



Munich Personal RePEc Archive

# **Trade Policy and Export Performance in Morocco**

Walkenhorst, Peter and Malouche, Mariem

World Bank

2006

Online at <https://mpra.ub.uni-muenchen.de/23119/>

MPRA Paper No. 23119, posted 08 Jun 2010 02:10 UTC

# Trade Policy and Export Performance in Morocco #

*Peter Walkenhorst \**

*Mariem Malouche \*\**

January 2006

## **Abstract**

Morocco's trade policy is at a cross-roads. Historically, the country has had a very restrictive import regime that generated substantial transfers to domestic producers. In terms of the simple average of most-favored nation tariffs, Morocco is one of the ten most highly protected markets in the world. Yet, with the signing of the Euro-Med Agreement with the European Union and its implementation since 2000, a decision for the gradual opening of the domestic market through preferential trade liberalization was taken. This choice was subsequently reaffirmed through the conclusion of further free trade agreements with the United States and Turkey. The resulting shift in trade policy paradigms promises to create new opportunities for export-led economic growth and employment generation, while requiring adjustment of domestic producers to the new, more competitive economic environment and additional policy reforms to complement the market opening strategy.

## **Keywords**

Trade, tariffs, services, logistics, export diversification, regional integration, world markets

## **JEL Classification**

F13; F14; F15; O24

---

#) This paper serves as a background document for the preparation of the Country Economic Memorandum, "Kingdom of Morocco: Fostering Higher Growth and Employment with Productive Diversification", Report No. 32948-MA. Washington DC: The World Bank. The findings, interpretations, and conclusions expressed in this study are entirely those of the authors. They do not necessarily represent the view of the World Bank, its Executive Directors, or the countries they represent.

\*) Peter Walkenhorst is Senior Economist, International Trade Department, The World Bank, Washington DC.

\*\*) Mariem Malouche is Economist, International Trade Department, The World Bank, Washington DC.

## Table of Contents

Executive Summary .....	1
1. Background .....	2
2. Overview of Trade Performance.....	3
2.1 Developments in Merchandise Trade .....	4
2.2 Export Diversification.....	9
2.3 Developments in Services Trade and Foreign Direct Investment .....	13
3. Domestic Trade Policies .....	15
3.1 Trade Logistics.....	16
3.2 Domestic Market Protection .....	17
3.3 Tariff Revenues.....	21
4. Regional Integration.....	22
4.1 Morocco’s Preferential Trade Agreements .....	22
4.2 Untapped Potentials in Regional Trade .....	28
4.3 Economic and Fiscal Impacts of Preferential Agreements .....	29
5. Implications of Textiles and Clothing Market Liberalization.....	34
6. Summary of Policy Recommendations.....	43
References .....	48
Annex 1: A Gravity Model to Quantify Morocco’s Export Potential .....	54
Annex 2: SMART: A Partial Equilibrium Model.....	55

# Trade Policy and Export Performance in Morocco

## EXECUTIVE SUMMARY

1. Morocco's trade policy is at a cross-roads. Historically, the country has had a very restrictive import regime that generated substantial transfers to domestic producers. In terms of the simple average of most-favored nation (MFN) tariffs, Morocco is one of the ten most highly protected markets in the world. Yet, with the signing of the Euro-Med Agreement with the European Union and its implementation since 2000, a decision for the gradual opening of the domestic market through preferential trade liberalization was taken. This choice was subsequently reaffirmed through the conclusion of further free trade agreements with the United States and Turkey. The resulting shift in trade policy paradigms promises to create new opportunities for export-led economic growth and employment generation, while requiring adjustment of domestic producers to the new, more competitive economic environment and additional policy reforms to complement the market opening strategy.

2. Over the past decade, Morocco's export performance has been lackluster. The country has lost world market share in merchandise exports, and the current account surpluses in recent years have only been achieved on the back of strong services exports and migrant remittances. Diversification out of traditional exports, such as apparel, has been slow, and the end of the export quotas under the Multi-Fiber Arrangement since the beginning of 2005 is exposing Moroccan textile and clothing exporters to direct competition with low-cost producers in Eastern Europe and East Asia. In this context, the bilateral free trade agreements and the market access preferences these offer are expected to help Moroccan exporters to defend their position in established markets (EU), enhance their presence in currently underexploited markets (USA), and procure intermediate inputs at lower costs than was previously possible (Turkey).

3. However, the choice to open the domestic market through preferential agreements involves several challenges that warrant the attention of policy makers. First, the opening of the domestic market is selective in the sense that only partner countries can sell their products in the Moroccan markets at low import tariffs, while third country exporters continue to face high MFN-rates. This asymmetry can lead to the diversion of trade flows from more efficient third country producers to less efficient partner country producers, resulting in a loss of tariff revenues for Morocco without its economy benefiting from lower purchasing costs. In order to contain these economic costs of trade diversion, the government should reduce its MFN-tariffs *vis-à-vis* third countries.

4. Second, the opening of the Moroccan market through preferential agreements is partial by leaving the highly protected agricultural and services sectors largely untouched. Indeed, effective rates of protection for agri-food products are bound to increase over time, as tariffs on industrial goods are phased out. High protection is making it possible for very inefficient firms in the sector to survive to the extent that some agro-processing firms show negative value-added at international prices. The government should actively encourage an efficiency-enhancing restructuring in the agri-food sector by gradually lowering trade barriers and increasingly exposing domestic producers to international market discipline.

5. Third, Morocco's choice of international integration through preferential agreements is so far largely static by focusing on tariff reductions among partner countries. Yet, international experience suggests that substantial additional benefits over time can be derived from "deep integration" that involves the harmonization of standards, as well as the liberalization of services. Also, the adoption of simple to administer rules of origin across different preferential agreements can markedly facilitate trade.

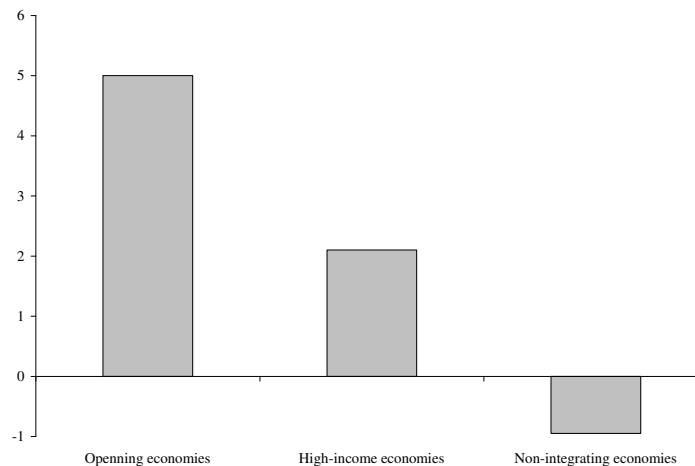
6. In parallel to lowering policy-generated trade barriers, Morocco should make additional efforts to reduce overall trade transactions costs to the benefit of both importers and exporters. The country has a generic advantage in its geographic proximity to the large Western European market. Yet, trade logistics costs are high and European apparel buyers, for example, complain about the lack of reliability of shipments from Morocco. In order to overcome these impediments, the government should foster competition in port operations and transport services and create a business environment that is supportive for the establishment of modern logistics operations.

## 1. BACKGROUND

7. Over the past decade, Morocco has gradually advanced the opening of its economy to the international market. Tariffs were reduced, non-tariff barriers phased-out, and foreign trade procedures simplified. The country also broadened and diversified its economic and trading relationships by concluding preferential trade agreements with bilateral and regional trading partners and contributing to the consolidation of the multilateral trading system. As a result, total trade as the sum of merchandise exports and imports increased from less than 40 per cent of gross domestic product (GDP) in 1995 to more than 60 per cent in 2004.

8. Openness is in general positively associated with economic and employment growth. During the 1990s, the developing countries that pursued an active world market integration strategy achieved economic growth of about 5 per cent per capita, i.e. more than twice the level observed in high-income countries. In contrast, developing countries that did not open their economies experienced lower, and on average negative, growth rates (Figure 1). Moreover, Schott (2003) notes that despite all the lively debate about whether trade openness contributes to growth, all the empirical estimates confirm a positive relationship.

**Figure 1: Market Openness and Economic Growth during the 1990s**  
(Per cent increase in GDP per capita)



Source: Dollar and Kray, 2001.

9. For Morocco, econometric analysis indicates that increased trade has had a positive impact on GDP (Bouoiyour, J., 2003). Import expansion was found to increase goods exports, which in turn triggered higher GDP growth. However, exports have not been strong enough to pull the economy towards the economic growth rates that many other emerging economies have enjoyed. Indeed, since 2002 merchandise exports have been increasingly falling short of imports, implying increasing trade

balance deficits. The current account surpluses during recent years have only been achieved on the back of strong remittances-transfers from emigrants (Table 1).

**Table 1: Current Account Balance, 1995-2004**

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
	<i>in million USD</i>									
Goods	-2 482	-2 193	-1 864	-2 319	-2 448	-3 235	-3 022	-3 061	-4 345	-6 488
Services	284	961	747	864	1 112	1 142	1 911	1 947	2 617	3 387
Trade balance	-2 198	-1 232	-1 117	-1 455	-1 336	-2 093	-1 111	-1 114	-1 728	-3 101
Investment income	-1 318	-1 309	-1 175	-1 033	- 986	- 864	- 833	- 738	- 792	- 651
Current transfers	2 330	2 576	2 205	2 345	2 154	2 483	3 555	3 330	4 102	4 860
Current account	-1 186	35	- 87	-144	-167	-475	1 611	1 477	1 582	1 109
	<i>in per cent of GDP</i>									
Goods	-7.5	-6.0	-5.6	-6.5	-6.9	-9.7	-8.9	-8.5	-9.9	-13.0
Services	0.9	2.6	2.2	2.4	3.2	3.4	5.6	5.4	6.0	6.8
Trade balance	-6.6	-3.4	-3.4	-4.1	-3.7	-6.3	-3.3	-3.1	-3.9	-6.2
Investment income	-4.0	-3.6	-3.5	-2.9	-2.8	-2.6	-2.5	-2.0	-1.8	-1.3
Current transfers	7.1	7.0	6.6	6.5	6.1	7.4	10.5	9.2	9.4	9.8
Current account	-3.6	0.1	-0.3	-0.4	-0.5	-1.4	4.8	4.1	3.6	2.2

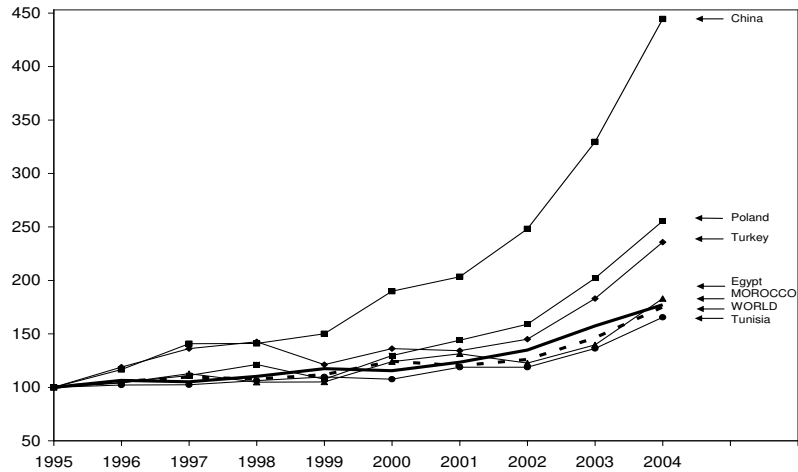
*Source:* Moroccan Foreign Currency Board.

10. This chapter provides a detailed account of Morocco's trade performance in the context of the country's economic growth and poverty reduction agenda. The analysis thereby falls into four parts: First, recent export and trade developments are reviewed and differences across sectors and sub-sectors highlighted. Second, domestic trade policies and their effects are examined in order to identify possible anti-export bias in domestic market protection and draw attention to opportunities for growth-enhancing reforms. Third, Morocco's recently concluded and prospective bilateral and regional free trade agreements are described and assessed, including a quantification of their fiscal and economic impacts. Fourth, the effects of trade policy changes at the multilateral level, notably the phasing-out of quotas under the Agreement on Textiles and Clothing, are analyzed. And finally, a set of priority issues for the attention of policy makers is derived.

## 2. OVERVIEW OF TRADE PERFORMANCE

11. Since 1995, the value of Moroccan exports of goods and services has grown on average by 6.6 per cent in current USD, roughly in line with world market growth. Yet, this export growth has fallen short of the expansion of foreign sales of some of Morocco's main competitors, such as China, Poland and Turkey (Figure 2). These countries have increased their shares in an expanding world market, while Morocco's share has stagnated at about 0.12 per cent of total world exports.

**Figure 2: Growth in Exports of Goods and Services, 1995-2004 (1995 = 100)**



Source: International Monetary Fund, World Economic Outlook database.

12. While impediments in the investment climate and the labor market hamper the economic development of both exporters and firms that produce for the domestic market, the relatively poor export performance over the past decade can be linked to some trade-specific factors. The latter concern both the external economic environment and domestic policy issues. Developments in merchandise trade, export diversification, and services trade are thereby affected in different way and to a varying extent.

## 2.1 Developments in Merchandise Trade

13. Merchandise trade has recently been more of a drag than a boon for the Moroccan economy. In local currency terms, the value of merchandise exports during the past two years has fallen below the level attained in 2002, while the value of imports increased by about 20 per cent during the same period. As a result, the import coverage ratio (i.e. exports as a share of imports) fell to a historical low of 55.3 per cent in 2004, after having peaked at almost 74 per cent in 1997.

14. Morocco's main trading partners are located in Western Europe (Table 2). In 2004, this region absorbed more than three-quarters of Moroccan exports and was the origin of more than 60 per cent of the country's imports. Trade relationships are particularly intensive with France and Spain, which accounted, respectively, for 33 per cent and 17 per cent of Morocco's exports and for 18 per cent and 12 per cent of all imports. Outside Europe, significant trade is carried out with the United States (4 per cent of both total exports and imports), as well as with China, Russia, Saudi Arabia (together about 15 per cent of total imports) and India (3.5 per cent of total exports). Morocco had a merchandise trade deficit with all major regions in the world, except South Asia.

**Table 2: Structure of Morocco's Merchandise Trade, 1995-2004**  
(per cent of gross domestic product)

	Exports			Imports (incl. for re-export)			Net-Exports		
	1995	2000	2004	1995	2000	2004	1995	2000	2004
<i>All Goods</i>									
World	13.9	21.4	21.7	25.6	34.1	39.2	-11.6	-12.7	-17.6
East Asia & Pacific	1.4	1.3	0.7	1.6	2.4	3.7	-0.2	-1.2	-3.1
Eastern Europe & Central Asia	0.4	0.6	0.5	2.3	1.8	4.3	-1.9	-1.2	-3.8
Latin America & Caribbean	0.3	0.4	0.8	1.1	1.1	2.0	-0.8	-0.7	-1.1
Middle East & North Africa	1.2	0.8	0.8	2.9	5.2	4.1	-1.7	-4.4	-3.3
North America	0.6	0.8	1.0	2.2	2.6	2.0	-1.6	-1.8	-1.0
South Asia	1.0	1.0	0.9	0.1	0.2	0.3	0.9	0.8	0.6
Sub-Saharan Africa	0.3	0.4	0.6	0.8	0.6	0.7	-0.5	-0.2	-0.1
Western Europe	8.8	16.2	16.2	14.7	20.2	22.0	-5.9	-4.0	-5.9
<i>Agriculture and fisheries</i>									
World	3.3	3.7	1.5	3.7	3.5	2.9	-0.5	0.2	-1.4
East Asia & Pacific	1.0	0.8	0.0	0.4	0.3	0.1	0.7	0.6	-0.1
Eastern Europe & Central Asia	0.1	0.2	0.2	0.4	0.2	0.2	-0.3	0.0	0.0
Latin America & Caribbean	0.0	0.0	0.0	0.2	0.3	0.8	-0.2	-0.3	-0.8
Middle East & North Africa	0.1	0.0	0.0	0.1	0.1	0.1	-0.1	0.0	0.0
North America	0.1	0.1	0.1	0.7	1.1	0.8	-0.7	-1.0	-0.8
South Asia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sub-Saharan Africa	0.0	0.0	0.0	0.4	0.3	0.2	-0.4	-0.2	-0.2
Western Europe	2.0	2.5	1.1	1.5	1.4	0.7	0.5	1.1	0.4
<i>Mining</i>									
World	1.3	1.5	1.4	3.8	5.8	5.1	-2.5	-4.3	-3.7
East Asia & Pacific	0.2	0.2	0.2	0.0	0.0	0.0	0.2	0.2	0.1
Eastern Europe & Central Asia	0.1	0.2	0.1	0.5	0.5	1.8	-0.4	-0.3	-1.7
Latin America & Caribbean	0.1	0.2	0.2	0.0	0.0	0.1	0.1	0.2	0.1
Middle East & North Africa	0.0	0.0	0.0	2.2	4.4	2.5	-2.2	-4.4	-2.5
North America	0.2	0.2	0.3	0.3	0.2	0.1	-0.2	0.0	0.2
South Asia	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1
Sub-Saharan Africa	0.0	0.0	0.0	0.3	0.2	0.4	-0.3	-0.2	-0.4
Western Europe	0.6	0.6	0.5	0.3	0.5	0.1	0.3	0.1	0.3
<i>Manufacturing</i>									
World	9.4	16.2	18.8	18.0	24.6	31.3	-8.7	-8.3	-12.5
East Asia & Pacific	0.2	0.2	0.5	1.2	2.2	3.6	-1.0	-1.9	-3.1
Eastern Europe & Central Asia	0.2	0.2	0.2	1.4	1.2	2.3	-1.2	-1.0	-2.1
Latin America & Caribbean	0.2	0.2	0.6	0.8	0.8	1.1	-0.6	-0.6	-0.4
Middle East & North Africa	1.1	0.8	0.7	0.5	0.7	1.5	0.6	0.1	-0.8
North America	0.3	0.5	0.6	1.1	1.4	1.1	-0.8	-0.9	-0.5
South Asia	0.9	1.0	0.8	0.1	0.2	0.3	0.9	0.8	0.5
Sub-Saharan Africa	0.3	0.4	0.5	0.1	0.1	0.1	0.2	0.2	0.4
Western Europe	6.2	13.0	14.6	12.9	18.1	21.2	-6.7	-5.0	-6.6

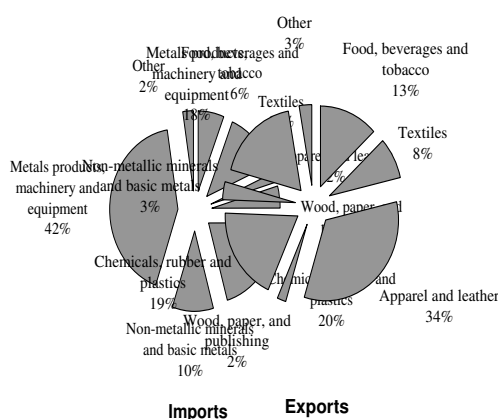
*Note:* Trade with non-specified countries is included in World-total. Comparisons between years up to 1997 and afterwards should be treated with care due to methodological changes in Morocco's merchandise trade statistics.

*Source:* Moroccan Foreign Currency Board & UN COMTRADE database.



15. On a sectoral basis, Morocco had a slight trade deficit for agricultural products, and sizable ones for mining products and manufactured goods in 2004 (Table 2). Major agricultural exports are fish, fruits and vegetables (e.g. oranges, tomatoes), while substantial amounts of cereals are imported. Morocco is one of the world's foremost exporters of phosphates, but the resulting foreign sales revenues do not suffice to cover the expenses for petroleum and other mining imports. Within manufacturing, exports are concentrated in textiles and clothing, while machinery and equipment is the most prominent import category (Figure 3).

**Figure 3: Sectoral Structure of Manufacturing Trade, 2004**



Source: World Bank Staff based on data from the Moroccan Foreign Currency Board.

16. Morocco's agriculture, fisheries and food exports have been volatile over time, reflecting the vulnerability of production to climate fluctuations. A clear trend is nevertheless perceivable that points to the declining importance of these exports for the country. The share of agriculture, fisheries and food exports decreased from more than a third of total exports in 1995 to less than a fifth in 2004. In parallel, the relative importance of industrial manufacturing exports increased by about 20 percentage points. However, Morocco remains more dependent on agri-food export earnings than other emerging economies, including China, Poland, Tunisia and Turkey (Tourkmani and Mrani, 2004).

