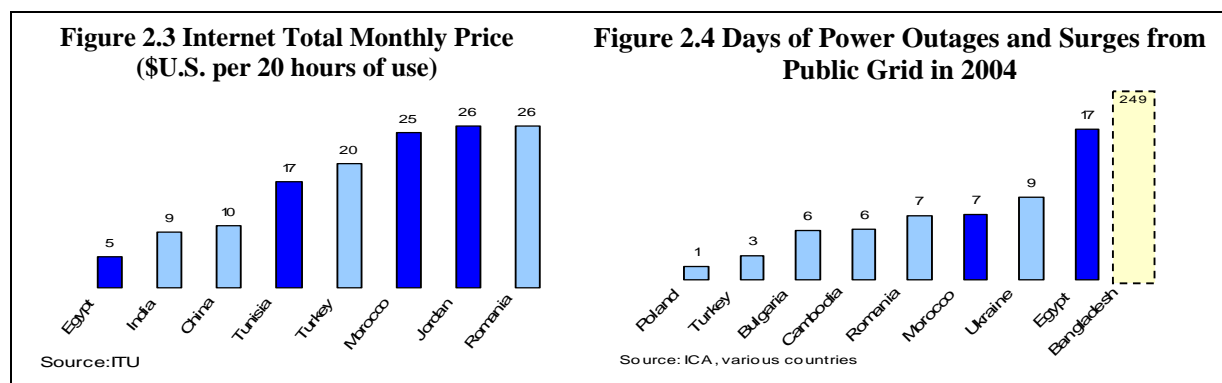
### Short-Term Productivity Differences

63. Productivity differences among firms in the clothing industry are typically moderate. Some investment can automate certain tasks and lead to speedups in the cut-and-sew process. Management can be credited with driving efficiency in certain circumstances (China), but ultimately, relative to the net variance attributable to wages and fabric cost, productivity does not represent a major driver of cost-competitiveness. The limited data available regarding the production of a T-Shirt in Egypt and a pair of jeans in Morocco support this observation and suggest that these firms operate at global productivity norms.

64. By contrast, productivity differences are important in the textile industries. Egyptian companies exhibit low levels of productivity, both in labor and capital utilization.<sup>11</sup> This performance is largely the result of over-employment and underinvestment in the public sector firms, which represent a large segment in Egypt's upstream textile companies. The process of privatization of public companies has been slow and pursued in a piecemeal fashion, delaying the needed restructuring of the sector.

### Other input costs

65. **Telecommunication services and cost.** Efficient provision of telecommunication services is a necessary requirement for effective management of internationally fragmented clothing operations on a just-in-time basis, and for coordination of distribution and deliveries. Telecommunication services also facilitate business-to-business contacts and supply-chain management. In most MENA countries, the telecommunications sector has been heavily regulated. However, the Internet and mobile segments have been privatized and opened to competition. As a result, competition has intensified, prices have decreased, and service quality has improved. Still, prices remain high in Morocco and Jordan (Figure 2.3). In contrast, the price of Internet connection in Egypt represents only one-fourth of Turkey's and one-fifth of Romania's.



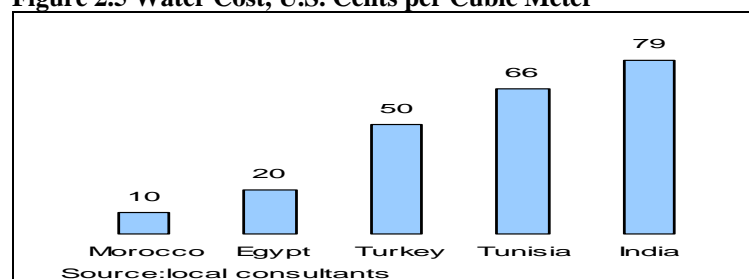
66. **Electricity.** Unreliable and high-cost electricity systems have a negative impact on textile and clothing production. In Morocco, findings from the Investment Climate Assessment (ICA) indicate that the number of power outages decreased between 2000 and 2004, but they are still the most common infrastructure problems reported by Moroccan enterprises (see Figure 2.4). Enterprises are affected by electrical blackouts seven days a year on average, and Moroccan firms rank particularly well relative to other countries for which an ICA has been undertaken. However, industrial electricity is more expensive in Morocco than in the three MENA comparators. In Egypt, around a third of the textile and garment firms assessed (141 textile firms and 120 garment firms) report electricity as a major or very severe obstacle to the growth of their business despite the low costs. Losses of sales

<sup>11</sup> Ghoneim (2005).

resulting from power outages range from 1 to 5 percent of total sales for 70 percent of Egyptian firms.

67. **Water.** Reliable and cheap supply of water is also important for water-intensive activities such as washing, dyeing, and finishing of fabrics and denim jeans. For spinning mills the cost of water is second only to the cost of raw materials. The problem of water is even more acute for countries that are poorly endowed with water, as is the case for MENA-4 countries. Although water cost is lower in MENA-4 than in India, it remains high in Tunisia (Figure 2.5). In Morocco, in addition to relatively low water costs, the recent ICA revealed that water service interruptions affect fewer enterprises and occur less often (once every four months) but are geographically concentrated in the least-developed regions. Tangiers, where many textile and clothing plants are based, is seriously affected, with one-third of the sample enterprises complaining of water cutoffs. However, these occur less often in Casablanca and Nador, where the situation improved significantly between 1999 and 2002. There, the proportion of enterprises affected by water supply problems fell from 14 percent to under 8 percent. In Jordan, lack of access to water hinders the development of a textile industry.<sup>12</sup>

**Figure 2.5 Water Cost, U.S. Cents per Cubic Meter**



### c) Market Access Costs

68. Although quotas no longer constitute a cost item, except for China, tariffs at entry to the EU and U.S. markets are still high. As Table 2.8 shows, the average tariffs on clothing in the OECD, which absorbs more than three-thirds of world clothing imports, remain high. Tariffs are particularly high in Canada where they average 16 percent. In the EU, protection of textiles is higher than that of clothing. The EU tariff structure displays however no tariff peaks, contrary to Canada and the US where 31 and 18 percent of the tariff lines are above 15 percent. Tariffs in developing countries are even higher, especially in MENA-4 countries.

**Table 2.8 Tariffs on T&C in 2004**

		<i>Simple Average</i>	<i>Weighted Average</i>	<i>Share of tariff line with peaks</i>
Canada	Yarn	7.3	5.9	32.6
	Fabric	8.7	7.9	47.8
	Clothing	16.5	16.6	88.1
USA	Yarn	8.3	6.6	26.9
	Fabric	7.4	7.5	12.1
	Clothing	9.7	10.4	18.4
EU	Yarn	10.5	9.4	3.0
	Fabric	13.2	14.1	4.5
	Clothing	11.1	11.4	0.0
OECD	Yarn	6.4	6.0	7.4
	Fabric	7.3	8.0	10.0
	Clothing	13.4	10.8	31.0

Source: UNCTAD TRAIN Database.

<sup>12</sup> ITC (2004).

69. Besides tariffs, both developed and large developing countries also use safeguards as illustrated by the reimposition of quotas on many Chinese products by the EU and the United States in June and July 2005. The provisions, formalized in a Memorandum of Understanding (MOU) will remain in effect until January 2008.<sup>13</sup> Indeed, China's accession agreement to the WTO includes a temporary "transitional, product-specific safeguard mechanism" under which WTO members that are threatened by market disruption from increased Chinese products may "limit imports only to the extent necessary to prevent or remedy such market disruption." Normally, safeguard measures on trade in textiles and clothing need to be WTO-compatible: they have to be *nondiscriminatory* and can be used only if an investigation demonstrates that imports "have increased so much as to have caused or threaten serious injury to an import-competing industry".<sup>14</sup> In contrast, under the MFA, safeguards were subject to little international scrutiny, were discriminatory, and did not require compensation of affected exporters.

#### *d) Shipping Costs*

70. The cost of transportation is another important component of the final landed cost. In the apparel industry, a more widespread use of airfreight is appealing for time savings purposes, but the monopoly of the domestic airlines creates inefficiency and high costs. Airfreight is therefore expensive and irregularly used for imports of clothing accessories and garment exports, typically with rushed orders or production delays. When used, it adds significantly to the final cost. It is obvious that the proximity to the EU provided MENA-4 with a shipping cost advantage over more distant suppliers. On the other hand, MENA-4 do not enjoy the same advantages in the U.S. market, where Mexico and the various Central and South American countries take advantage of lower shipping costs.

71. Maritime international costs are high in MENA. For example, sea freight shipping for imports from Marseille (southern France) to Tunis costs USD 1,300, which is very close to the shipping cost of cargos from Le Havre (north of France), and 40 percent higher than the cost of shipping from Genoa (Italy) to Tunis. Maritime costs are also high in Morocco despite its proximity to Europe (the country is only 15 kilometers from Spain). Yet, the cost of crossing the strait is more than that of traveling halfway across Spain, a distance of 600 to 700 kilometers. The construction of new and modern ports such as the Tangiers–Mediterranean port in Morocco in 2007 may however alleviate this problem. Situated at the intersection of the one of the world busiest maritime routes, the complex of Tangier port (comprising a modern port and multi-modal infrastructures and a free zone) is planned to offer faster and cheaper transits to Europe and the United States.

72. In Jordan, about 50-60 percent of QIZ exports are being shipped from Haifa (Israel) and not Aqaba (Jordan) because of better service frequency, and despite the higher cost (Haifa is about 40 percent more expensive than Aqaba).<sup>15</sup> Indeed, the transit time of a 40-foot container in Aqaba (30-33 days) is double that of Haifa (17-22 days). Higher efficiency of the port in Haifa has led some international shipping offices such as Trans World to establish offices in Israel, facilitating the different transactions involved.

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<sup>13</sup> The EU-China MOU was agreed on June 10, 2005 and modified on September 12, 2005 because it didn't allow into the EU Chinese T&C goods that were in transit. The EU quotas were 200 odd percent bigger than those in force in 2004. The US-China MOU with the US was agreed on November 8, 2005 and involved remarkably higher increases in quotas. The quota prices have decreased significantly, suggesting that the move from generalized quotas under the ATC to the China safeguards has allowed much of the suppressed adjustment to occur.

<sup>14</sup> Investigations must include reasonable public notice to all interested parties and public hearings or other mechanisms. For a thorough discussion of the Uruguay Round Agreement on Safeguards, see Hoekman and Kostecki (2001).

<sup>15</sup> Jordan does not have an opening on the Mediterranean Sea, increasing the strategic role played by the Israeli's port of Haifa.



73. While almost all lines between Europe, the United States and Asia are containerized, only 50 percent in Egypt, 45 percent in Jordan, 35 percent in Morocco, and 30 percent in Tunisia are containerized. In the latter two countries however, “rolling on, rolling off” (Ro/Ro) systems allowing for trucks and tows to be loaded in the departing city and unloaded in the arrival city are more widespread. Ro/Ro transshipment is typically used for short-cycle production as in the clothing industry: fabrics are sent to Tunisia and Morocco on Fridays and the output is sent back to Europe early the following week.<sup>16</sup> In addition to recent development of transshipment systems, the industry is becoming more open to competition. Currently, there are mega carriers and international ship owners that serve most Mediterranean ports, setting downward pressure on prices. The prices have more than halved during the last five years between eastern Mediterranean locations. They were reduced by a third for western Mediterranean locations.

