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The Impact of the Multifiber Agreement Phase out on trade in North African Countries: a Prospective Analysis

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Résumé :

Le secteur du textile et des vêtements demeure un secteur clé pour les pays maghrébins et risque de connaître des bouleversements majeurs suite au démantèlement de l'Accord Textile Vêtement (ATV), depuis le 1er janvier 2005. Les pays de la région ont tenté d'anticiper au mieux ces bouleversements en définissant des stratégies de réaction, à la fois au travers de la mise en œuvre de politiques industrielles nationales afin d'accompagner les évolutions structurelles sectorielles, et en envisageant parallèlement plusieurs politiques commerciales. L'objet de ce papier est d'éclairer par des évaluations quantitatives les stratégies mises en place. Plus précisément, nous confrontons et évaluons les stratégies de réponse possibles des pays maghrébins au démantèlement des quotas dans le textile et les vêtements. Le modèle utilisé dans ce papier est une version simplifiée du modèle GTAP (version 6.0). Nos résultats montrent que la mise en place d'une zone de libre échange avec la Turquie et les Etats-Unis pourrait atténuer les effets négatifs du démantèlement des quotas, mais très modestement. La proposition la plus favorable semble être une zone de libre-échange « pan-euro-méditerranéenne ». Ce scénario, tout en étant très favorable à l'Union européenne, devrait entraîner une amélioration du PIB de l'ensemble des pays de la région.

Classification JEL : D58, D91, D92, F16, J41

Abstract:

Textile and clothing industries are key sectors in the economy of Maghreb countries and may experience major turnovers further to the Multifiber Agreement (MFA) phasing out that started on 1 January 2005. The countries of the region have made substantive efforts in anticipation of these turnovers. They have defined response strategies and are also implementing national industrial and trade policies to accompany this MFA phasing out. The object of this paper is to assess theses response strategies. The model used in this paper is a simplified version of the GTAP model (version 6.0). Our results show that the implementation of the free trade agreement (FTA) with Turkey and United States of America would reduce the negative effect of the removal of quotas in only a modest way. In contrast, a « pan-euro-Mediterranean » FTA would have a more positive effect. This scenario should entail an improvement of the GDP of all the countries of the region and could also be very favourable to the European Union, particularly in terms of welfare.

JEL Classification: D58, D91, D92, F16, J41

I.   Introduction :

The Multifiber agreement (MFA) has been instituted in 1973 in order to protect by quotas the industrialized countries markets facing the emergence of new country exporters, in textile and the clothing sectors. The MFA has been considered as an important derogation to the fundamental rules of the GATT, notably to the non-discrimination and competition principles. During the Uruguay Round negotiations, the World Trade Organization (WTO) countries agreed to put in place progressively a transition process to reintroduce the textile in the GATT rules of non-discrimination. The Agreement on Textiles and Clothing (ATC) entered in force in January 1st, 1995, has fixed the conditions of this reinstatement to January 1st, 2005.   That means that trade in textile and clothing products is no longer subject to quotas under a special regime outside normal WTO/GATT rules but is now governed by the general rules and disciplines embodied in the multilateral trading system.

Numerous studies tempted to quantify the effects of the textile and clothing market liberalization at the international and regional level. For the Maghreb countries, Morocco and Tunisia are the more concerned. The phasing out of the quotas that privileged these two countries in the access to European countries markets, have a strong effect on their economy which is extensively dependent of these sectors. The concerned countries adopted some strategies in order to face this challenge. Some coalitions form themselves, free trade agreements and strategies of setting to level to reinforce competitiveness are undertaken. The purpose of this article is to value the strategies of answer of the countries, concerning trade policy, in order to elaborate the recommendations that would guide Maghreban policy-makers within different international negotiations, or even to the level of the adoption of a common strategic position.

This article is composed of three sections. The first section conducts a state of the literature on the question. It also debates strategies of answer of Maghreban countries facing this evolution of the international environment. The second section will present the methodological tools that will serve to measure the impact of the different strategies on Maghreban economies. In the same way, will be presented in this section the different tested scenarios as well as the tariff structures and the trade structure on which are based these simulations. The third and last section will be dedicated to the presentation and the analysis of the results. It will present the effects of different scenarios on the main macro-economic variables (GDP, exports, imports, production, welfare…..). On the basis of the results of the simulations, it will be about clearing a common Maghreban strategy so that this period of transition generates the costless adjustments.

1 Impact of the Textile liberalization: an overview

The literature on the evolution of the textiles and clothing sectors confirms the important distresses waited of the ATC phasing out. The production and the trade level should increase mainly in China and India. In other part, the industrialized countries will see a decrease in their production and an increase in their imports from the developing countries. In the same way, liberalization in the sector of textiles and clothing is damaging to the developing countries producers of textiles that have the more benefited from the system of quotas, but that didn't have the time to develop a strategy of vertical integration of their textile and clothing sectors .

1.1 General impact of textile and clothing trade liberalization: global gains of welfare

Most studies that have been led in order to estimate the impact of the MFA dismantlement made the simulations using general equilibrium models, with as reference the same source, in this case the Global Trade Analysis Project (GTAP). Table 1 below summarizes the results of different studies. The global gains in term of welfare vary from. 5 to 37 USD billions, functions of the different scenarios. The diversity of the results gotten justifies itself by the variability in the years of reference, in the hypotheses and the different scenarios.

Table 1: impact simulations on MFA dismantlement

Model	Hypothesis	Gains (billions dollars)
Trela and Whalley (1990), Data 1986 7 text. and cloth. categories protected by quotas and 7 other just by tariff barriers	The imported goods or produced locally are treated as homogeneous goods	23 (8 for developing countries, most of them know a welfare improvement)
Harisson, Rutherford and Tarr (1995, 1997) Data 1992 (GTAP 2)	Static and dynamic model constant than increasing returns to scale	14 to 20 (2 to 4 for developing countries). Most of developing countries know losses, apart China.
Hertel, Martin, Yanagishima and Dimaranan (1995) Data 1992 (GTAP 2)	Word Economy projected in 2005 the liberalization	37 linked to the quotas abolition and 13 to the ATC quotas liberalisation (1995-2005). China, South Asia and ASEAN are the major winners within developing countries
Yang (1997) Data 1992 (GTAP 2)	Static model, pure and perfect competition	28 (11 for developing countries). China, South Asia and ASEAN are the major winners within developing countries
Yang (1994) Data 1986	Static model, pure and perfect competition, quotas abolition only	7 (3,7 for developing countries). NIEs are the major winners within developing countries, EU only 0,99 USA 2,2
Francois, Glissman and Spinanger (2000) Data 1995 (GTAP 4)	Base year 1997	25 billions ECU

Cepii (2001) Data 1995 (GTAP 4)	Base year 1997	14,3 billions dollars
Fouquin and Al (2002) Data 1997 (GTAP 5)	Base year 1997	5-13 billions dollars, according to the scenarios

Source : CEPII

Most studies made conclusions that Fouquin and Al. (2002) summarize in four points: (i) the essential of the commercial gains will benefit to the developing countries ; (ii) these gains are concentrated on two countries, China and India, the small developing countries being excluded practically; (iii) the developed countries win more in term of consumers gains - by the decrease of the prices - that they don't waste in term of production; (iv) the bigger opening of the developing countries markets in the textile and clothing sectors, until now again very protected, doesn't conceal a potential of exports for the developed countries comparable to their imports progression .

Hildegunn (2004) analyses the impact waited of liberalization, while comparing two methodologies, a general equilibrium model (GTAP) and a gravity model. He underlines that GTAP doesn't take in consideration a certain numbers of factors such, the changes intervened lately in the market organization (vertical specialization), timing, etc. The use of the gravity model permits to palliate these deficiencies, bringing the author to conclude that the distance is important in all commercial transaction. Therefore, the nearest countries of the main markets will be least affected by the competition post ATC: thus, Mexico, the Caribbean, Eastern Europe East and North African countries should be able to maintain their market shares. The gravity models gravity have some limits of which the main is to be not based on a robust theoretical framework. The two methodologies are therefore more complementary than competitors.