17. The disappointing export performance in recent years is to a significant extent attributable to adverse external conditions (Rachid, 2004). Economic growth in Morocco's main export markets in Western Europe has been relatively sluggish, slowing the demand for Moroccan export goods (Figure 4). The deceleration of economic activity in France, Spain and other countries of the European Union since 2000 has highlighted the risks for Morocco of having a geographically highly concentrated export structure. Recently concluded preferential trade agreements with the United States and Turkey will tend to contribute to a greater diversification of export markets (see section 4 below). Yet, Western Europe will doubtlessly remain the dominant trading partner, so that Moroccan exports will continue to be vulnerable to economic downturns in the region to its North.

18. The heavy dependence on European and notably EU markets suggests that regulatory alignment with market and trade standards in Western Europe, as envisaged in the Barcelona process, could further facilitate trade and yield significant benefits for Morocco. In some areas, such as food quality and safety, Morocco has already made substantial progress towards meeting EU requirements and seems to be in a better position than some of its competitors (Box 1). Such rigorous pursuit of

existing export market opportunities will be a key factor in realizing Morocco's potential for sales in the EU market.

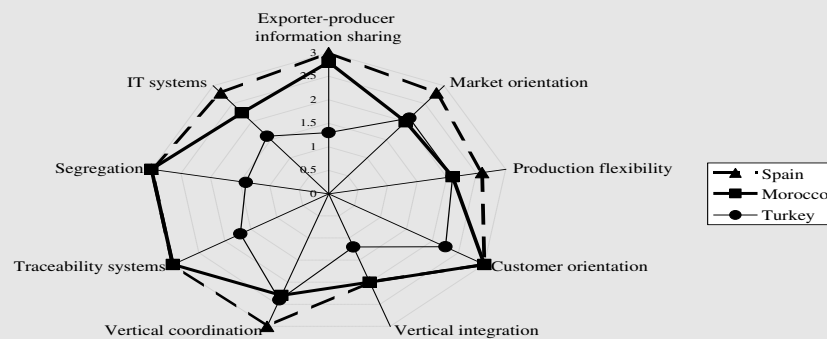
### Box 1: Meeting International Food Safety and Quality Standards

In response to heightened consumer and agro-industry concerns about food safety and agricultural health, developed countries have adopted more stringent sanitary and phyto-sanitary import requirements. As a result, agriculture and food producers from developing countries may experience increasing difficulty of entering export markets if they do not comply with international trading rules or voluntary, private standards, such as supermarkets' assurance schemes. One industry standard that has assumed significant prominence in international agri-food trade is certification for compliance with Euro-Retailer Produce Good Agricultural Practices (EurepGAP). EurepGAP verifies the quality of farm and downstream processing management in a systematic and consistent way through a set of protocols and compliance criteria.

In Morocco, the EurepGAP standard is being widely implemented in the agricultural sector in the Agadir region. However, compliance comes at a cost. Results from microanalysis suggest that for a medium-sized tomato farm of 10 ha, the expenses for improving buildings and equipment and the recurring outlays for staff training, monitoring, and certification amount to about 8 per cent of farm gate costs. After post-harvest, transport, and marketing costs are added, compliance costs represent about 3 per cent of total export value (Aloui and Kenny, 2004).

In many developing countries, adherence to developed country standards is impeded and made more costly by the fragmentation of supply chains, dispersion of regulatory responsibilities for food safety across different government entities, and lack of financial resources and technical expertise. Yet, the situation in Morocco seems relatively benign. Benchmarking analysis reveals that in terms of coordination along the supply chain, Morocco's citrus fruit and tomato sector is significantly ahead of Turkey and reaches best regional practices (Spain) in several aspects (see Figure below).

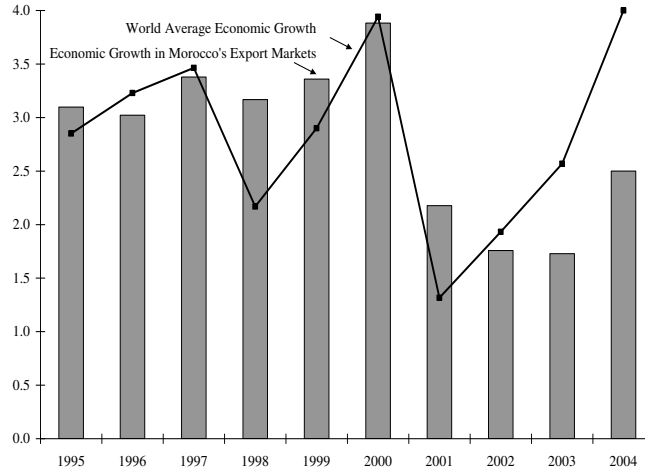
**Coordination of the Citrus Fruit and Tomato Supply Chains**  
(higher value indicates better quality)



Source: Garcia (2003).

Similar rankings are obtained in other dimensions of export viability. Concerning safety and quality orientation, for example, the presence of specialized quality control staff is the norm in Morocco and Spain, but less likely in Turkey where this duty often falls to a general manager. Most facilities in Morocco have automatic sorting and grading lines, while the operational infrastructure in Turkey still relies to a large extent on manual labor. Hence, while further improvements in some dimensions of agri-food management are desirable, compliance with international standards does not appear to represent a major impediment for agricultural export growth in Morocco.

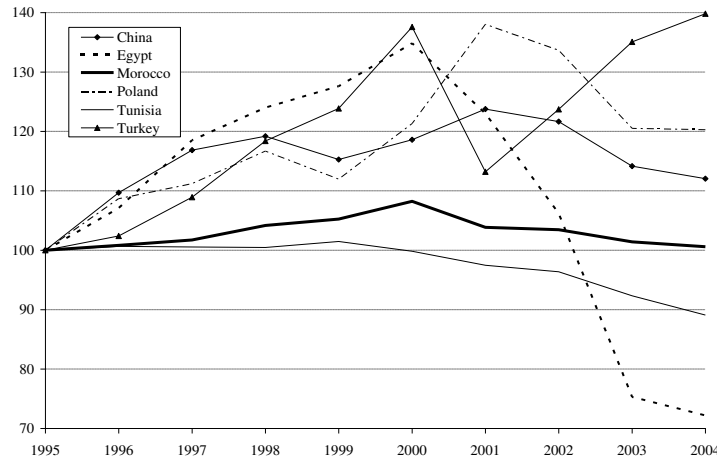
**Figure 4: Economic Growth in Morocco's Export Markets, 1995-2004**  
(per cent)



Note: Average GDP growth in Morocco's export markets is weighted by value of merchandise exports.  
Source: World Bank, World Development Indicators.

19. In addition to slow growth in its main export markets, Morocco's exporters have been adversely affected by exchange rate movements. The strong link of the Dirham to the Euro during a time when the Euro strengthened *vis-à-vis* the US Dollar has resulted in an appreciation of Morocco's real effective exchange rate relative to some competitor countries whose currencies are floating or are more closely linked to the US Dollar (Figure 5). The resulting loss of competitiveness since 2001 is most pronounced *vis-à-vis* Egypt, but is similarly felt in relation to Tunisia, Poland and China.

**Figure 5: Real Effective Exchange Rate Developments, 1995-2004**

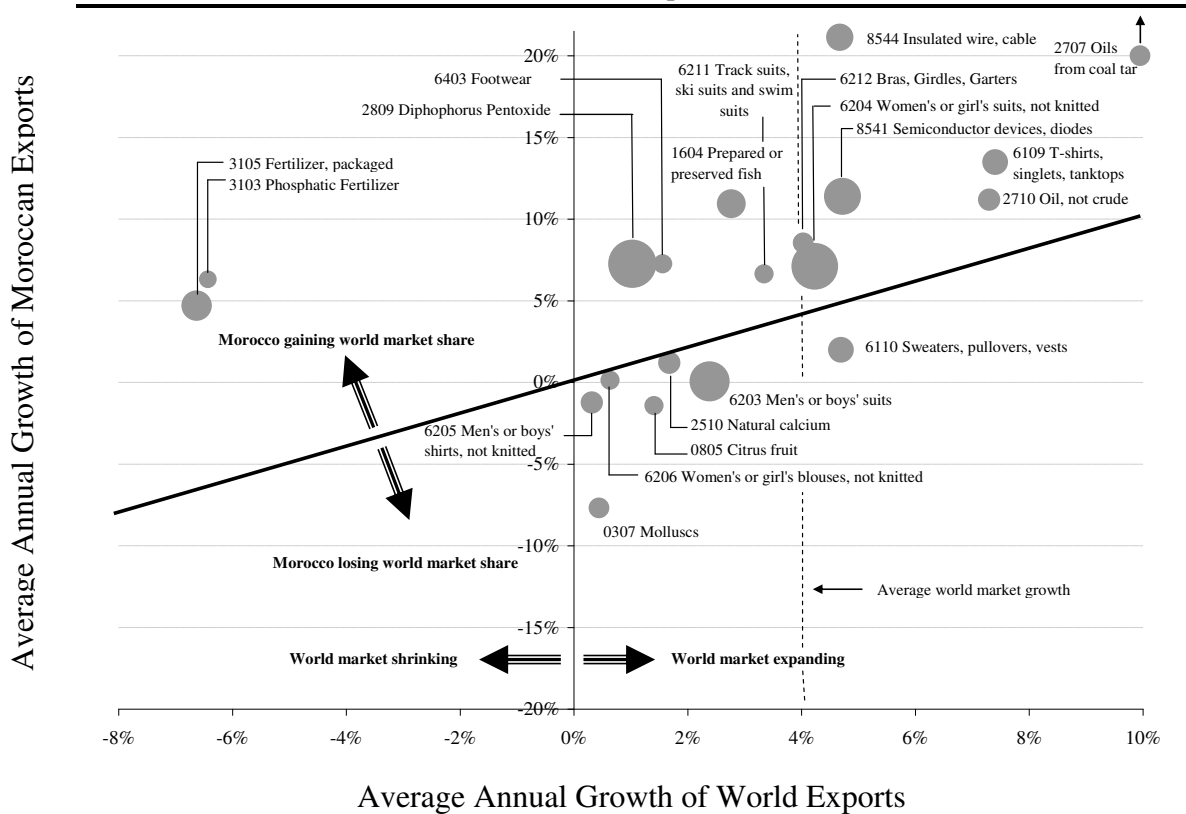


Note: An increase in the real exchange rate means appreciation.  
Source: International Monetary Fund, World Economic Outlook database.

20. Not all manufacturing branches have performed poorly, though, over the past decade. Indeed, in a number of product lines Morocco has been able to gain world market share (Figure 6). However, many of Morocco's main exports are in branches that show below average world market growth, so that the relative importance of these markets is declining over time. Moreover, four of the product lines that have gained market share, including Morocco's top export line, are apparel products. The latter are facing much fiercer competition in international markets since the beginning of 2005, as the quotas that regulated supplies of textiles and clothing to developed country markets

under the Multi-Fiber Arrangement were phased out (see section 5 below). Moroccan exporters now have to compete head-on with suppliers from other developing countries. This alteration in the competitive environment with increased pressure on traditional exports makes it desirable for Morocco to foster new economic activities and diversify production and exports in order to increase the resilience of its export earnings.

**Figure 6: Annual Export Growth in Major Product Lines Relative to World Market Growth**  
(current USD, per cent)

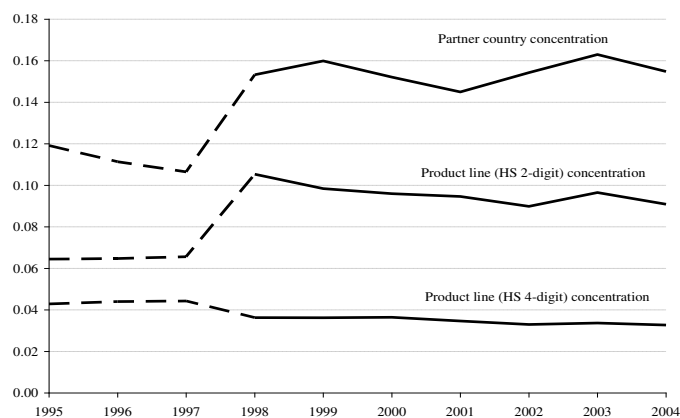


Note: Time period 1998-2004. Data reported for the 20 most important HS 4-digit product categories in Morocco. The size of the circle area is proportional to the export value.  
Source: UN COMTRADE database.

## 2.2 Export Diversification

21. Indicators of export concentration, such as the Herfindahl index, suggest that some diversification of exports has already occurred since the late 1990s (Figure 7). While no clear tendency is discernable concerning the diversity in exports *across countries*, the concentration of exports *by product line* shows a slight downward trend over time. This product-diversification of exports is encouraging, although the level of diversification remains lower than in other emerging economies, such as China, Poland, and Turkey (Tourkmani and Mrani, 2004). Hence, in the short term Morocco's export structure - heavily dependent on agri-food, phosphates and derived products, and textiles and clothing - remains vulnerable.

**Figure 7: Concentration of Exports, 1995-2004**  
(Herfindahl index)



*Note:* The Herfindahl index  $H$  is calculated as the sum of the squares of partner country/product line market shares:  $H = \sum_i s_i^2$ , where  $s_i$  represents the share of partner country/product line  $i$  in total exports. Lower values imply less concentration. Comparisons between years up to 1997 and afterwards should be treated with care due to methodological changes in Morocco's merchandise trade statistics.

*Source:* UN COMTRADE database.

22. Comparing the share of a given sector in national exports with the share of this sector in world exports yields a measure of revealed comparative advantage. According to this indicator, Morocco is strongest in the production and export of clothing, leather, food and electronic components (International Trade Center, 2002). These sectors are characterized through their dependence on large quantities of low-cost, low-skilled labor inputs and their low (or low to medium in the case of electronic components) technology contents (Tourkmani and Mrani, 2004). Value-added tends to be limited. In this context, diversification not only serves to reduce the vulnerability to market shocks, but could also open the path towards higher value-added production systems. The latter also tend to offer more dynamic perspectives in terms of world export market growth.

23. One area where Morocco seems to lag behind other countries at a similar level of development is the process of "product discovery", i.e. the uptake and export of products that have not been previously supplied by firms in the country. Some analysts suggest that a slow pace of product discovery and diversification is due to market failure (Hausmann and Rodrik, 2003). Firms underinvest in the discovery process because once the entrepreneur identifies a new profitable product for export, others can easily imitate the innovator's success, free-riding on the initial investments in experimentation and staff training and driving down the innovator's profits. Without government intervention to address this market failure, countries are diversifying at a sub-optimal pace. One means for public authorities to overcome this deficiency and accelerate the diversification process would be to subsidize the search process, for example by providing infrastructure and fiscal incentives to firms that engage in product discovery (Box 2).

24. Econometric cross-country analysis indicates that product discovery in Morocco is indeed relatively low (Klinger and Lederman, 2004). Over the period 1993 to 2002, there were 19 product lines (HS 6-digit level) in Morocco for which export earnings increased from less than 10 000 USD to more than 1 million USD. For comparison, the number of discoveries in Indonesia, Turkey and Romania during the same period is reported as 160, 135, and 102, respectively.

25. Extending the analysis till 2004 increases the pool of new products to 24 (Annex X). Discoveries turn out to be widely distributed across sectors, and some of them have achieved considerable economic importance. Indeed, three new mining and oil refining products each account

for more than 1.5 per cent of total exports in 2004. In the aggregate, new products are responsible for more than 9 per cent of Morocco's exports.

26. Casting a "wider net" that also captures products with exports between 10 000 USD and 100 000 USD in 1993 and whose export earnings since then have increased dynamically to more than 1 million USD, results in a significant rise in the number of discoveries (to 49). However, the 25 additionally captured products turn out to be less important in terms of export earnings. Taken together they augment the share of new products in total exports by less than 1.5 percentage points to an overall 10.5 per cent.

It should be noted that the above analysis relates only to the goods sector. Yet, services account for the majority of value-added in the Moroccan economy and parts of the sector have developed dynamically over the past years following privatization and de-regulation. New types of services have sprung up and some of these are also serving foreign markets. The most prominent example is the relatively recent emergence of call centers that are serving francophone markets in Western Europe and that have become a major contributor to employment generation and export earnings.

### **Box 2: Tangier Free Zone**

Morocco has about 70 industrial zones, of which roughly half are operational. Enterprises in these zones enjoy certain infrastructure and fiscal advantages that differ by region and zone. In addition, there are two operational free trade zones (a third one is being created), namely the small, yet established Tangier port zone and the relatively new and expanding Tangier Free Zone. The latter was legally created as a 345-hectare export processing zone (EPZ) in November 1997, its rules of procedure were approved in June 2000, and it became operational in 2001. It comprises an industrial in-bond zone and a logistical zone.

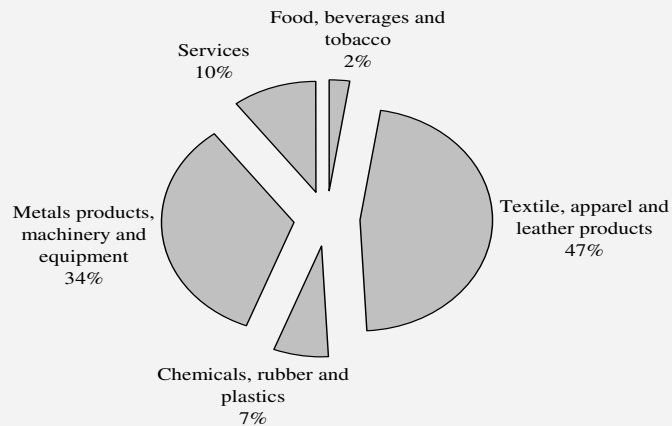
In order to benefit from Tangier Free Zone (TFZ) status, enterprises must export all their production. Services firms working with free zone enterprises are also given TFZ status. Foreign exchange operations for transactions abroad by firms established in the TFZ are free. Goods entering or leaving the TFZ are exempt from all duties and taxes on imports, exports, production, movement, or consumption. Other fiscal measures include exemptions from registration and stamp tax on constituting or increasing capital, from taxes on the purchase of the land needed for the enterprise's investment projects, and from the national solidarity contribution. Moreover, TFZ enterprises are exempt from the business tax and the urban tax for the first 15 years, and from the corporation tax and income tax for the first five years. Between the fifth and the fifteenth year, firms pay a corporation tax of only 8.75 per cent (instead of the normal 35 per cent rate) and are granted a reduction of 80 per cent on income taxes. These incentives are similar to the benefits that firms receive in export processing zones in other countries, although direct comparisons are difficult.

However, Morocco and other countries will need to adjust the fiscal incentives they grant to EPZ-enterprises in order to ensure compliance with their commitments under the WTO Agreement on Subsidies and Countervailing Measures. Developing countries agreed during the Uruguay Round to eliminate specific subsidies that are contingent upon export performance by January 1st, 2003. Countries can continue to exempt EPZ-companies' exports from indirect taxes (such as value-added taxes), border taxes (e.g. consular fees) and import charges, but fiscal incentives have to be abolished or changed to a form that is in conformity with WTO rules.

It is expected that the TFZ will eventually attract 1900 new companies and thereby help to reduce the high unemployment in the region. In the first three years, the zone developed dynamically and by April 2005 there were 106 enterprises operating in the TFZ and 76 facilities were under construction, had been approved, or were being planned. The 182 TFZ-enterprises are forecast to invest a total of MAD 2.8 billion and will eventually create 23 200 jobs. Almost half of the TFZ-employment will be in the textile, apparel and leather industries and a further third in metals, machinery and equipment production (see graph below). Metals, machinery and equipment are thereby overrepresented compared with the sector's industrial employment share at the national level, while food, beverages and tobacco production and the chemical, rubber and plastic industries are currently not as prominent as on the mainland.

It is difficult to assess the performance and impact of the TFZ to date, as the zone is still in its build-up phase and there are only very limited data on production and exports available. Morocco's statistical authorities only report information on trade between the TFZ and the Moroccan mainland, and, to date, do not collect data on international transaction involving firms in the TFZ. In 2004, mainland-Morocco received 0.4 per cent of all its imports from the TFZ and sent 0.5 per cent of its exports to the zone.