## **2. Factors Indirectly Affecting Competitiveness**

74. A number of logistics factors have an indirect effect on FOB prices. In this section, we consider three of these factors: import procedures, customs and port operations. These factors affect the ability of suppliers to meet deadlines and minimize delays and warehousing, especially as the T&C industry is gradually moving from subcontracting to a full service industry.<sup>17</sup>

### **a) Length of Import Procedures**

75. Logistics indicators from the *Doing Business* report include all the procedural requirements for exporting and importing a standardized dry-cargo, 20-foot, full container load.<sup>18</sup> Trading across borders indicators record every official procedure for importing and exporting the goods, from the contractual agreement between the two parties to the delivery of goods, along with the time necessary for completion. All documents and signatures required for clearance of the goods across the border are also recorded. For importing goods, procedures range from the vessel’s arrival at the port of entry to the cargo’s delivery at the factory warehouse. For exporting goods, procedures range from the packing of the goods at the factory to their departure from the port of exit. Local freight forwarders, shipping lines, customs brokers, and port officials provide information on required documents and signatures as well as the time to complete each procedure.

76. The average time necessary to comply with all procedures required to import goods is relatively long in MENA-4, although comparable or better than in most competitor countries. (Figures 2.6 a and 2.6 b). In the MENA region, it takes on average a month to execute a full import process. India and Bangladesh are the worst performers among the comparators, while Bulgaria and China do slightly better, requiring 24 days to complete the process. Similarly, the number of signatures needed for import procedures in MENA-4 is high, particularly in Tunisia and Morocco, which require 12 and 17 signatures, respectively, but similar to comparators such as Romania, Mexico, and Turkey. However, there is high potential for improvement: these procedures require only five days and one signature in Denmark. Hence, streamlining import procedures will constitute

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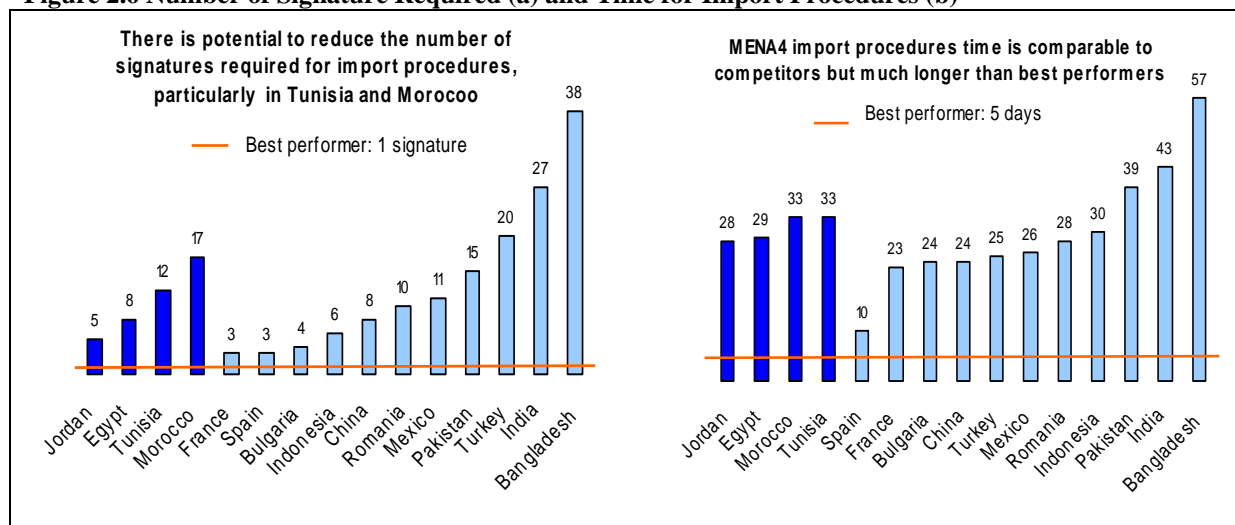
<sup>16</sup> Chaponnière (2002).

<sup>17</sup> Under the traditional standard sourcing model, all pre-production work is carried out by the importer (or the retailer’s import office). Similarly, all post-production work is carried out by the retailer and the importer. The local factory is relegated to buying materials, making the stock garments, and inspecting the finished goods.

<sup>18</sup> To ensure comparability across countries, several assumptions about the business and the traded goods are made: the firm has 100 or more employees, it is a privately and 100 percent domestically owned, and it exports at least 10 percent of its sales. Furthermore, the data reflect procedures of firms operating in one of the three following sectors: Textile (SITC 65), Apparel (SITC 84), and Coffee, Tea, etc. (SITC 07). Therefore, since tea and coffee are insignificant in MENA-4/MENA-4 economies, this chapter assumes that these indicators are representative of the logistics in the textile and apparel industry. Yet, whenever the information is available, these indicators will be complemented with more specific and firm-level details. (World Bank, 2005).

a source of efficiency enhancement with regard to competitors. Long procedures are not only sources of inefficiencies, but also create potential for discretionary behavior and red tape.

**Figure 2.6 Number of Signature Required (a) and Time for Import Procedures (b)**



Source: Doing Business 2005.

### b) Customs efficiency

77. Firms in MENA-4 complain about lingering customs and clearance procedures at ports, despite major improvements over the past few years. Tunisia has taken the regional lead and invested significantly in trade facilitation. The entire process has been greatly simplified as shown in Figures 2.7a and 2.7b, which illustrate the flow of documents between agencies in 1999 and in 2004. A semipublic agency, Tunisia Trade Net, has developed and operated a network to provide electronic data interchange.<sup>19</sup> The network allows all agencies to communicate and all documents to be processed through the server. Import and export processing times have been lowered to an average of three days, compared to the initial eight days, and time needed to prepare and process declarations has dropped to 15 minutes, down from three days.<sup>20</sup> Reforms have also included the installation of scanners at key port locations to speed up verification of containers. This has reduced by about two-thirds the number of trucks waiting for container verification. In 2003, the level of physical inspection reached the target level of 15 percent, down from 50-80 percent in 1999.

78. In 1999, the Jordanian Customs Department launched Asycuda, a system which allows risk management and online declaration submission. However, submission and processing of documents, as well as handling of processes that are specific to the Jordanian context still face some constraints. In Egypt, the latest reforms undertaken by the Ministry of Finance have helped streamlining customs procedures. The average clearance time dropped by 50 percent to the range of 3 to 5 days.<sup>21</sup>

79. The Moroccan Customs Administration is in the process of implementing an EDI system that is expected to facilitate the flow and process of an estimated 900,000 documents a year.<sup>22</sup> Export platforms and fast track customs procedures are also being implemented to facilitate trade.

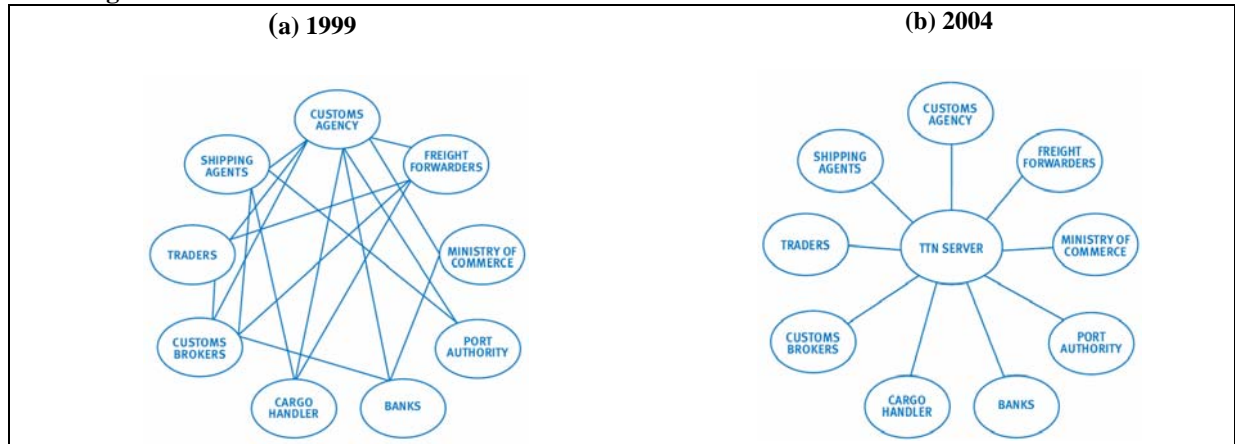
<sup>19</sup> Users pay Tunisia Trade Net US\$70 a month to access its network, and a processing fee of US \$3 per each of three required documents.

<sup>20</sup> World Bank 2004.

<sup>21</sup> Based on interviews with private firms.

<sup>22</sup> World Bank 2005.

**Figure 2.7 Trade Documents Processing Has Been Substantially Streamlined in Tunisia through Electronic Processing**



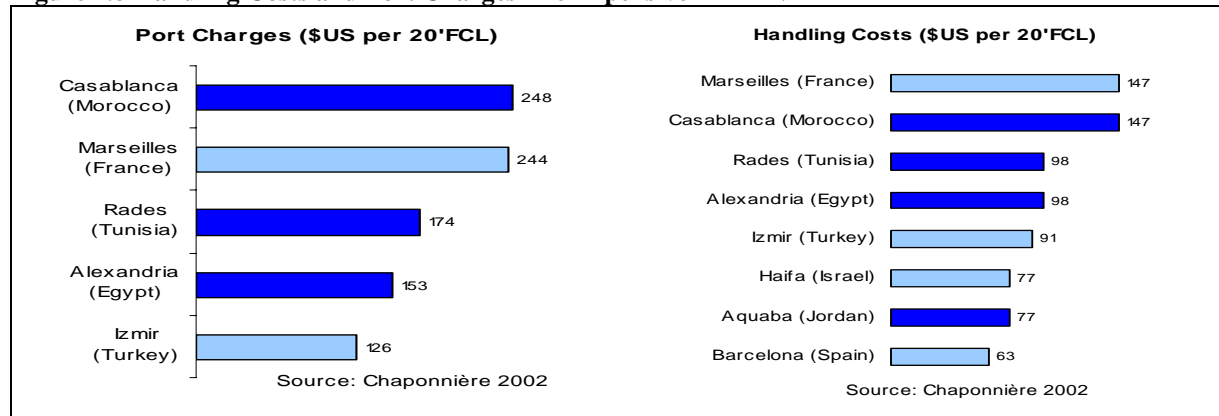
Source: World Bank, 2004.

**c) Port efficiency**

80. Londoño-Kent and Kent (2003) argue that port inefficiency causes not only higher carrier costs, but also higher shipping costs (for example, delays in customs processing increase the risk of theft, and raise insurance and inventory costs). Clark, Dollar, and Micco (2004) find that improving port efficiency from the 25th percentile (the efficiency level in China, Indonesia, and Mexico) to the 75th percentile (France and Sweden) reduces shipping costs by 10 percent. Alternatively, having an inefficient port is equivalent to being 60 percent farther away from markets for an average country. They also argue that private involvement in port management leads to greater efficiency and lower costs whenever it is accompanied by labor reform, and when monopoly power is reduced through either regulation or competition.

