Euromediterranean agreements: which advantages for Mediterranean countries in fruit and vegetables sector?

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Abstract— **This article measures the advantage granted by the European Union to different Mediterranean countries in the fruit and vegetables sector in the framework of the Euro-Mediterranean Association Agreements. The advantage of each country are evaluated by calculating the value of the preferential margins, which compares the amount of the customs duties paid by an exporting country with the amount of the duties this country would have paid if it had not enjoyed tariff preferences. The situation of the Mediterranean countries appears to be highly unequal in terms of the advantages granted by the EU in the fruit and vegetables sector. The progress of bilateral negotiations and the export structure in each country explain the significant variations in preferential margins from one Mediterranean country to the next. These results allow us to discuss the potential impacts of a liberalisation of fruit and vegetable trade within the Euro-Mediterranean zone.**

Keywords— **Euromediterranean agreements, preferential margin, fruit and vegetables.**

I. INTRODUCTION

The Mediterranean countries are involved in preferential agreements with the European Union in the framework of the Euro-Mediterranean process. As such, they enjoy tariff concessions for access to the Community market, especially within the fruit and vegetable sector, which are their main exports to the European market. As each agreement is being negotiated separately, there is a significant degree of heterogeneity among Mediterranean Countries in the level of protection applied by the EU for fruit and vegetables. Israel, for example, only benefits from preferential regime for 20% of tariffs lines, whereas more than 70% of tariffs lines of the other

Mediterranean countries are concerned. Given the complexity of the European system of protection for fruit and vegetables, computing number of tariffs lines with preferential regime is not sufficient to compare the level of preference granted to each Mediterranean country. Indeed, the tariff concessions concern various instruments (ad valorem duties, specific duties, Entry Price System), some of which are only applied to a limited volume of trade and to certain period of the year.

The aim of this article is to evaluate the advantage resulting from the preferences granted by the EU to the different Mediterranean countries. We calculate what is referred to as the value of preferential margins, which compares the amount of customs duties paid by countries supplying the EU with the amount of customs duties these countries would have paid if they did not benefit from tariff preferences. This calculation measures the extent of the gains linked to the allocation of preferences by the EU enjoyed by the different exporting countries (Yamazaki 1996 [1], Tangermann 2002 [2], Cipollina and Salvatici 2007 [3]).

Grethe et al (2005) [4] already calculated the values of preferential margins of Mediterranean countries on the EU market for all agricultural products, at the aggregated level. In this paper, we propose a more disaggregated estimation of these values on the fruit and vegetable sector, taking into account the seasonality of tariffs and trade and the different instruments of protection (tariffs quotas, Entry Price System), at the product level. We also propose an explanation of the differences of value of preferential margin between Mediterranean countries. We show especially that export structure of Mediterranean

countries explain to a large extent the variation in the level of the margins within the Mediterranean zone. As euromediterranean agreements are about to be renegotiated, we also discuss in this paper the potential effect of an enhancement of tariffs preferences for Mediterranean countries in the fruit and vegetable sector. We measure the impact of harmonisation of preferences within the Mediterranean area in order to see how the Mediterranean countries would be affected in case of a trade liberalisation process with the European Union in the fruit and vegetables sector, that would move from a bilateral to a regional scheme.

The remainder of the paper is structured as follows: In the first, we quickly present the main characteristics of the EU protection system. In the second, we present the calculations of the values of preferential margins which we performed for all suppliers of the European market. In the third section, of the article, we explain the level of the margins within the Mediterranean zone with differences in export structure and degree of European preferences. Finally, in the final section we calculate the modified value of preferential margins in the event of a harmonisation of European customs duties vis-à-vis the Mediterranean countries.