### Distribution of Employment in the Tanger Free Zone



*Source:* Société Tanger Free Zone.

The potential role of EPZs as an engine of growth in developing countries has been a much discussed topic. Individual country experiences with export processing zones have been mixed and the specific set-up and management of the zones seems to be paramount to their success. Moreover, a business-friendly investment climate and good governance seem crucial for a country's success in setting up an EPZ.

Export processing zones may make a positive contribution to growth and employment if they manage to attract foreign direct investment that is accompanied by technological transfer, knowledge spillovers and demonstration effects, which act as catalysts for domestic entrepreneurs to engage in the production of non-traditional goods or services. Relatively successful examples in terms of the dynamics of economic activity and employment include Honduras, El Salvador, Mauritius, China, Indonesia, Malaysia, South Korea, and Sri Lanka.

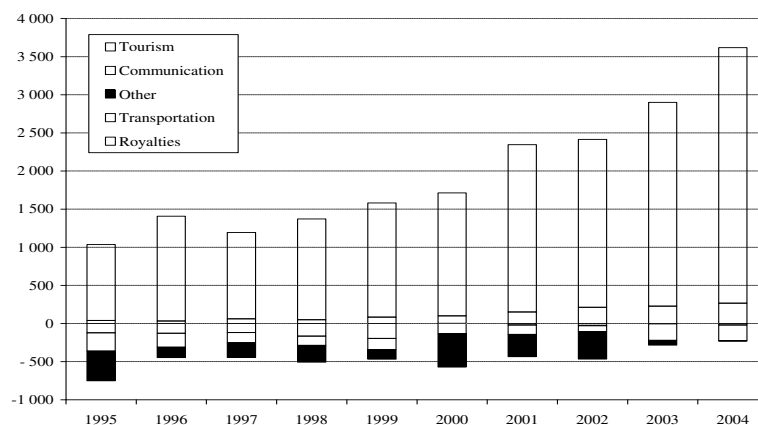
On the other hand, there are a number of failures and the fact that in most cases firms locating in EPZs enjoy tax breaks and host countries subsidize infrastructure has been prone to criticism. It is indeed not clear whether such incentives can always be justified on a cost-benefit basis (Madani, 1999). For example, detailed analysis suggests that governmental infrastructure investments in the EPZ in the Philippines have not been justified by the returns in terms of employment, tax receipts and foreign exchange earnings (Jayanthakumaran, 2003). Moreover, there are often intangible factors that influence the success or failure of free zones. In the Caribbean, the fear of unsteady labor relations is being seen as a reason for the relatively low attractiveness of the EPZ in Trinidad and Tobago for investors compared with other zones in the region (Willmore, 1996). In Africa, many EPZs have suffered from lack of socio-political and economic management skills that have not made it possible to appropriately address the multiple challenges of EPZ-establishment, such as providing high quality infrastructure, government services, and human capital (Watson, 2001).

## 2.3 Developments in Services Trade and Foreign Direct Investment

27. As in many other emerging economies that have been integrating more markedly with partner countries, the services sector in Morocco has been developing dynamically, which is reflected in services exports. The latter tripled between 1995 and 2004. With services imports increasing at a more modest pace, net-exports surged from less than 300 million USD to more than 3 billion USD. The services trade surplus thereby covered more than half of Morocco's merchandise trade deficit in 2004.

28. Communications services, including call centers, and tourism have been the drivers of the boom (Figure 8). Indeed, tourism is the second largest source of foreign currency for the country after remittances from Moroccan nationals residing abroad (Box 3). Uncertainties after September 11<sup>th</sup>, 2001 led to stagnation in tourism receipts in the following year, but travelers recovered confidence over time and the terrorist attacks of May 2003 in Casablanca did not hinder the expansionary medium-term trend. Growth carried through into 2005, with tourism receipts up by more than 8 per cent in the first quarter compared with the same period in the previous year.

**Figure 8: Net-Exports of Services, 1995-2004** (millions of current USD)

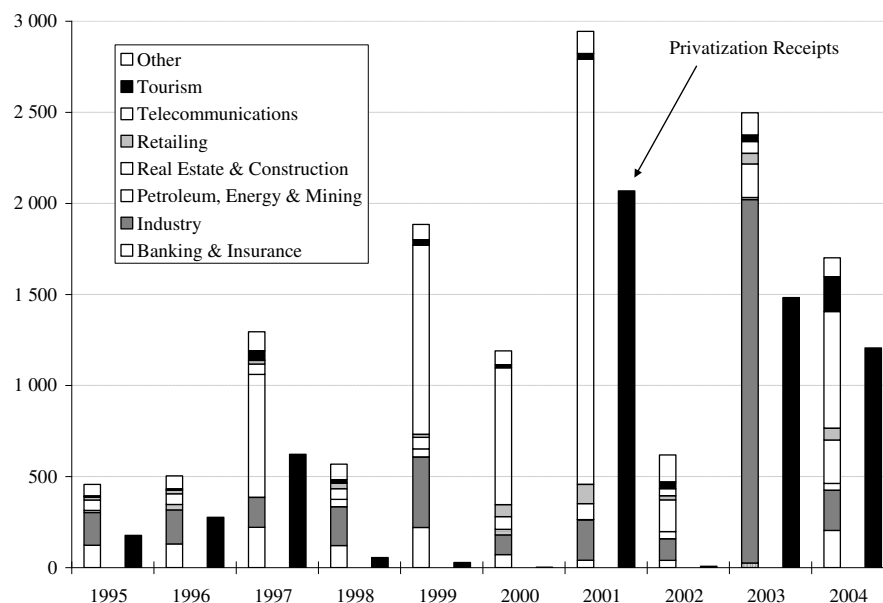


Source: International Monetary Fund, Balance of Payment Statistics.

29. The government sees tourism as a key sector for economic development and aims to double the number of tourist arrivals to 10 million by 2010. In order to achieve the required infrastructure improvements, it actively seeks investments by foreign tour operators and hospitality companies. This endeavor appears to yield some early results, as foreign investment in the sector has shot up from less than 2 per cent of inflows to more than 11 per cent in 2004 (Figure 9). It remains to be seen, though, whether these inflows continue in a sustainable manner, as foreign investment has been unsteady and frequently linked to single, large-scale investment projects in the past.



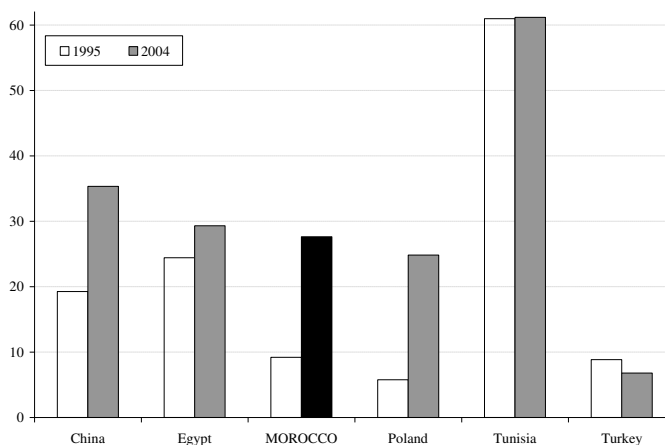
**Figure 9: Inflows of FDI by Sector and Privatization Receipts, 1995-2004**  
(millions of current USD)



Source: Moroccan Foreign Currency Board and Ministry of Finance.

30. Services exports are often closely associated with foreign direct investment (FDI) and Morocco has experienced a significant acceleration of FDI inflows over the past decade. The stock of foreign investments more than quadrupled in current USD, bringing the ratio of FDI stocks to GDP from 9 per cent in 1995 to 28 per cent in 2004 (Figure 10). FDI penetration remains low when compared with Tunisia, but the pace of catch-up in Morocco was almost as fast as Poland's during that country's run-up to EU accession. However, it should be noted that more than a third of Morocco's FDI stock is concentrated in the telecommunications sector, following the sale of mobile phone licenses and the opening of the capital of *Maroc Telecom* to foreign investors since 1999. Other services sectors, such as financial or transport services, have so far not benefitted to the same extent.

**Figure 10: Stock of Foreign Direct Investment, 1995 and 2004**  
(per cent of GDP)

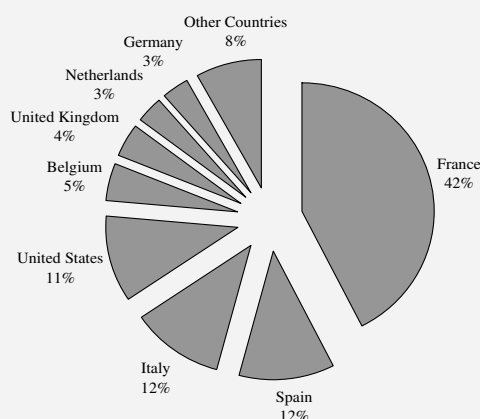


Source: National Statistical authorities & UNCTAD, World Investment Report.

### Box 3: Emigrant Remittances

Morocco is the fourth largest developing country recipient of remittances (after India, Mexico and Pakistan), with transfers amounting to 4.2 billion USD in 2004. An estimated 2.5 million Moroccans are residing abroad, representing almost eight per cent of Morocco's total population of 32 million and affecting perhaps half of all Moroccan families. Contemporary Moroccan migration is overwhelmingly oriented towards the European Union, with Belgium, France, Germany and the Netherlands featuring among the long-established destinations, and Italy and Spain among the more recent ones. In terms of money sent back home, France is by far the most important host country, accounting for 42 per cent of total remittances (see figure below).

Country of Origin of Moroccan Emigrant Remittances, 2004



Source: Moroccan Foreign Currency Board.

The impact of remittances on household income and poverty alleviation can be significant, so that migration is often a welcome means of achieving a decent income. Yet, the question whether remittances have advanced Morocco's longer term development prospects is controversially discussed (Sorensen, 2004). Some observers have argued that skilled labor resources are being lost, that remittances have been channeled into consumption rather than productive investment and that the skills of returning migrants have rarely matched local labor market needs. Others have pointed to veritable booms in the construction and hospitality sectors in some emigration-prone regions of Morocco, such as the country's North. Also, the broader professional experiences of returning migrants have been seen as a boon for diversifying the domestic economy and for fostering new trade links with the former host countries.

Given Morocco's population growth and demographic structure, emigration and associated remittances-transfers will likely remain prominent features of the Moroccan economy. Indeed, there is evidence that the receipt of remittances fosters emigration intentions of other household members. Therefore, remittances-transfers may contribute to new flows of migration. Recent research found this pull-effect to be significantly more pronounced for Morocco than for other Mediterranean countries, such as Egypt and Turkey (Van Dalen, Groenewold and Fokkema, 2005).

### 3. DOMESTIC TRADE POLICIES

31. There is considerable, world-wide evidence that trade liberalization contributes positively to economic performance (Winters, 2004). Part of the benefits of trade reform depends on other policies and institutions being supportive, so that complementary policies should accompany changes in the trade regime. But given that trade liberalization is administratively simple to implement, – indeed a

transparent and liberal policy releases administrative resources for other tasks – the case for making trade reform part of a pro-growth policy agenda is strong.

32. Trade liberalization can be undertaken in different settings. It can notably be pursued through unilateral reforms, plurilateral integration, or multilateral trade barrier phase-outs. An examination of tariff reductions since 1980 in the 33 largest developing country importers found that two-thirds of the changes in trade-weighted most favored nation (MFN) tariffs were due to autonomous liberalization, a quarter to reforms in the context of the WTO, and the remaining ten per cent to regional integration (World Bank, 2005a). Hence, domestic policy initiatives tend to be the main drivers for trade reform in many countries.

33. Morocco has made a number of unilateral changes to its trade regime over the past decade. In 1996, the country completed the application of customs tariffs based on the tariffication of quantitative restrictions on imports. Since then, import licensing has only been applied to products covered by international agreements or for sanitary or phytosanitary or morality reasons. Moreover, in 2000 the fiscal import levy was incorporated into the customs tariff in order to simplify imposition at the border, and tariffs and non-tariff barriers were subsequently reduced. Also, the computerization of customs procedures, the development of customs clearance warehouses, and the establishment of on-site customs clearance procedures have reduced border delays and enhanced the transparency of the customs process. As a result, trade transactions costs have declined, even though major challenges concerning trade logistics remain to be addressed.

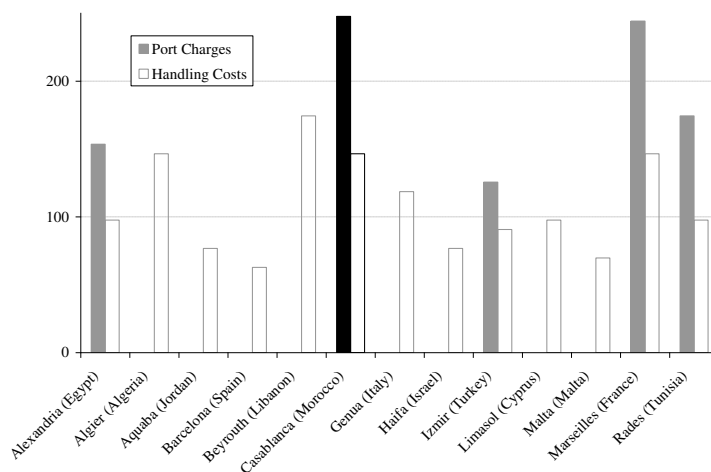
### **3.1 Trade Logistics**

34. For a country like Morocco whose comparative advantage is linked to its geography, the quality of transport and trade logistics constitutes a central element of competitiveness. Moroccan exporters can only successfully exploit their proximity to the large EU market, if their trade transactions costs are indeed lower than those of their competitors. The importance of well functioning links across supply chains is further increased by the ongoing shift to just-in-time delivery schedules and the more and more demanding requirements of trading partners concerning the timing, reliability and quality of deliveries.

35. Yet, logistics services are poorly developed in Morocco. Internal transport is dominated by small-scale enterprises that rarely respect common standards of road transport and generally operate aged vehicles without transport insurance. Moreover, there are very few examples of operational logistics platforms, as restricted access to land impedes the construction of distribution centers and fiscal and regulatory conditions discourage the installation of new service providers (World Bank, 2005b).

36. Concerning international trade, recent reforms have led to significant improvements in some areas, such as customs administration and air transport. However, lack of coordination between agents along the logistics chain, procedural complexity, and poor information management continue to result in delays between entry and exit of imported goods in the port of Casablanca of about 8 days, which is substantial. Also, port charges and handling costs in Morocco's main port are very high compared with other Mediterranean ports (Figure 11). A critical issue in this context, both for merchandise trade and tourism, is that the sea crossing to Spain is about twice as expensive as sea crossings of similar distance from other countries. Another substantial cost factor for exporters relates to the vulnerability of transport to illegal activities, notably drug trafficking and clandestine emigration, due to insufficient port security and the absence of secured parking lots at port entrances. No less than 0.5 to 1 per cent of shipments are affected with implications for direct costs, delays, and the reputation of traders.

**Figure 11: Port Charges and Handling Costs per Twenty-Foot Equivalent Container (in Euro)**



Source: Chaponnière (2002).

37. The authorities are aware of the export impediments in the logistics sector. Improvements require major efforts in a number of logistics area and close cooperation between the public and private sectors (World Bank, 2005b). Breaking-up the current monopoly of the port operator and increasing competition in the transport sector, as envisaged in recent legislative proposals, would represent a significant step towards the objective of reducing trade transactions costs. In addition, land reforms to facilitate the establishment of efficiently-scaled distribution centers in industrial areas should become a policy priority.

### 3.2 Domestic Market Protection

38. Morocco grants at least MFN treatment to all its trade partners. It is using the 2002 version of the Harmonized Commodity Description and Coding System (HS), and extended the nomenclature in 2000 from 8 to 10 digits, which has resulted in an increase in the number of tariff lines from 8 689 in 1995 to 17 375 in 2005. All tariffs are *ad valorem* duties, except for 40 lines that are subject to variable levies (depending on the import price and a minimum threshold price).

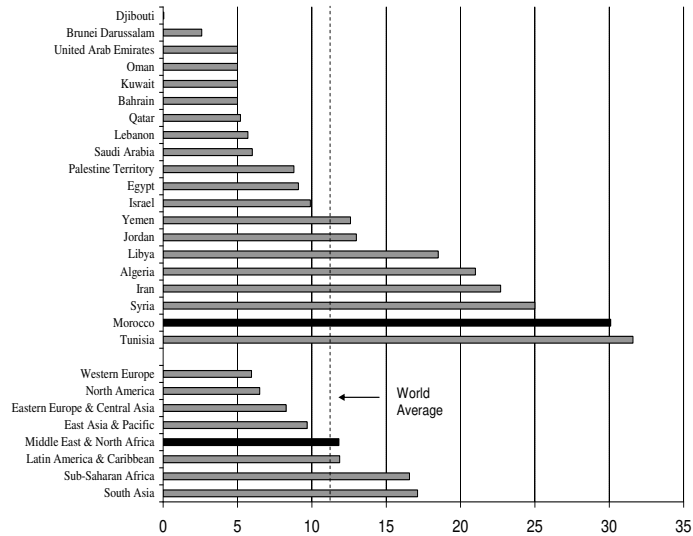
39. Since the end of the Uruguay Round of multilateral trade negotiations in 1995, Morocco has bound all its duties at *ad valorem* rates ranging from zero to 380 per cent. Duties on most non-agricultural products were bound at 40 per cent, while higher rates prevail for agricultural products. Bound tariffs represent the maximum allowable tariffs that WTO members have scheduled as part of their multilateral commitments. However, the latest WTO Trade Policy Review observed critically that Morocco is not in full compliance with its international obligations as a large number of its applied duties exceed bound rates and that the continuing use of variable levies on selected agricultural commodities is not consistent with WTO law (WTO, 2003). This non-compliance with international agreements undermines the credibility of Morocco's trade policy and makes the country vulnerable to challenges in the context of the WTO's Dispute Settlement Mechanism.

40. Applied tariffs range from zero to 329 per cent, with rates above 50 per cent being used only for agricultural products. For manufactured goods, there are seven non-zero tariff bands (2.5, 10, 17.5, 25, 32.5, 40, 50 per cent), the most frequently encountered rates being 10, 40, and 50 per cent. The simple average tariff (2005 data) amounts to 29.5 per cent (50.6 per cent for agricultural products and 26 per cent for manufactures). Tariff dispersion as measured by the standard deviation amounts to 24.2 (43.4 per cent for agricultural products and 17.3 per cent for manufactures). In addition to the import duties, a 0.25 per cent parafiscal import tax applies to imported goods.

**Figure 12: Average Most-Favored Nation Tariffs\*, 2004**

Note: \*) including any additional surcharges or fees which are applied only to imports  
 Source: World Bank Staff based on data from International Monetary Fund.

42. This degree of import protection makes Morocco one of the least open economies in the MENA region, which, in itself, has relatively high average tariffs when compared with other regions (Figure 12). In world-wide comparison, Morocco is one of the ten most highly protected markets, close in its level of protection to such inward-looking economies as India and Nigeria. Many of Morocco's tariffs are very restrictive if not prohibitive, so that little trade in the respective tariff lines occurs. Thus, the trade-weighted average of MFN import duties is at 23.5 per cent (2004 data) considerably lower than the simple average.

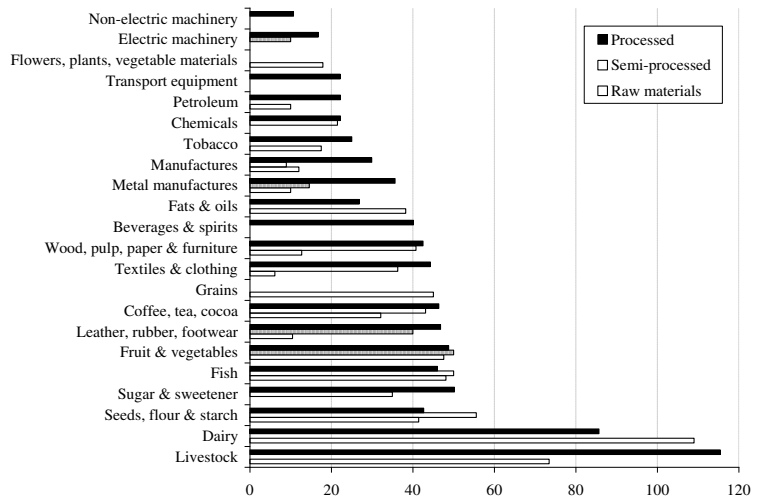


**Figure 13: Average Most-Favored Nation Tariffs by Sector and Stage of Processing\***

Note: \*) MTN-classification, data for 2005.