81. Handling costs and charges in the MENA-4 ports are similar or higher relative to those in regional competitors (Figure 2.8). Morocco and Tunisia have among the highest costs in the Mediterranean Basin. Three major factors -- low-traffic volume, poor management of the ports by public organizations, and an inadequate regulatory framework -- explain the lack of competition and the poor quality of service.

**Figure 2.8 Handling Costs and Port Charges Are Expensive in MENA-4**



### C. Conclusion

82. This chapter has shown that except for Jordan, MENA-4's T&C aggregate exports have stalled since the beginning of 2000. Conversely, Eastern European competitors such as Romania, Bulgaria, Turkey, as well as Asian producers such as China, India, and Bangladesh have substantially increased their presence in world markets for textile and garment products.

83. Egypt's and Jordan's labor costs are relatively similar to those of most Asian exporters. However, while producers of clothing in Jordan face a simple and transparent trade regime and do not have to pay any duty on their imports of fabrics such as denim, in Egypt the heavy protection of the domestic upstream textile industry dramatically raises the cost of inputs. The high duties on yarns and fabrics undermine the competitiveness of the clothing sector. The heavy protection of the clothing sector creates an anti-export bias, explaining Egypt's minor presence in world T&C markets. For Egypt to be competitive in today's world markets, further elimination of tariff and nontariff barriers will have to be pursued.

84. Costly access to fabrics and shallow integration with the EU explain the sluggish performance of Morocco and Tunisia compared to Turkey, Romania, and Bulgaria, despite the similarity in proximity with respect to the EU market. Also, while labor costs in the Maghreb are higher than in most Asian competitors, they are lower than in Turkey and slightly above those in Romania and Bulgaria. And while Turkey, Romania, and Bulgaria have greatly reformed their economies to deepen integration with Europe, reforms in the Maghreb countries have been slow. In Morocco and Tunisia, high protection and restrictive rules of origin are the reasons for the high cost of fabrics, an item that represents typically 60 percent of clothing FOB prices. An acceleration of the tariff reforms is therefore essential.

85. In the past, preferential market access has played a significant role in helping many countries to increase their market shares. Morocco and Tunisia have benefited from important preferences in the EU market for more than two decades. However, because of formidable proliferation of FTAs in recent years, preferential access to the U.S. and EU markets is no longer the privilege of a few. Aside from China and India, all the major competitors of MENA-4 in the EU enjoy preferences. Just as Eastern Europe has done, MENA-4 countries should move beyond tariff preferences toward deeper integration to enhance their competitiveness.

86. Focusing on traditional direct costs of fabrics and labor is necessary, but not sufficient to increase exports. This requires improving the efficiency and reducing the cost of logistics. Important time and cost savings can be realized by improving the sourcing of inputs, customs and ports procedures.

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### III. IMPLICATIONS OF LEAN RETAILING ON COMPETITIVENESS

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87. As discussed in the previous chapter, high labor cost and expensive access to fabrics (among other factors) have greatly affected the relative competitiveness of T&C sectors in MENA-4. This chapter focuses on how MENA-4 T&C industries can remain competitive by exploiting the advantages of their proximity to the EU. It shows that timely supply, low inventory costs and production flexibility have become crucial determinants of competitiveness, which benefits proximate suppliers such as MENA-4 countries.

#### A. The Lean Retailing Revolution

88. The retail industry in developed countries has undergone a dramatic transformation since the early 1990s affecting sourcing strategies in the T&C industry worldwide.<sup>23</sup> In the past, retailers would order the desired products far in advance of the selling season and stock them in warehouses. Success hinged critically on the buyer's ability to forecast demand for a given season and to procure the desired products at the lowest cost. The system was costly in many regards: forecasting demand for an entire season entailed the potential for large errors; inventory costs were huge; and the cost of overstocks at the close of the season was high.

89. The application of information technology (IT) to retailing has led to the emergence of large and lean retail groups that rely on electronic point-of-sales information, and have the ability to gather, transmit, and use information on sales so as to constantly adjust supply to match market demand (see Box 3.1).<sup>24</sup> Retail groups no longer keep their warehouses stocked fully and have become *lean* retailers, i.e. owing only what is needed. The processes associated with accommodating the orders place significant new costs on suppliers who now have to take into account not only the direct production costs, but also the inventory carrying costs and risks including the costs of stock-outs, markdowns, write-offs, and inventory management.<sup>25</sup> Thus, the so called *lean retailing revolution* has enabled the large retail groups to push on the suppliers a large part of inventory costs and to engage directly in global sourcing through sub-contracting, full-package services and licensing of brand-names.

90. The lean retailing revolution has allowed retailers to satisfy a dramatic change in the demand for garments. Many products once considered basic items (such as jeans) have been replaced by more fashionable substitutes that consumers expect to change seasonally. Willingness and capacity to spend on these items has grown and retailers are happy to accommodate increased demand. In the new world of lean retailing, the ability to respond quickly and on time is a critical factor for competitiveness. This holds true particularly for goods with variable demand and selling seasons that are long enough to make replenishing supplies feasible. However, for products where there is little scope for replenishments (such as dresses or women's blouses) or single season fashion products, traditional cost factors continue to be the key determinants of competitiveness.

91. Thus, the essence of lean retailing is that inventory costs are brought down to a minimum. Lean retailing makes competitiveness more product-specific than in the past. Indeed, it creates another source of product differentiation based on the variability of demand in a particular market. Products with short-shelf life have different supply requirements than products with fairly predictable demand

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<sup>23</sup> Abernathy et al. (2004).

<sup>24</sup> Smith and Weil (2004).

<sup>25</sup> Abernathy et al. (2000), Smith and Weil (2004).

patterns. In addition, lean retailing strongly affects specialization within the T&C spectrum. It implies that countries closer to major importing centers have a comparative advantage in supplying time-sensitive, fashion-oriented products.

### **Box 3.1: Lean Retailing and Competitiveness: Basic Concepts Cost Function in the Lean Retailing Model**

The central difference introduced by lean retailing in the cost function of buyers relates to the cost of inventories and risk management. When the costs of holding low inventories and frequent restocking are taken into account, the attractiveness of distant versus proximate suppliers can dramatically change. Proximity provides a valuable advantage – time. Although proximate suppliers may have wages and production costs that are higher than those of distant suppliers, the latter have longer cycle time, and thus, exhibit higher sourcing costs

Indeed, longer cycle time (i.e. time that is needed to turnaround a product from receipt of orders to shipment) means higher work-in-process (WIP) inventories, e.g. higher amounts of capital that are process-specific. Longer cycle time also requires holding a larger finished-goods inventory (FGI), leading to higher administrative and warehousing costs, higher leakage costs, and ultimately, higher cost of capital. Finally, longer cycle time and higher FGI also mean less responsiveness to changes in consumer demand and higher inventory risk in general. Thus, when inventory and risk management costs are taken into account, the competitiveness conditions are dramatically altered.

#### **Replenishment versus Non-Replenishment Products**

One of the key implications of lean retailing is that sourcing decisions are made at the product level and not all garments share the same retail and market characteristics, with the effect that supply requirements can be very different. For instance, for men's jeans, a product sold all year round, retailers are unwilling to keep paying the inventory carrying costs associated with large batches, and yet they demand consistently high service levels. Furthermore, at different times during the year, minor variations in fit, color, and finish come in and out of style. For this product, retail replenishment is expected weekly. Products like jeans are often classified as replenishables. The latter are basic items and fashion-basic items with low margins, providing further incentive to reduce risk and carry lower inventory by incorporating a replenishment strategy.<sup>26</sup> Thus, the distance of a potential producer from the market and subsequent cycle time are important sourcing considerations.

For products not expected to be replenished, cycle time is less important. For example, ski jackets have a selling season of eight to twelve weeks. Prior to each new season, designers settle on a style and place a single order that might be delivered in two or three batches. The product arrives in time for the selling season, and there is not enough time to make any significant changes in the design. Frequent replenishment is not a practical strategy, and even a minor disruption in supply can inflict substantial financial damage to the condensed selling season and high margins. As a result, proximity is not a significant factor when comparing potential producers. Ski jackets, then, are not considered a replenishable item. Moreover, even basic items sold seasonally may fit more appropriately into this category than alongside men's jeans if replenishment is not planned.

#### **Proximate Suppliers Enjoy Locational Advantages**

Demand for "just-in time" replenishment products has implications for international specialization: countries that are located close to major markets are better off specializing in exporting time-sensitive goods. In other words, demand for timeliness leads to a demand for proximity. Evans and Harrigan (2005) have shown that products where timely delivery is important, will be produced near the source of final demand, where wages will be higher as a result. They, thus, generate two testable predictions: First, Goods produced in high-wage locations near the source of final demand are those that are ordered by final sellers more than once per selling season, the so-called replenishment products. Items produced in distant low-wage locations are non replenishable items. As information technology improves and spreads, making flexible production feasible for a wider range of goods, it will cause shifts in the global pattern of trade and income. Countries closer to large workers will benefit at the expense of more remote locations. Thus, the second prediction is that the need for rapid replenishment has an important impact on the choice of suppliers, making competitiveness market- and distance-specific. Not surprisingly, the list of top exporters to the United States is dominated by Mexico, along with Central and South American nations, while the EU's list is topped by Eastern European and MENA countries. Furthermore, in Hong Kong and China it appears that, based on the per unit price, producers are being sourced for higher-end men's jeans, with far greater fashion content than the typical replenishable jeans produced in Mexico.<sup>27</sup>

Just as jeans from Hong Kong entering the United States are very different from Mexican jeans, not all T-shirts are the same either. Though most T-shirts fit squarely into the replenishable classification, not all do. For example, the United States has a niche in the EU market for T-shirts, despite its very high unit cost. It is probable that products sourced there have some special fashion characteristic that make them less replenishable, or of a highly desired label. These same possibilities explain the fact that Morocco and Egypt lag behind China in the EU T-shirt market, despite lower costs and greater proximity.

<sup>26</sup> Abernathy et al. (1999).

<sup>27</sup> Certainly, some of the variance in supply bases can be attributed to differences in trade policy. For example, Bangladesh is able to compete in the EU market because of its exceptionally low wage rate and duty-free status as a least developed nation. However, Bangladesh does not enjoy the same liberal trade allowance with the United States, so despite its wage advantage, it is only a minor player there. On the other hand, though policy is a strong driver, proximity cannot be discounted. Mexican goods

## B. Empirical Test of Lean Retailing Implications on MENA-4 Competitiveness

### 1. Literature Survey

92. The predictions of the lean retailing literature have been tested in many countries. Using a unique data set that allows them to measure the retail demand for timely delivery, Evans and Harrigan (2005) show that the sources of U.S. apparel imports for which timeliness matters have shifted toward products increasingly imported from nearby countries. They establish an empirical link between the rise of Mexico and the Caribbean as major suppliers to the U.S. market and the rise of lean retailing in the 1990s.

