

Do Preferences Matter Under Trade Liberalization? The Case of the European Union
Preferences for Developing Countries

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Preferential tariffs, WTO and Developing Countries: Do the Gains from Multilateral Market Access Outweigh Preferential Access?

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0. Abstract

WTO trade negotiations on market access follow the MFN treatment. However, an increasing share of trade falls under preferential regimes. For agriculture, previous trade liberalization analyses have showed that the impact on developing countries is not uniform, partly due to not taking preferences into account. In this paper, we examine whether developing countries benefit more from across the board tariff cuts than from preferences. We employ a multi-regional CGE model using preferences in the tariff database. We focus on the European Union--the world largest preferences provider--and run two experiments using a 50% EU MFN tariff cut by the EU under two scenarios for preferential tariff cuts. Preliminary results suggest that existing EU agriculture preferences do make a difference under trade liberalization. Also a combination of across-the-board MFN cuts and additional preferential tariff cuts would broaden agricultural trade exports to the EU including, including from preferential and non-preferential developing country partners.

1. Introduction

Preferential Trade Arrangements (PTAs) constitute an increasingly significant feature of the world trade system. In agriculture, these PTAs are particularly significant given the high protection levels of agricultural relative to industrial goods. Among the world's leading economies, the European Union (EU) and the United States (US) engage in several PTAs with developing countries both non-reciprocal and reciprocal in nature. The EU is the largest provider of preferences and engages in several non-reciprocal PTAs like the Cotonou Agreement (formerly Lome), the General System of Preferences (GSP), and the Every-Thing-but Arms (EBA) initiative. The United States also engages in the GSP, the Caribbean Basin Initiative (CBI) and the African Growth and Opportunity Act (AGOA). For these agreements, tariff concessions are offered to select beneficiary countries, without reciprocal concessions. In

addition, both the United States and the European Union have concluded several bilateral free trade agreements with developing countries, increasingly expanding the scope of world trade that fall under preferences.

Overall, preferential exporters hold substantial shares of exports to the EU compared to non-preferential exporters; Any expansion of EU market access in the context of multilateral trade liberalization, is likely to significantly alter the pattern of trade; but the direction and magnitude of these changes are not easy to predict as many countries are affected simultaneously and because the trade contracting effect from preference erosion may be countered by trade expanding effect of liberalization.

While these preferential trade arrangements confer advantages to beneficiary countries, continuing liberalization of trade regimes may erode benefits to the countries participating in them. This is why preferential exporters fear that multilateral liberalization would likely displace some of their trade with consequences for the viability of their agricultural production. At the same time, the proliferation of preferential agreements with developing countries has tended to reduce the value of trade preferences for other developing countries. This raises the question of whether developing countries would gain more holding on to the current preferences or by across-the-board multilateral liberalization. Therefore, when we consider multilateral trade liberalization, the impact of these preferential agreements on further market access liberalization could be significant, and their expected impact is likely to vary between regions and commodities. This is an empirical question that requires a consistent and comprehensive underlying database.

Quantitative assessments of agricultural liberalization impacts on trade for developing countries have yielded contrasting results showing that the impact is not uniform. Different

levels and degrees of regional and sectoral aggregation explain part of this. But another factor is the role of preferences in assessing the likely change in trade under multilateral trade liberalization. Several analyses have looked at specific preferential programs such as EBA (Ianchovichina, 2001; UNCTAD, 2001; Yu and Jensen, 2003; Somwaru and Trueblood, 2003); ACP (Wolf, 2000), GSP (Inama, 2003; Candéau et al, 2004), and specific FTA agreements with the EU (Elbehri and Hertel, 2004; Harrison, Rutherford and Tarr, 1996). However, few studies, with the exception of Bouet et al. (2003), have tackled the issue of preferences and global trade liberalization more broadly across programs, countries and commodities. The main constraint has been the complexity of these preferential schemes and the lack of a consistent measure of protection that accurately incorporate preferences. This is why the enhancement of the GTAP database to include preferences within its protection data represents a significant improvement. In this analysis we apply this database to which we made modifications in handling tariff weighting schemes for better representation of agricultural trade patterns.