Source: World Bank Staff based on data from Morocco's Ministry of Finance.

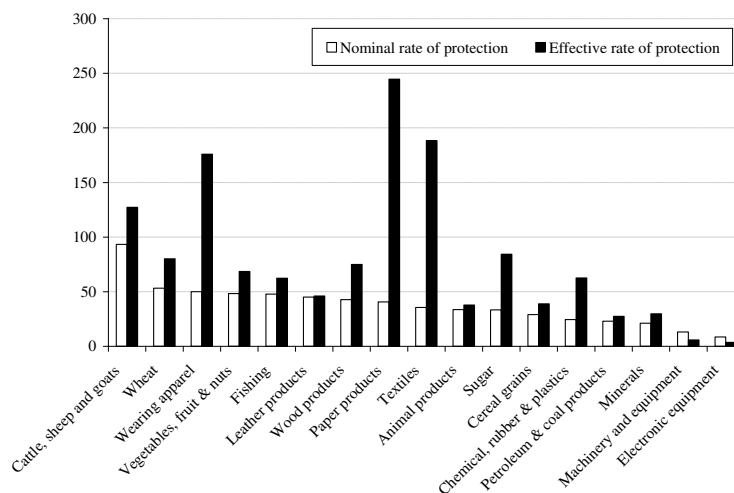
43. The highest nominal MFN-tariffs apply to livestock and dairy products. Morocco's tariff structure is in general escalatory, such that import duties on raw materials are lower than those on semi-processed products, which in turn are lower than the tariffs on finished goods (Figure 13). Tariff escalation is particularly pronounced in the sectors producing textiles and clothing as well as leather and footwear. Producers in these sectors have access to inputs at low-tariff rates, while being able to shield behind high import barriers for their final products.



44. The high degree of tariff escalation in the textiles and clothing industry is also reflected in effective rates or protection (ERPs). By taking into account protection on both outputs and inputs, ERPs provide a better representation of tariff-generated transfers to producers than nominal rates of protection, which are based on protection of outputs only. ERPs exceed nominal rates of protection in most sectors, with the ERPs for textiles and clothing being among the highest (Figure 14).

Moreover, there are some sectors for which the value-added at world market prices is negative (so that ERPs are not defined). This is for example the case for bovine meat as well as meat products. In other words, these economic activities are highly inefficient to the extent that they are value-subtracting. The value of their tradable production inputs at international prices exceeded the trade value of their final products. Because of the distorted domestic price structure, companies in these sectors were not necessarily loss-making and could, hence, continue to operate, although their activities are clearly representing a waste of resources for the economy overall. This situation suggests that the government should reduce domestic market protection for meat products with a view to increase competition in the industry and actively encourage an efficiency-enhancing restructuring of firms.

**Figure 14: Effective Rates of Protection Based on Most-Favored Nation Tariffs**



*Note:* Effective rates of protection are derived as  $ERP = VAM/VAW$ , with VAM and VAW representing the value-added at domestic market prices and world market prices, respectively. Calculations are based on an Input-Output Matrix for 2001, as contained in the Global Trade Analysis Project Database.

*Source:* World Bank Staff based on data from Morocco's Ministry of Finance and the GTAP database.

45. Domestic market protection comes at a cost, notably to consumers and firms, including service providers that source their inputs domestically. Also, tariff protection introduces an anti-export bias. If firms produce for the export market, they do not receive the same market price support that producers for the domestic market enjoy. Since Morocco can not influence world market prices, exporters do not receive the significant policy-generated transfers that producers for the domestic market obtain, thus biasing producers' decisions against selling abroad. Indeed, the higher the domestic market protection is, the stronger the anti-export bias becomes.

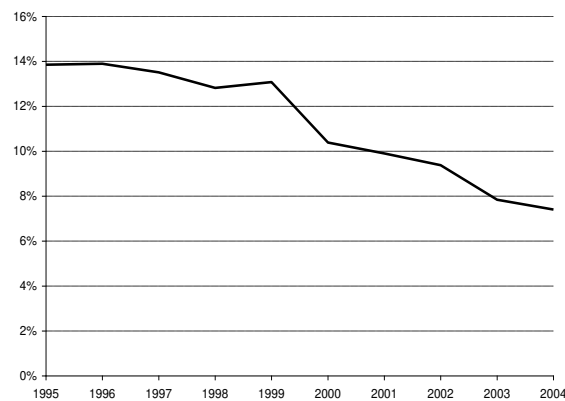
46. So far the analysis of the import regime has centered on MFN-tariffs, which are applicable under normal trade relations. Yet, not all imports are subject to MFN-duties. Indeed, Morocco operates several customs regimes, such as temporary entry for inward processing and in-bond warehousing that allow for the storage, processing, use and movement of goods with suspension or refund of all duties and taxes. Temporary imports are particularly important in the clothing sector, where large amounts of semi-finished products are imported and later re-exported after processing. Overall, re-exports account for more than a third of the country's total exports.

47. Morocco also grants exemptions and suspension of duties and taxes under the Vienna Convention on diplomatic relations, and allows imports of certain agri-food products at reduced rates during Ramadan. Moreover, Morocco has recently concluded several preferential trade agreements that grant suppliers from partner country access to the Moroccan market at reduced tariff rates. The

Euro-Med Agreement with the European Union that is being implemented since 2000 is of particular importance in this context, due to the significant volumes of trade that Morocco carries out with the EU (see section 4 below). Under the terms of this agreement, bilateral trade in the products covered is gradually being liberalized through stepwise reductions in import duties.

48. Adjustments to the tariff regime since 2000, increases in temporary imports under special customs regimes, and the phase-in of the preferential trade agreement with the EU are reflected in recent developments in average effective tariff rates. The latter are the average import duties that traders actually pay, and are estimated by dividing total tariff revenue by total import value. It turns out that average effective tariffs fell significantly over the past decade, from almost 14 per cent in 1995 to less than 8 per cent in 2004 (Figure 15). This trend is likely to continue, as the implementation of the Morocco-EU Agreement proceeds and new free trade agreements, such as those concluded with Turkey and the United States come into effect.

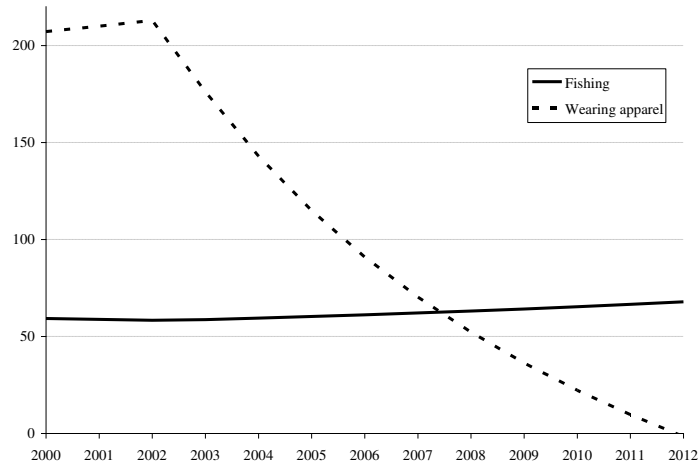
**Figure 15: Average Effective Tariffs, 1995-2004**



Source: World Bank Staff based on data from International Monetary Fund.

49. In this context, it is useful to investigate the structure and future development of effective rates of protection under the Euro-Med tariff schedule, which is governing imports from the EU into Morocco since 2000. It turns out that ERPs in industrial sectors, such as clothing, increased during the early years of implementation of the Euro-Med agreement, before declining since 2003 and reaching zero by 2012 (Figure 16). This temporary increase in protection is due to the timing of the phase-out of tariffs for intermediate inputs, which was frontloaded, and that of final products, which has been backloaded. The apparent intention of policy makers that designed the phase-out schedules was to generate additional policy-generated transfers to industrial producers during the early phase of market opening, in order to ensure political support for the reforms. The drawback of this approach is that the required reform steps since 2003 have become more pronounced. Moreover, ERPs for agri-food products, such as fish, increase over time, as these products are not covered by the Euro-Med tariff reduction programme, while protection and the domestic market price for intermediates of industrial origin is reduced. Hence, the difference between the high effective agri-food protection and (generally) lower industrial protection is being further accentuated through the Euro-Med Agreement.

**Figure 16: Effective Rates of Protection Based on the Euro-Med Tariff Schedule**



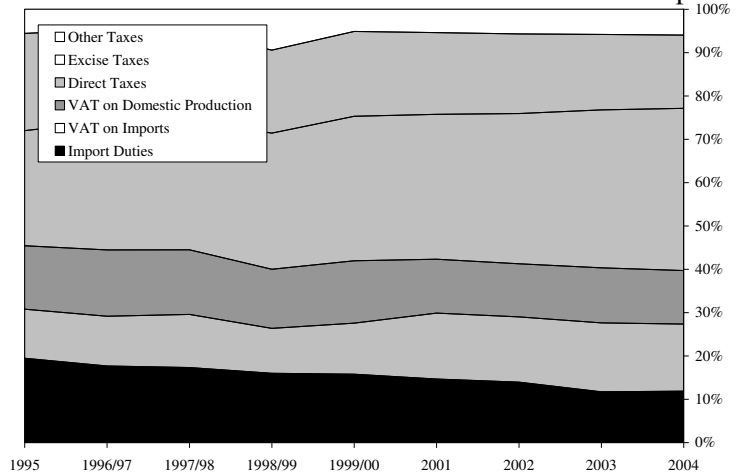
*Note:* Effective rates of protection are derived as  $ERP = VAM/VAW$ , with VAM and VAW representing the value-added at domestic market prices and world market prices, respectively. Calculations are based on an Input-Output Matrix for 2001, as contained in the Global Trade Analysis Project Database.

*Source:* World Bank Staff based on data from Morocco’s Ministry of Finance and the GTAP database.

### 3.3 Tariff Revenues

50. The opening of the Moroccan market through preferential agreements and related tariff reductions has meant that tariff revenues have decreased. The Ministry of Finance estimates that the revenue losses amounted to almost 340 million USD, or a quarter of actual tariff revenues, in 2004. More than 82 per cent of the revenue shortfalls are ascribed to the Morocco-EU Agreement, and another 14 per cent to the Greater Arab Free Trade Area.

51. In part as a result of these developments, Morocco’s dependence on tariffs as sources of revenue has declined significantly over time. The ratio of tariff revenues to GDP fell from 4.2 per cent in 1995 to 2.6 per cent in 2004. Tariff revenues account now for only 12 per cent of total tax revenues, compared with 19 per cent a decade ago (Figure 17). However, the tax burden on imports has not declined to the same extent, as lower tariff yields were partly compensated for through higher revenues from value-added taxes (VAT) on imports. Since 2000, the latter have been a more important budgetary item for the country’s treasury than both border tariffs and the VAT on domestic production.



**Figure 17: Composition of Tax Revenues, 1995-2004**

*Source:* World Bank Staff based on Ministry of Finance data.

52. The continuing implementation of existing and new preferential trade agreements and deeper integration into the world trading system will tend to further erode tariff revenues over time. The fiscal shortfalls would best be addressed by broadening the tax base, reducing tax exemptions, and



improving the yield of existing value-added taxes. Hence, the fiscal reforms pursued over the past decade will need to be further deepened.

#### **4. REGIONAL INTEGRATION**

53. Morocco is committed to the process of regional integration and is pursuing closer ties with neighboring Arab nations. The country is a member of the Maghreb Arab Union and the Greater Arab Free Trade Area. Moreover, Morocco has signed bilateral agreements with individual trading partners, including Egypt, Jordan, Tunisia, and Turkey, as well as regional groups, such as the European Union and the European Free Trade Association. Recently, the country also signed a Free Trade Agreement with the United States, thereby becoming the first Maghreb country to do so.

54. Economic integration through preferential trade agreements (PTAs) can make it possible to reap benefits from international specialization, while tailoring the provisions of the agreements to the particular needs and adjustment capacities of the countries involved. PTAs are a means of gaining preferential access to foreign markets, and as a consequence are likely to boost trade between partner countries. It has been estimated, for example, that between one-fourth and one-half of the increase in Mexico's exports to the United States since 1994 can be attributed to preferential access under NAFTA (Romalis, 2005)

55. Moreover, bilateral agreements provide an opportunity to achieve faster and deeper integration with partner countries. Indeed, many agreements nowadays go beyond tariff reductions and include provisions concerning investment and services liberalization, movement of labor, and institutional convergence. There is, for example, evidence that the harmonization of investment policies, regulatory rules, and institutions in the context of the Association Agreements between the European Union and Central and Eastern European countries has significantly expanded foreign direct investment and exports in the latter in the run-up to EU accession (Brenton and Manchin, 2003)

56. However, belonging to several trading arrangements, whose geographical scope, liberalization programs and rules of origin provisions differ, can create difficulties for managing a country's trade regime. In the private sector, traders have to operate within different trade regimes, each with its own tariff rates, regulations and procedures. One issue of particular concern is the potentially significant costs that can result from the need to comply with multiple rules of origin regulations (Brenton and Imagawa, 2004), so that firms might be compelled to focus on only certain export destinations, given that they might need to produce differently in order to receive preferential access in foreign markets. In the public sector, negotiating and serving different regional initiatives can absorb large amounts of scarce administrative resources and occupy policymakers' attention to a considerable extent. In addition, judicial conflicts might arise out of the existence of alternative legal frameworks and dispute settlement mechanisms.

##### **4.1 Morocco's Preferential Trade Agreements**

57. Morocco has concluded a number of integration agreements that create a veritable "spaghetti bowl" of preferential trade linkages (Figure 18). The situation is particularly complex regarding trade relationships with Arab countries. Morocco is a member of the Greater Arab Free Trade Area (GAFTA), which was concluded with the 22 Arab League members and has been effective since 1998. The agreement calls for the dismantling of intra-regional tariffs by 2005. However, in practice, not all countries are fully implementing the agreement and duty-free imports are often subject to discretionary licensing. Also, some countries still levy taxes on imports from GAFTA members.

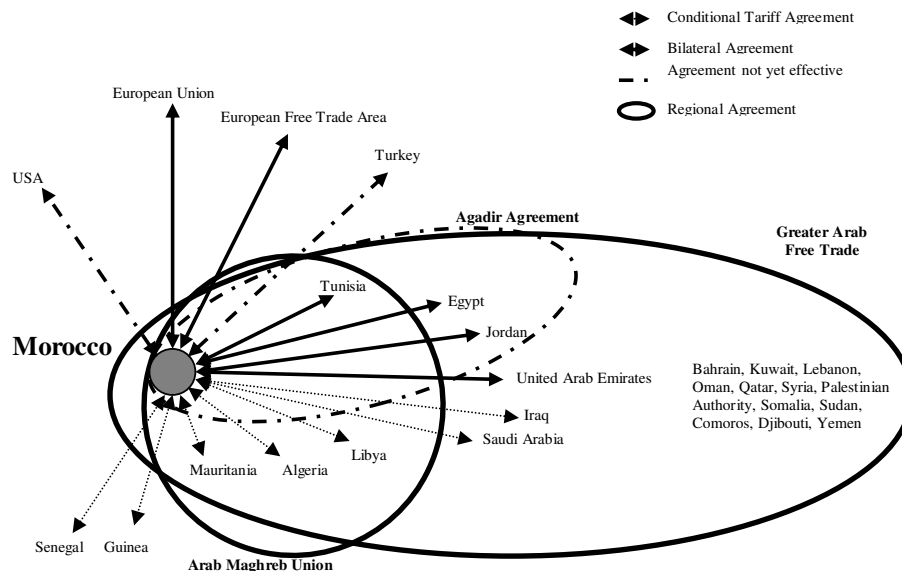
58. In parallel, Morocco has concluded bilateral FTAs with some of its GAFTA partners, notably Jordan, Egypt and Tunisia in 1999. The product coverage of these bilaterals differs as do the phase-out schedules. Consequently, it is not always easy for interested parties to identify which duty is

levied on products originating in partner countries. Moreover, Morocco is also a member of the Arab Maghreb Union (AMU), which groups the country together with Algeria, Libya, Mauritania and Tunisia, and hence overlaps with GAFTA. However, AMU is not effectively implemented yet.

59. In 2004, Morocco signed a bilateral FTA with Turkey. Once it enters into force, the agreement offers Moroccan exporters duty-free access to the Turkish market. In turn, Morocco is opening its domestic market for industrial products to supplies from Turkey over a period of ten years. The agreement is of particular interest to the Moroccan apparel industry, as it allows for diagonal cumulation of rules of origin with the European Union, so that Moroccan producers can use Turkish textiles in their clothing production, without losing preferential access to the EU market. It thereby removes a disadvantage that Moroccan apparel exporters had in the past *vis-à-vis* competitors in Eastern Europe (Jalal, 2004).

60. There is indeed growing empirical evidence that rules of origin (ROOs), mainly non cumulative rules, may distort trade flows, causing trade diversion and suppression (Gasiorek and Augier, 2003). In particular, they foster the use of more expensive intermediate inputs, especially in the case of North-South FTAs, like the Euro-Med agreement. Augier, Gasiorek and Lai-Tong (2004) show that lack of diagonal cumulation between the EU and South Mediterranean partners in the textile and clothing industry may restrict trade between non-cumulating countries by up to 70-80 percent. In this context, the recent conclusion of the Agadir Agreement and the FTA with Turkey represents a positive development since both agreements will apply the Pan European ROO<sup>1</sup>. Goods made in any one of the participating countries will be accepted as local in the EU market.

**Figure 18: Morocco's Multiple, Overlapping Trade Agreements**



Source: World Bank staff.

<sup>1</sup> In January 1997, European countries have established a common rule of origin, the so-called *pan-European system of cumulation*. It operates between the EU, EFTA countries, the Central and Eastern European Economies and the Balkan states. The new arrangement means that a manufacturer can use any originating input (raw material or component) from the area in the manufacture of finished products, without running the risk of loosing free trade status if it is exported within the area. The basic requirement of this system is that all countries must be linked by preferential agreements so that the system would be fully operational, and all agreements must contain exactly the same rules of origin in order to avoid trade diversion. The objective of the system is to create an incentive for co-operation between industries and to promote the international division of labor.

61. Arguably, Morocco's economically most important PTAs are those concluded with industrialized partners. In 1996, the country signed an Association Agreement (AA) with the European Union, its main trade partner. This agreement is part of a broader regional integration effort that is embedded in the Barcelona Process<sup>2</sup>. The coverage of the agreement is shallow as trade liberalization is limited mainly to industrial goods. It does not contain provisions to liberalize trade in agriculture and services. Liberalization in these sectors was left to be decided at a later stage. Moreover, the Euro-Med agreement does not cover harmonization of standards as was the case in the EU's Association agreements with Central and Eastern European countries. These contained provisions that stated the need to harmonize standards and provided technical assistance funds to help achieve them (World Bank, 2003).

62. Moroccan tariffs are to be phased-out over a 12-year period, with progressive tariff elimination for the most sensitive products. The agreement provides three schedules of elimination: (i) immediate for intermediate goods; (ii) over five years for products not produced locally; (iii) and over 10 to 12 years for locally produced manufactures (commencing four years after the implementation of the agreement). This is a relatively extended liberalization schedule compared with the pace adopted by Eastern European economies entering into similar arrangements with the EU (mostly tariff elimination over five years) or the pace of multilateral liberalization undertaken by major Latin American economies in the last decade (Page and Underwood, 1996).

63. In addition to the Euro-Med agreement, Morocco has concluded a FTA with the United States in 2004. Once effective, Morocco is committed to eliminate duties on most U.S. industrial products immediately. For agricultural goods, Tariff-Rate Quotas were established while phasing out duties on some U.S. (including categories) and more sensitive industrial products over periods of from 2 to 25 years. The U.S. will grant immediate duty-free access to Moroccan industrial products (Morocco is already beneficiary of the U.S. Generalized System of Preferences). The agreement is expected to give increased export opportunities to Moroccan producers in the agriculture and textile industries<sup>3</sup> (see Box 4 for more details).