Besides, other impact studies (OECD, 2004) deplored the fact that the segmentation of the provision chain confined the low wage countries (including Morocco, Tunisia, but also Mauritius and Madagascar) to specialize in the final assembly of made clothes from pieces of imported textiles, what stopped them from developing a competitive textile and clothing sector. These countries will be more vulnerable than countries as China that knew how to assure a certain integration of their textile industry. Other analyses focused on the impact of the MFA dismantlement on employment, in particular the one of the women that constitutes the majority of the populations working in the confection sector.

1.2 the impact of China accession to the WTO

The impact of the textile and clothing trade liberalization on the Chinese economy were also the subject of quantitative analyses. As Liu and Sun (2004) indicated it mentioning Lardy (2002), even before its accession to the WTO, the Chinese textiles and clothing exports already recorded a very strong tendency to the rise, in spite of the tariff restrictions imposed by the big importing countries. The Chinese exports of textiles passed thus from 2,5 billions of dollars in 1980 to 13 billions in 1998; and the exports of

clothes of 1,5 billions in 1980 to 27 billions in 1998. To its accession to the WTO, China had already become the first producer and exporter of textiles and clothes with respectively 16 billions (10%) and 36 billions (18%) of the world exports of textiles and clothes in 2000.

Table 2. Minimum wages per hour, in euros, March 2004

France	Turkey	Morocco	Tunisia	Romania	Ukraine	China	India
7,19	1,20	0,81	0,66	0,50	0,35	0,25	0,22

However, the China accession protocol gives right to specific safeguard measures for textiles and clothing valid until December 2008, and the United States used the clause already on three sensitive products: Bras, bathrobes and tissues stitch. The European union has as for it put a dialogue in place with the Chinese government on the textile trade to examine the means to avoid as far as possible, a recourse to the back-up measures in case of disruption of the European market following the progression of the Chinese exports (Pascal Lamy, 2004).

On its side, China seems to have become aware of the possible impact of its commercial aggressiveness on the neighbouring countries as the Bangladesh while anticipating the possible retortions of the United States and Europe. China began to tax its own exports, notably low-quality in order to incite Chinese exporters to go up in range.

1.3 Maghreb countries strategies of answer

The elements that precede indicate that Maghreb countries (notably Morocco and Tunisia), like the subcontracting countries, risk to lose their competitiveness facing countries as India, Indonesia and China, but also facing better integrated competitors as Egypt or Turkey. Algeria of which the industry of leather and textile represents less 0,3% of the GDP in 2003, is net importer of textile, no again member of the WTO; it has the whole latitude to protect its textile industry like new member, during some years again.

The Maghreb countries, like all producers of textiles, adopted some strategies in order to face the numerous challenges confronting the textile and clothing sector. At the internal level, numerous measures have been taken:

- Revision of the tax system for the sector;
- Investment support in the sector;
- Guarantee fund to improve the SME of the sector;
- to encourage the regroupings of enterprises as syndicates;
- to stimulate the initiatives of regrouping and work in network;
- to reinforce the managerial expertise ;
- to develop the professions key of the co-contracting;

- to increase the engineers and technicians quality ;
- to facilitate the technical and foreign support and to develop a continuing education.

These measures appear in a strategic axis that aims to withdraw progressively from the subcontract to move toward the co-contracting. To the commercial level, this strategy aims to search for new markets, notably by the creation of export syndicates permitting to achieve in common purchasing raw materials, logistics and trade policy.

In the same way to actions/dialogues and national initiatives, a certain number of initiatives has been taken at the bilateral and regional level in order to bring elements of solution to the challenges confronting the textile and clothing sector. In term of trade policy, Tunisia and Morocco negotiated the signature of a free trade agreement (FTA) with Turkey, in order to improve the price-competitiveness of their products via the prices decrease of the raw materials imported from Turkey. The development of new markets can make itself by the signature of other agreements of free trade. Thus, with the signature of the FTA with the United States, Morocco will have a valued export possibility to 1,2 billion $US.

Finally, the euro-Mediterranean conference on the future of the textile industry and the clothing organized in Tunis (September 28th, 2004) was also the place of a debate on the reality of the sector in this space, and the means before to allow him to adapt to the mutations occurred in this domain, especially in the perspective of the MFA dismantlement. This conference underlines the idea of a Mediterranean free trade area like an answer to the challenges of the MFA dismantlement. This hypothesis is set more and more in motion in different circles, and constitute a believable alternative to the present uncertainties of the sector.

The countries of the region tempted to anticipate to best these distresses while defining strategies of reaction, at a time through the setting in work of national industrial policies in order to come with the sectorial structural evolutions, and while considering several trade policies in the same way. It is this second kind of policies whose two sections follow try to value the impact.

2 General equilibrium analysis framework - the GTAP model

2.1 why a general equilibrium analysis ?
The trade policies analysis implies to exam the implications of its instruments on the productive structure of the economy at the national and global level. The trade policy instruments, as tariffs or quotas, have direct and indirect effects on the relative prices of goods produced in a given country. Since the composition, in terms of goods and services, some national production varies, the demand of production factors also varies. Therefore, in a given economy, it is difficult to conceive that a trade policy modification cannot have an impact on only one sector. Because of the different interactions between sectors and their relative weight in a given economy, a modification of the weight of the sectorial productions always results from it. This, by extension, affects the relative

composition of the different production factors in the different sectors.

This modification of the weight of the sectorial productions to the national level can, in an international trade context, to be spread to the level of the global economy. The changes of the relative prices of the products and inputs, lead by a modification of the trade policy of a country, are transmitted to the industries and the inputs markets of the other economies with which the concerned country trades. From then on, so that the analysis of the commercial policies either applicable and that the produced results are robust, it agrees to take in account the sectorial interactions that result from a modification of the commercial policies of one or several countries. The general equilibrium methodology offers an analytical framework permitting to take in account the inter and intra-sectorial changes of production and by extension the variations of the demand of the different production factors.

However, these models have some limits, particularly the static models that don't take account of the dynamic effects led by a change of the trade policy. The static GTAP model makes part of it. GTAP is a multi-regional computable general equilibrium model (CGE) conceived for the static-comparative analysis in trade policy questions (Adams and al. 1997). Besides, one can envisage today dynamic versions to this model. It can be used to tackle the effect of a trade policy change, at the national, bilateral or multilateral level, on the production, the factors use, the volumes of trade and on the welfare distribution between countries.

2.2 The used model

The purpose of this paper is to confront and to value the Maghreb countries possible strategies of answer to the quotas dismantlement in textile and clothing. The model used in this paper is a simplified version of the GTAP model. This multi-regional and static general equilibrium model suppose a perfect competition and constant scales economies. It reflects the currents bilateral exchanges, the international transportation margins and the imports tariff rates by country and by sector. The GTAP model permits to determine the evolutions of the production, the consumption, the exchanges and the economic welfare occurred by exogenous shocks.

2.2.1 production

The producers of a sector given by country produce a good, that they destine to the local market and the foreign market. The production is supposed without scale economies. The production is achieved from five factors of production (skilled and unskilled labor, Capital, land, Natural Resources) and of intermediate consumptions. The used intermediate consumption level is supposed to be proportional to the level of production. While following the formulation of Armington [1969], the intermediate consumption is an aggregation of the local and foreign varieties. The producers minimize the production factors costs under the constraint of production modelled by a Leontief function between the intermediate consumptions and the value added. This last is supposed to be a CES function between the different production factors. The different markets are under the pure and perfect competition hypothesis.