93. Other authors have also examined the implications of lean retailing. In a carefully conducted study, Nordås (2004) combines the results of GTAP (Global Trade Analysis Project) simulations and a gravity model to argue that countries close to the major importing markets are likely to be less affected by competition from China and India than previous studies had anticipated. According to this author, Mexico, the Caribbean, Eastern Europe and North Africa are likely to remain important exporters to the EU and the US, respectively, and possibly maintain their market shares.<sup>28</sup> Hyvarinen (2001) also argues that the post-MFA outlook for Morocco and Tunisia is positive because of their proximity to the EU markets. In the same vein, Birnbaum (2001) notes that, because U.S. buyers are increasingly demanding quick-response services, distant factories will find it harder to satisfy customer requirements. With shipping time from Bangladesh, India, and Sri Lanka to the United States at around 28 days, compared with 2 days from Mexico or Canada, the latter undoubtedly are in an advantageous position in the U.S. market. Kheir-El-Din and Abdel-Fattah (2000) make a similar argument, suggesting that Middle Eastern and North African apparel producers around the Mediterranean will be able to enjoy market shares in fast-moving, high-value items, helped in large measure by their closeness to the European market. The ongoing Euro-Mediterranean partnership agreements are seen as crucial to further consolidate this advantage through outward processing opportunities.

94. Several authors have however stressed that the advantages of lean retailing do not automatically accrue to all proximate suppliers and all producers in a given country. Because the operational mode of lean retailing requires technological development at both the retailing and supplier levels, technology has become a crucial factor in the selection of suppliers.<sup>29</sup> In addition, changes in the management practices of clothing factories are also deemed necessary for flexible production. Smith and Weil (2004) point out that firms with modular assembly are particularly attractive to retailers. Modular production entails grouping tasks and assigning those tasks to a module, rather than breaking up assembly (sewing) into a long series of small steps. It is considered an important way to reduce the assembly time of a given product.

95. Finally, exploiting the advantages of lean retailing requires good logistics (Someya, Shunnar, and Srinivasan (2002)). Birnbaum (2001) argues that current and future sourcing decisions depend to a large extent on which countries offer the best facilities and the greatest logistical advantages. Tait (2002) also stresses the importance of trade-support infrastructures, such as the quality and cost of telecommunications, the ease of import and export documentation and procedures, the efficiency of international logistics companies, and the costs of quality controls.

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can enter Europe duty-free under the EU-Mexico free trade agreement. Despite this, although Mexico dominates the American jeans market, it is nearly nonexistent in the EU.

<sup>28</sup> See Nordas (2004), p. 34.

<sup>29</sup> At a minimum, the following investments in technology are needed: (a) bar codes, for retailers to keep daily track of sales of each of the products in stock,<sup>29</sup> (b) electronic data interchange (EDI), to share that information with suppliers in real time, and (c) modern distribution centers, to rapidly channel the goods from suppliers to sales locations.

## ***2. Empirical Tests***

96. To understand the implications of lean retailing on MENA-4 competitiveness, we provide a specific cost analysis of a replenishable product – men’s jeans. A comparison is made between the traditional factor costs in different competing countries. Next, the effective policy costs associated with exporting the garment in question to the US and EU will be identified, and contrasted to the charges applied to each competitor’s goods. Finally, geography is taken into account to estimate the modern supply chain costs including work-in process inventory (WIP) and finished goods inventory (FGI) charges. The total value at risk will also be approximated by comparison. We complement this applied exercise with a brief review of the emerging empirical literature on the implications of lean retailing on competitiveness.

### ***a) Sourcing Decisions for Men’s Jeans***

97. We model sourcing decisions for men’s jeans under the assumptions of standard production and transportation costs, policy costs, and supply-chain costs. Tables 3.1 to 3.5 show how a buyer might view a sourcing decision for a pair of men’s denim jeans to be retailed in the EU and United States. Egypt and Morocco as representatives of MENA-4 are compared with other likely competitors, both low-cost Asian suppliers and countries proximate to the EU and U.S. markets, respectively.

98. Table 3.1 outlines the estimated production and transformation costs for a sample of countries. It shows how high input prices driven by tariff and non-tariff barriers may place countries like Egypt at a disadvantage. For example, a Jordanian firm using denim from the very same supplier pays a dollar less per unit than its Egyptian counterpart. In addition, labor costs, as another key component of the manufacturing costs, vary greatly across countries. Wage rates in Morocco and Egypt are higher than rates in China & Bangladesh, although not as steep as rates in other proximate suppliers to the EU and the U.S. market.

99. Traditionally, sourcing decisions were made comparing total landed cost (Tables 3.2 and 3.3). Time was not a factor in sourcing decisions as retailers managed the inventory risk and manufacturers had no reason to seek shorter supply chains. However, as risk and flexibility have become important factors in the new retail strategies, proximity to the market has become essential to minimize inventory costs and risk. As demonstrated in Table 3.1., shipping charges to both primary markets are only a minor driver of cost-competitiveness.

100. After assessing the production and shipping costs described above, the sourcing decision maker must also consider the direct policy costs associated with suppliers from various countries. While duty free access to the United States or EU is desirable, the rates of 12 percent into the EU and 16.6 percent into the United States are not deal-breakers. This is evidenced by the gains that China has made in both markets since the elimination of quotas, which have come in spite of these tariffs. In this case, the USD 0.81 per unit charged on EU-bound goods from China would still keep the manufacturer’s (buyer) total cost of doing business there well below the Egypt or Morocco alternatives.



**Table 3.1 Comparison of Suppliers' Estimated Manufacturing and Shipping Costs for Men's Cotton Jeans (in US\$)**

<i>Garment Producer/Exporter</i>	<i>Egypt</i>	<i>Morocco</i>	<i>Turkey</i>	<i>Romania</i>	<i>Mexico</i>	<i>Nicaragua</i>	<i>Colombia</i>	<i>Coastal China</i>	<i>Bangladesh</i>
<i>Fabric Source</i>	<i>EU</i>	<i>EU</i>	<i>Turkey</i>	<i>EU</i>	<i>Mexico</i>	<i>US</i>	<i>Colombia</i>	<i>China</i>	<i>Bangladesh</i>
Total Fabric Cost Per Garment	.04	4.47	3.92	4.08	3.80	4.23	3.80	3.24	2.96
Fabric Price/Linear Yard (Including Shipping)	3.31	2.94	2.58	2.65	2.50	2.78	2.25	2.08	1.95
Fabric Yield/garment (Linear Yds)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Trim Cost Per Garment (incl pocketing thread)	1.00	1.00	1.00	1.00	1.05	1.10	1.05	0.87	0.78
Wage Rate	0.93	1.20	3.22	0.96	2.45	0.92	0.94	0.88	0.28
Labor Cost (Gut, Male, Finish)	2.04	2.65	7.10	2.12	2.35	2.17	2.30	1.94	0.62
Profit Per Garment	0.81	0.75	1.20	0.71	0.72	0.75	0.72	0.61	0.44
FOB Cost	8.88	8.87	13.22	7.86	7.92	8.25	7.87	6.66	4.80
Shipping Cost Per Garment to the US	0.12	0.09	0.09	0.09	0.04	0.07	0.07	0.09	0.15
Shipping Cost Per Garment to the EU	0.07	0.04	0.04	0.08	0.12	0.12	0.12	0.07	0.09
Total Manufacturing & Shipping to the US	9.00	8.96	13.31	7.95	7.96	8.32	7.94	6.75	4.95
Total Manufacturing & Shipping to the EU	8.95	8.91	13.26	7.89	8.04	8.37	7.99	6.73	4.89

Source: HCTAR estimates based on data from Jasin O'Rourke Group 2002, Werner International 2004, Local MENA consultant 2005, and other sources

**Table 3.2 Comparison of Suppliers' Estimated Total Landed EU Costs for Men's Cotton Jeans (in US\$)**

<i>Garment Producer/Exporter</i>	<i>Egypt</i>	<i>Morocco</i>	<i>Turkey</i>	<i>Romania</i>	<i>Mexico</i>	<i>Nicaragua</i>	<i>Colombia</i>	<i>Coastal China</i>	<i>Bangladesh</i>
<i>Fabric Source</i>	<i>EU</i>	<i>EU</i>	<i>Turkey</i>	<i>EU</i>	<i>Mexico</i>	<i>US</i>	<i>Colombia</i>	<i>China</i>	<i>Bangladesh</i>
Manufacturing and Shipping Cost Per Garment	8.95	8.91	13.26	7.89	8.04	8.37	7.99	6.73	4.89
Relevant Trade Agreement	EMFTA	EMFTA	EMFTA	PanEuroMed	Eu-Mex				EBA
Duty Cost into the EU (Absent Quota Cost)	0	0	0	0	0	0.96	0.81	0	0
Total Landed Cost (Absent Quota Cost)	8.95	8.91	13.26	7.89	8.04	9.37	8.95	7.54	4.89

Source: HCTAR estimates based on data from Jasin O'Rourke Group 2002, Werner International 2004, Local MENA consultant 2005, and other sources

**Table 3.3 Comparison of Suppliers' Estimated Total Landed US Costs for Men's Cotton Jeans (in US\$)**

<i>Garment Producer/Exporter</i>	<i>Egypt</i>	<i>Morocco</i>	<i>Turkey</i>	<i>Romania</i>	<i>Mexico</i>	<i>Nicaragua</i>	<i>Colombia</i>	<i>Coastal China</i>	<i>Bangladesh</i>
<i>Fabric Source</i>	<i>EU</i>	<i>EU</i>	<i>Turkey</i>	<i>EU</i>	<i>Mexico</i>	<i>US</i>	<i>Colombia</i>	<i>China</i>	<i>Bangladesh</i>
Manufacturing and Shipping Cost Per Garment	9.00	8.96	13.31	7.95	7.96	8.32	7.94	6.75	4.95
Relevant Trade Agreement		USFTA			NAFTA	CBPTA	ANDEAN		
Duty Cost into the EU (Absent Quota Cost)	1.49	1.49	2.21	1.32					
Total Landed Cost (Absent Quota Cost)	10.50	10.44	5.53	9.27	7.96	8.32	7.94	7.88	5.77

Utilizing EU Fabric rather than US or Moroccan Denim violates the rules of origin stipulated in the USMFA negotiating the Tariff Break.

Source: HCTAR

## **b) Inventory Management Costs**

101. Cycle time for products that the customer expects to be replenished varies greatly in our sample. For most producers, it may take anywhere from one to three weeks to fill an order, regardless of location. However, finished goods from MENA-4 as well as from Romania and Turkey can arrive to the EU within a week since leaving the plant, resulting in an overall cycle time of three to four weeks. This is dramatically faster than sourcing with an Asian supplier, where shipping can take as long as seven weeks beyond the one to two weeks of production. As a result, for retailers demanding weekly replenishment, sourcing from Asian countries dramatically increases the amount of both WIP and FGI. In the case of WIP, this is due to the larger orders necessitated by the longer cycle time, ultimately amounting to boat loads of garments in transit for an extended length of time. In the case of FGI, larger volumes of safety stock are required at or near the retail outlet to avoid stock-outs, and higher beginning inventories are needed to meet expected demand over longer intervals. The assumed inventory carrying-cost rate is a very conservative one at 18 percent per year, which includes shrinkage, damage, cost of capital, and a variety of other real expenses.