64. The US-Morocco FTA goes beyond improved market access. It establishes a secure, predictable legal framework for U.S. investors operating in Morocco by providing assurances to U.S. investors that go beyond those afforded in the 1991 U.S.-Morocco Bilateral Investment Treaty (USITC, 2004). For services, Morocco's commitments in the FTA are clear improvements over the country's commitments in the WTO General Agreement on Trade in Services. Moreover, the FTA offers specific improvements with respect to intellectual property rights, customs administration, technical barriers to trade, sanitary and phytosanitary regulations, electronic commerce, and transparency. The FTA also provides dispute settlement procedures, enforcement mechanisms, and measures for trade remedies.

65. Moreover, there are a number of supplementary benefits. First, the agreement is expected to lock in and advance important economic reforms underway in Morocco. It would for instance provide an opportunity to ensure the full implementation of a new Moroccan law allowing for 100 percent foreign ownership of subsidiaries in the insurance sector. Second, the FTA will level the playing field with the EU by offsetting the EU tariff advantage in industrial goods and reduce trade diversion. Third, Morocco hopes to reap indirect economic benefits, such as becoming a regional production and

---

<sup>2</sup> Initiated in 1995, the Barcelona Process aims at establishing a WTO consistent Euro-Mediterranean Free Trade Area by 2010, to be achieved by the conclusion of a series of Association Agreements between the European Union and the Mediterranean Partners, along with the creation of FTA between southern partners themselves. The stated objective of this process is to facilitate the economic development of the Mediterranean countries by encouraging the development of competitive market economies, regional integration and cooperation between the Euro-Med countries.

<sup>3</sup> US-Morocco FTA applies rather restrictive rules of origin for textile and apparel products in comparison to other US FTA. NAFTA for instance utilizes mainly a "yarn-forward" standard, while the U.S.-Jordan FTA uses different rules for textile and apparel articles, specifying process requirements rather than tariff shifts.

trade hub that offers preferential access to both the EU and the US markets. Morocco is expecting to receive a boost in FDI inflows for production that is essentially oriented to these two large markets.

#### **Box 4: Some specific provisions from the US-Morocco FTA**

##### ***Agricultural products***

In the FTA, Morocco granted improved market access to US producers through Tariff Rate Quotas (TRQ) and tariff reductions. TRQs have notably been established for U.S. beef and poultry meat, durum and common wheat, products related to durum or common wheat, almonds, sugar and some sugar-containing products, and apples. In turn, Moroccan exporters of agricultural products will receive preferential access to the US market . TRQs apply to Moroccan beef, dairy products, sugar and sugar-containing products, peanuts, tobacco, cotton fibers, wine, dried onions and garlic, and various prepared tomato products.

##### ***Textiles and Apparel***

The U.S.-Morocco FTA provides for the elimination of duties over 5 years for most textile and apparel articles that meet the agreement's rules of origin, requiring that imports of most textile and apparel articles be assembled from inputs made either in the United States or Morocco, generally from the yarn stage forward (triple transformation: yarn, fabric and apparel) . However The FTA also contains tariff preference levels (TPL) that provide duty preferences for specified quantities of certain goods made of yarns and/or fabrics from countries other than the United States and Morocco. The FTA also grants immediate duty-free treatment (with less restrictive rules of origin) under TRQ to specified quantities of U.S. imports of certain apparel made in Morocco.

The agreement also contains safeguard measures. A party can increase the duty rate on imports to the MFN rate in effect at the time the action is taken or the MFN rate at the date of entry into force of the FTA, whichever is lower, but only after investigation by a competent authority. Such safeguard cannot be maintained for more than 3 years, with a 2-year extension, and action may not be taken more than 10 years after the elimination of customs duties for that good. The party imposing the safeguard would be required to provide trade-liberalizing compensation. The parties could still restrain imports in accordance with the WTO Safeguards Agreements.

##### ***Trade in Services***

Morocco's commitments go beyond the WTO General Agreement on Trade in Services (GATS) by guaranteeing market access and national treatment to US services suppliers in areas where Morocco previously had no obligations. The two parties commit to provide reasonable and nondiscriminatory access to the telecommunications network; in banking and securities, U.S. financial service suppliers will have the right to establish subsidiaries and joint ventures in Morocco; in insurance, U.S.-based companies will have the right to provide insurance on a cross-border basis. Yet, Morocco's law prohibiting individuals and organizations from investing or maintaining accounts abroad is not to be removed under the U.S.-Morocco FTA.

##### ***Transparency***

Morocco committed to improved transparency, efficiency, and predictability of Morocco's laws. It will also make its standards system more transparent and more open. Each government must publish its laws and regulations governing trade and investment as well as proposed regulations in advance and provide an opportunity for public comment on them. Both parties agree to share information to combat illegal transshipments of goods.

Source: World Bank staff

66. Overall, Morocco has signed eleven free trade agreements and seven conditional tariff agreements (Table 4). According to press reports, Morocco is currently considering to sign further bilateral agreements with six other trading partners, namely Bangladesh, Brazil, Gabon, Iran, Pakistan, and Peru. The criteria that led to the selection of this economically and geographically diverse group of partners are not entirely clear, in particular as trade with the six countries is concentrated on a small number of products and trade volumes are relatively low. Taken together, the six partners accounted for merely 2.6 per cent of Morocco's imports and exports in 2004 (Table 3).

67. Moreover, Morocco's production and trade structures and those of the prospective bilateral partners are not particularly complementary, with the exception of Bangladesh. Similarities between the export basket of one country and the import basket of another can be analyzed by using the bilateral trade complementarity index (Yeats, 1998). The value of this index can range from zero, which represents no complementarity between exports and imports of two countries, to one hundred, which implies a perfect match. The higher the index between two countries, the greater the product complementarity.

68. The trade complementarity index turns out to be low for five of the six prospective FTA partners. For Iran, Pakistan, and Peru, the index value even amounts to less than 10, implying that there is a very poor match between Morocco's exports and the products that the three countries import and *vice versa*. Since the existing volume of trade is also rather marginal, the economic rationale for fostering closer trade relationships with these countries seems unclear.

**Table 3: Trade Indicators with Selected Partners, 2003**

Agreement/Partner (chronological order of PTA conclusion)	Value share in total trade (per cent)	Number of goods imported	Number of goods exported	Trade value share of top-10 products (per cent)	Trade complementarity index*
<b>Free Trade Agreements</b>					
Greater Arab Free Trade Area	6	1095	810	66.7	13.1
Arab Maghreb Union	2	412	897	61.7	10.9
European Union	65	4517	2274	18.5	17.4
European Free Trade Area	1.4	1511	384	54.5	14.9
Egypt	0.6	444	70	54.6	15.9
Jordan	0.1	40	36	93.6	10.1
Tunisia	0.5	373	354	41.5	11.4
United Arab Emirates	0.4	363	248	88.6	n.a.
Agadir Agreement	1.2	722	523	57.2	10.5
United States	3.6	1823	499	49.4	17.3
Turkey	1.1	1250	59	37.1	11.6
<b>Conditional tariff agreements</b>					
Senegal	0.1	21	381	49.5	6.9
Saudi Arabia	3.4	245	222	89.8	11.5
Iraq	0.003	1	3	100	n.a.
Mauritania	0.1	8	461	41.3	n.a.
Algeria	0.9	233	202	91.9	7
Libya	0.5	15	263	85.5	n.a.
Guinea (2002)	0.1	17	226	73.7	54.5
<b>Prospective bilateral partners</b>					
Bangladesh	1	34	5	94.9	29.6
Brazil	2	459	53	79.3	10.1
Gabon	0.2	7	243	91.5	13.7
Iran	0.3	133	24	98	7.1
Pakistan	0.1	224	14	77.2	8.8
Peru	0.02	16	5	98.1	8.7

Note: n.a.: no import data at the HS 6 digit level in the UN COMTRADE database

Source: World Bank Staff estimates

**Table 4: Main Characteristics of Preferential Trade Agreements Concluded by Morocco**

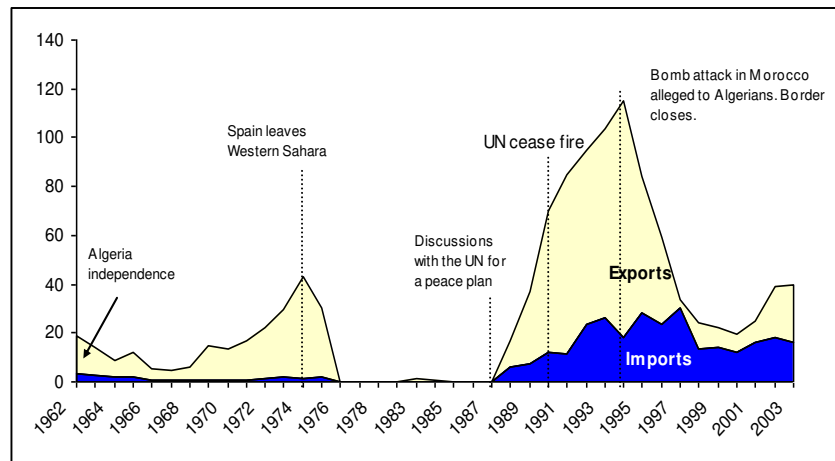
Agreement/Partner (chronological order)	Signed in	Effective since	Transition period	Products Liberalization Schedule	Rules of Origin	Coverage of Agriculture Services	
<b>Free Trade Agreements</b>							
<b>Greater Arab Free Trade Area (GAFTA)*</b>	1981	1998	till January 2005	Ten per cent annually during 1998-02, 20% in 2002-05. Removal of non-tariff barriers, but licensing.	Regional, 40%	Yes	No
<b>Arab Magreb Union (AMU)</b>	1991	not yet	-	Zero tariffs, but uniform compensatory import tax of 17.5%	Regional, 60%	Yes	No
<b>European Union (EU)</b>	1996	2000	12 years	Three dismantling scenarios: immediate, over 4 years for goods not produced locally; over 10 years starting in 2003 for goods produced locally.	Bilateral, change in HS4 heading; Cumulation with Tunisia and Algeria	Some	To be negotiated
<b>European Free Trade Area (EFTA)</b>	1997					Bilateral arrangements	No
<b>Egypt</b>	1998	1999	12 years	Positive list for immediate phasing-out; over 5 years if tariffs < 25%; Tariffs set at 25% if current > 25%; then phase-out over last 7 years.	Bilateral, 40%	No	No
<b>Jordan</b>							
<b>Tunisia</b>	1999	1999	10 years	Four lists for Morocco and three lists for Tunisia; Three product groups: zero duty; 17.5% duty; 8 year-phase-out	Bilateral, 40%	No	No
<b>United Arab Emirates</b>	2001	2003	10 years	Two negative lists Dismantles Arab League tariffs by 10% annually	Bilateral, 40%	Yes	No
<b>Agadir Agreement (Tunisia, Egypt, Jordan)</b>	2004	not yet	-	Zero tariffs when agreement becomes effective Agreement will supersede previous bilaterals	Pan-European	Yes	No
<b>United States</b>	2004	not yet	12 years	Twenty-one different dismantling schedules	Bilateral	Yes, TRQs	Yes, with neg. lists
<b>Turkey</b>	2004	not yet	10 years	Three dismantling schedules	Cumulation with Algeria and Tunisia	No	No
<b>Conditional Tariff Agreements</b>							
<b>Senegal</b>	1963	1972	-	Exemptions with license, one positive list per country	Bilateral, 40%	No	No
<b>Saudi Arabia</b>	1966	1988	-	Exemptions with license	No cumulation, 40%	No	No
<b>Iraq</b>	1976	1983	-	Exemptions with license	No cumulation, 40%	No	No
<b>Mauritania</b>	1986	1986	-	Exemptions with license, one positive list per country	No cumulation, 40%	No	No
<b>Algeria</b>	1989	1990	-	Exemptions with license	Bilateral, 40%	No	No
<b>Libya</b>	1990	1990	-	Exemptions with license	Bilateral, 40%	No	No
<b>Guinea</b>	1997	2000	-	Exemptions with license, one positive list per country	Bilateral, 40%	No	No
Note: *) GAFTA comprises the 22 members of the Arab League, but only the 15 more developed countries (Algeria, Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunisia, United Arab Emirates) are implementing the Agreement, while the seven less developed ones (Comoros, Djibouti, Palestine Territory, Mauritania, Somalia, Sudan and Yemen) are not. Source: World Bank staff.							

## 4.2 Untapped Potentials in Regional Trade

69. While Morocco is prospecting for integration partners world-wide, there are untapped trade potentials in the country's immediate vicinity, notably with its neighbor Algeria. Despite a long common land border and a shared culture, the volume of bilateral trade is very low. This lack of integration is a direct result of the political tensions that have prevailed between the two countries over the past 30 years and notably the closure of all land border crossings since 1994.

70. Relations between Algeria and Morocco have been strained since 1975, when Algeria supported the Polisario movement, which resisted the Moroccan claim over the Western Sahara. The move into the province by Morocco was followed by a freeze in bilateral trade relationships (Figure 19). Over time, political relations improved gradually and tensions subsided, helped, for example, by the discussions leading up to the signing of the Arab Maghreb Union treaty in 1989. Following UN involvement, Moroccan and Polisario representatives agreed on a UN peace plan, and a cease-fire and settlement plan came into effect in September 1991. The resulting improvement in bilateral relations translated into a significant increase in non-oil trade, and, in particular, a surge in Moroccan exports to Algeria. However, the prosperous trading relationship did not last long, since the border between the two countries was closed again in 1994, following a bomb attack on a hotel in Marrakech that was ascribed to Islamist militants of Algerian origin. Since then, trade has been subdued. Yet, recent political developments provide some hope that the border might be opened again in the not too distant future. There have been talks at a ministerial level between Moroccan and Algerian representatives, for example, and King Mohammed VI met with President Bouteflika in Algiers during the Arab League Summit held in March 2005.

**Figure 19: Morocco's Non-oil Export and Import Trade with Algeria**  
(Million USD)



Source: UN COMTRADE database.

71. The closure of the border has made transshipment very difficult, long-lasting and expensive. In fact, the only viable way to travel between Morocco and Algeria is by air or ship. Yet, with no direct airline and ferry services between the two countries, the only means of trading is by passing through third countries, such as France or Spain.

72. While formal trade is largely subdued, the informal exchange of goods along the border has flourished. There are anecdotal reports that even tractors have been able to cross the formally closed border. This defiance of official regulations undermines the authority of the state and fosters the development of illegal networks whose activities might eventually mutate into drug

trafficking and weapons smuggling. Hence, the border closure not only depresses legal trading links, but might indeed contribute to the development of criminal activities.

73. What would happen if the Algerian and Moroccan governments would decide to open the border again? Informal trade would immediately lose at least some of its attractiveness, while substantial trade opportunities for formal operators would emerge with positive implications for economic growth, fiscal revenues and employment in both countries. The extent of trade relationships during the two year period before the border closure can provide some indication on the prospective magnitude of commercial relations. Morocco's exports then were more than 10 times the level of those in 2000.

74. One means of quantifying the prospective magnitude of trade flow is to estimate a gravity model. Such models, which have been widely used in trade analysis, are inspired by Newton's theory of gravity. They relate potential exports to the relative size of the exporting and importing country (e.g. GDP and population), the geographical distance between them, and other country characteristics. Common "other country characteristics" include variables for preferential trade relationships and common language. Such a model was estimated for Morocco (Annex 1) based on data on the 2003-pattern of the country's exports of goods and tourism services to its different trading partners (except Algeria). The resulting parameter estimates were then used to quantify the trade potential with Algeria, assuming that normal trade relationships between the two countries were to prevail.

75. Results indicate that given Algeria's GDP, population, distance from Morocco, a common language and the bilateral PTA, the normal level of Moroccan exports to Algeria would be about 780 million USD for goods and another 220 million USD for tourism services. Hence, Morocco's total export potential to its eastern neighbor would amount to about one billion USD. This magnitude of exports implies that the establishment of normal economic relationships with Algeria would boost goods exports by a factor of 32, and those of total goods and services exports by a factor of 42. In the ranking of Morocco's trading partners, Algeria would surge from 30<sup>th</sup> place (next to Mauritania and Syria) to 3<sup>rd</sup> rank, just behind France and Spain. These findings confirm earlier gravity model analysis that found very sizable, yet currently untapped export potentials for Morocco *vis-à-vis* Algeria (International Trade Centre, 2003).

### **4.3 Economic and Fiscal Impacts of Preferential Agreements**

76. The current section looks at the potential static impact of different regional trade liberalization settings as embedded in the Moroccan trade policy. Static effects refer to the notion of trade creation and trade diversion. Trade creation is welfare enhancing and occurs when buyers substitute imports from the FTA partner for purchase of domestically produced goods. FTA are trade diverting and welfare deterring if there is a shift from lower to higher cost sources of imports.

77. Three regional scenarios have been simulated. The first looks at the impact of the final stage of the Association Agreement concluded with the EU<sup>4</sup>. The second includes free trade with the US. Finally, the third estimates the supplemental impact drained by free trade with GAFTA partners as well as Turkey. The partial equilibrium model was solved using SMART (details are presented in annex) and based on Moroccan imports and tariffs as of 2004.

---

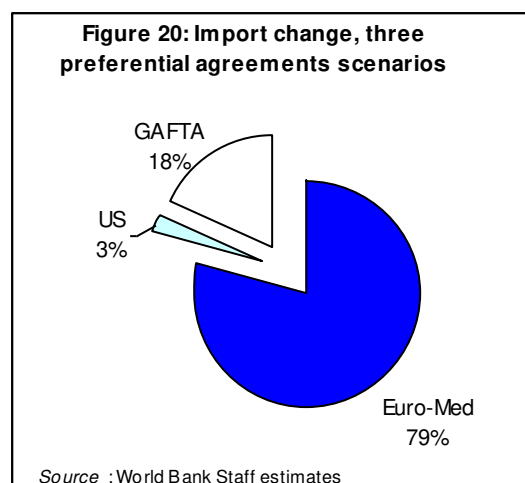
<sup>4</sup> EU25 and EFTA.



78. Results indicate that Morocco's imports grow overall by 8.4 percent; however, the bulk of the increase comes from the expansion of trade with the EU (Figure 20). At the aggregate level, trade creation dominates trade diversion<sup>5</sup>. The latter effect is relatively small given that more than 50% of Morocco's imports already take place with Europe. Trade liberalization with the US only translates in a three percent increase in imports from the US. However, effectively implementing GAFTA will generate more trade flows.

79. Trade diversion happens across the three scenarios consistently at the expense of India, China and Japan. Imports from each of these three low cost economies decrease overall by more than 10 percent (Table 5). The decline widens as more partners get a preferential access to the Moroccan market.

80. Results confirm that imports from Europe are diverting imports from other cost efficient sources. When only free trade with the EU is considered, simulations indicate that imports from the US, Tunisia and Turkey diminish. However, simulating free trade with these countries revert the impact and imports from these new preferential partners grows. While the first scenario indicates a 3 percent reduction in imports from the US, an FTA with the US leads to an increase of 8 percent. The magnitude is even more important for Tunisia. By including GAFTA partners, imports from Tunisia increase by 42 percent, up from a 13 percent drop in the initial scenarios. The concomitant lower increase of imports from the EU supports these findings.