A key question is whether gains from trade expansion due to tariff liberalization outweigh losses from preference erosion. We address this issue in this paper by considering some stylized scenarios allowing for unilateral MFN tariff cuts by the EU, with and without comparable cuts in preferential tariffs. First, we examine the direct implications for trade of agricultural commodities for both preferential and MFN partners. The impact of trade liberalization will be felt differently among exporters as the magnitude of the cut differs among exporters due to the existence of preferences. Moreover, the implications for trade and production adjustments will also vary for each exporting partner to the EU, depending on the composition of agricultural trade, the share of exports to the EU market, the initial tariff level, and the initial volume of trade. We also examine how these changes hold up when we allow for equivalent cuts in

preferential tariffs, keeping to some extent existing preference margins. The logic behind this latter scenario is that the EU may want to moderate, at least in part, the impact felt by its preferential partners for preference erosion in these sectors following MFN cuts. This system of restoring the margin of preference is applied to preferential tariffs following trade liberalization as in the post-Uruguay Round. Sorting out these issues require a global protection database that consistently covers the preferences tied to specific preferential schemes, countries, and products.

The objective of this study is two fold. First, to assess the implication of trade liberalization on changing trade patterns with developing countries in the presence of preferences. While we focus in this study on the European Union case, we examine the implications of preferences more broadly, not singling out any particular preferential scheme. We also examine the case when the MFN cuts are complemented by reductions in preferential rates to neutralize the potential impacts of multilateral trade liberalization.

The remainder of this paper is as follows. Section 2 provides a review of the major preferential schemes enacted with the European Union with the aim of assessing the significance of EU trade tied to preference schemes. Section 3 describes the modeling framework and database, while section 4 presents the scenarios and results, and section 5 concludes.

2. Overview of EU Preferential Trading Arrangements and Agricultural Trade Patterns

The structure of preferential schemes involving the EU is highly complex as the European Union engages in several non-reciprocal and reciprocal preferential agreements. In this section, we provide a brief overview highlighting the main features of these programs and focusing on the magnitude and variation of preference margins for key agricultural commodities and partners. While the market access provisions of these programs vary by country and commodity, they nevertheless share some common features. In general agricultural products (treated as

sensitive by the EU) are treated separately, where the inherent preferences for domestic goods are safeguarded and the market access concessions are consistent with the Common Agricultural Policy (CAP).

The European Union, like other major industrialized countries, participates in the Generalized System of Preferences (GSP), which provides preferential access to developing countries consisting of suspended or reduced tariffs for non-sensitive products (excluding agriculture, textiles and clothing). In 2001, the GSP programs allowed agricultural products deemed non-sensitive to enter the EU market duty-free. Products listed as import sensitive (determined by the situation of the product sector in EU countries) were accorded reduction in tariffs below the MFN rate, depending on the level of sensitivity of the imported product. Typically, for non-agricultural products, *ad valorem* tariffs are suspended and specific tariffs are reduced by 30 percent. For sensitive products, *ad valorem* tariffs are reduced by 3.5 percentage points for agricultural goods subject to *ad valorem* duties and by 30% when subject to specific duties. When the tariff consists of both *ad valorem* and specific duties only the *ad valorem* portion is reduced. For textiles and clothing tariffs are reduced by 20%.

The Cotonou agreement is a non-reciprocal preferential scheme between the EU and a group of countries from Africa, Caribbean and Pacific (ACP) region. With this agreement, products originating from ACP (other than CAP commodities) enter the EU at preferential rates. In the case of sugar, preferential access is subject to quotas with guaranteed prices equivalent to domestic EU sugar prices. Beef and veal meat exports are subject to quotas and reduced duties. For bananas, preferential access from ACP countries include a special duty-free import quota, eligibility to supply under a global banana quota with reduced tariffs, as well as reduced out of quota tariffs. However, beginning in 2006 the entire EU quota system for bananas will be

replaced by a tariff only regime. For fruits and vegetables, imports from ACP countries benefit from reduced tariffs within quota but they are subject to the full enforcement of the entry price which guides most imports of fresh fruit and vegetables into the European Union¹.

More recently, the EU expanded the GSP for the Least Developed Countries (LDC) under the “Every-but-Arms” (EBA) Initiative. EBA extends duty-free access of imports from all products including agricultural and food commodities but excluding arms and munitions. Moreover there are no quantities or time limits on free access, except for rice, bananas, and sugar for which the EU instituted a gradual market opening leading to full liberalization by 2009. As such, EBA provides the most favorable regime available, but as a GSP scheme it includes safeguard measures and rules of origin which can determine the extent of effective market access. Although EBA offers equal or lower tariff duties compared to the Cotonou agreement, EBA is associated with tighter administrative requirements and rules of origin compared to ACP which is especially favorable in this respect.