102. Because of proximity, MENA-4 companies are in a position to capitalize on the style variations that are successful in fashion. Other designs that are less well received need to be quickly replaced by new products. Flexibility in production makes these strategies feasible, but shorter supply chains make them financially less risky. These benefits are captured to some extent in the value-at-risk measure reported in Tables 3.4 and 3.5. For a high volume product such as jeans, increasing retail stocking levels by 1 percent (equating to n units) is incredibly risky. Demand may slow as the result

of a new style change, and introduction of a better competitor, and so forth. Therefore, the longer the supply chain, the greater the volume of now-unwanted goods, the greater the risk.<sup>30</sup>

**Table 3.4 Comparison of Suppliers' Estimated Inventory Related Costs For Men's Cotton Jeans to the EU (in US\$)**

<i>Garment Producer/Exporter</i>	<i>Egypt</i>	<i>Morocco</i>	<i>Turkey</i>	<i>Romania</i>	<i>Mexico</i>	<i>Nicaragua</i>	<i>Colombia</i>	<i>Coastal China</i>	<i>Bangladesh</i>
<i>Fabric Source</i>	<i>EU</i>	<i>EU</i>	<i>Turkey</i>	<i>EU</i>	<i>Mexico</i>	<i>US</i>	<i>Colombia</i>	<i>China</i>	<i>Bangladesh</i>
Total Landed Cost Absent Quota Cost	8.95	8.91	13.26	7.89	8.04	8.37	7.99	6.73	4.89
Relevant Trade Agreement	EMFTA	EMFTA	EMFTA	PanEuroMed	Eu-Mex				EBA
Average Cycle Time (in weeks)	4	3	3	3	10	10	11	10	10
Inventory Carrying Cost Rate	18%	18%	18%	18%	18%	18%	18%	18%	18%
WIP Inventory Carrying Cost	0.12	0.09	0.14	0.08	0.28	0.32	0.34	0.26	0.17
Furnished Goods (FG) inventory (in weeks)	3	3	3	3	6	6	6	6	6
FG Inventory Carrying Cost	0.09	0.09	0.14	0.08	0.17	0.19	0.19	0.16	0.10
Total Cost	9.17	9.09	13.54	8.05	8.49	9.89	9.48	7.96	5.16
Value of Apparel at Risk (Dollars/Weekly Single Unit Demand)	\$64	\$55	\$81	48	136	158	161	127	82

Source:HCTAR

**Table 3.5 Comparison of Suppliers' Estimated Inventory Related Costs For Men's Cotton Jeans to the US (in US\$)**

<i>Garment Producer/Exporter</i>	<i>Egypt</i>	<i>Morocco</i>	<i>Turkey</i>	<i>Romania</i>	<i>Mexico</i>	<i>Nicaragua</i>	<i>Colombia</i>	<i>Coastal China</i>	<i>Bangladesh</i>
<i>Fabric Source</i>	<i>EU</i>	<i>EU</i>	<i>Turkey</i>	<i>EU</i>	<i>Mexico</i>	<i>US</i>	<i>Colombia</i>	<i>China</i>	<i>Bangladesh</i>
Total Landed Cost Absent Quota Cost									
Relevant Trade Agreement		USFTA			NAFTA	CBPTA	ANDEAN		
Average Cycle Time (in weeks)	10	10	9	10	3	5	11	11	
Inventory Carrying Cost Rate	18%	18%	18%	18%	18%	18%	18%	18%	11
WIP Inventory Carrying Cost	0.36	0.36	0.48	0.32	0.08	0.14	0.30	0.30	0.22
Finished Goods (FG) inventory (in weeks)	6	6	5	5	3	4	4	6	6
FG Inventory Carrying Cost	0.22	0.22	0.27	0.16	0.08	0.12	0.11	0.16	0.12
Total Cost	11.08	11.02	16.28	9.75	8.13	8.57	8.35	8.34	6.11
Value of Apparel at Risk (Dollars/Weekly Single Unit Demand)	177	176	228	146	49	77	125	142	104

Source:HCTAR

103. To illustrate with an example, although the total cost of suppliers' estimated inventory from China and Bangladesh may be less expensive than Moroccan or Egyptian suppliers, the combination of cost and risk would likely tilt the sourcing decision in favor of Morocco or Egypt for a fashion basic like jeans, which have slowly evolving and continuous selling seasons in which frequent replenishment is expected.

#### D. Conclusion

104. This chapter has discussed the implications of lean retailing on competitiveness. It has shown that when lean retailing is taken into consideration, sourcing decisions become complex. Global retailers indeed balance many factors, including cost, speed, and risk. With retailers' objective to minimize inventory cost and improve risk management, the key factor in selecting suppliers goes beyond the basic production cost to include speed of delivery and production flexibility.

105. The implications for the geography and scope of trade in T&C are dramatic. For instance, retailers in North America that need a fast turnaround may find that suppliers in Central America and Mexico are the most attractive option. European retailers and manufacturers may find that suppliers in Bulgaria, Morocco, Romania, Tunisia, and Turkey are their best quick-turnaround partners. Sourcing strategies and the pressure of transferring the cost of adjustment to producers depend also on the nature of the product: whether it is a fashion commodity, a strong brand, a product that is replenishable, or has lower-priced substitutes.

106. For the countries which are located in close vicinity to Europe and enjoy close trade ties with most European countries, the prospect of the T&C sector are strong when the advantage of proximity are taken into account. However, for these countries to effectively compete with other proximate

<sup>30</sup> Abernathy et al. (2000); Bouhia and Abernathy (2004).

suppliers, the key is to improve their trade logistics, especially as communication and transport costs are decreasing worldwide. Retailers and manufacturers in Europe are likely to partner with the proximate suppliers that offer the greatest logistical advantages and the best policy environment. Key actions will include improving trade-support infrastructure, ports, customs, road transport and telecommunications, as well as the reduction of non-tariff barriers (import and export documentation and procedures, straightforwardness and costs of quality controls, testing, etc.).



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## IV. IMPROVING MENA-4'S T&C PERFORMANCE IN WORLD MARKETS: SHORT AND LONG TERM POLICY RECOMMENDATIONS

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107. In a market where technological advances and overall liberalization have increased competitive pressures, the long-term challenge facing the T&C firms in MENA-4 is to work towards the creation of new opportunities, through the improvement of both process productivity and product quality. The future of the sector greatly depends on government policies, too. This chapter looks at the short and long term policy reforms needed to enhance competitiveness in MENA-4. It also evaluates the potential dividends from reforms using the simulations made with the Global Trade Analysis Project (GTAP).

### A. Short-Term Measures to Support Competitiveness

#### *1. Reduce the Cost of Inputs*

108. As shown in previous chapters, acquiring yarns, fabrics and other inputs is a costly activity for MENA-4 (except for Jordan). The main causes are high domestic tariffs, costly and cumbersome duty drawback and temporary admission systems, and restrictive rules of origin. Hence, proposed cost cutting measures include: (a) acceleration of tariff reforms; (b) deepening of customs reforms and (c) negotiation of more liberal rules of origin within the EU. In addition, in the case of Egypt, additional steps to restructure the existing textile industry will be needed.

#### *a) Accelerate Tariff Reforms*

109. MENA-4 countries are engaged in gradual tariff reforms in the context of the Association Agreements (AAs) signed with the EU, and with the United States. Both Jordan and Morocco have signed an FTA with the United States. Under the U.S.-Jordan FTA, which entered into force in December 2001, all duties and commercial barriers to their respective bilateral trade will be eliminated within 10 years<sup>31</sup>. Morocco's FTA with the United States entered into force in January 2006. Under this agreement, tariffs will be eliminated over six years. In addition, for selected items, the United States and Morocco will provide duty-free treatment to designated quantities. Recent tariff reductions efforts also reflect unilateral government initiatives to boost competitiveness.<sup>32</sup>

110. In spite of recent reforms, tariffs remain high in Morocco, Tunisia and Egypt and the pace of current tariff dismantling is too slow to induce a rapid boost to competitiveness. Jordan, China and Turkey, three high performers in clothing export markets, have low (Turkey and China) or zero (Jordan) tariffs on fabrics and yarns. The 8 percent MFN tariff applied by Turkey on fabric imports is more than three times lower than the rates applied by Morocco and Tunisia. While temporary admission schemes exist, they are costly to administer. In Egypt, the high tariffs on fabric imports greatly undermine the competitiveness of the clothing sector. At the same time, the high tariffs on

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<sup>31</sup> The FTA was preceded by the establishment of QIZs, which have better market access provisions. Under the FTA, US tariffs on Jordanian textile and clothing products will be reduced only gradually. In fact, four of Jordan's top 5 exports to the US will see no reduction in duty at all for 10 years. This contrasts with the QIZ agreement, which allows duty-free access for most of Jordanian garment products. Most exports are likely to continue to be produced in QIZ over the next 5 to 10 years. After 10 years, the QIZ will become irrelevant.

<sup>32</sup> In the period 1999-2003, the Jordan government adopted a number of measures, including the abolition of tariffs on 492 imported capital goods, bringing Jordan's weighted average tariff to 13 percent, the lowest average tariff among Arab states. Jordan levies no tariffs on imports of yarn and fabrics and has a simple and transparent trade regime. In the same vein, in 2004, Egypt reduced its tariffs on apparel to 40 percent, on home textile to 35 percent, on fabric tariffs to 22 percent, and on yarn to 12 percent. Additional tariff reductions were made for textile machinery and spare parts including cotton, machinery and equipment and auxiliary materials.

clothing imports discourage exports by making the domestic market more lucrative than world markets.

### ***b) Deepen Customs Reforms***

111. While recent customs reforms undertaken in the MENA-4 countries have dramatically improved the clarity, transparency, and predictability of customs procedures, these reforms need to be continued and deepened. Firms still complain about lingering customs and clearance procedures at ports quoting that various inspections by different ministries have to take place. In all countries, there is a need to further lower the number of documents and procedures to process imports.

### ***c) Less Restrictive Rules of Origin in EU***

112. For MENA-4 products to qualify for duty-free access to the EU market, at least two processes of transformation have to occur within the Pan-Euro-Med partner countries. First, both Morocco and Tunisia negotiate more liberal rules of origin to enhance their competitiveness in the EU market. Allowing for Pan-Euro area inputs to contribute cumulatively to the required MENA-4 value added is clearly an important step toward more flexible (and cheaper) input sourcing. Indeed, the Pan-Euro area will potentially include a large number of textile producers in Europe. However, the agreement requires that for cumulation to occur between the two partners, each MENA country sign an FTA with the member country. Comprehensive (Pan-Euro-Med) gains from complete utilization of diagonal cumulation in the Pan-Euro-Med area will take time to be fully reaped, since they depend on the signing of numerous FTAs. Using the Agadir agreement as a framework, MENA-4 countries should address this issue and look for simpler ways to realize diagonal cumulation. Looking at the longer term prospects, MENA-4 countries should negotiate a third-party rule that permits the flexibility to source fabric from anywhere in the world.