**Table 5: Import change with selected economies, different scenarios**

	Euro-Med	Euro-Med & US	Euro-Med, US & GAFTA
India	-9.3	-9.6	-12.0
China	-8.5	-8.8	-10.4
Japan	-8.6	-9.2	-10.5
Brazil	-3.8	-3.9	-4.5
Tunisia	-12.5	-12.8	42.1
Turkey	-9.4	-9.5	29.0
Egypt	-9.0	-9.2	27.6
Saudi Arabia	-2.1	-2.2	18.1
Algeria	-7.8	-7.9	-0.1
Spain	17.0	16.8	15.5
France	15.6	15.3	14.2
US	-3.0	7.9	7.7

Source: World Bank Staff estimates

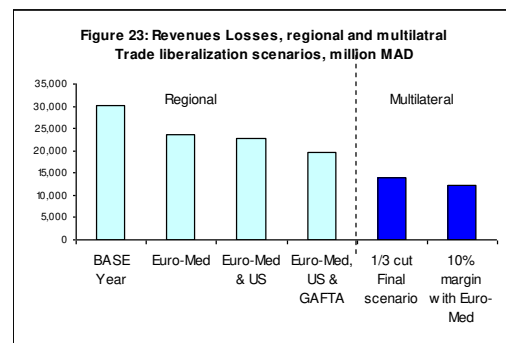
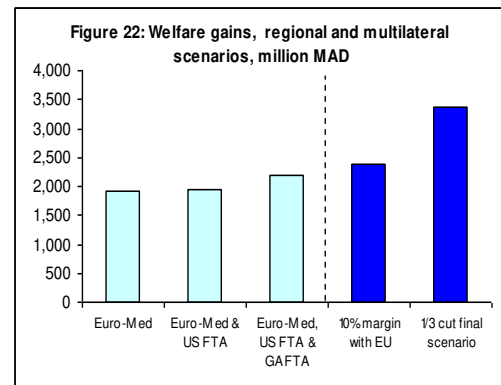
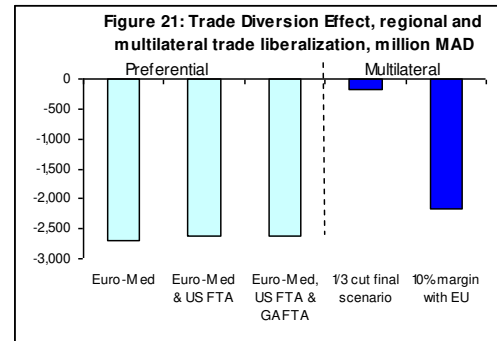
<sup>5</sup> Simulations results are based on current level of trade at the HS 6 digit level. Hence, the model accounts only for changes in currently traded products. It does not include potential import increase in goods that are not traded as of 2004 (e.g., because of inhibiting level of protection)

81. The magnitude of trade diversion depends also on the level of protection with the rest of the world. Trade diversion is minimized when MFN tariffs deviation from preferential tariffs given to partners is the lower<sup>6</sup>. Therefore, two additional scenarios were simulated to measure the potential impact of supplemental multilateral trade liberalization. The first addresses the option of reducing MFN tariffs such as their differential with the EU tariffs is limited to 10. The second considers a broader cut of one third tariff cut<sup>7</sup> on all products.

82. The preferential option translates into higher trade diversion than multilateralism. However, it is fully explained by free trade with the EU as trade diversion is slightly reduced when the regional integration is extended to the US and GAFTA members. Limiting the MFN differential with EU tariffs helps decrease the magnitude of trade diversion by 16 percent. Yet, a much more ambitious multilateral liberalization, including on agricultural products, will almost eliminate the trade diversion.

83. Moreover, Morocco gains more with multilateral liberalization. Gains are however small, ranging from 0.4 to 0.7 percent. This amplitude should be considered as the lower limit as the model simulated is partial and static. It doesn't incorporate gains from increased access to partner economies markets as well as dynamic positive effects.

84. With preferential trade liberalization (as illustrated by our scenarios), tariff revenues drop follows a non-linear path and decrease overall by one-third. Given the concentration of imports from Europe, the full implementation of the Association Agreement leads to the highest loss in revenues of about 22 percent. Further removal of tariffs on imports from the US brings the revenues down by only three percent. The implementation of GAFTA will reduce revenues by an additional 10 percent. Complementing the preferential agreements with multilateral tariff reductions translates in larger losses of revenues, but not exceeding 60 percent of 2004 tariff revenues.



Source: World Bank Staff estimates

85. A number of analyses have also established the superiority of multilateralism versus regionalism after estimating the welfare impact of Morocco alternative trade policies. Studies usually compare the effects of bilateral arrangements versus a multilateral based liberalization. However, these models do not usually capture dynamic gains and long-term adjustments that trade liberalization is expected to involve such as economies of scale, technology spillovers

<sup>6</sup> Morocco has already initiated some adjustments on the multilateral basis. In 2004, it homogenized and reduced MFN rates on industrial goods for which tariff rates have been dismantled with the EU. The Moroccan government is currently in the process of restructuring MFN rates for Textile and Clothing products. MFN tariffs will simultaneously be decreased from 50 to 32.5 percent for finished clothing goods, from 40 to 25 percent for fabrics, and from 32.5 to 17.5 percent for yarns.

<sup>7</sup> A one-third cut is similar to cuts achieved under the Uruguay Round (El Behri and Hertel, 2004) and more modest than Doha expected cut (Josling and Hathaway, 2003).

through more FDI, restructuring efforts, and productivity gains. Therefore, results should be considered as the lower bound of the impact.

86. Rutherford et al. (1997) are among the first to analyze the impact of the Euro-Med agreement on Morocco. They use the Small Open Economy model with data of year 1980. Their model allows for perfect competition and fully mobile labor across 39 sectors. Their estimates indicate that Morocco gains under unilateral and bilateral trade liberalization with the EU. The amplitude differs with different elasticity assumptions and varies between 1 and 2.3 percent. Yet, the authors find significant trade diversion costs when only partial liberalization is considered. In contrast, complete elimination of tariffs with the rest of the world results in higher welfare gains (between 2.1 and 3.1 percent), with only slightly higher adjustment costs.

87. Based on a similar model, Achy and Milgram (2003) assess the potential effects of the EU AA on the Moroccan economy. They find that tariff dismantling vis-à-vis the EU leads to a welfare gain of 2.6 percent through the reduction in the output price of goods manufactured locally. Yet, production declines at the aggregate level, particularly in metal, mechanical and electric manufactures. The authors find that trade liberalization with the EU reinforces the current structure of the economy with a strong specialization in labor intensive and low value added products such as in textile and clothing. The model however identifies the tourism and other non-tradable services as benefiting from the liberalization process as demand increases more than supply. Output in the tourism sector is expected to grow by 10 percent and employment by 16 percent.

88. Augier and Gasiorek (2003) explore the welfare impact of trade liberalization between the Southern Mediterranean countries and the EU according to the exact phasing-out schedules. They compute a CGEM model with imperfect competition based on 1995 data. The model incorporates 10 countries and 11 sectors. The authors find a nonlinear path of welfare changes, with the initial process of trade liberalization involving welfare losses. Morocco experiences an initial decline in welfare of between 1% of GDP, and then welfare raises the greater are the tariff reductions over time<sup>8</sup>. After full implementation, Augier and Gasiorek find substantial welfare gains for Morocco. Under the assumption of unilateral Moroccan trade liberalization, Morocco gains amount to 5.4 percent. Gains almost triple when the model simulates the potential effects of productivity gains and deeper market access to the EU market (through improved access for agricultural products and harmonization of standards and regulations). Even given that scenario, the authors find that tariff reduction on a multilateral basis lead to slightly higher gains of 15.6 percent.

89. Contrasting with the previous studies, Elbehri and Hertel (2004) find that the EU-FTA leads to great welfare losses to Morocco. The authors use a static trade CGE model (GTAP) based on 1995 data. Their model assumes imperfect competition and incorporates only non-food manufactures. They affirm that losses rise mainly from the unilateral aspect of the trade liberalization, reductions in output per firm in industries dominated by scale economies, diversion of imports away from non-EU lower cost suppliers, and potentially adverse effects on the aggregate demand for labor. They assert that the main effect of FTA is to lock the Moroccan manufacturing sector even more firmly into its current pattern of specialization, favoring a few labor-intensive sectors. In contrast, multilateral trade liberalization appears to be much more favorable to Morocco (30% cut in all tariffs for Morocco, EU and ROW). The most significant contributing factor to the positive aggregate welfare gain is the much smaller terms of trade losses. Also, this broader framework helps Morocco diversify its industrial productive and export base.

---

<sup>8</sup> The path changes at year 5 for Morocco, year 6 for Tunisia, and year 9 for Egypt.

90. Three recent studies have focused on the effects of the newly signed US-Morocco FTA. Gilbert (2003) uses the GTAP model calibrated for the year 1997, and under the assumption of perfect competition. The model only captures the effect of tariff elimination on manufactures as the GTAP database used in the study does not incorporate information about non-tariff barriers and service protection. Gilbert finds that Morocco loses a total of \$293 million (0.3 percent of GDP) by implementing a FTA with the US, \$115 million from revenues currently collected on US products and \$177 million as a result of increasing imports from the US rather than from other less costly partners. This result indicates a dominance of trade diversion. However, the author notes that if increased US exports to Morocco reduces margins of preference enjoyed by countries under preexisting preferential agreements, the net trade diversion effects reflected in the simulations can be viewed in a more positive way. On the contrary, Morocco gains from multilateral trade liberalization (2.8 percent of GDP).

91. Ait El Mekki and Tyner (2004) use the 1997 GTAP database and differentiate twenty economic sectors and four regions (Morocco, USA, European Union and the Rest of the World). Their analysis concentrates on the impact on the most sensitive sector that is agriculture. They find that Morocco neither gains nor loses in aggregate from the agreement. There is a very small increase in real GDP, and a very small decrease in welfare. They note that losses in agriculture are real, but small. The largest import changes and production decline are in red meat and wheat, which are both currently highly protected in Morocco. Exports increase to all three regions in all products but predominantly in wearing apparel and other food. Multilateral liberalization is much more profitable to Morocco. Moroccan nominal GDP increases by 14.6 percent and welfare by 7.8 percent (4.3 percent in allocative efficiency and 3.2 percent in improving terms of trade). Interestingly, total exports to the US shrink in that scenario while those to the rest of world increase the most.

92. Andriamananjara And Tsiagas (2004) use the same framework than in the previous study. They simulate 65 separate simulations for potential US FTA. For each one, they analyze the impact of a reciprocal and complete removal of tariffs between the US and the partner country. Results indicate that Morocco is among the 10 biggest losers from a FTA with the US, along with Japan, rest of North Africa and rest of Middle. Welfare losses amount at 0.3 percent of GDP. Morocco loses mainly from losses in terms of trade. Simulations of complete removal of tariffs by all countries lead to welfare gains to Morocco at around 2.2 percent of GDP.

93. Brown et al. (2005) estimate the potential impact of the US FTA on the Moroccan economy using a model with different market behavior assumptions than the GTAP. They use the Michigan CGE model, allowing for imperfect competition in non-agricultural sectors. The database is calibrated for 1997 but projected to the year 2005. They find fairly small effects of the bilateral elimination of barriers on agricultural products, manufactures, and services, given especially the comparatively small size of existing trade between the two economies. Morocco's unilateral trade liberalization with the rest of the world would nonetheless double welfare gains for Morocco compared to the gains attained with a bilateral FTA (\$1.7 billion compared to \$0.9 billion).

94. The review of the literature indicates that in a comparative static framework, FTA do not offer significant gains for Morocco. The impact on growth is not sufficient to speed-up the process of income convergence with Western economies. One of the possible reasons for such low effect is that great benefits usually come from increased market access. Yet, The Association Agreement with the EU is more about Morocco tariff dismantling and the current level of trade with the US is very low<sup>9</sup>. In the case of Morocco, most of the gains will come from the policy

---

<sup>9</sup> These models only predict trade expansion or diversion for existing products as it is difficult to predict such developments for new products and services.

restructuring that will be undertaken as part of the FTA. This will render the Moroccan economy more efficient and more capable of competing in the global economy. Also, the FTA are expected to encourage more US and other foreign direct investment in Morocco, which is not captured in the comparative static analyses.

**Table 6: Summary of selected literature on the welfare impact of Morocco FTA**

	Base year	Model	Competition	Countries Regions	Sectors	Tariffs elimination	Welfare effect, % GDP		
							Unilateral	Bilateral	Multi.
<b>FTA with the EU</b>									
Rutherford and al, 1997	1980	SOE <sup>a</sup>	Perfect	3	39	All	1% to 2%	1.2% to 2.3%	2.1% to 3.1%
Achy and Milgram, 2003	?	SOE <sup>a</sup>	Perfect	3	15	Agreement	2.6%	-	-
Augier and Gasiorek, 2003	1995	CGEM <sup>b</sup>	Imperfect	10	11	Agreement	5.4%	13.9%	15.6%
ElBehri and Hertel, 2004	1995	GTAP <sup>c</sup>	Imperfect	3	28	Non-food manuf.	- 1.2% to - 5.9%		1.3% to 2.0%
<b>FTA with the US</b>									
Gilbert, 2003	1997	GTAP <sup>c</sup>	Perfect	23	19	Manuf.	-	- 0.26%	2.8%
Ait El Mekki and Tyner, 2004	1997 (tariffs updated)	GTAP <sup>c</sup>	Perfect	4	20	All	-	- 0.1%	7.8%
Andriamananjara And Tsiagas, 2004	1997	GTAP <sup>c</sup>	Perfect	65	4	All		- 0.3%	2.2%
Brown et al., 2005	1997 (projected to 2005)	Michigan	Imperfect	22	18	All.	-	2.7%	5.1%

a- SOE: Small Open Economy; b- CGEM: Computable General Equilibrium Model; c- GTAP: Global Trade Analysis Project;  
Source: World Bank Staff

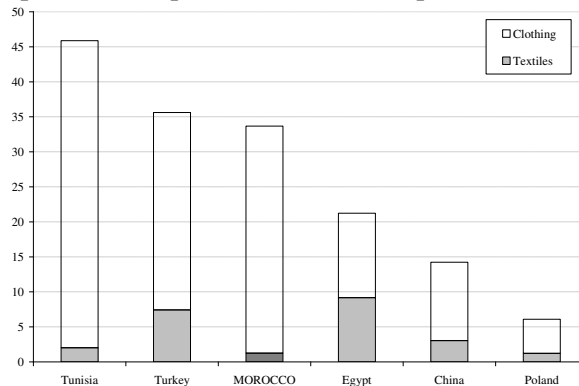
## 5. IMPLICATIONS OF TEXTILES AND CLOTHING MARKET LIBERALIZATION

95. The abolition of quantitative restrictions against exports of textiles and clothing from developing countries that came into effect on January 1, 2005 will have important implications for major exporters, such as Morocco. From 1974 to 1994, international trade in textiles and clothing was governed by the Multifibre Arrangement (MFA), which provided for the application of selective bilateral quotas when surges in imports of particular products caused, or threatened to cause, serious damage to the industry of the importing country. In essence, developing country exporters agreed under the MFA to quantitative constraints on their supplies to selected developed country markets, notably Canada, the European Union, Norway, and the United States, in order to avoid a protectionist backlash in the latter.

96. The MFA represented a major departure from basic GATT rules and, in particular, the principle of non-discrimination. The distortions it introduced into the international trading system became more and more pronounced over time, as comparative advantage in textiles and clothing production shifted, raising the need for reforms. In 1994, WTO members concluded the Agreement on Textiles and Clothing (ATC) as a transitional arrangement for the period from 1995 to 2004 that committed developed countries to progressively integrate parts of their textile and clothing imports into the GATT framework, and enlarge remaining quotas (until they were removed) by increasing annual growth rates at subsequent liberalization stages. The

implementation of the ATC was “backloaded” in the sense that the most stringent restrictions on textile and clothing trade were only lifted during the final integration stage, i.e. at the end of 2004.

97. With textiles and clothing accounting for about 17 per cent of industrial value-added, 34 per cent of merchandise exports, and 42 per cent of industrial employment, quota abolition could have major impacts on the Moroccan economy. Morocco is less exposed to changes in world textiles and clothing markets than Tunisia and Turkey, but more so than Egypt, China, and Poland, for example (Figure 24). Quantitative assessments of the phase-out of MFA-quotas consistently indicate considerable changes in the patterns of textiles and clothing production and trade (Walkenhorst, 2005). In particular, there is pressure for production in developed countries to be replaced by imports from developing countries. At the same time, competition between developing country suppliers is going to intensify substantially, as the previously quota-secured export markets become contestable. As a result, world market shares will shift and supplies will likely become more concentrated on a smaller number of textiles and clothing producing countries.



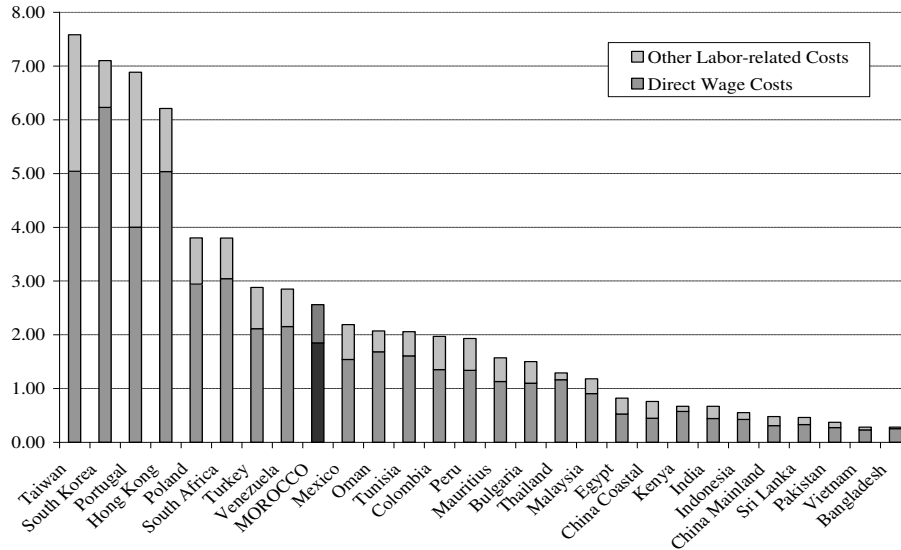
**Figure 24: Share of Textiles and Clothing in Total Exports, 2003 (in per cent)**

Source: UN COMTRADE database.

98. For developing countries, the welfare effects of ATC-reform are mixed. On the one hand, there is the loss of quota rent in export markets that were previously constrained. On the other hand, exporters could potentially gain in efficiency to the extent that they shift resources into textiles and clothing, assuming they have an *ex post* comparative advantage in these industries. The latter will in most cases be based on low labor costs, as apparel production, in particular, is a labor-intensive activity.

99. Total labor costs in Morocco’s textiles and clothing industry amounted to about 2.50 USD/h in 2004. They were thereby lower than those in southern and central European countries, such as Portugal and Poland, and roughly on par with the labor-related expenses of other Mediterranean textiles producers, such as Turkey and Tunisia. However, Moroccan labor costs are a multiple of those in eastern and southern Asia, including China, India, and Pakistan (Figure 25).

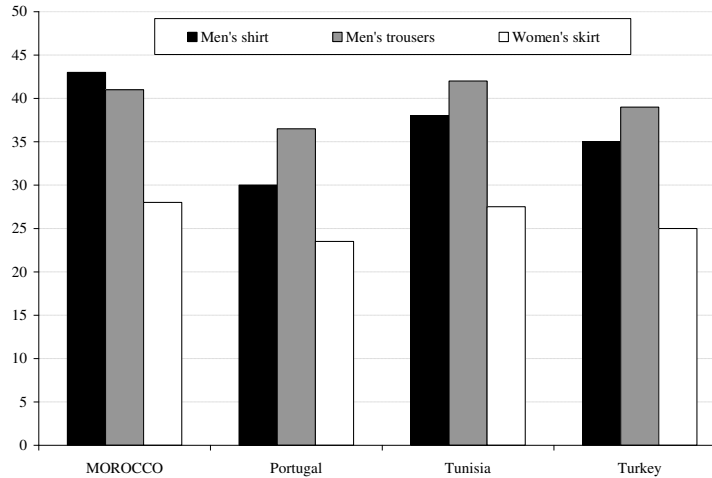
**Figure 25: Labor Costs in the Textiles and Clothing Industry, 2004**  
(USD/hour)



Source: Werner International (2005).

World-wide comparable information on labor productivity in the textiles and clothing industries is not available, but it seems questionable whether higher productivity in Morocco could currently offset the country's labor cost disadvantage *vis-à-vis* eastern and southern Asia. Indeed, labour productivity is below that of some of Morocco's competitors in the Pan-Mediterranean (Figure 26). Some analysts estimate that better workshop organization, investment in modern equipment, and the adoption of quality management techniques could result in productivity gains of about 25 per cent (Institut Francais de la Mode, 2003). But even realizing these gains would hardly be enough to offset the labor cost disadvantage *vis-à-vis* Asian producers. Hence, competing on price, while maintaining the acquired level of social standards in Morocco, is very difficult for Moroccan exporters.