II. THE EU'S PROTECTION SYSTEM FOR FRUIT AND VEGETABLES

Most fruit and vegetables exported to the EU are subject to ad-valorem duties (in percentage) as well as specific duties (in €/kg). Furthermore, for a number of products considered "sensitive"[1], the European Union has implemented a system of special protection called "the Entry Price System" in order to limit price fluctuations and to avoid the presence on the European Market of goods whose prices are too low. In this system, the level of the duties depends on the import price of the product. The European Union defines, for each product, a threshold price, also called "trigger price". In cases when the import price is higher than this threshold price, only an ad valorem duty is applied (case 1 in Figure 1). But when the import price is lower than the trigger price, then a specific duty is levied in addition to the ad valorem duty (case 2 in

1. Tomatoes, Cucumbers and gherkins, Artichokes, Courgettes, Oranges, Tangerines, Clementines, Lemons and Limes, Apples, Pears, Apricots, Cherries, Peaches, Prunes and Grapes

Figure 1). The amount of this specific duty is equal to the difference between the import price and the trigger price. Finally, when the import price is lower than 92% of the trigger price, then a specific duty is fixed and is equal to the "maximum specific duty" fixed by the EU (case 3 in Figure 1).
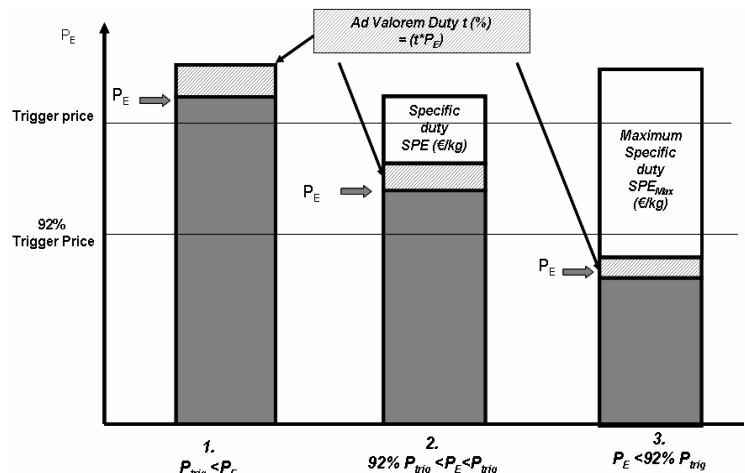

Fig. 1 The Entry Price system

Variations, over the year, in the tariff levels are another characteristic of the EU's fruit and vegetables' protection system. This seasonality of the protections is related to the production calendar of the EU: Indeed, ad valorem duties and also trigger prices vary over the year from one product to another.

The preferences granted by the EU to its different partners in the framework of its preferential agreements involve the different protection tools used by the EU. Thus, preferences can consist in a reduction (or elimination) of the ad valorem duty, in a reduction of the trigger price, or, for the products that are not subject to the entry-price system, in a reduction or elimination of the specific duties. Furthermore, these ad valorem or specific duty concessions can either be extended to all goods imported from the partner country, or limited in volume, in the framework of tariff quotas. Trigger prices, however, can only be reduced within quota limits. It must be noted that in cases where a tariff quota system applies, imports out of quota can also benefit from tariff preferences, though they are not as significant as those granted within the quota.

III. PREFERENTIAL MARGINS – CALCULATING GAINS IN RELATION TO TARIFF PREFERENCES

The value of preferential margins corresponds to the gains resulting from the reduction in customs duties granted by the EU to a country. It is equal to the difference between the duties in euros that the country would have paid for its exports towards the EU if it did not enjoy any preferences and the duties actually paid for the same volume of exports while benefiting from the tariff concessions. It can be calculated with the following expression:

$$MV_j = \sum_k \left(MFN_k - t_k^j \right) X_k^i$$

where j is the exporting country toward EU, k is the product, MFN_k is the MFN rate applied by EU to the product k, t_k^j is the tariff applied by EU to country j, on product k.

We assume here that the preferences are systematically used by the exporting countries and that they always collect the gains generated by the preferences. This assumption is plausible (Bureau and Gallezot 2005, Bureau et al 2007), but the gains resulting from the allocation of preferences may not be collected by the exporting countries, in particular when tariff contingents are applied. Thus the value of preferential margins must be considered as a potential rather than an effective gain resulting from tariffs preferences.