2.2.2 final demand

The incomes generated within the economy are allocated between the final consumption and the saving. A fixed part of the income is allocated to the saving. The regional agent maximizes his welfare function distinguishing between the local and the foreign goods, according to the hypothesis of Armington, for a same sector and ventilate his consumption between sectors following a CES function.

2.2.3 bilateral trade

In every region, two types of imported goods demand exist: final and intermediate ones. The aggregated import is then the sum of these components. This aggregation is a CES function of the imports from all countries partners. The bilateral trade flows are then submitted to two types of taxation (export and import taxes) and to a transportation cost. This one is supposed proportional to the volume of trade. The transportation sector is supposed to be a service sector operating in a perfect competition by producers of all regions with an " a la Armington" specification and an elasticity of substitution equal to the unit. For a given country, the level of import of a given good from a given region is determined then by the minimization of the costs of imports, being given the prices fob.

2.3 data description and aggregations

The GTAP model is used together with the GTAP data base. For this paper, we use the version 6 of the data base that integrates the MacMaps data base. This version has 2001 as year of reference and identify 87 regions as well as 57 sectors and 5 factors of production. For every individual or composed region (country or aggregation of country), there are 57 sectors of which one finds the data in the global data base of GTAP. All countries are not present in an individual manner in GTAP. However, in order to assure a global macroeconomic consistence, all world economies are part of the data base. Either they are treated individually, or they are part of a composed region. Unfortunately, few African countries are disintegrated individually in the data base. The majority of the African countries meets in regional aggregations. However, for North Africa, Morocco and Tunisia are treated individually. The aggregation Rest of North Africa consists therefore of Algeria, Egypt and Libya.

The bilateral trade data are a crucial component of the GTAP data base. It is these bilateral flows that transmit the trade policy and growth shocks between the countries. The bilateral trade is also important for the implications on the terms of trade. The global bilateral data are from. The United Nations COMTRADE database. It is completed with information on the global trade of different countries or with bilateral trade statistics as those the IMF, the FAO and the World Bank. Another important component of the GTAP data base is the protection data. These data are at main time explicit and implicit. Explicit in the sense where the tariff revenus or the export incomes by product are available. They are implicit in the sense where the bilateral trade data are as well available at the market prices that at the world price.

For this paper, the 87 regions have been aggregated in 14 regions, with the different countries or aggregations available for north Africa (see in annex). For the sectors, we isolated the two textile and clothing sectors and we aggregated the other sectors in four

groups (see in annex).

2.4 the tested scenarios

We tested four scenarios that reflect the different possible strategies concerning trade policy for the future of the textile sector.

scenario 1 - quotas dismantlement

The first scenario sets in motion the complete quotas dismantlement in textile and clothing. The quotas tariff equivalents are brought back therefore to zero. It is about the base scenario that takes the present situation, to which is confronted the Maghreb economies.

scenario 2 - quotas dismantlement and agreement of free trade with Turkey

The second scenario is based on the Moroccan and Tunisian strategies of concluding a FTA with Turkey, in order to reduce the costs of the inputs (textile) to improve the competitiveness of the clothing sector. This scenario, that sets in motion the complete quotas dismantlement, try to value the impact of this dismantlement if all north African countries adopts the option of bilateral FTA with Turkey.

scenario 3 - quotas dismantlement and agreement of free trade with the United States

The third scenario is based on the FTA between Morocco and the United States. It explores the implications of the complete quotas dismantlement, so like Morocco, all north African countries concludes bilateral trade agreements with the United States.

scenario 4 - quotas dismantlement and pan euro-Mediterranean free trade area

Finally, the last scenario considers the creation of a pan euro-Mediterranean free trade area that would be in place with the quotas dismantlement . To the difference of the scenarios two and three, this scenario not only considers a total liberalization of the trade between the north African countries and the European union, as well as with Turkey, but also for the north African countries between them. For data base reasons, the Middle East countries, which are part of the Barcelona process, are not integrated in this scenario. This scenario corresponds therefore to the mind of the declaration of Tunis of September 28, 2004 that calls to reinforce the regional integration in the euro-Mediterranean space on the basis of the Declaration of Barcelona of 1995, in view of the realization of a free trade zone.

2.5 tariff structures

Before analysing the impact of the quotas dismantlement in textile and clothing on the north African economies, it is important to study the tariff structures that prevail in these two sectors. The deletion of the quotas implies that the essential of the protection will by tariffs. So, it is important to have a clear idea on the tariff structure that prevails, especially in textile and clothing, between Maghreban countries and their commercial partners.

2.5.1 present tariff protection in textile

The tariff protection in textile is relatively important compared to the other manufactured products. It is necessary to note that the picture doesn't take account of

the non tariff protection bound to the quotas below.

Table 3: Textile tariffs and export subsidies
Tariffs

	Morocco	Tunisia	RAfNrd	Turkey	EU 25	USA
Morocco		15,4	2	10,1	0,2	10,5
Tunisia	19,4		12,8	9,6	0,2	12,4
RAfNrd	18,2	14,3		11	0,2	8,9
China					8,8	7,4
Turkey	34,9	31,9	40,2			
EU 25	36,7	17,8	38,5			
USA	30,7	22	23,2			

Export subsidies and quota export tax equivalent

	Morocco	Tunisia	RAfNrd	Turkey	EU 25	USA
Morocco		-2,2	-2,2	-2,2	-2,2	-2,2
Tunisia	0		0	0	0	0
RAfNrd	-0,7	-0,7		-0,7	-0,7	-0,7
China					-24,7	-20,8
Turkey	-0,5	-0,5	-0,5			
EU 25	0	0	0			
USA	0	0	0			

Source GTAP

Table 3 shows that the tariff protection faced by Maghreban exports on the European market is relatively weak. The exports from the Maghreb face more elevated tariffs on the American market (10,5% for Morocco, 12,4% for Tunisia and 8,9% for the rest of North Africa). The tariff protection is even more elevated on the Maghreb markets. Morocco, for example, is confronted to a tariff of 15,4% on the Tunisian market. What lets to think that an integration of these markets should generate a meaningful increase of the trade flows, even though the initial volume of these last remained relatively low. The report is the same with Turkey. The exports from the Maghreb face a tariff protection of the order of 10% on the Turkish market, whereas on the contrary, the Turkish exports meet tariffs of the order of 35% on Maghreb markets. This indicate that a free trade euro-Mediterranean area should have non negligible effects on the intra-Maghreb flows and between these countries and Turkey.

2.5.2 non tariff protection in textile
Table 3 provides also the quotas tariff equivalents. Negative numbers indicate that the countries are facing a quota on a market, whereas the positive numbers indicate some export subsidies. for example China is confronted to quotas, on the American market, equivalent to an export tax of 20,8%.

Theoretically, quotas can be transformed in tariff equivalents. However, these equivalents are not interpreted directly as tariffs, but rather as export taxes of the exporter countries. Indeed, the quotas that limit in volume China exports toward the United States imply a potential over cost. In the case where the quotas would not be reached, the over cost is zero. In the case where the quotas would be reached, these can, for example, to be assigned by a quota market. The cost of the quota is then assimilated to a supplementary cost that is added to the existing tariff. The quota "rent" goes to the

producer country and finally function like a voluntary export restriction, via a tax, or a negative export subsidy .

It appears distinctly that the most protected markets by quotas are the European union and the United States. This protection is the strongest opposite China and in a least measure opposite the other south Asian countries for the European union. The Maghreb countries are not facing, or in very limited manner, this kind of protection. It clearly underlines the size of the impact that the quotas dismantlement can have on the access of the Asian exports to the European and American markets. In the same way it underlines the size of its negative effect on the north African exports toward these markets.