## ***2. Accompany the Social Adjustment of the Industry***

113. Although the early impact of the MFA removal on employment maybe less dramatic than expected, there is a need to lower the social cost of T&C restructuring in MENA-4. This is particularly important for female workers, especially those with low education and skill levels. Unlike men, who find it easier to integrate other industries, options for low-skilled women are often limited to working as housemaids, selling in the street, or working on farms.

114. The restructuring of the T&C sector in MENA-4 is likely to entail further job losses. Indeed, while new investments are flowing in as some firms exit the sector, newly created enterprises are likely to be less employment-intensive than in the past, because most recent investments are in capital-intensive textiles. Furthermore, the ambition to move up the value chain creates for MENA-4 the need for a more skilled and smaller workforce than in the past. Thus, reconversion and training programs supported by donors, particularly the EU, will be key in accompanying the adjustment. Interventions can be targeted toward those with the lowest incomes and those who are less educated, who are typically least able to bear the costs of adjustment. The adjustment of the sector to stiffer world competition can be done without sacrificing the well being of workers.

## **B. Long-Term Measures to Compete and to Expand Exports**

### ***1. Further Reduce Transport Costs and Improve Trade Logistics***

115. Efficient transport and logistics systems are crucial to compete in today's textiles and clothing markets. MENA-4's proximity to Europe does not guarantee a competitive advantage if it is not accompanied by state-of-the-art logistics. International evidence shows indeed that the quality of transportation infrastructure and the efficiency and cost of logistics are among the top-five factors influencing investment and sourcing decisions.<sup>33</sup>

116. Introducing competition in port services is one of the most important measures to reduce costs and increase speed-to-market in MENA-4. In Morocco, efforts in this direction include the construction of the Tangiers-Mediterranean port project. In Egypt, a number of private sector-run ports have emerged, including Ain Al-Sokhna Modern Port and the East Port Said Container Hub.<sup>34</sup> In Jordan, introducing competition can be part of a larger process under way to determining the best way to privatize Aqaba.

117. The issue of high maritime costs should also be addressed. Maritime transportation in MENA-4 represents a large share of logistics costs. The MENA-4 economies bear high transportation costs because of the low volume of trade, which implies shipment of less than full containers and several stops in the Mediterranean ports by international carriers. In the short run, better coordination among exporters can help. In the longer term, deeper regional integration will be the best solution. Regional integration would increase export activities and size, which will help to prevent containers from leaving the countries less than fully loaded and to reduce overall logistics and shipping costs.

### ***2. Leverage Proximity Advantages through Effective Regional Integration***

118. Creating an effective regional free trade area would mitigate the current "hub-and spoke" relationship with the EU. Indeed, the Euro-Med agreement is potentially diverting FDI inflows to the Mediterranean countries toward the enlarged EU, where investors will have systematic access to the markets of all the MENA countries. The EU, as a hub for many bilateral free trade agreements, is theoretically a very attractive export platform. If the spoke countries maintain high intra-regional trade barriers, then foreign firms would choose to invest in the EU "hub". An American investor, for example, would prefer to locate in, for example, Poland and have free access for his or her products to the entire EU plus all the spoke countries, instead of investing in, say, Tunisia and being limited to only the EU and Tunisian markets. In that context, the EU enlarges its market size considerably by multiplying its free trade agreements with different countries, affording free access for its products to all the "spokes". On the other hand, the spokes' attractiveness in terms of market size rises only with the size of the EU market.

119. Several former spoke countries have chosen to liberalize trade among them, thus, creating "bloc spokes". Evidence suggests that regional integration among Eastern European countries helped to increase trade and to limit the emergence of a hub-and-spoke relationship with the EU<sup>35</sup> In recent years, the growth of intraregional trade has exceeded that of trade with the EU for a number of Eastern European countries. The Agadir agreement, an FTA between Morocco, Tunisia, Egypt and Jordan, can help create a larger regional market, bringing efficiency gains and making the region more attractive for foreign investors. Its effective implementation could be a stimulator to the Great

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<sup>33</sup> Andriamananjara et al. (2004).

<sup>34</sup> Amcham (2005).

<sup>35</sup> De Benedictis, et al. (2005).

Arab Free Trade Area (GAFTA) that was signed in 1998 (GAFTA includes eighteen Arab countries), amplifying the benefits of larger market.

### ***3. Deepen Integration with the EU***

120. The removal of tariffs and quotas is a key feature of the AAs between MENA-4 and the EU, but trade policies are only one element of the overall costs of trade. Deeper integration requires harmonization of market infrastructures and investment regulations which often lead to increased FDI inflows. The experiences of Bulgaria and Romania, two major competitors of Morocco and Tunisia in the EU market, illustrate this. The adoption of a wide range of structural reforms, including many EU regulations), resulted in an ample increase in FDI<sup>36</sup>. To compete on equal terms with new EU members or other countries seeking deep integration with the EU, MENA-4 countries should make every effort to deepen their integration with the EU.<sup>37</sup>

### ***4. Moving Up the Value Chain***

121. Morocco, Tunisia and Egypt have the potential to move up the value chain and provide more services to their customers. Currently, these countries capture only a very small fraction of the total value added of the garments produced. Thus it is no surprise that moving to “finished product” supply occupied such an important place in recent textile strategic plans (Box 4.1).

#### **Box 4.1 Recent Government Measures to Support the Textile and Apparel Industry in Morocco and Tunisia**

In 2005, both Tunisia and Morocco adopted plans to boost their T&C sectors. Morocco’s Emergency Plan, adopted in October 2005<sup>38</sup>, is a joint effort between the government and the Association of the Textile and Garment Industries (AMITH). Tunisia’s “plan”, enacted through two “Conseils de Ministres Restraints” (core ministerial councils) is seen as both a continuation of and a complement to the program de mise-à-niveau, set up in 1996 to sponsor the upgrading and restructuring of Tunisia’s manufacturing sector. The two interrelated strategic goals of both plans are to:

- move the textile and garment industry from its present position as subcontractors for EU suppliers to full service providers, working directly with the final buyers; and
- upgrade from production of commodity garments to higher value added fashion garments

The Tunisian strategy calls for foreign direct investment, joint ventures, a three year marketing initiative and increase in the use of IT facilities. It includes the decision to target a limited number of factories for upgrade and development, assisting them to develop the skills necessary to work directly with customers. The creation of a cluster for up-stream manufacturing is also very important.

The Moroccan Plan is different from past attempts to help the industry because it avoids over-reliance on subsidies, but rather asks government to take responsibilities in the area of education, transportation infrastructure and most importantly in reducing excessive bureaucratic interference and costly red-tape. Equally important is the emphasis on customs procedures, tariffs and import/export regulations. Both plans sees development of skill sets- such as design, merchandising, and material sourcing- as being vitally important to the future success of the industry. The recommendations for higher education in the areas of design, merchandising and material sourcing are very pertinent. The move from sub-contract to full service is in fact a change from a manufacturing industry to a service industry. The main asset of sub-contract factory is its ability to provide a decent product on time and at a reasonable cost.

<sup>36</sup> Kaminski (2004).

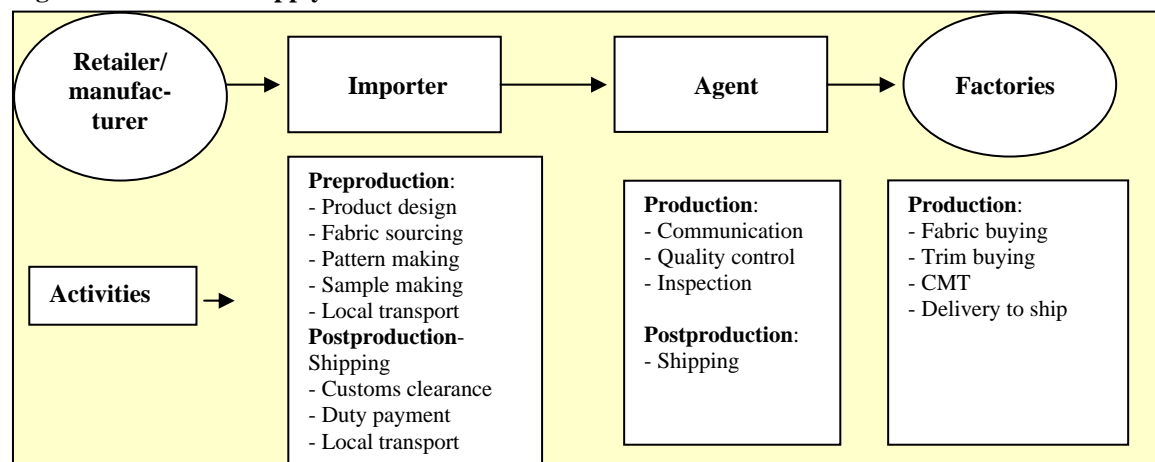
<sup>37</sup> Measures for protecting intellectual property of designs and models and for combating infringements will very likely be demanded by the EU in response.

<sup>38</sup> The *Plan Emergence Pour La Relance du Secteur Textile – Habillement* is divided into fourteen articles.



122. Moving up the value chain requires firms to provide directly to customers (retailers or manufacturers) pre production services such as pattern and sample making, and post production activities such as shipping, customs clearance, and local transport (see Figure 4.1).<sup>39</sup> In the past, and to a larger extent today, agents and importers typically performed these activities. In the future, firms in the MENA-4 countries should aim at taking on some of these activities, thus capturing a higher share of value added.

**Figure 4.1 Garment Supply Chain**



Source:

Source: World Bank staff based on Birnbaum (2005).

123. Moving up the value chain is likely to be a gradual process for MENA-4: as suppliers gain the skills and competencies required to enter each successive link of the chain, they can leverage that knowledge with the help of governments and local institutions.<sup>40</sup> Thus, in partnership with their respective governments, the T&C industries in MENA-4 should develop a number of programs as described below:

- **Investment in education and training.** For garment firms to be able to move up to higher value-added products and services, specialized tertiary education is indispensable. Public investment in textiles schools managed by professionals of the sector and geared at teaching new management techniques and high-level technical textile tasks can greatly help.
- **Developing long-term relationships with demanding buyers.** Firms developing strong relationships with brand name merchandisers, such as Gap, Zara or Banana Republic are likely to acquire more complex skills than those required in subcontracting. Many firms in Taiwan and South Korea have used the experience accumulated over long years of producing and exporting to demanding western markets to upgrade their activities. Firms in these countries have become intermediaries for global buyers, distributing their orders from a wide range of suppliers across Asia.
- **FDI, tutelage, and knowledge transfers.** Functional upgrading can occur as a result of tutelage and knowledge transfer between global buyers/retailers and suppliers. For example, tutelage and knowledge transfer from U.S. retailers helped some Mexican

<sup>39</sup> In an extreme case of full-service production, “brand management,” local firms are also involved in the distribution of their own products.

<sup>40</sup> See Thun (2001); Gereffi (1999).

suppliers to move from basic assembly in maquiladoras to full-package supply.<sup>41</sup> The pressure for vertical upgrading primarily came from the request for “timeliness” from the retailers<sup>42</sup>. Thus, facilitating the import and dissemination of new skills and technologies through policies aimed at attracting FDI may help the upgrading of the industry.