The protection and trade databases (TARIC and COMEXT), which are not classified using the same nomenclature, were first harmonised in order to obtain values of preferential margins at level NC8 for each month of the year. For products subject to tariff quotas, we took into consideration the rate of fulfilment of these quotas for each period of application in order to obtain a precise calculation of the duties paid when the preferences were applied. For instance, if the quota is filled, the margin for the product with quota

$$MV_k^j = \left(MFN_k - t_k^{Qj} \right) Q_k^i + \left(MFN_k - t_k^{HQ,j} \right) \left(X_k^j - Q_k^i \right)$$

where t_k^{Qj} is the tariff quota rate for k, $t_k^{HQ,j}$ is the tariff out of quota and Q_k^i is the level of the quota.

For products subject to an Entry Price System we used the data for the Standard Import Value[2] to calculate the value of the specific duties applied to each origin for the different months of 2004, taking into account the MFN or preferential trigger prices as necessary. In the case of products benefiting from several EU preferences, our calculations systematically considered the highest preference[3]. Table 1[4] presents the sum of values of preferential margins for each zone of suppliers.

The signatories of the Africa Caribbean Pacific agreements appear to be the main beneficiaries of the preferences allocated by the EU, as they collect 64% of the total value of preferential margins whereas they represent only 8% of EU imports. The countries in the Mediterranean zone collect 19% of the total value of preferential margins allocated by the EU. Table 2 presents the details for each Mediterranean country[5].

Among the Mediterranean countries, Turkey, Morocco, Egypt and Israel collect the vast majority of the value of preferential margins in the Mediterranean zone (96% in total Table 2). Of these countries, Morocco is the main beneficiary of the preferences, receiving 41% of this value which is higher than its share in the total trade within the zone (24.4%). Turkey collects 34% of the margin which, although a large sum, is nevertheless lower than its share of the EU market (45% of imports from the zone). Similarly, the proportion of the preferential margin received by Israel (11%) is lower than its share of exports (18%).

Few products benefit from the preferences inside of the Entry Price System (tomatoes, cucumbers, courgettes, clementines and oranges in Morocco, oranges in Egypt and Israel), but they represent a large proportion of both the trade in these countries and the value of their preferential margins on the EU market (Table 3). 62% of the value of preferential margins in Morocco results from products enjoying preferential

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2. These values correspond to average import prices calculated daily by the European Commission for each product and each origin

3. This hypothesis is debatable insofar as certain preferential regimes are systematically preferred to others, in particular due to origin regulations, even if they do not provide the largest reduction in customs duties (Bureau et al 2007 [5])

4. The preferential margin of the new EU member states is not calculated as these countries joined the EU in June 2004

5. We do not have any export data for Palestine

trigger prices whereas these products only represent 51% of its exports.

The values of preferential margins granted by the EU to each of its supplier countries are highly dependent on their level of exportation. Hence, these values do not allow us to compare the advantages granted to the different countries through the European preferences. Dividing the values of preferential margins by the value of exports for each exporting country eliminates this "size" effect. The value obtained, which we refer to as the weighted preferential margin M_{weight}, enables us to compare the preferences granted by the EU by relating each country's gain resulting from the tariff preferences to its exports to the EU.

Comparing the weighted preferential margins M_{weight} of the different zones of supplier countries (Figure 2) again highlights the high level of preference enjoyed by the ACP countries on the EU market. The margin represents more than 60% of the value of their exports. Globally speaking, the Mediterranean countries record relatively weak weighted gains compared to the other zones, 8% only. The extent of the value of preferential margins in this zone (Table 2) can be explained by the volume of its exports to the European market (the "size" effect).