Table 4: Clothing tariffs and export subsidies
Tariffs

	Morocco	Tunisia	RAfNrd	Turkey	EU 25	USA
Morocco		21,5	18,8	14	0,1	10,7
Tunisia	25		163,1	13,2	0,1	11,8
RAfNrd	25	0		13,9	0,2	11,5
China					10,9	9,8
Turkey	50	42,9	294,6			
EU 25	49,9	19,1	203,6			
USA	50	39,7	476,9			

Export subsidies and quota export tax equivalent

	Morocco	Tunisia	RAfNrd	Turkey	EU 25	USA
Morocco		-2,2	-2,2	-2,2	-2,2	-2,2
Tunisia	0		0	0	0	0
RAfNrd	-0,4	-0,4		-0,4	-0,4	-0,4
China					-23,5	-27,3
Turkey	-0,7	-0,7	-0,7			
EU 25	0	0	0			
USA	0	0	0			

Source GTAP

2.5.3 Tariff protection in clothing

The tariff protection for clothing is, on average, relatively more elevated than for textile. Nevertheless, one recovers the same features globally that for textile.

- The rights applied by the European union on the north African exports are weak;

- Maghreban exports face higher tariffs on the American market that on the European one (10,7% for Morocco, 11,8% for Tunisia and 11,5% for the rest of North Africa);

- the intra-Maghreb trade, as well as the one between these countries and Turkey, are confronted to a strong protection.

One could note that the rest of North Africa distinguishes itself by a very strong protection fading European, Turkish and American exports (between 200 and close to 500%).

2.5.4 non tariff protection in the clothes

Concerning the non tariff protection, one also recovers the same features for clothing

that in textile. It is necessary to note that:

- the most protected markets by quotas are those of the European union and the United States;

- this protection makes itself notably opposite the Asian exports;

- the fact that the countries from the Maghreb are fading in very limited manner this kind of protection underlines the size of the negative impact of the quotas dismantlement on their exports toward these markets.

2.6 the structure of the trade of textile and clothes

After having analysed the tariff structures, we focus on textile and clothing trade structure and notably on bilateral flows that prevail between Maghreban countries and their main partners.

Table 5 : Bilateral trade in textile *millions USD*

	Morocco	Tunisia	RAfNrd	China	EU 25	Turkey	USA	SSA	World
Morocco	0,0	1,7	5,5	0,6	502,7	0,5	5,2	5,6	542,0
Tunisia	1,2	0,0	3,9	0,2	484,3	2,3	6,2	1,7	510,9
RAfNrd	0,3	2,8	1,0	12,2	373,0	12,0	198,8	4,7	683,4
China	43,0	13,3	99,0	0,0	3 055,6	109,0	2 985,9	981,8	24 083,2
EU 25	1 303,4	1 486,5	205,2	960,2	43 916,7	1 040,7	3 336,7	646,2	63 574,9
Turkey	21,5	11,2	108,1	49,3	4 287,1	0,0	725,1	30,2	6 199,0
USA	18,0	6,2	37,7	449,5	1 419,4	31,6	0,0	69,2	12 625,3
SSA	5,2	5,1	4,2	16,9	771,1	6,7	371,2	470,4	1 853,5
World	1 517,5	1 614,7	879,9	16 782,1	70 515,0	1 888,8	29 557,2	4 053,9	197 223,2

Source GTAP 6.0

Table 5 provides the bilateral exchanges of textile amounts in 2001. The global amount of the textile exports passes the 197 USD billions. If one doesn't take into account the intra-European trade (44 USD billions), this amount is of 153 M $.

The Moroccan or Tunisian textile exports pass the half billion of dollars each. With respectively shares of 93% and 94.8%, the European market is the main market of these two countries. The rest of North Africa exports 683 M $of textile products . The EU is also the first market of these countries, however it represents 55% only of the exports. Indeed, contrary to Tunisia and to Morocco, the rest of North African countries export an important part of their textile to the United States (29%).

Table 6 : Bilateral trade in clothing *millions USD*

	Morocco	Tunisia	RAfNrd	China	EU 25	Turkey	USA	SSA	World
Morocco	0,0	0,2	0,5	2,4	2 096,7	1,5	101,2	18,5	2 290,0
Tunisia	0,1	0,0	0,6	1,7	2 423,8	1,8	35,0	4,1	2 522,7

RAfNrd	0,2	0,1	0,5	4,9	238,7	0,8	399,1	3,0	724,2
China	28,9	15,3	179,8	0,0	7 156,2	27,6	6 454,9	268,1	37 237,8
EU 25	271,0	351,9	65,5	225,1	27 628,2	219,2	2 440,8	152,4	39 485,2
Turkey	0,1	1,9	69,6	2,9	3 358,9	0,0	867,1	8,4	4 671,1
USA	4,3	1,2	7,3	94,7	716,2	5,5	0,0	22,6	5 115,8
SSA	0,3	0,4	2,6	2,1	522,0	0,7	751,6	184,6	1 549,3
World	310,4	379,4	418,9	2 600,7	60 138,3	297,2	48 834,6	1 121,4	160 518,3

Source GTAP 6.0

Concerning the clothing exports, table 6 indicates that the world exports rise to more of 160 B$ in 2001 (close to 133 B$ without intra-EU trade). With more of 37 B$, China is the first exporter (on 39.5 B$, the EU only exports 11,8 B$ out of Europe). It exports more than 7 B$ of clothing toward the EU and close to 6,5 B$ toward the United States.

Morocco and Tunisia export 2,3 and 2,5 B$ respectively. As for textile, the European market is the main one (respectively 92 and 96% of the exports). For the rest of North Africa, the US represent the first market of exports. On 724 m$ dollars, 399 are for the American market (55%). The EU represents nevertheless the second market of the rest of North Africa (33%).

Coupled to those of the tariff structures, these figures give an idea of the impact size of the quotas dismantlement, on the exports from the Maghreb, notably toward the European market.

3 the impact of the quotas dismantlement on the north African economies

We present in this section the impact of our scenarios on the north African economies. More precisely, we analyse the consequences of the quotas dismantlement and the different strategies considered on the welfare, GDP, the evolution of the value added and on the trade variables.

3.1 impact on the welfare

The quotas dismantlement (scenario 1) should imply, at the global level, an equivalent variations of welfare of 11,7 billions USD. The main recipients in terms of welfare are the main importing markets (EU 8,4 B$ and United States 5,4 B$) and China, first world exporter (2,4 B$). All developing countries know a deterioration of their welfare (-4,6 B$).

**Graphic 1: Welfare variation in the case of the quotas dismantlement**
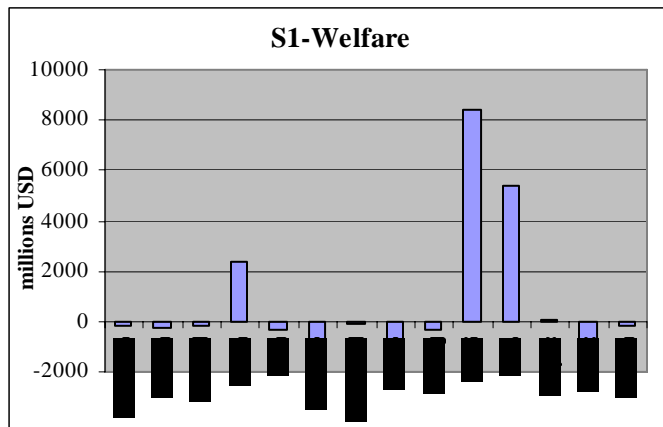
Source GTAP 6.0

With a decrease of 232 millions dollars, Tunisia is the mort African country that knows the strongest welfare deterioration. It is indeed the country of Maghreb that knows the strongest deterioration of its terms of trade and its value added, as well at the to the textile and clothing level, that at the global one. Morocco sees its welfare lowering 199 m$, whereas the rest of North Africa knows a decrease of 165 m$.