The EU has engaged in many bilateral free trade agreements (FTAs), initially involving neighboring countries (Eastern European countries before enlargement, Mediterranean countries), but recently expanded these FTA’s to more distant countries such as South Africa, Mexico, and Chile. The common feature of these bilateral trade agreements is their reciprocity and comprehensive coverage of all trade. For non-agricultural commodities, the end result is a free trade regime to be achieved via a gradual liberalization within a transition period. For agricultural products that fall under the CAP regime, preferential market access is limited, often consisting of a separate agreement that include commodity-specific reciprocal concessions. The latter consist of lower or zero duties within tariff rate or preferential quotas. For the food

¹ The entry price system implies that a relevant surcharge is applied when the CIF price of imports falls below the entry price bound in the WTO schedule of the EU.

category of fresh fruits and vegetables, which is a major source of exports for many EU FTA partners, preferential access is also subject to compliance with an entry price regime and seasonal restrictions.

Under these FTAs, the extent of preferential access varies by product and by partner. For example, under the EU-Turkey Customs Union, Turkey receives the most comprehensive preferences for fruit and vegetables exported to the EU. In this case, *ad valorem* tariffs are all removed, even though the entry price is still in force. For FTAs with Southern Mediterranean countries (Morocco, Tunisia, Egypt, and Israel), South Africa, Chile and Mexico, preferential access affects some of their main exports, namely fruit and vegetables, wine, olive oil, and processed fruits. For these countries, access to the EU market is characterized by duty-free entry for fruits and vegetables within tariff rate quotas and specific seasons. In the case of North African countries, there are also concessions on the minimum entry price, which is set lower than for MFN exporters conferring a competitive advantage into the European market.

How much trade with the European Union falls comes from countries granted preferences? Table 1 shows the value of agricultural exports to EU for 2001 from both preferential and MFN partners. The preferential partners, as a group, account for significant shares of the EU's total value of agricultural and food imports (Table 1, column 9). For most products the import shares from PTA partners accounts for one-third to two-thirds for most products except dairy (chapter 4) and beverages (chapter 22).

Viewed from the perspective of preferential exporters, the lower panel of table 1 shows the share of the partner's total exports that are imported by the EU. This share indicates the degree of dependence of exporters on the EU market for their exports. For example 74.6 percent of ACP sugar exported is shipped to the EU but only 10.3 percent of exported cotton is shipped to the

EU. This table highlights the key agricultural sectors that are dependent on the EU market and therefore point to the potential impact of erosion of preferences. For the ACP group as a whole, except for dairy products, cotton and tobacco, most other agricultural commodities are shipped disproportionately to the EU.

The GSP-only group, which encompasses a larger number of developing countries that do not qualify for the ACP, is on the whole less dependent on the EU than the ACP group, all of which also qualify for the GSP. For GSP-only countries, the degree of dependence on the EU for exports varies more widely across products. The highest share of exports to the EU is the 31.2 percent for chapter 9 products (Coffee, tea and spices). These are also the least protected product categories which many facing zero MFN duties. For the EBA group, the European Union imported a total of \$US 5,129 millions (or 6.7% of total EU imports) of agricultural and food products in 2001, most of which are tropical products. EBA also exports some cotton and sugar to the European Union. The EBA trade is expected to benefit from duty free access, with the exception of bananas, sugar, and rice, so the EBA countries are vulnerable to expanding market access to other countries either through new preferences or via multilateral trade liberalization.

For bilateral preferential partners like Turkey, SoMed (North Africa), and ZAF (South Africa), there is strong dependence on EU market for a small set of traditional exports like fresh fruits and vegetables (Turkey, Morocco, Tunisia, South Africa), olive oil (Tunisia), cotton (Egypt, Turkey) and wine and beverages (South Africa, Chile). The lack of diverse agricultural exports from these preferential partners to the EU can be seen in the overall share of exports to the EU around 3.1, 2.5, and 2.0 for Turkey, SoMed, and ZAF, respectively (table 1).