Turkey and Israel collect a large proportion of the value of preferential margins MV granted by the EU to the Mediterranean zone (Table 2). Nevertheless, compared to the total value of their fruit and vegetables exports to EU, these benefits are much lower than that of other countries, indicating that these two countries benefits less from the preference granted by the EU than the other Mediterranean countries. Lebanon, to which the EU grants reductions or even exemptions of duties for a large majority of its products, also records a relatively low weighted preferential margin.

Egypt and Morocco, record high weighted preferential margins, indicating that the gains generated by the tariff reductions granted by the EU are relatively large in relation to their exports. The country with the highest weighted margin (22%) is Jordan. Although it collects only 1% of the overall margins received by the entire Mediterranean zone, this value is high in relation to the volume of its exports to the EU.

Table 1 Values of preferential margins granted by the EU to its different suppliers in the fruit and vegetables sector, 2004

	Value of preferential margin (in thousands of euros)	Proportion of total preferential margin granted by the EU	Value of exports to the EU (in thousands of euros)	Share of European market
Countries benefiting from no preferences	0	0%	1,996,927	17%
Countries benefiting from the GSP	50,220	5%	3,092,668	27%
ACP countries	593,495	64%	934,349	8%
Least developed countries	8,999	1%	164,323	1%
Mediterranean countries	178,518	19%	2,454,448	21%
Countries enjoying a preference within the framework of the neighbourhood policy	2,151	0%	16 149	0%
Countries benefiting from other bilateral agreements	76,405	8%	2,857,750	25%
Overseas territories	44	0%	440	0%
Balkan countries	18,195	2%	145,276	1%
TOTAL	928,025	100%	11,662,331	100%

Our calculations based on MEDITAR and COMEXT

Table 2 Values of preferential margins granted by the EU to the Mediterranean countries in the fruit and vegetables sector, 2004

	Value of preferential margin (in thousands of euros)	Proportion of total preferential margin granted by the EU	Value of exports to the EU (in thousands of euros)	Share of European market
Algeria	618	0%	12,663	1%
Egypt	18,493	10%	218,010	9%
Israel	19,665	11%	439,670	18%
Jordan	1,156	1%	5,317	0%
Lebanon	44	0%	830	0%
Morocco	72,446	41%	598,824	24%
Syria	383	0%	5,872	0%
Tunisia	4,959	3%	76,493	3%
Turkey	60,753	34%	1,096,768	45%
TOTAL	178,517	100%	2,454,448	100%

Our calculations based on MEDITAR and COMEXT

Table 3 Share of products with preferential trigger prices as a proportion of the value of preferential margin in Morocco, Egypt and Israel, 2004

	Value of preferential margin resulting from products with preferential trigger prices (thousands of €)	Total value of the preferential margin (thousands of €)	Share of products with preferential trigger prices as a proportion of the total value of preferential margin
Egypt	3,109	18,493	17%
Israel	1,620	19,665	8%
Morocco	44,640	72,446	62%

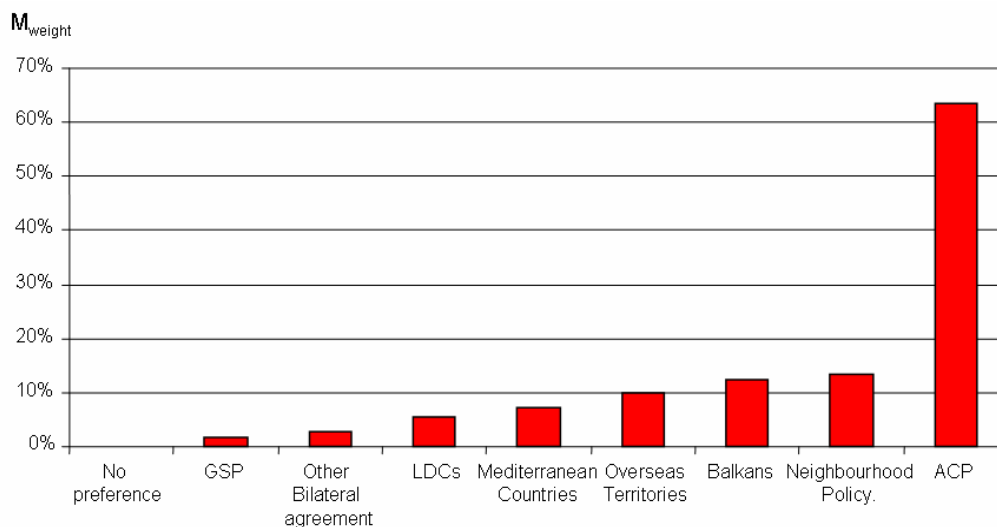*Our calculations based on MEDITAR and COMEXT*