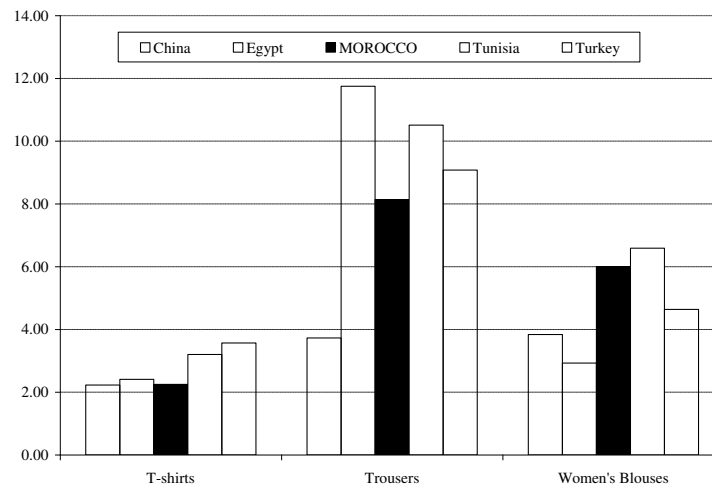
**Figure 26: Labor Productivity in Apparel Production**  
(Minutes per unit)



Source: Transtec (2003).

**100.** Indeed, data on unit import values show that, for example, Chinese shipments of apparel products into the European Union are very competitively priced. In the three categories t-shirt, trousers, and women’s blouses, which are of importance for Morocco, Chinese exporters charge lower prices than Moroccan suppliers. In the case of trousers, the products from China cost less than half as much as those originating in Morocco (Figure 27). However, the unit value data should be interpreted with care, as the product categories in the EU’s SIGL database are broadly defined and the characteristics and quality of the imports are not necessarily comparable.

**Figure 27: Unit Values of Apparel Imports into the European Union, 2004**  
(Euro/unit)

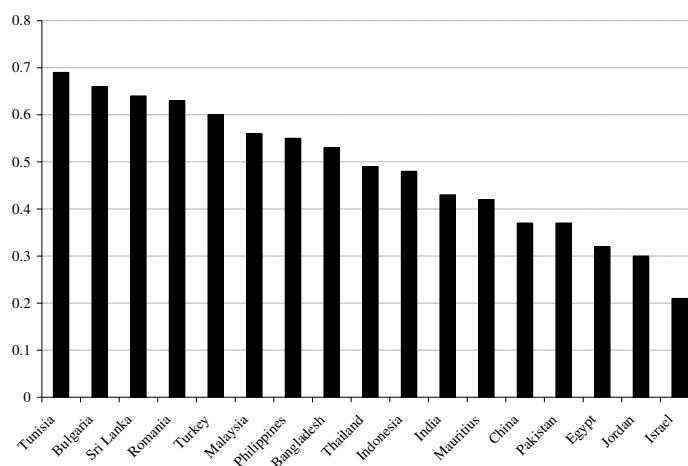


*Note:* Latest data available (May 2004).  
*Source:* European Union SIGL database.

**101.** As international cost leadership is difficult to obtain for Moroccan apparel producers due to their labor cost disadvantage, exporters have to try to differentiate their products and compete on other product attributes, such as quality, flexibility and speed of delivery. The structure of Morocco’s textile and clothing exports is in fact significantly different from that of most exporters in Asia. In other words, the apparel products that Morocco exports are not the same as those originating in, for example, China, India or Pakistan. Export similarity indices suggest that Morocco’s main competitors in the EU market are other suppliers in the Mediterranean (Tunisia, Turkey) or in eastern Europe (Bulgaria, Romania), while Sri Lanka is the only Asian country that has an export structure that is highly similar to Morocco’s (Figure 28). However, the structure of countries’ exports might well change after the MFA phase-out, as some categories of products were in the past more constrained by export quotas than others.



**Figure 28: Similarity between Morocco’s and Other Countries’ Textiles and Clothing Exports to the EU (Export Similarity Index)**



*Note:* The export similarity index  $S$  is calculated as  $S = \sum_i \text{MIN}[(X_{a,i}/X_a), (X_{b,i}/X_b)]$ , where  $X_{a,i}$  and  $X_{b,i}$  are the exports of product  $i$  from countries  $a$  and  $b$ , and  $X_a$  and  $X_b$  are the respective total exports. The index ranges from zero to one, with a higher value indicating greater similarity of export structures. Calculations are made at the HS 6-digit level for 2002.

*Source:* World Bank (2005b).

102. There is often considerable flexibility in the apparel sector to switch between product categories in response to market signals. Indeed, Morocco’s export structure has changed significantly over the past decade. Some categories, such as women’s or girls suits, have experienced a strong expansion in absolute and relative terms, while others, such as men’s and boys’ overcoats, show a marked contraction (Table 7).

103. So while structural adjustment is nothing new for textiles and clothing producers in Morocco, there is considerable uncertainty over the future of the sector in the context of more direct competition from eastern and southern Asian exporters since the beginning of 2005. Indeed, in the first quarter of 2005, Morocco’s exports of suits and underwear fell in local currency terms by 15 and 21 per cent, respectively, compared with the first three months in 2004. In parallel, China’s textiles and clothing exports surged, with total shipments up by 28 per cent in January and February 2005 compared with the same period in 2004. As a result, China has been able to increase its market share in both the EU and the US markets and these gains have mainly been achieved at the expense of other developing country exporters.

104. It is unclear to what extent the early adjustments following the MFA phase-out will be indicative of longer term trends. On the one hand, there are reports of large-scale stockpiling of textiles and clothing in China at the end of 2004 in anticipation of the quota removal. These hoarded supplies have reached the Western European and Northern American markets during the first quarter of 2005 and led to quick, but perhaps only temporary, gains in China’s market share. On the other hand, there is uncertainty about whether and to what extent the United States and the European Union will invoke safeguard action, such as introducing anti-dumping duties, against Chinese exports, which might have led some retailers to avoid sourcing textiles and clothing supplies in China so far. Yet, once this uncertainty is resolved, they might try to explore new supply sources in East Asia.

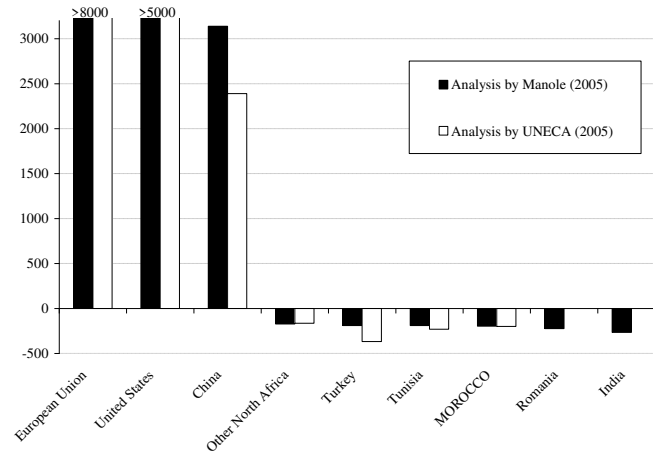
**Table 7: Structural Changes in Morocco's Textile and Clothing Exports, 1995-2004**

HS-4	Product description	Increase in exports		Share of T&C exports (%)	
		Current USD ('000)	%	1995	2004
<i>Ten product lines with the biggest export increases</i>					
6204	Women's or girls suits, ensembles, not knitted	375018	62	22.9	28.3
6109	T-shirts, singlets, tank tops, knitted or crocheted	189853	142	5.0	9.3
6212	Bras, girdles, garters, etc. knitted or not	78472	78	3.8	5.2
6108	Women's or girls slips, pjs, etc. knitted or crocheted	60248	135	1.7	3.0
6211	Track suits, ski-suits & swimwear, not knitted etc.	53266	57	3.5	4.2
6110	Sweaters, pullovers, vests, etc. knitted or crocheted	30216	15	7.6	6.7
5209	Woven cotton fabrics, nu 85 % cot, wt ov 200	25016	441	0.2	0.9
6106	Women's or girls blouses & shirts, knitted or crocheted	22085	67	1.2	1.6
6107	Men's or boys' underpants, pjs, etc., knitted or crocheted	18994	71	1.0	1.3
6207	Men's or boys' undershirts etc, not knitted or crocheted	14098	142	0.4	0.7
<i>Ten product lines with the biggest export decreases</i>					
6114	Garments nesoi, knitted or crocheted	-4175	-43	0.4	0.2
6210	Garments, of felt etc. or fabric impregnated	-4326	-17	1.0	0.6
6209	Babies' garments & accessories, not knitted or crocheted	-4699	-22	0.8	0.5
5701	Carpets & other florr coverings, knotted	-5371	-25	0.8	0.5
6101	Men's or boys' overcoats, knitted or crochet	-8025	-63	0.5	0.1
6103	Men's or boys' suits, ensembles etc, knitted or crocheted	-11381	-30	1.4	0.8
6205	Men's or boys' shirts, not knitted or crocheted	-13876	-8	6.3	4.4
6111	Babies' garments & accessories, knitted or crocheted	-19417	-52	1.4	0.5
6112	Track suits, ski-suits & swimwear, knitted or crocheted	-19742	-47	1.6	0.6
6201	Men's or boys' overcoats, cloaks etc, not knitted etc.	-21245	-43	1.9	0.8
All textiles and clothing		819376	31	100.0	100.0

Source: UN COMTRADE database.

105. Analysis using the Global Trade Analysis Project (GTAP) computable general equilibrium model suggests that Morocco will in the longer term experience a reduction in textiles and clothing exports, respectively, of 11 and 18 per cent as a result of MFA phase-out (UNECA, 2005). This fall in foreign sales will lead to annual economic welfare losses of about 200 million USD or 0.22 per cent of GDP. Similarly sized income reductions are projected for other countries in North Africa and the Middle East, while producers in China and consumers in the European Union and the United States are the main beneficiary groups from the liberalization of world textiles and clothing trade. The UNECA-results are broadly confirmed by Manole (2005), who uses a more detailed country breakdown in his GTAP-simulations (Figure 29).

**Figure 29: Model-based Estimates of Economic Welfare Effects of MFA Phase-out**  
(millions of USD)

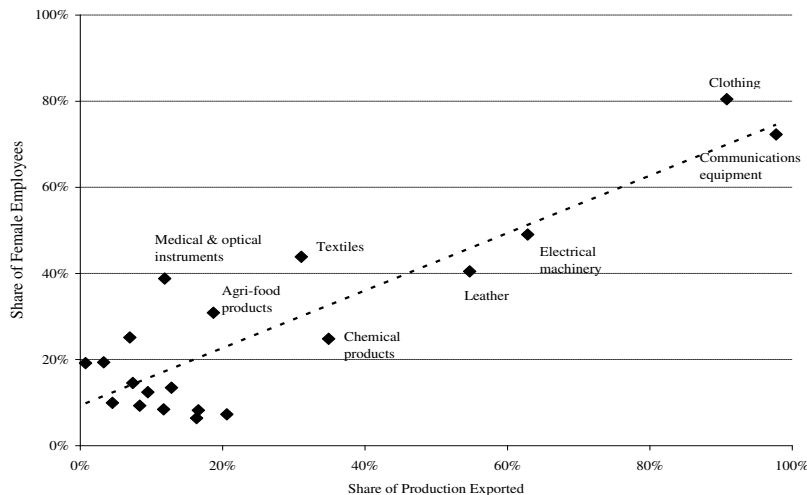


Source: Manole (2005), UNECA (2005a).

106. Manole (2005) also reports estimates of the labor market impact of quota removal. His findings suggest that 15-16 per cent of all unskilled workers in the Moroccan textiles and clothing sector will lose their employment. This significant impact could become even more pronounced over time, if the more competitive market environment induces textiles and clothing producers to scale back their investments. For example, a study of the Tunisian textiles and clothing sector that uses a dynamic general equilibrium model and thereby takes investment linkages into account found that the adverse employment effects could deepen considerably over time (Marouani, 2005).

107. Any significant job losses in the textiles and clothing sector will have important implications for Morocco's economy, but also for society at large. Morocco's export industries tend to employ a larger share of female employees than import-competing sectors (Figure 30). Indeed, in the highly export-oriented clothing sector, more than 80 per cent of all employees are women. Hence, any negative changes in export performance and employment scale-downs will more than proportionally affect the female population, with implications for gender balance and the pace of societal modernization.

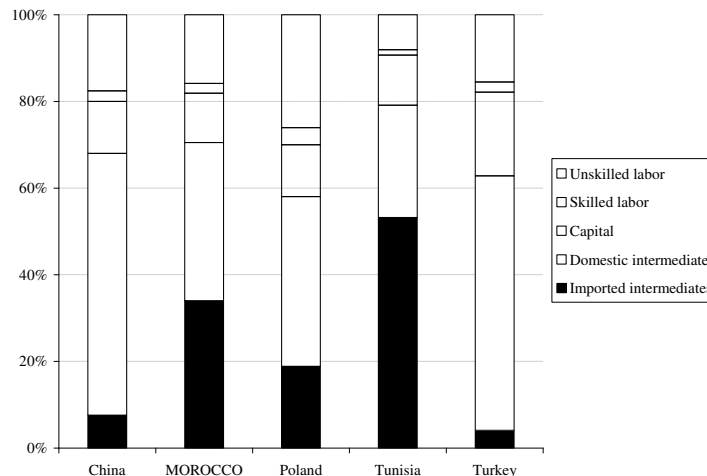
**Figure 30: Exports and Female Employment**



Source: Moroccan Ministry of Industry.

**108.** What can policy makers do to avert or at least contain the losses of employment and income that loom in the textiles and clothing industry as a result of low-cost competition from East Asia? One route would be to foster a shift towards higher quality and higher value-added production. Currently, a large share of Morocco’s production is merely subcontracting work for European partners and the value that is added to intermediate inputs is relatively low (Figure 31). Hence, developing a more sophisticated production system with a larger degree of vertical integration could be a promising means to defend market share and revenues (Institut Francais de la Mode, 2003). The recently concluded free trade agreement with Turkey is an important step in this direction (see section 4), as it makes it possible for Moroccan clothing producers to source lower-cost textiles inputs in Turkey while still respecting the rules of origin requirements of the European Union. Yet, moving towards vertically more integrated production structures and higher value-added products requires more entrepreneurial initiative and additional operational capital than is currently available in many of Morocco’s small and medium-scale firms. Also, many other textiles and clothing producing countries are pursuing a similar strategy, so that competition in higher end product categories is bound to increase.

**Figure 31: Structure of Production Costs in the Clothing Industry**

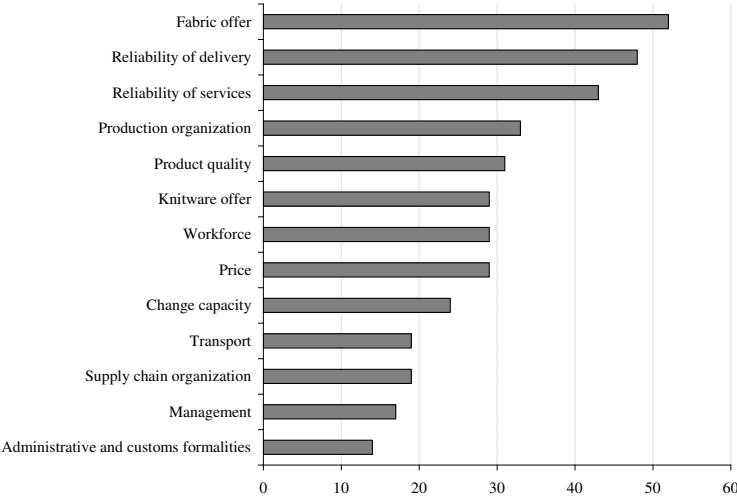


Note: Data for 2001.

Source: Global Trade Analysis Project database.

**109.** One uncontested advantage that Morocco has over its competitors is its proximity to the large Western European market. Hence, the country can compete on attributes such as speed of delivery and rapidity of response that more distant suppliers will find hard if not impossible to match. However, using and exploiting this generic advantage requires a well performing logistics chain, which currently doesn’t seem to be in place. Indeed, insufficient reliability of deliveries is cited by apparel buyers in the European Union as the second most significant weakness of Morocco’s textiles and clothing industry, next only to the country’s limited offer of diversity in fabrics (Figure 32). Policy reforms, as outlined in World Bank (2005b), to foster competition in transport and port services and to establish modern logistics providers and distribution centers should be an integral part of any strategy to strengthen the competitiveness of Morocco’s textiles and clothing industry. Indeed, as long as Morocco remains highly dependent on subcontracting work for European clothing producers and imports a large share of its intermediate inputs, reducing trade transactions costs and delivery uncertainties appears to be the prime means of quickly improving the prospects of the sector.

**Figure 32: Survey Results on Weaknesses of Morocco's Textiles and Clothing Sector**  
(Share of EU buyers in survey who cited the criteria, in per cent)



Source: Institut Francais de la Mode (2003).

## 6. SUMMARY OF POLICY RECOMMENDATIONS

The preceding discussion provided a detailed account of Morocco's trade policy situation and export performance in the context of the country's economic growth and poverty reduction agenda. Several issues were thereby highlighted in the different sections of the chapter that warrant the attention of the Government of the Kingdom of Morocco (GoKoM). The most pertinent ones are summarized in Table 8:

**Table 8: Policy Recommendations Matrix**

Issue	Action recommended	Requirements			Time frame
		Use dialogue and advocacy	Change regulation/legislation	Seek/comply with international agreement	
<i>Developments in merchandise trade</i>					
	Given Morocco's strong dependence on the EU market for exports, the GoKoM should actively pursue the harmonization of the country's domestic product standards in key export sectors, such as agri-food, textiles and clothing, and electrical and mechanical equipment, with those prevailing in the EU. These standards should be rigorously enforced in order to make it possible for Morocco to negotiate a mutual recognition agreement with the Union, which would greatly facilitate trade.		X	X	Medium term
	GoKoM should closely monitor real exchange rate developments and foster a policy of real wage moderation in order to avoid a further deterioration of the country's international competitiveness.	X			Short & medium term
<i>Export diversification</i>					
	The recent conclusion of trade agreements with several partner countries gives Moroccan exporters preferential access to previously underexploited markets, such as those in the United States and Turkey. GoKoM should, in partnership with the private sector, actively support the re-orientation of exporters towards these new markets in order to achieve a greater diversity of exports. The support could, for example, take the form of establishing trade missions abroad.	X	X		Short term
	The incentives given to firms in Morocco's export processing zones, such as the Tanger Free Zone, should be brought into line with the new multilateral requirements. The process of incentive alignment and re-instrumentalization should start as soon as possible in order to enable a smooth transition to the new regime.		X	X	Short term

**Table 8: Policy Recommendations Matrix**

Issue	Action recommended	Requirements			Time frame
		Use dialogue and advocacy	Change regulation/legislation	Seek/comply with international agreement	
<i>Developments in services trade and foreign direct investment</i>					
	The liberalization process pursued in the communications sector should be extended to other services sectors, including transport, in order to foster competition and increase the efficiency of service providers. Low-cost service operators can generate substantial export revenues, as demonstrated by Morocco's call center industry, and reduce input costs for manufacturing firms, which as a result will become more competitive in international markets.		X		Medium term
	GoKoM should ensure that an appropriate business environment for the planned expansion of the tourism sector, including with respect to access to land, is put into place.		X		Medium term
	The low level of FDI inflows outside of privatization-related receipts indicates that foreigners do not perceive Morocco has an attractive location for investments. GoKoM should remove any remaining impediments to FDI in order to attract larger amounts of much needed capital and related managerial and technological expertise. Measures should include the elimination of discretionary scope of tax authorities and the active suppression of informal activities in order to create a level playing field for foreigners.	X	X		Medium term
<i>Trade logistics</i>					
	Trade transactions costs should be reduced by increasing competition in port management and in the transport sector, as envisaged in recent legislative proposals.		X		Short term
	GoKoM should gradually tighten standards for operators in the transport sector in order to improve the quality and reliability of transportation services.	X	X		Medium term
	In addition, land reforms to facilitate the establishment of efficiently-scaled distribution centers in industrial areas should become a policy priority.		X		Short to medium term
<i>Domestic market protection</i>					