### C. Potential dividends from reforms in the long run

124. GTAP is used to simulate the potential impact on the T&C sector of the MENA-4 countries of deeper regional and international integration (see Box 4.2 for a description of scenarios). The simulations are made with Global Trade Analysis Project (GTAP).<sup>43</sup> The trade agreements modeled fall into three main categories: (a) various bilateral FTAs: Morocco-U.S., Jordan-U.S., and an hypothetical Egypt-U.S.; (b) the Pan-Euro area FTA and diagonal cumulation system involving the EU and various neighboring countries including MENA-4; and (c) trade aid (US\$100 million) provided by the EU to raise the trade capacity of the recipient countries. The impact of these simulations on welfare and T&C outputs, employment and wage in MENA-4 is reported below.

#### Box 4.2 The Different Scenarios Simulated

**The Pan-Euro-Med System.** For the purpose of the GTAP simulation, the Pan-Euro-Med System has been modeled as a free trade agreement and a common system of rules of origin. We have simulated its application to the EFTA and some adjacent countries including the following: Bulgaria, Romania, Turkey, Algeria, Tunisia, Morocco, Egypt, Jordan, Lebanon, Palestine, Turkey and Israel<sup>44</sup>. The agreement is modeled as a complete diagonal FTA, where all imports from all countries are assumed to be in-FTA imports. A 100 percent elimination of tariffs within the FTA is simulated<sup>45</sup>. This scenario is broken into two “past” and “future” based on the scope of the implementation of the agreement by individual member countries. The implementation by the EU and Turkey is labeled as “past,” with the remaining countries’ commitments labeled as “future.”

**Improving Trade Facilitation.** In this scenario we simulate the effect of improving trade facilitation in the member states of the Pan-Euromed system—Morocco, Tunisia, Egypt, Jordan, Turkey, Bulgaria, Romania. Following the work of Wilson et al, trade facilitation investment is expected to (1) improve and speed up customs procedures, (2) make customs and domestic regulation more transparent, (3) improve infrastructure (roads, ports, etc). Based on the estimates of Wilson et al, the level of investment (as a percentage of GDP) can be directly translated into a reduction of trade costs (as a percentage of current costs). Assuming an investment of 0.1 percent of the national GDP’s, we calculate that such an investment would cost the EU 0.001 percent of its GDP and would bring—if divided equally by the recipient countries’ GDP’s—a 0.3 percent growth to trade capacity of the participating countries (Ivanic and Wilson 2004).

**United States-Jordan FTA/QIZ.** The USA-Jordan FTA was signed in 2001. The effectively applied tariff rates in the GTAP database from 2001 reflects the effect of the QIZs established in 1997. Thus, the base of the simulation made here is QIZ-inclusive. The simulation results reflect further impacts through the implementation of the FTA. We separate the scenario into the “past” component (88 percent of the USA’s commitments and 55 percent of Jordan’s) and the “future” component (the rest of the tariff reduction commitments from both countries)<sup>46</sup>.

**United States-Egypt FTA.** We consider the USA-Egypt FTA as a hypothetical future commitment. Both the USA-Jordan FTA and the USA-Egypt FTA are modeled with the minimum set at 35 percent for all commodities.

<sup>41</sup> See Bair and Gerrefi (2003) and Rosenberg (2005).

<sup>42</sup> Entry barriers are often a reflection of the asymmetric and dependent relationship between retailers, who dominate the supply chain and suppliers. In the case of Mexico, the incentive from retailers to “invest” in Mexico’s upgrading primarily came from the pressure for timeliness imposed by lean retailing (Rosenberg 2005).

<sup>43</sup> The model (Hertel 1997) is a standard model of production under constant returns to scale, trade is modeled under the Armington assumption, and consumption is modeled under the constant difference of elasticities (CDE) preferences. All the proposed simulations are done using standard GTAP techniques: free trade agreements are modeled as changes in bilateral tariffs; the Pan-Euro area diagonal cumulation is modeled as changes in relative preferences for domestic versus imported inputs within the Armington structure. The closure implemented can be described as partially mobile. More precisely, all natural resources are assumed sector-specific. They can only be used in a single sector (for instance iron ore can only be used to make iron and nothing else). Other factors, such as land and unskilled labor are set to be partially mobile with elasticities of transformation of -1. Given these values, land usage may change and so may the employment of unskilled labor, but only in a limited degree. All other factors are modeled as completely mobile across sectors. There is no international mobility in this model.

<sup>44</sup> Because of the restrictions of our current GTAP regional coverage, we exclude Lebanon, Palestine, Algeria and Israel.

<sup>45</sup> Based on ROO that will prevail at the end of the implementation of the Pan-Euro area, we set the de minimis within Pan-Euro area value added content to 90 percent.

<sup>46</sup> Ivanic (2006) and Wilson et al (2004).

## 1. Effects of Trade Reform on Welfare

125. Implementation of remaining commitments in the Euro-Med FTA will induce a welfare gain for Morocco and Tunisia and a welfare loss for Egypt and Jordan. The largest benefit accrues to the EU, with a welfare increase of approximately USD 2.3 billion. Further decomposition of the welfare changes for these countries shows that the large welfare loss for Egypt is mostly due to trade diversion and an additional loss due to more expensive investment. The EU's large gain reflects important trade creation. As discussed in previous chapters, one major feature of the AAs is that they induce a reduction of tariffs on EU imports (brought down to zero at the end phase) since MENA-4 have already benefited from preferential access to the EU.<sup>47</sup>

126. The effect of the FTA between Morocco and the US is globally negligible, with most of the gains going to the US. The EU experiences a loss as a result of this FTA. The decomposition of welfare gained from the FTA by Morocco shows that it includes a gain in efficiency, small gains in the terms of trade and a loss due to higher cost of investment. The gains to the USA result from terms of trade gains, additional gains in less expensive investment and efficiency gains.

127. The effect of a hypothetical FTA between Egypt and the US is greater than that of US-Morocco FTA, with most of the gains shared among the US (USD 310 million) and Egypt (USD 240 million). Both the US and Egypt gain mainly because of improved terms of trade. The EU loses USD 256 million. The effect of this FTA on the EU is negative, and it is small on other members of the Euro-Med region, with some losses for Turkey.

**Table 4.1 Net Welfare Gains Associated With Various Trade Scenarios (in million US\$)**

Country	Euro-Med	Morocco-USA	Jordan-USA	Egypt-USA	Improved Trade Capacity
Bulgaria	-81	0	0	-1	278
Romania	-141	0	0	-2	879
Turkey	466	0	-1	-30	1290
Jordan	-36	0	3	1	59
Morocco	174	1	0	-1	544
Tunisia	122	0	0	-4	509
Egypt	-314	0	0	241	544
EU	2358	-2	-11	-259	66
USA	-845	6	54	311	-277
China	-153	0	-1	-30	-159
Bangladesh	-14	0	0	-2	-10
India	-76	0	-1	-10	-33
Mexico	-43	0	-1	-13	-36

Source: UN Comtrade Data.

128. The effect of the FTA between Jordan and the US is significant. The US gains are due to better terms of trade and cheaper investment. Jordan gains in efficiency, but registers losses because of more expensive investment and worse terms of trade. The effect of this FTA on other members of the Euro-Med region is small, with the exceptional loss of Turkey in the amount of USD 2 million. A little more than half of the total gains due to this trade agreement have been realized and the remaining portion will materialize with the completion of the agreement.

129. Finally, an investment by the EU of \$100 million, only 0.1 percent of national GDP, into the trade capacity of the Euro-Med countries—Morocco, Tunisia, Egypt, Jordan, Turkey, Bulgaria,

<sup>47</sup> It is important to note that most of the static gains due to the Euromed tariff reform (0.7 billion USD) have been realized while the portion of the FTA that remains yet to be implemented would result in additional 0.3 billion USD of welfare gains.

Romania—has a strong, positive effect on all members, valued at USD 4.2 billion. Moreover, we also observe a positive spill-over to neighboring regions—the EU, the EFTA, Rest of Middle East, Rest of Europe, Sub-Saharan Africa and Oceania. Overall, the world gains about USD 3.5 billion. The investment into trade capacity appears as an extremely profitable investment.

## 2. Effects of Trade Reforms on Textiles and Apparel Outputs

130. The effects of the trade reforms on the T&C are summarized in Table 4.2. The latter shows the percentage of change in the output of the two sectors. The implementation of the Euro-Med agreement has a large positive impact on the T&C output of Morocco and Tunisia. The reason for the great decline of the production of clothing in Egypt is its small export volume, and the declining domestic demand for domestic products. The effect of the already completed part of the Euro-Med agreement has a negative impact on the output of apparel. This trend should be reversed with the planned completion of the agreement, which should result in output growth in this sector in all Euro-Med countries other than Egypt.

**Table 4.2 Effects of Various Trade Reforms on Textiles and Clothing Outputs**

	<i>Euro-Med</i>	<i>Morocco-USA</i>	<i>Jordan-USA</i>	<i>Egypt-USA</i>	<i>Improved Trade Capacity</i>
<i>Changes in textile output (percent)</i>					
Bulgaria	-4.5	0.0	0.0	0.0	-0.6
Romania	3.5	0.0	0.0	0.1	-4.0
Turkey	1.6	0.0	0.0	-0.1	0.9
Jordan	6.5	0.0	1.1	0.0	17.9
Morocco	48.8	0.1	0.0	0.0	7.6
Tunisia	10.4	0.0	0.0	0.1	2.4
Egypt	-14.8	0.0	0.0	1.4	-1.7
<i>Changes in clothing output (percent)</i>					
Bulgaria	4.4	0.0	0.0	0.0	3.3
Romania	6.2	0.0	0.0	0.0	-4.1
Turkey	4.4	0.0	0.0	-0.8	0.9
Jordan	1.4	0.0	1.2	-0.1	11.9
Morocco	55.3	0.2	0.0	0.0	9.5
Tunisia	55.2	0.0	0.0	0.1	15.3
Egypt	-8.1	0.0	0.0	6.2	1.4

Source: World Bank staff.

131. The effect of the FTA between Morocco and the United States is limited. Nonetheless, there is a small but positive impact due to a slight rise in productivity. The increase in production is greater in the clothing sector, because Morocco exports far more clothing than textiles to the United States.

132. FTA's between Jordan and the US and between Egypt and the US have limited effects on Jordan's and Egypt's outputs. For Jordan, output has been expanding dramatically under the QIZ system, because of duty-free access under liberal ROO. In the textile sector, the FTA does not provide significant marginal benefits. For Egypt, a hypothetical FTA with the US can have important impact on employment in the clothing sector, with an increase of 6.2 percent compared to the present situation.

133. Finally, the effect of improving the trade capacity is demonstrated to exhibit a similar effect to that of the Euro-Med FTA, because it uniformly increases the trading capacity of the aid-receiving countries in non-agricultural sectors.

### 3. Effect of Trade Reforms on Employment and Wages

134. Employment and wages in the T&C sectors are affected positively by the implementation of the Euro-Med agreement, the exception being Egypt (see Table 4.3). The Euro-Med agreement has a particularly large impact on employment and wages in Morocco and Tunisia, reflecting the large increase of output in these countries.