Figure 2. Weighted preferential margin on the EU market per supplier zone in the fruit and vegetables sector, 2004
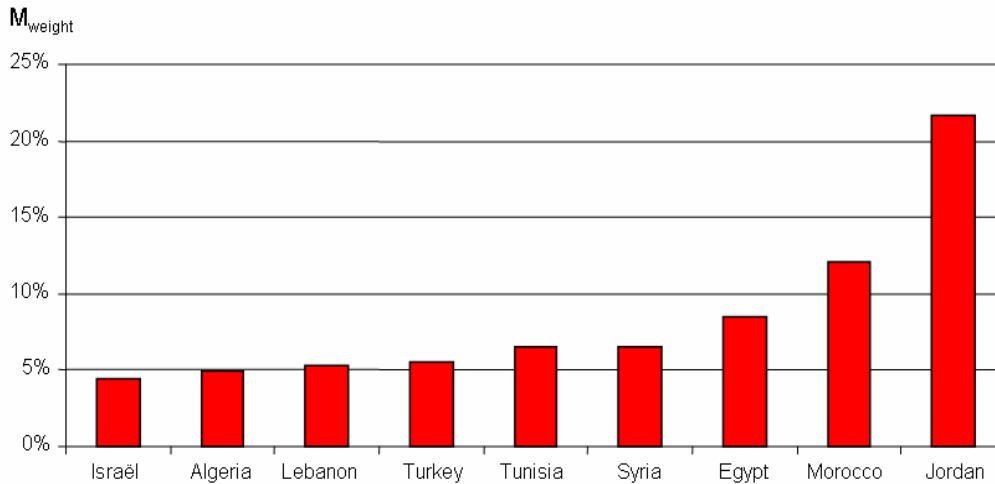*Our calculations based on MEDITAR and COMEXT*

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Figure 3. Weighted preferential margin on the EU market for different Mediterranean countries, 2004
Our calculations based on MEDITAR and COMEXT

IV. THE DIFFERENCES IN WEIGHTED PREFERENTIAL MARGINS ARE FOR THE MOST PART EXPLAINED BY THE EXPORT STRUCTURE

Jordan, Morocco and Egypt are the countries which draw the greatest gain from the preferences granted by the EU in the fruit and vegetables sector. The preferences granted by the EU to the Lebanon provide it with only limited gains, although it enjoys reductions in customs duties on numerous products. Low weighted preferential margins M_{weight} may result from one of two factors: either the countries export products which are already subject to relatively little taxation within the framework of multilateral agreements (low MFN duties), or the duties applied inside the preferences remain high despite the preferences.

In order to distinguish between these two factors, we breakdown the expression of weighted preferential margin M_{weight} into two component: the first corresponds to the value, weighted by trade, of the duties which would have been paid if the country did not benefit from preferences; the second corresponds to the value, weighted by trade, of the duties actually paid by the country when the preference is applied, giving:

$$M_{weight} = \frac{MV}{Exp} = \frac{ValueDuties_{MFN}}{Exp} - \frac{ValueDuties_{Pref}}{Exp}$$

The MFN duties which would theoretically be paid by Lebanon and Turkey are particularly low (5% and 6% respectively, Figure 4). The weak weighted preferential margin in these countries is therefore explained by their specialisation in exports of products subject to low taxation in the framework of multilateral agreements (hazelnuts, dried fruits, chick peas and lentils in Turkey; dried pod vegetables in Lebanon). It is therefore the export structure of these countries which is the root cause of their low M_{weight}, a phenomenon similar to what Bouët et al (2005) [6] called the "structure effect". We may also observe that Lebanon pays no customs duties to enter the European market and that the duties paid by Turkey are also very low.