In the case of a FTA with Turkey (scenario 2), Tunisia and Morocco see their welfare deteriorating (respectively -349 and -257 m$), whereas the rest of North Africa knows some less important decrease than in the case of the first scenario (-66 against -165). On its side, Turkey sees its welfare improving (803 m$), whereas it deteriorated in the first scenario (-368 m$). The other regions don't know considerable evolutions of their welfare.

Graphic 2: Welfare variation in the case of the quotas dismantlement and FTA with Turkey
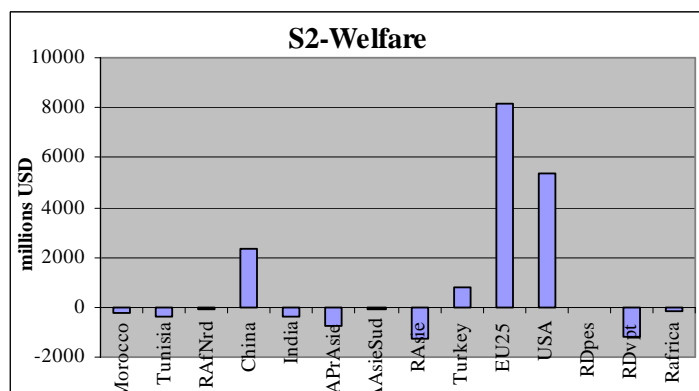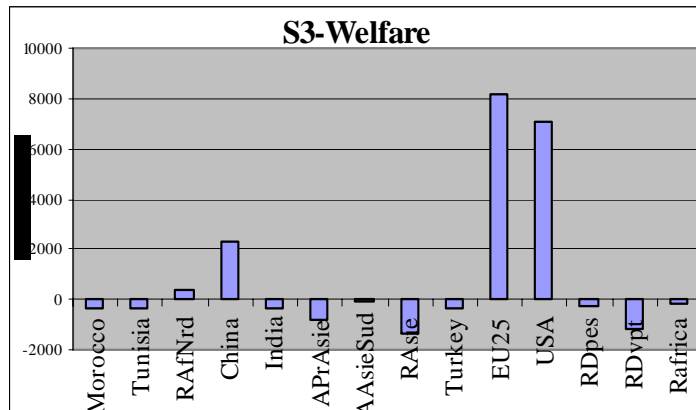

Source GTAP 6.0

One recovers the same findings globally in the case of free trade agreements with the United States (scenario 3). Morocco and Tunisia see their welfare deteriorating more in relation to the first scenario (-311 m$ for Morocco and -374 m$ for Tunisia). At the

inverse, the rest of North Africa would pull an advantage of this scenario, in terms of welfare (+364 m $), notably because of a strong progression of its bilateral trade of garment with the United States. To the exception of the US, that would see their welfare passing 5,4 billions of dollars for the scenario that plans the dismantling of the AMF to 7,1 billions for this one, the other regions would not know substantial evolutions of their welfare.

Graphic 3: Welfare variation in the case of the quotas dismantlement and FTA with the United States

Source GTAP 6.0

Finally, a pan euro-Mediterranean FTA (scenario 4) will have significant effects on the welfare of the region. Tunisia would not see to lower its welfare that of 82 m$ (instead of -232 in the first scenario). The rest of North Africa would lose 448 m $ (against -165 in the first scenario). Whereas Morocco would see the same deterioration of the welfare that the one recorded in the case of the scenario 1 (respectively -198 against -199). The big recipient of this scenario would be the EU that would see its welfare passing from. 8,4 B$ in the first scenario to 12,2 B$.

Graphic 4: Welfare variation in the case of the quotas dismantlement and a pan euro-Mediterranean free trade area
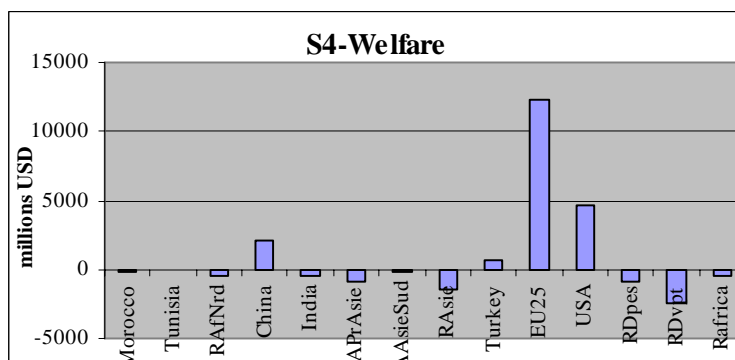
The table below summarizes the variations for the main concerned regions.

Table 7: Welfare variation in the four scenarios

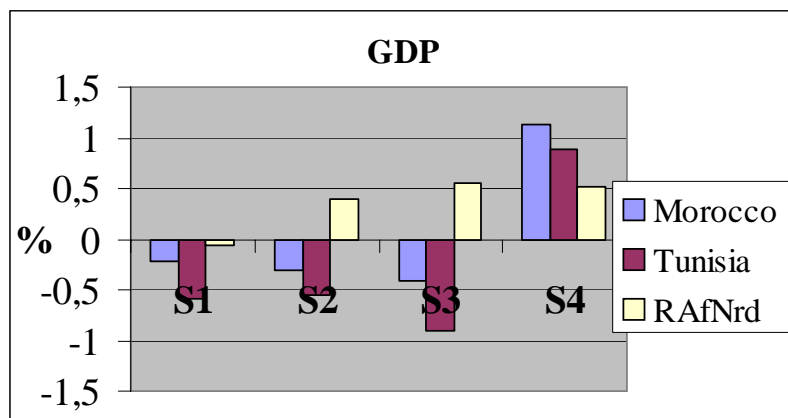|		S1	S2	S3	S4
	Morocco	**-199,36**	**-256,66**	**-311,28**	**-197,52**
	Tunisia	**-231,9**	**-348,89**	**-374,49**	**-82,25**
	RAfNrd	**-165,42**	**-65,89**	**363,83**	**-447,58**
Welfare millions USD	China	2390,11	2377,76	2289,2	2079,47
	EU25	8430,15	8151,52	8178,31	12242,21
	Turkey	-368,47	802,63	-392,44	709,25
	USA	5422,66	5378,31	7060,03	4670,88
	SSA	-163,62	-190,43	-183,84	-410,93

Source GTAP

3.2 GDP and value added impact

3.2.1 impact on the GDP

The different scenarios have more contrasted effects on the GDP. Indeed, according to the scenarios, the north African countries can lose or win in GDP terms . It clearly appears that a pan euro-Mediterranean FTA is the most favourable scenario for Maghreb countries.

The quotas dismantlement leads to a GDP decrease in Tunisia (-0,58%) and in Morocco (-0.22%). The rest of North Africa records a less pronounced decrease (-0,06%). Contrary to the welfare variations, it is China that sees its GDP improving the more (0,7%). Indeed, contrary to the United States and to the EU, for which is the consumers who pull profit of the price decrease generated by the dismantlement, China pulls advantage of the dismantlement by the expansion of its exports and its production.