**Table 8: Policy Recommendations Matrix**

Issue	Action recommended	Requirements			Time frame
		Use dialogue and advocacy	Change regulation/legislation	Seek/comply with international agreement	
	GoKoM should ensure full compliance with Morocco's obligations under WTO Agreements, including with respect to tariff bindings and variable levies, in order to maintain and enhance the credibility of its trade policy.		X	X	Short term
	GoKoM should reduce tariff dispersion and the currently high degree of tariff escalation across different stages of transformation, which gives rise to very high effective rates of protection. The latter, in turn, make it possible for companies to avoid efficiency-enhancing changes in operations.		X		Short term
	Urgent action is required in sectors, such as meat processing, that show negative value-added at international prices. Tariff protection should be substantially reduced with a view to foster a restructuring or close-down of value-subtracting firms.		X		Short term
	The high effective rates of protection for agricultural and food products are bound to increase further as tariffs on industrial inputs are phased out under the Euro-Med Agreement. GoKoM should embark on a medium-term strategy of agricultural tariff reforms that gradually increase the exposure of farmers and agro-processors to international market forces.		X		Medium term
<i>Tariff revenues</i>					
	GoKoM should replace the loss of tariff revenues due to market opening by broadening the tax base and reducing currently existing tax exemptions, notably with respect to value-added taxation.		X		Short to medium term
	Income taxation should also be broadened by making the tax system applicable to all sectors in the economy, including agriculture.		X		Medium term
<i>Preferential trade agreements</i>					
	GoKoM should try to harmonize the product coverage of PTAs and their rules of origin provisions in order to increase transparency and make it easier for private sector operators to deal with the different agreements.			X	Medium term



**Table 8: Policy Recommendations Matrix**

Issue	Action recommended	Requirements			Time frame
		Use dialogue and advocacy	Change regulation/legislation	Seek/comply with international agreement	
	Regional trade initiatives, such as the Arab Maghreb Union, should be revived based on the existing judicial and institutional framework, but without derogations such as the licensing requirements that have up to now undermined effective implementation.			X	Short & medium term
	International experience shows that preferential agreements which involve institutional convergence, harmonization of standards, and services trade liberalization yields very substantial benefits over time. GoKoM should aim to reap these benefits by pursuing such “deep integration”.			X	Medium term
<i>Untapped regional trade potentials</i>					
	GoKoM should continue its political dialogue with Algeria with a view to re-establish normal economic relations and re-open land border crossings, which promises substantial economic benefits.	X		X	Short & medium term
<i>Economic and fiscal impacts of preferential agreements</i>					
	GoKoM should fully implement its bilateral agreements, including provisions on agriculture and services contained in the free trade agreement with the United States.			X	Short to medium term
	The currently largely excluded agriculture and services sectors should be brought into current and potential future new agreements in order to reap the benefits that an opening of these sectors promises to provide for the economy at large.		X	X	Medium term
	GoKoM should reduce its tariffs with partners with whom it does not have a preferential agreement in order to contain the diversion of trade flows and the associated economic costs.		X		Short term
<i>Implications of textiles and clothing market liberalization</i>					
	Due to the large dependence of Morocco’s clothing sector on imported intermediate inputs and the large share of production that is exported, an effective trade logistics system is of utmost importance for the prospects of the textiles and clothing industry.		X		Short to medium term
	GoKoM should support private sector efforts to upgrade quality and increase value-added by fostering improvements in professional education and training.	X	X		Medium term

**Table 8: Policy Recommendations Matrix**

Issue	Action recommended	Requirements			Time frame
		Use dialogue and advocacy	Change regulation/legislation	Seek/comply with international agreement	
	Moreover, GoKoM should assist private sector initiatives that aim at coordinating and bundling supplies of small or medium-scale producers in order to achieve the minimum required scale in large markets, such as the one in the United States.	X	X		Medium term

*Note:* Time frame specifications: Short term – within 12 months, Medium term – within 2 years, Longer term – 2 to 5 years.

Source: World Bank staff.

## REFERENCES

- Achy Lahcenand Juliette Milgram. 2003. "Does a Free Trade Area Favor an Optimum Currency Area? The Case of Morocco and the European Union". In *Management du Taux de Change au Maroc*, Eds Maarif Al Jadida, Rabat.
- Agama Ann and Christine McDaniel. 2003. "The NAFTA Preference and US-Mexico Trade: Aggregate-Level Analysis". *World Economy*, 26, No. 7, July.
- Ait El Mekki Akka and Wally Tyner. 2004. "The Moroccan-American FTA - Effects on the Agricultural and Food Sectors in Morocco". GTAP Resource No. 1462. Purdue University, Department of Agriculture Economics.
- Aloui, O., and L. Kenny, 2004. *The Cost of Compliance with SPS Standards for Moroccan Exports: A Case Study*. Agriculture and Rural Development Discussion Paper. The World Bank, Washington DC.
- Andriamananjara Soamiely and Marinos Tsigas. 2004. "Free Trade Agreements with the United States: What Can We Learn From 65 Simulations". Preliminary draft.
- Augier Patricia and Michael Gasiorek. 2003. "The welfare implications of Trade Liberalization between the Southern Mediterranean and the EU". *Applied Economics*, 35.
- Augier Patricia, Michael Gasiorek and Charles Lai-Tong. 2004. "The EU-Med Partnership, The Textile Industry, and Rules of Origin". *World Economy*, 27, No. 9, September.
- Brown Drusilla K., Kozo Kiyota, and Robert M. Stern. 2005. "Computational Analysis of The US Bilateral Free Trade Agreements with Central America, Australia, and Morocco". University of Michigan, School of Public Policy, Discussion Paper No. 507.
- Bouoiyour, J., 2003. "Trade and GDP Growth in Morocco: Short-Run or Long-Run Causality?" *Brazilian Journal of Business Economics* 3(2): 19-26.
- Brenton Paul and Miriam Manchin. 2003. *Trade Policy Issues For The Euro\_Med Partnership*. CEPS Working Paper No. 7, May.

- Brenton, P., and H. Imagawa, 2004. "Rules of Origin, Trade and Customs." In De Wulf, L., and J. Sokol (editors), *Customs Modernization Handbook*. World Bank, Washington DC.
- Brown, D.K., K. Kiyota, and R.B. Stern, 2004. *Computational Analysis of the US FTAs with Central America, Australia, and Morocco*. School of Public Policy Discussion Paper No. 507. University of Michigan, Ann Arbor.
- Chaponnière, J.R., 2002. "Les Enjeux Economiques du Transport Maritime en Mediterranée." DREE Fiche de Synthèse. Ministère de Finance, Paris.
- Cline, William R. 2004. *Trade Policy and Global Poverty*. Institute of International Economics.
- Conseil National du Commerce Extérieur. 2003. "Etude d'Impact d'Une Zone de Libre-Echange Entre Le Maroc Et La Turquie". Government of Morocco.
- DeRosa, D.A., and J.P. Gilbert, 2004. "Quantitative Estimates of the Economic Impact of US Bilateral Free Trade Agreements." In Schott, J.E. (editor), *Free Trade Agreements: US Strategies and Priorities*. Institute for International Economics, Washington DC; pp. 383-417.
- Dollar, D., and A. Kray, 2001. *Trade, Growth and Poverty*. Working Paper No. 2615. The World Bank, Washington DC.
- Eby D. Konan and Karl E. Kim. 2004. "Beyond Border Barriers: The Liberalization of Services Trade in Tunisia and Egypt". *World Economy*, 27, No. 9, September.
- Economist Intelligence Unit, 2005. *Country Report: Morocco*. London.
- ElBehri and Hertel. 2004. "A Comparative Analysis of the EU-Morocco FTA vs. Multilateral Liberalization". GTAP Working Paper No. 31.
- Galal, A., and R.Z. Lawrence, 2004. "Egypt, Morocco, and the United States." In Schott, J.E. (editor), *Free Trade Agreements: US Strategies and Priorities*. Institute for International Economics, Washington DC; pp. 299-330.
- Garcia, M., 2003. "Benchmarking Safety and Quality Management practices in the Mediterranean Fresh Produce Export Sector." Project Report. Department of Agricultural Sciences, Imperial College, London.

- Gasiorek Michael and Patricia Augier. 2003. "The Welfare Implications of Trade Liberalization Between the Southern Mediterranean and the EU". *Applied Economics*, 35, No. 10, July.
- GEOMAR International, 2004. *Analyse de la Chaîne d'Approvisionnement (Supply Chain) pour des Industries Sélectionnées au Maroc*. Study prepared for the World Bank and the Government of Morocco. Montreal, Paris and Washington DC.
- Gilbert. 2003. "CGE Simulation of US Bilateral Free Trade Agreement". Background Paper for *FTAs and US trade policy* conference. Institute of International Economics, May 7-8.
- Hausmann, R., and D. Rodrik, 2003. "Economic Development as Self-Discovery." *Journal of Development Economics* 72: pp. 603-633.
- International Monetary Fund. 2004. "Impact of the Barcelona Process on Morocco's Trade". Article IV selected issues.
- International Monetary Fund. 2005. "Dealing with the Revenue Consequences of Trade Reform". Background Paper for Review of Fund Work on Trade, February.
- Institut Francais de la Mode, 2003. "Resume de Livre Blanc de l'Industrie Marocaine du Textile et de l'Habillement." Casablanca and Paris.
- International Trade Centre. 2003 "A Gravity Model for The Calculation of Trade Potentials for Developing Countries and Economies in Transition", Market Analysis Section, United Nations.
- Jalal, H., 2004. *Présentation et Analyse Sectorielle de l'Accord de Libre Echange entre le Maroc et la Turquie*. Document de Travail No. 99. Direction de la Politique Economique Générale, Ministère de Finance et de la Privatisation, Rabat.
- Jayanthakumaran, K., 2003. "Benefit-Cost Appraisals of Export Processing Zones: A Survey of the Literature." *Development Policy Review* 21: pp. 51-65.
- Kheir-El-Din, H., and M.M. Abdel-Fattah, 2001. *Textiles and Clothing in the Mediterranean Region: Opportunities and Challenges of Returning Textiles and Clothing to GATT Disciplines*. Working Paper No. 2008. Economic Research Forum for the Arab Countries, Cairo.

- Klinger, B., and D. Lederman, 2004. *Discovery and Development: An Empirical Exploration of 'New' Products*. World Bank Policy Research Working Paper No. 3450. The World Bank, Washington DC.
- Löfgren, H., M. El-Said and S. Robinson, 2001. "Trade Liberalisation and the Poor: A Dynamic Rural-Urban General Equilibrium Analysis of Morocco;" in OECD, *Towards Arab and Euro-Med Regional Integration*. Organisation for Economic Co-operation and Development, Paris.
- Madani, D., 1999. *A Review of the Role and Impact of Export Processing Zones*. World Bank Policy Research Paper No. 2238. The World Bank, Washington DC.
- Manole, V., 2005. "Winner of Loser? Effects of Quota Abolition in World Markets for Textile and Apparel." Working Paper. The World Bank, Washington DC.
- Marouani, M.A., 2005. *The Impact of the Multifiber Agreement Phaseout on Unemployment in Tunisia: A Prospective Dynamic Analysis*. Discussion Paper No. 39. Center for Globalization and Europeanization of the Economy, University of Göttingen, Göttingen.
- Martin, W., 2004. "Implications for Pakistan of Abolishing Textile and Clothing Export Quotas." Working Paper. The World Bank, Washington DC.
- Mlachila, M., and Y. Yang, 2004. *The End of Textiles Quotas: A Case Study of the Impact on Bangladesh*. IMF Working Paper No. 04/108. International Monetary Fund, Washington DC.
- Müller-Jentsch Daniel. 2005. *Deeper Integration and Trade in Services in the Euro-Mediterranean Region: Southern Dimension of the European Neighborhood Policy*. World Bank and European Commission.
- Page John and John Underwood. 1997. "Growth, the Maghreb, and Free Trade With The European Union." In Ahmed Galal and Bernard Hoekman, eds, *Regional Partners in Global Markets: Limits and Possibilities of the Euro-Med Agreements*. Center for Economic Studies.
- Pelzman Joseph. 2004. "Trade Liberalization and Fiscal Reform, Evidence From Two Case Studies, Morocco and Jamaica, and a General Cross-Country Econometric Analysis." USAID.
- Ravallion, M., and M. Lokshin, 2004. *Gainners and Losers from Trade Reform in Morocco*. Policy Research Working Paper No. 3368. The World Bank, Washington DC.

- Romalis John. 2005. "NAFTA's and CUSFTA's Impact on International Trade" NBER Working Paper 11059.
- Schott Jeffrey J. 2004. Free Trade Agreements, US Strategies and Priorities. Institute of International Economics. Washington DC.
- Sorensen, N.N., 2004. Migrant Remittances as a Development Tool: The Case of Morocco. Migration Policy Research Working Paper Series. International Migration Organisation, Geneva.
- Tourkmani, M., and H.A. Mrani, 2004. Compétitivité des Exportations au Maroc. Document de Travail No. 97. Direction de la Politique Economique Générale, Ministère de Finance et de la Privatisation, Rabat.
- Transtec, 2003. "Etude d'Analyse de la Branche Industrielle Textile-Habillement: Rapport de Synthèse de la Filière Chaîne et Trame." Study prepared for Morocco's Ministry of Industry. Rabat.
- UNECA (United Nations Economic Commission for Africa), 2005a. "Comment Sauver le Textile Maghrebin?" Paper presented at the UMA/CEA conference (14-15 February), Tunis.
- UNECA (United Nations Economic Commission for Africa), 2005b. "Economic and Welfare Impacts of the EU-Africa Economic Partnership Agreements: The Analytical Methodology – the GTAP and SMART Models and Related Databases." Working Paper. Addis Ababa.
- USITC. 2004. "US Morocco Free Trade Agreement: Potential Economy-wide and Selected Sectoral Effects". Publication No. 3704. June.
- Van Dalen, H.P., G. Groenewold, and T. Fokkema, 2005. Remittances and Their Effects on Emigration Intentions in Egypt, Morocco, and Turkey. Tinbergen Institute Discussion Paper. Amsterdam.
- Walkenhorst, P., 2005. "Quantitative Assessments of Textiles Trade Liberalization: A Survey." Journal of Economic Integration 20(1): 139-157.
- Watson, P.S., 2001. Export Processing Zones: Has Africa Missed the Boat? Africa Region Working Paper No. 17. The World Bank, Washington, DC.

- Werner International, 2005. "Primary Textiles Labor Cost Comparisons, Winter 2004/05." Herndon/Virginia.
- Willmore, L., 1996. Export Processing in the Caribbean: Lessons from Four Case Studies. Working Paper No. 42. United Nations Economic Commission for Latin America and the Caribbean, Santiago.
- World Bank. 2003. Trade, Investment, and Development in the Middle East and North Africa: Engaging with the World. MENA Development Report.
- Winters, L.A., 2004. "Trade Liberalisation and Economic Performance: An Overview." *Economic Journal* 114(2): F4-F21.
- World Bank, 2005a. Global Economic Prospects: Trade, Regionalism, and Development. World Bank, Washington DC.
- World Bank, 2005b. "La Logistique du Commerce et la Compétitivité du Maroc." World Bank, Washington DC.
- World Trade Organization, 2003. Trade Policy Review: Kingdom of Morocco. Report by the Secretariat. World Trade Organization, Geneva.
- Yeats, A.J., 1998. What can be Expected from African Regional Trade Arrangements? Some Empirical Evidence. Working Paper. World Bank, Washington DC.
- Zarrouk Jamel and Franco Zallio. 2000. "Integrating Free Trade Agreements". Paper presented at the Third Mediterranean Forum (MDF3), Cairo.



## ANNEX 1: A GRAVITY MODEL TO QUANTIFY MOROCCO'S EXPORT POTENTIAL

In order to determine the trade potential between Morocco and Algeria in case it were possible to come to a political understanding that would lead to the opening of the border and the resumption of normal economic relations, a gravity model was estimated. The earlier discussion of trade-determining factors (see section 4.2) suggests the following economic relationship:

$$(1) \quad \text{Ln } EXP_j^{MAR} = a_1 \text{Ln } Y_j + a_2 \text{Ln } P_j + a_3 \text{Ln } DIST_j^{MAR} + a_5 \text{PTA} + a_6 \text{ComLang} + \varepsilon_{ij}$$

where EXP is Morocco's exports of goods and services (tourism receipts ) to country  $j$ ,  $Y_j$  and  $P_j$  are GDP and population of country  $j$ ,  $D_{ij}$  is the geodesic distance<sup>10</sup> between Morocco and country  $j$ , MFN is the MFN rate levied by the importing country, PTA and ComLang are binary dummy variables that take the value of 1 if the country is involved in a preferential trade agreement with Morocco and shares a common language. It takes the value zero otherwise.

A characteristic of the data set is that countries to which Morocco does not export to are included in the regression sample. Hence, the dependent variable, Moroccan exports, is censored at the lower limit. About 20 per cent of the observations are limit observations with no exports being reported to particular countries. The appropriate analytical approach in this case is the Tobit model, using maximum likelihood estimation techniques. Such a model can be specified as:

$$(2) \quad \begin{aligned} EXP^* &= \beta'X + \mu, \text{ and} \\ EXP &= 0 && \text{if } EXP^* \leq 0 \\ &EXP^* && \text{if } EXP^* > 0, \end{aligned}$$

where  $EXP^*$  is the latent variable (the potential exports from Morocco),  $EXP$  the observed value of the dependent variable (the actual exports flow to a particular country),  $X$  is the vector of independent countries,  $\beta$  the vector of slope coefficients, and  $\mu$  is an error term, which is i.i.d.

The parameters of the model can be estimated using standard statistical packages, such as STATA. But as usual in Tobit models, the interpretation of the slope coefficients creates problems, as they do not represent the marginal effects. The latter can, however, be approximated as:

$$(3) \quad \delta E[EXP]/\delta X = (\text{Prob}[0 < EXP^*] \hat{\beta}).$$

<sup>10</sup> Geodesic distances in kilometers are available from CEPII which uses the great circle formula, based on the geographic coordinates of the capital cities. For further details see <http://www.cepii.com/francgraph/bdd/distances.htm>.

Data on Morocco's exports to partner countries in 2003 are available in the UN Comtrade database. In addition, bilateral information on services exports was obtained from Morocco's Bureau of Foreign Exchange. Services exports other than tourism are not covered in the analysis due to lack of disaggregated data.

Based on the statistical model outlined above, several specifications were estimated. Specification I corresponds to the formulation in which goods only are taken as the dependent variable, while specification II covers exports of both goods and tourism services. The results from the regressions are reported in Table 8.

<b>Table 8: Tobit estimation of Moroccan exports</b>				
	Specification I: Dependent variable: Moroccan <b>good</b> exports (2003)		Specification II: Dependent variable: Moroccan <b>goods and tourism</b> exports (2003)	
	Coef.	t statistics	Coef.	t statistics
GDP	0.99***	7.53	1.05***	8.06
POP	0.50***	3.37	0.45***	3.02
DIST	-1.79***	-16.7	-1.81***	-16.87
ComLang	2.41***	2.68	2.29***	2.54
PTA	0.36	0.42	0.66	0.77
Log Likelihood	-358.14		-357.78	
Number of observations: 174 with 142 uncensored observations.				
Note: The superscript *** indicates that the coefficient is significantly different from zero at the 1 per cent confidence level.				
Source: World Bank staff.				

## ANNEX 2: SMART: A PARTIAL EQUILIBRIUM MODEL

The partial equilibrium model SMART (Software for Market Access and Restrictions to Trade) is a simulation tool that is part of the World Integrated Trade Solution (WITS) data retrieval and analysis framework. The latter is being developed and maintained by the World Bank in cooperation with other international organizations. It is available free of charge *via* the internet at <http://wits.worldbank.org>.

SMART is used to support trade policy analysis by making it possible to quantify the economic and fiscal impacts of tariff changes. The model is static and focuses on a single country at a time. Hence, the tool does not capture intertemporal linkages between variables or interactions between contemporaneous reforms in several countries. With these analytical limitations in mind, SMART can be used to estimate trade creation, trade diversion, economic welfare and tariff revenue effects of tariff policy reforms, such as those occurring as a result of preferential trade agreements. A full technical description of the model can be found in UNECA (2005b).