The "structure" effect also explains the high weighted preferential margins M_{weight} observed for Egypt, Morocco and Jordan. Without preferences, these countries would pay particularly high duties upon entering the European market (12, 16 and 27% of their trade) whereas, thanks to the tariff preferences, they pay only relatively small duties which are nevertheless higher than those paid by Turkey or Lebanon. Specialisation in exporting products with
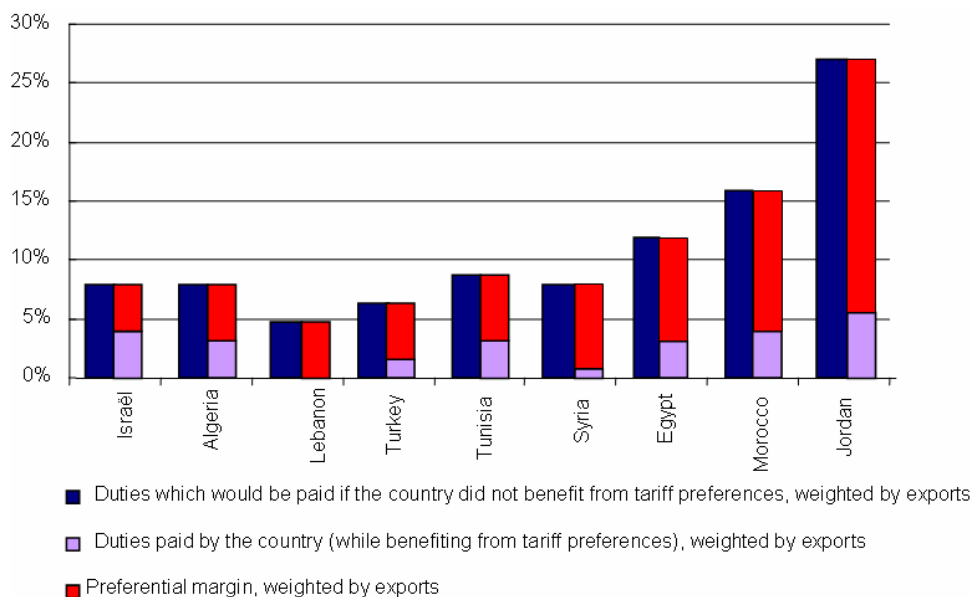
Figure 4. Percentage of duties, weighted by trade, paid by the Mediterranean countries, 2004
Our calculations based on MEDITAR and COMEXT

high MFN duties (various fresh vegetables, potatoes), i.e. the structure of their foreign trade, is therefore the reason for the high M_{weight} in these three countries. In the case of Israel, the "structure effect" has only a limited impact on the weighted preferential margin, M_{weight}. Without the benefit of preferences, this country would pay average weighted duties similar to those paid by Algeria, Tunisia or Syria. The explanation for the poor weighted preferential margin of this country lies more in the low level of preferences allocated.

These results allow us to evaluate the extent to which the different Mediterranean countries might be affected by the liberalisation of the fruit and vegetable trade. Countries which primarily export products with low MFN duties, such as Turkey or Lebanon, already pay few or no duties when entering the European market. The room for liberalisation is therefore limited in these countries: a reduction in EU customs duties would have only a very limited impact on their exports.