Graphic 5: North African countries GDP variations in the four scenarios

Source GTAP 6.0

Table 8: GDP and value added variations in the four scenarios

		Scenarios			
		S1	S2	S3	S4
GDP %	Morocco	-0,22	-0,3	-0,41	1,13
	Tunisia	-0,58	-0,55	-0,91	0,89
	RAfNrd	-0,06	0,39	0,56	0,51
	China	0,7	0,7	0,7	0,69
	EU25	0,04	0,04	0,04	0,04
	Turkey	0,08	-0,08	0,09	-0,04
	USA	0,01	0,01	0,01	0,01
	SSA	-0,02	-0,03	-0,02	-0,04
Added value in Textile %	Morocco	-8,87	-7,77	-5,76	46,28
	Tunisia	-18,13	-16,1	-16,03	-11,95
	RAfNrd	-4,32	-23,01	-12,88	-26,22
	China	24,7	24,74	24,57	24,31
	EU25	-13,78	-13,63	-13,9	-12,19
	Turkey	-11,15	-4,7	-11,51	-8,77
	USA	-5,52	-5,47	-4,84	-5,57
	SSA	-5,42	-5,36	-5,43	-5,5
Added value in clothing %	Morocco	-12,89	-10,87	-8,56	43,16
	Tunisia	-25,15	-23,17	-23,27	10,76
	RAfNrd	-2,99	-70,62	-65,18	-68,31
	China	50,91	50,78	50,43	49,8
	EU25	-14,21	-14,16	-14,39	-14,43
	Turkey	-16,46	31,72	-17,55	22,49
	USA	-8,2	-8,22	-4,48	-8,31
	SSA	-12,54	-12,59	-12,7	-13,15

Source GTAP

The bilateral FTA scenarios with Turkey or the US don't really improve the situation of Morocco or Tunisia. Morocco sees its GDP lowering 0,3% if the dismantlement is accompanied by a FTA with Turkey and 0, 41% in the case of a FTA with the US. Tunisia knows a decrease slightly lower to the one of the scenario 1, in the case of a FTA with Turkey (-0,55% against -0,58%), but it records a GDP decrease of 0,91% if the quotas dismantlement is done with a FTA with the US. Conversely, the rest of North Africa countries see their GDP increasing by 0,39% in the case of a FTA with Turkey and 0,56% with the US.

In GDP terms, a pan euro-Mediterranean FTA is from afar the most favourable

scenario for the region. Morocco observes a growth of 1,13% of its GDP, Tunisia 0.89% and the rest of North Africa sees its GDP increasing by 0,51%. So, a FTA with Turkey and the United States only permit an attenuation of the size of the negative effects following the dismantlement of the multifiber agreement. However, the realization of a pan euro-Mediterranean FTA constitutes the best strategy to ruin the negative effects of the quotas dismantlement.

3.2.2 value-added impact

We concentrate here on the evolution of the VA in Textile and Clothing sectors for the Maghreb countries. Our results show that North Africa knows a significant decrease of its industrial value added in most scenarios. Some sectors know a real improvement of the value added. But this improvement was not able to have a positive impact on the whole economy. It explains itself by the strong expansion of the production in Asia and also the increase of the trade flows materialized in this region by a improvement of the trade balance in textile and clothing, whereas these sectors become showing a very strong deficit the other regions.

Graphic 6 and 7: value added variation for Maghreb countries in textile and clothing in the four scenarios
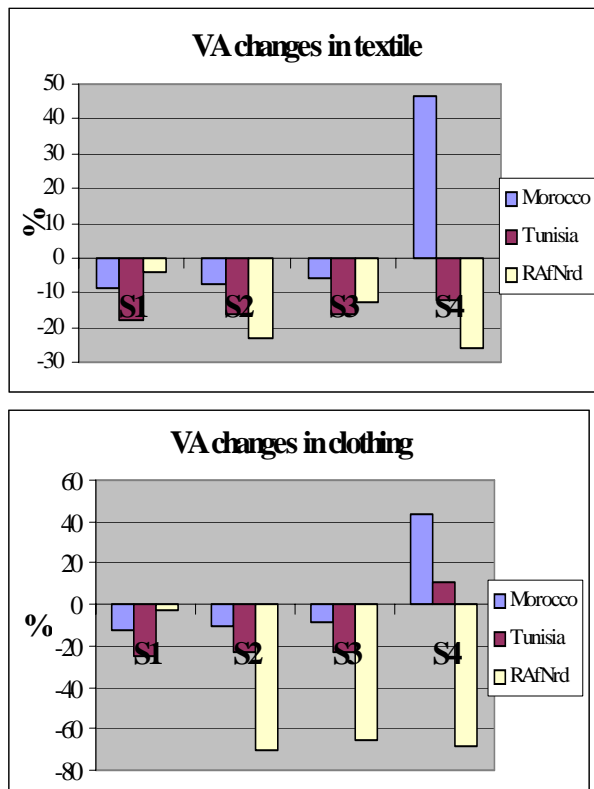
Source GTAP 6.0

The first three scenarios imply a decrease of the VA as well in textile as in clothing, and this for all the Maghreb region. The Mediterranean free trade area scenario entails a rise of the VA for Morocco in the two sectors, whereas only for clothing in the Tunisian case. What shows that Tunisia runs the risk to confine itself in an intensive specialization in low wages. The rest of North Africa sees the VA deteriorating strongly as well in textile that in clothing.

The textile industry structures between the different Maghreban countries are at the origin of different answers to the scenarios. Morocco is the only one to take advantage, in this sector, of a total liberalization in the euro-Mediterranean area. This result explains itself by the development of the textile sector in Morocco and its complementarities with the clothing sector. The case of Tunisia is different. Indeed, this country knows an evolution positive of the VA in the case of a Mediterranean FTA and only for clothing. These evolutions also show that the Tunisian economy withdrew, during the years, in a labour intensive specialisation, encouraging the clothing sector. It explains that the size of the difficulties will be bigger for this economy.

Besides, it is necessary to note, in the case of a pan euro-Mediterranean FTA, that the VA strong deterioration for the Rest of North Africa in textile and the clothing is compensated by a VA rise in agriculture, primary products, mining products and services. Globally, the north African countries see their VA increasing for all sectors in the pan euro-Mediterranean scenario, whereas their global VA lowered in the first three scenarios (with the exception of Morocco in the case of a FTA with the United States).

3.3 impact on the trade

3.3.1 textile and clothing exports

The results show that the quotas dismantlement (scenario 1) generates a decrease of the exports of the north African countries, in both textile and clothing. When the dismantlement is accompanied by a FTA with Turkey or the United States (scenarios 2 and 3), the effects are relatively modest on the Moroccan and Tunisian exports. Nevertheless, these lower less that in the first scenario. The effects of the scenarios 2 and 3 are pronounced more on the exports of textile and clothing for the rest of North Africa. Contrary to the scenario 1, they progress respectively of 10,5% and 31,8% in the case of a FTA with Turkey and of 27,7% and 102,7% in the case of a FTA with the US. However, these progressions are recorded on relatively weak initial volumes, what explains that the VA knew an inverse evolution for these countries.

Graphic 8 and 9: exports Variation for Maghreban countries in textile and the clothing in the four scenarios

Export changes in textile

**Export changes in clothing**
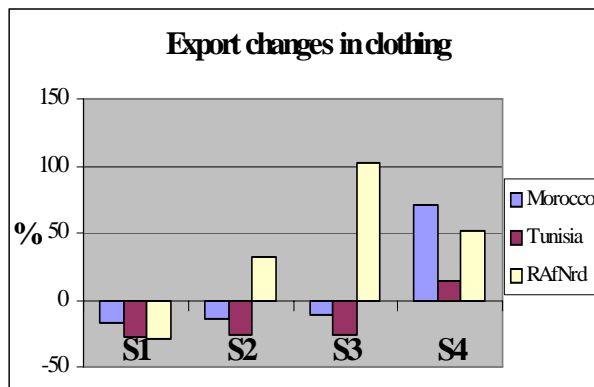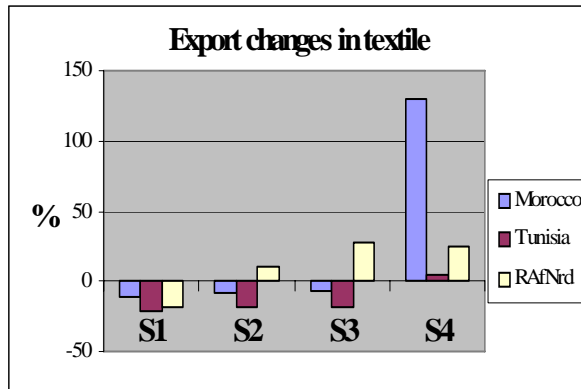
Source GTAP 6.0

A pan euro-Mediterranean FTA indicates a very strong progression of the Moroccan exports, in the same way to the strong progression of the VA in textile and clothing. Tunisia and the rest of North Africa know some less marked progressions. These progressions are stronger in clothing that in textile, what confirms the observed different evolutions for the VA in textile between Morocco and the other north African countries.