135. FTAs between individual countries appear to have a small, but positive effect on the implementing countries. For Egypt, a FTA with the US would induce a quite significant increase in employment and wages in the clothing sector. The effect of improved trade capacity on wages is more positive and substantial than its effect on employment, because this trade policy tends to favor output of other sectors, raising the overall wage level. The planned portion of the Euro-Med agreement is expected to increase employment and wages in the apparel industry, contrary to the effects of the portion of the agreement that has already been implemented.

**Table 4.3 Effects of Various Trade Reforms On Employment and Wages in the Clothing Sector**

	<i>Euro-Med</i>	<i>Morocco-USA</i>	<i>Jordan-USA</i>	<i>Egypt-USA</i>	<i>Improved Trade Capacity</i>
<i>Changes in employment in the clothing sector (percent)</i>					
Bulgaria	3.3	0.0	0.0	0.0	2.6
Romania	3.2	0.0	0.0	0.0	-1.7
Turkey	2.5	0.0	0.0	-0.5	0.7
Jordan	0.8	0.0	0.7	-0.1	7.2
Morocco	32.3	0.1	0.0	0.0	5.7
Tunisia	31.2	0.0	0.0	0.1	8.4
Egypt	-3.7	0.0	0.0	3.4	0.8
<i>Changes in wage in clothing sector (percent)</i>					
Bulgaria	4.5	0.0	0.0	0.0	7.3
Romania	3.7	0.0	0.0	0.0	4.3
Turkey	4.1	0.0	0.0	-0.6	3.8
Jordan	2.3	0.0	0.6	-0.1	10.1
Morocco	40.2	0.1	0.0	0.0	10.7
Tunisia	36.8	0.0	0.0	0.0	15.2
Egypt	-2.1	0.0	0.0	5.3	4.6

Source: World Bank staff.

136. In sum, an effective implementation of many of the above trade reforms can have important impacts on welfare, T&C outputs, employment and wage. Simulations using a standard GTAP model show that an investment of only 0.1 percent of national GDP into the trade capacity of the Euro-Med countries—Morocco, Tunisia, Egypt, Jordan, Turkey, Bulgaria, Romania—has a strong, positive impact on the welfare, output and employment of each member. On the other hand, the implementation of the remaining tariff reduction commitments in MENA-4 AAs (when the pan-Euro area system of cumulation is used) would induce a large positive effect on T&C output, employment and wages in Morocco and Tunisia and net welfare gain for these countries. In contrast, Egypt would register a large welfare loss due to trade diversion in favor of the EU. Egypt would thus be better off liberalizing the MFN tariffs at the same time as it opens up to the EU. In sharp contrast with the implementation of its AA with the EU, Egypt would capture a large welfare gain from an FTA with the USA. Finally, Morocco would reap a small welfare gain from its FTA with the US. The impact of this FTA on T&C output, employment and wage would be negligible.

ANNEX 1. PRICES IN THE EU AND US MARKETS

Figure A.1.1 FOB prices in the EU Market (1997-2005)

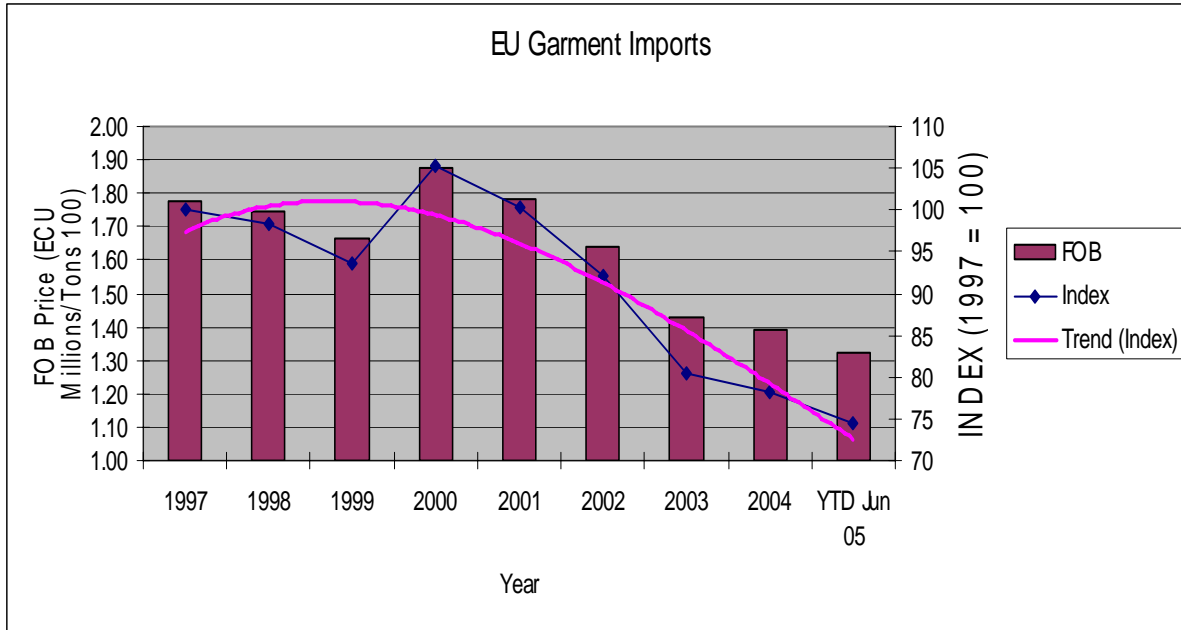
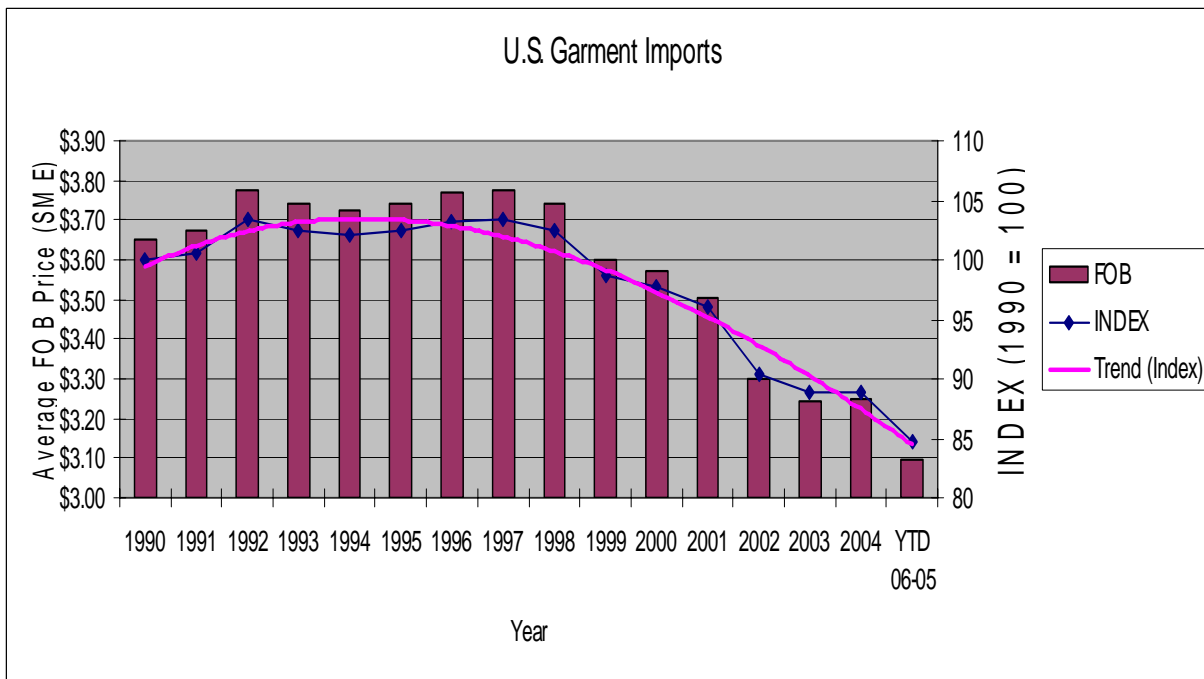


Figure A.1.2. FOB price in the US



**ANNEX 2. TOP 20 EXPORTERS OF MEN'S JEANS TO THE EU AND THE US**

**Table (a) Top 20 Suppliers to the U.S. by 2004**

Landed Value-Men's and Boys' Denim

<i>Rank</i>	<i>Country</i>	<i>Qty</i> (Mil Dz)	<i>Val</i> (Mil US\$)	<i>Price</i> (\$/DZ)	<i>Mkt Share</i> %
1	Mexico	10.2	\$990.0	\$97.3	51
2	Guatemala	1.1	114	103.64	6
3	Hong Kong	0.6	75	136.23	4
4	Colombia	0.9	73	84.14	4
5	Costa Rica	1.2	69	56.01	4
6	Dominican Republic	0.8	67	86.32	3
7	Lesotho	0.7	52	78.71	3
8	Nicaragua	0.7	49	68.88	3
9	Honduras	0.8	46	55.03	2
10	Cambodia	0.4	33	84.22	2
11	China	0.2	29	149.76	1
12	Pakistan	0.3	23	72.42	1
13	Philippines	0.3	23	89.91	1
14	Turkey	0.1	23	160.16	1
15	Egypt	0.3	22	63.62	1
16	Indonesia	0.2	21	95.15	1
17	Bangladesh	0.3	21	70.73	1
18	South Africa	0.2	20	82.81	1
19	El Salvador	0.2	19	91.31	1
20	Madagascar	0.2	17	72.67	1
Memo	All Countries	21.7	\$1,938	\$89.49	
40	Morocco	0.1	\$3	\$36.76	0.15%

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Source: OTEXA, Compiled by HCTAR

**Table (b) Top 20 Suppliers to the EU.15 by 2004**

Landed Value-Men's and Boys' Denim

<i>Rank</i>	<i>Country</i>	<i>Qty</i> (Mil Dz)	<i>Val</i> (Mil Euro)	<i>Price</i>	<i>Mkt Share</i> %
1	Turkey	23.75	€266.76	€11.23	22
2	Tunisia	14.49	183.66	12.67	15
3	Bangladesh	39.66	152.55	3.85	13
4	Pakistan	16.88	90.27	5.35	7
5	Morocco	7.94	75.42	9.5	6
6	Romania	5.43	70.35	12.96	6
7	Poland	6.03	67.48	11.19	6
8	Hong Kong	5.12	41.69	8.15	3
9	Malta	3.34	27.51	8.25	2
10	Hungary	2.47	25.5	10.34	2
11	Egypt	1.79	17.52	9.79	1
12	UAE	3.37	13.82	4.1	1
13	Czech Republic	0.48	13.67	28.66	1
14	Macao	1.39	12.61	9.08	1
15	China	1.8	12.54	6.97	1
16	Albania	2.87	12.43	4.33	1
17	Indonesia	1.74	12.28	7.04	1
18	Thailand	1.82	11.38	6.27	1
19	Mauritius	1.51	11.07	7.32	1
20	Cambodia	1.81	10.79	5.97	1
Memo	All Extra EU 15	155.66	€1,215.09	€7.81	

Source: Eurostat, Compiled by HCTAR





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