An increase in tariff concessions would have a greater impact in countries which, despite their preferences, currently pay the highest duties for access to the European market, i.e. Israel, Algeria and Tunisia as well as Jordan, Morocco and Egypt. The latter, specialised in exporting products with high rates of

MFN protection for which they enjoy large preferences, could moreover suffer negative effects in The latter, specialised in exporting products with high rates of MFN protection for which they enjoy large preferences, could moreover suffer negative effects in the event of reductions in consolidated duties in the framework of multilateral negotiations. These reductions could reduce their advantage on the European market by eroding their preferential margins. These three countries would consequently benefit if the bilateral negotiations were to result in an increase in the current preferences, but would lose out in the event of a generalisation of European preferences to other suppliers in the framework of the WTO.

V. VARIATION IN PREFERENTIAL MARGINS IN THE EVENT OF THE STANDARDISATION OF CUSTOMS DUTIES IN THE MEDITERRANEAN ZONE

From this analysis of the margins structure, what can we conclude about a deeper liberalization for Mediterranean Countries? What is the room of manoeuvre? Which benefits can they expect? The on-going negotiations are about the enlargement of the

quotas or of the preferential "windows". Nevertheless, a radical manner to measure the impact of a greater liberalization is to align, product by product, all the tariffs on the "most favoured tariffs" applied by the EU to the Mediterranean countries. Thus, in this scenario, the duties applied to each Mediterranean country correspond to the highest preferences[6] that the EU has granted within the zone. Hence, we calculate the new value of preferential margin in the event of a harmonisation of preferences in the Mediterranean basin and we compare them with those of the current situation, the structure of exports being equal (Table 4).

Table 4. Percentage increase in the value of preferential margin in each country assuming a generalisation of the preferences granted to all countries in the Mediterranean zone, calculated using data from 2004

	% increase in value of preferential margin
Lebanon	0%
Egypt	9%
Morocco	13%
Syria	16%
Turkey	25%
Jordan	26%
Tunisia	42%
Israel	56%
Algeria	57%

Our calculations based on MEDITAR and COMEXT

Algeria, Israel and Tunisia would gain the most from this scenario. These countries enjoy preferences on a relatively small number of products and their current weighted preferential margins are relatively limited. Aligning their preferences with those of Morocco and Tunisia would lead to a significant increase in the value of their preferential margin. Lebanon, Egypt and Morocco, on the other hand, would only experience a very small increase in the value of their preferential margin in the event of a harmonisation of preferences. These countries already benefit from tariff concessions for most products. We have also seen that Lebanon pays almost no duties

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6. Consequently, we apply the preferential trigger prices to all countries in the zone for the products concerned.

when importing to the European market and that Egypt and Morocco primarily export products which enjoy significant preferences, in particular preferential trigger prices, thus explaining why the alignment of preferences in Mediterranean countries would not provide additional preferences for these countries

VI. CONCLUSION

Two elements which provide a platform for discussing the potential impacts of trade liberalisation in the fruit and vegetables sector have been calculated for each country in the Mediterranean zone: the level of preferential margins and the value of duties currently paid to enter the EU market. The smaller the preferential margins and the higher the value of duties paid, the greater the impact of a reduction in European customs duties on the exports of these countries would be.

Lebanon and Turkey, which enjoy tariff concessions for most products, do not benefit from large preferential margins for access to the European market. These countries primarily export products subject to low taxation in the framework of multilateral agreements, meaning that they gain very little from their preferences. As they pay very little, or even nothing, in terms of customs duties, trade in these countries would experience very little change if European customs duties were reduced.

Egypt, Morocco and Jordan, on the other hand, enjoy large preferential margins from the European Union. These countries export products with high MFN duties, for which the EU grants significant tariff reductions. As these three countries pay high customs duties, a reduction in these duties could improve their already highly favourable access to the European market.

The preferential margins of Israel on the EU market are small in relation to the other Mediterranean countries. This country enjoys only very few preferences, mostly limited in quantity. It is therefore the country which would theoretically be most affected by trade liberalisation within the zone.

A harmonization of preferences within the Mediterranean area or a fall in MFN duties would have a negative effect in Morocco, Jordan and Egypt. Indeed, these countries, that have the highest

preferences and that export products with high MFN duties, could have their preferences eroded by regional or multilateral reductions of duties.

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