Table 9: Impact of the four scenarios on trade variables

3.3.2 textile and clothing imports

Concerning the imports, the quotas dismantlement has a negative effect on their evolution. This effect is less important for Morocco and Tunisia in the scenarios that foresee some FTA with Turkey (2) and with the United States (3). On the other hand the textile imports of the rest of North Africa lower more in the scenarios 2 and 3. Conversely, the clothing imports of the rest of North Africa increase of near 800% in these two scenarios.

Graphic 10 and 11: imports variation for Maghreb in textile and the clothing in the four scenarios
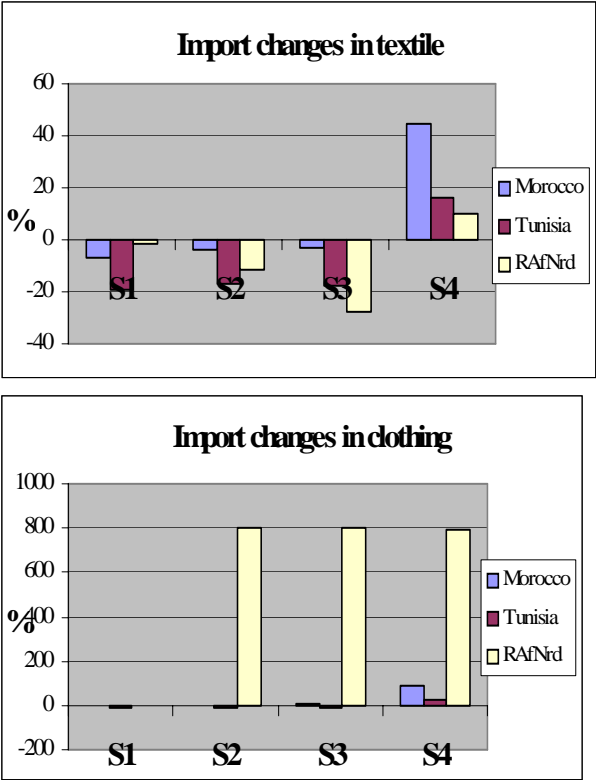
Source GTAP 6.0

The fourth scenario is characterized by a growth of the imports for the set of Maghreban countries. Morocco is the country for which the textile imports increase the more (45%). Whereas Tunisia and the rest of north Africa see their imports of textile increasing more weakly (respectively 16 and 9,8%). The garment imports increase more meaningfully that those of textile in this scenario, especially for the rest of North Africa, with more 792%.

3.3.3 the sectorial trade balances

Maghreban trade balances in textile are affected differently by the dismantlement. Morocco and Tunisia see their balance improving, whereas the rest of North Africa know a deterioration of the balance. The scenarios that foresee some FTA with Turkey (2) and with the United States (3) are favourable to the balances of Maghreban countries, whereas the last scenario (pan euro-Mediterranean FTA) is only favourable to the balance of the Rest of North Africa.

 The situation in clothing is a lot less favourable. Only the last scenario (S4) implies a positive balance for Morocco and Tunisia. For the rest of North Africa, the four scenarios entail a trade balance deterioration in this sector, which is very strong for the scenarios 2, 3 and 4.

To the level of the global trade balance, the first scenario is favourable to the set of Maghreban countries. Scenarios 2, 3 and 4 imply a deterioration of the trade balances, with the exception of the scenario 2 for the rest North Africa.

3.3.4 terms of trade

The quotas dismantlement entails a price decrease of textile and clothing. It entails a deterioration of the terms of trade of the countries for which textile and clothing constitute an important part of their exports. In an other side, the big importing countries (EU, United States) see an improvement of their terms of trade. For the Maghreb countries, FTAs (S2, S3 and S4) imply bigger deterioration of the terms of trade, notably in the case of the last scenario.

4. conclusion

The textile and clothing are still key sectors for Maghreban countries and risk to know major distresses following the dismantlement of the Agreement on Textile and Clothing (ATC), since January 1st, 2005. Indeed the Textile-Clothing represents the first station of export of Tunisia (45% in 2001) and of Morocco (32% in 2001). The countries of the region tempted to anticipate to best these distresses while defining strategies of reaction, at a time through national industrial policies in order to facilitate the sectorial structural evolutions, and while considering several trade policies in the same way.

The purpose of this paper was to illuminate by quantitative assessments the second set of these strategies. We defined four possible scenarios:

- the first base scenario corresponds to the quotas dismantlement in textile and clothing.

It was therefore about an assessment of the economic impact of this dismantlement, in particular on the Maghreb economies;

 - the second scenario is based on the Moroccan and Tunisian strategies of putting in place a free trade agreement with Turkey in order to reduce the costs of the inputs (textile) in the aim to improve the competitiveness of the clothing sector. This scenario, that sets in motion the quotas dismantlement, tried to value the impact of this dismantlement if the set of the north African countries adopted the option of bilateral FTA with Turkey;

- the third scenario is based on the FTA between Morocco and the United States. It tried to value the implications of the complete quotas dismantlement, so like Morocco, the set of the north African countries concluded bilateral FTA with the United States;

- finally, the last scenario, that is inspired by the declaration of Tunis of September 28th, 2004, consider the creation of a pan euro-Mediterranean FTA that would come to accompany the quotas dismantlement. To the difference of the scenarios two and three, this scenario not only set in motion a total liberalization of the trade between the north African countries and the European union, as well as with Turkey, but also for the north African countries between them.

The obtained results can sum up in five main points:

1 - It appears distinctly that the quotas dismantlement should entail considerable distresses on the north African economies, as well in terms of GDP, of welfare, of production, that in terms of trade flows.

2 - FTAs with Turkey or the United States reduce the negative effects of the quotas disappearance in a modest manner and some economic variables (added value and trade for Morocco and Tunisia, GDP, welfare and trade for the rest of North Africa).

3 - the most favourable proposition seems to be a pan euro - Mediterranean FTA. This scenario should entail an improvement of the GDP of all the region countries. It is the only scenario that permits an increase of their global value added. One could note that this scenario is also very favourable to the European union, notably in welfare terms.

4 - the structural differences in the textile industry between the different Maghreban countries generate different answers to the various tested scenarios. The scenario that foresees a total liberalization in the euro-Mediterranean area would allow the countries of the region and in particular to Morocco to benefit more from the liberalization. This report pleads in favour of a better vertical integration of textile and clothing, so that north African countries can pull advantage of the liberalization in textile-clothing sectors.

5 - this study also shows the fragility of the textile-clothing; and liberalization will have negative effects on this industry. When one considers trade policies of accompaniment, the most favourable scenario only generates limited profits for the countries of the region. It brings us to say that as looking for the answers to short and middle term for

this industry, in order to face the dismantlement, the international insertion based on lot labour costs is less and less competitive facing the opening of the international markets. From there, the most important challenge for Maghreban countries is to reconsider an insertion that exploits the comparative advantages of the region better in terms of new technologies and out-prices competitiveness and considers the development and the evolution of Maghreban economies and societies.

Annexe I - sectoral and geographic aggregations

Sectors

- Textile
- Clothing
- WoolSilkLeather
- AgriPrimMining
- Manufactures
- Services

Regions

- Morocco.
- Tunisia.
- RafNrd = Rest of North Africa : Algeria, Egypt, Libya.
- China.
- India.
- AprAsie= Other Asian Producers : Bangladesh, Indonesia, Sri Lanka, Vietnam.
- AAsieSud= Other south Asia: Pakistan, Nepal, Bhutan, Afghanistan, Maldives.
- RAsie= Rest of Asia : Taiwan, Macao, Mongolia, North Korea , Malaysia, Philippines, Singapore, Thailand, Brunei, Cambodia, Laos, Myanmar, Timor.
- Turkey.
- UE25= EU 25
- USA= United States.
- Rdpes= Rest of developed countries: Australia, New Zealand, Japan, South Korea, Canada, Island, Liechtenstein, Norway.
- RDvpt =Rest of developing countries: Samoa, Cook islands , Fiji, French Polynesia, Guam, Kiribati, Marshall islands, Micronesia, Nauru, Nouvelle Caledonia, Norfolk islands, Marianne's islands, Niue, Palau, Papouasie New Guinea, Samoa, Salomon islands, Tokelau, Tonga, Tuvalu, Vanuatu, Wallis and Futuna, Mexico, Bermudas, Groenland, Saint Pierre et Miquelon, Colombia, Peru, Venezuela, Bolivia, Equator, Argentine, Brazil, Chile, Uruguay, Falkland islands, French Guyana, Guyana, Paraguay, Surinam, Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama, Antigua & Barbuda, Bahamas, Barbados, Dominican Republic, Grenade, Haiti, Jamaica, Porto Rico, Saint Kitts et Nevis, Sainte Lucia, Saint Vincent, Trinidad et Tobago, Vierges islands, Anguilla, Aruba, Cayman islands, Cuba, Guadeloupe, Martinique, Montserrat, Dutch Antilles, Turks et Caicos, Andorra, Bosnia Herzegovina, Feroe islands, Gibraltar, Macedonia, Monaco, Saint Marin, Serbia et Montenegro, Albania, Bulgaria, Croatia, Romania, Armenia, Azerbaijan, Byelorussia, Georgia, Kazakhstan, Kirghizstan, Moldavia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan, Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Palestinian Territories, Oman, Qatar, Saudi Arabia , Syria, UAE, Yemen.
- RAfrique=Rest of Africa : Botswana, South Africa, Lesotho, Namibia, Swaziland, Malawi, Mozambique, Tanzania, Zambia, Zimbabwe, Angola, Congo, Maurice, Seychelles, Madagascar, Uganda, Benin, Burkina Faso, Burundi, Cameroon, Cap Verde, Central-African Republic , Chad, Comoros, RDC, Cote d'Ivoire, Djibouti, Guinea Equatorial, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Liberia, Mali, Mauritania, Mayetta, Niger, Nigeria, Reunion, Rwanda, Saint Hélène, Sao Tome et Principe, Senegal, Sierra Leone, Somalia, Sudan, Togo.

References

Adams, P., M. Horridge, B. Parmenter, et X. Zhang (1997) "Long-run Effects on China of APEC Trade Liberalisation", Unpublished paper based on a report prepared for the East Asia Analytical Unit, Department of Foreign Affairs and Trade, Canberra, Australia.

Armington, P, S. (1969) "A Theory of Demand for Products Distinguished by Place of Production", International Monetary Fund Staff Papers, vol. 16, 1.

Avisse, R. et M. Fouquin (2003) "Commerce du textile et de l'habillement : le multilateralisme face au regionalisme", Economie Internationale, 2-3, pp 109-135.

Ben Hammouda, H. (1998)"Globalisation et Crise de l'industrie textile en Tunisie", Economic Research Forum.

Bouët, A., L. Fontagné, M. Mimouni, et X. Pichot (2001), Market Access Maps: A Bilateral and Disaggregated Measure of Market Access, *CEPII Working Paper*, No. 01-18

Bouët, A. (2000) "La mesure des protections commerciales nationales", document de travail du CEPII, 2000-15, Novembre 2000.

Brockmeier, M., (2001) "A Graphical Exposition of the GTAP Model", *GTAP Technical Paper No. 8,* Revised March 2001.

CEPII Letter (2001) *Textile habillement : la fin d'une protection discriminatoire.* No. 198. Février 2001.

Chaponnière, J-R., J-P. Cling et M. A. Marouani (2005) "Les consequences pour les PED de la suppression des quotas dans le textile-habillement : le cas de la Tunisie", mimeo.

Dixon, P.B., B.R. Parmenter, J. Sutton, and D.P. Vincent (1982) *ORANI: A Multisectoral Model of the Australian Economy,* North-Holland Publishing Company.

Fouquin, M., Morand P., Avisse R., Minvielle G., Dumont P. (2002) "Mondialisation et régionalisation : le cas du textile et de l'habillement", CEPII, Document de travail No. 2002-08.

François, J.F. et D. Spinanger (2002) "Greater China's Accession to the WTO: Implications for International Trade/Production and for Hong-Kong", Paper presented at the 5th Annual Conference on Global Economic Analysis, Taipei.

Hathcote, J. et K. Rees (2004) "The U.S. Textile and Apparel Industry in the Age of Globalization", *Global Economy Journal*.

Hertel, T.W., (1997) *Global Trade Analysis: Modelling and Applications,* Cambridge University Press, New York and Cambridge.

Hildegunn Kyvik Nordas (2004) "The Global Textile and Clothing Industry Post the Agreement on Textiles and Clothing", WTO Discussion Paper No. 5. Geneva, Switzerland.

Johansen, L., (1960) *A Multi-Sectoral Study of Economic Growth,* North-Holland Publishing Company, Amsterdam (2nd Edition 1974).

Kehoe, P.J. and T.J. Kehoe, (1994) "A Primer on Static Applied General Equilibrium Models", *Quarterly Review,* Federal Reserve Bank of Minneapolis, 2, pp. 2-16.

Laird S. and A. Yeats, (1986) "The UNCTAD Trade Policy Simulation Model: A Note on the Methodology, Data and Uses", UNCTAD Discussion Paper No. 19, Geneva.

Lamy, P. (2004) Déclaration d'ouverture à la Conférence Euro Méditerranéenne sur l'avenir de l'industrie textile et de l'habillement, Tunis, 28 septembre 2004.

Lardy, N. R. (2002) *Integrating China into the Global Economy*, Washington D.C., Brooking Institution Press.

Liu, H. et Sun, L (2004) "Beyond the Phase-out of Quotas in the Textile and Clothing Trade: WTO-Plus Rules and the Case of US Safeguards against Chinese Exports in 2003".

Mok, V. et G. Yeung (2004) "Does WTO accession matter for the Chinese textile and clothing industry?", *Cambridge Journal of Economics,*Vol. 28, 6, pp 937-954.

OECD (2004a) *Textiles et vêtements : Faire face aux mutations*. Novembre 2004.

OECD (2004b) *Ajustement structurel dans les industries du textile et du vêtement dans l'environnement commercial de l'après-ATV.* .

OECD (2003), *Libéralisation du commerce dans les secteurs textiles et de l'habillement: examen des études quantitatives.*

Siriwardana, M., (2001) "Some Trade Liberalisation Options for Sri Lanka", *East Asian Studies Review,* Vol 25, 4, pp 453-477.

Trela, I. tt J. Whalley (1995) "Internal Quota-Allocation Schemes and the Costs of the MFA", *Review of International Economics,* 3, pp 284-306.

UNCTAD (2004) "Assuring Development Gains from the International Trading System

and Trade Negotiations: Implications of ATC Termination on 31 December 2004".

WTO agreement on Textile and Clothing.