Overall, this review showed that a large share of agricultural imports into the EU comes from preferential partners. As the EU is the world largest importer and exporter of agricultural and

food products, assessing the implications of its preference schemes on trade patterns have important ramifications for global trade. Moreover, given the complexity of the preferential access for agricultural products into the European Union, assessing the implications of these preferences in the context of trade liberalization requires a comprehensive treatment of preferences across preferential schemes, partners, and products. The present paper attempts to examine these issues. We now turn to the quantitative assessment of MFN trade liberalization on preferences with the EU.

3. Multilateral versus preferential schemes in the EU Case: A Quantitative Assessment

3.1. Model and Data

In this paper we employ the widely used GTAP model (Hertel, 1997) to carry out the analysis. For the GTAP database version 6.5, the tariff protection includes preferences as derived from MacMaps, a tariff database jointly developed by ITC-WTO, Geneva and CEPII, France. Compared to previous GTAP database versions, the preference coverage in the GTAP database version 6.5 represents a significant improvement. The MacMaps tariff database starts from the 6-digit level of the Harmonized System and provides the GTAP level with both *ad valorem* tariffs and the *ad valorem* equivalent (AVE) of specific tariffs. Table 2 summarizes the import tariffs, inclusive of preferences facing exports to the EU.

However, the aggregate GTAP protection database based on MacMaps raises some methodological issues, particularly those pertaining to the method used to weight tariffs for aggregation from the 6-digit HS level up to the GTAP commodity aggregate. In developing the MacMaps tariff database, a tariff weighting scheme based on the notion of “reference group” was adopted. In this case, it is the imports of a reference group (not the individual country in that

group) that is used as weight². This approach was justified as a solution to the downward bias associated with the individual country imports. However, the “reference group” aggregation approach raises a number of difficulties. When it comes to the patterns of agricultural trade and the actual composition of what is exported or imported, the reference group classification may be problematic. A country classification into a particular group may have no bearing on the nature of agricultural trade with the EU, as for example, when product tariffs are assigned to countries that do not even export the product itself. Moreover, for highly aggregate food products, the great disparity of tariffs between products within the aggregate may also lead to sharp differences in the calculated levels of tariff cuts in the analysis. For these reasons, in this study, we consider using a different weighting scheme for tariffs (from 6 digit HS to the GTAP aggregate level) based on a country’s product exports to the world to aggregate up to the GTAP level. This way our approach avoids both the problems above and the bias built in bilateral trade.³ (However, this approach will be incorporated in a follow up version to this paper as the results presented in this draft are based only on the original GTAP/CEPEI tariff aggregation scheme.)

The model regions considered in this analysis consist of aggregating the original 87 regions into a total of 21 regions (table 3). These include the European Union, the Cotonou group (exclusive of EBA-eligible countries), the GSP (not including EBA-eligible or Cotonou-eligible countries), and the EBA group. Countries with bilateral free trade agreements with the EU such as Southern Mediterranean, Turkey, South Africa, Mexico, and Chile. Within Europe, the EFTA

² The reference group is set up on the basis of a combination of 2001 PPP GDP per capita and trade openness statistics. With this criteria all countries are placed in one of the following five groups types: (1) richest countries; (2) High openness, middle income countries; (3) Low openness, middle income countries; (4) High openness, low income countries; (5) Low openness, low income countries.

³ However, to avoid the biases linked to the original GTAP preferential tariffs, a tariff correction (or adjustment) step is also required. However, this was not done in the present version of the paper but will be included in future update.

group and a “Rest of Europe” region inclusive of the Balkans countries are also treated as separate regions. The model also includes the major MFN partners to the EU, namely the United States, Canada, Australia, New Zealand, Japan, and Mercosur, China, India, Asia-4 (South Korea, Taiwan, Singapore and Hong Kong), and finally an aggregate “rest of world” region⁴. The commodity aggregation distinguishes 22 aggregate sectors with detailed agricultural representation. The non-agricultural sectors were aggregated into textiles, clothing, “other manufacturing”, extractive, and services sectors. Textiles and clothing, which are a major source of developing country exports subject to preferences, are separated out to enable for a more complete economy-wide assessment of trade liberalization on trade and welfare.

4. Scenarios and Results

4.1 Scenarios

Modeling the impacts of unilateral trade by the EU is carried out in two steps. The first step consists of bringing the world economy based on a 2001 benchmark dataset to 2005. We do this for several reasons. First we bring the EU economy to post enlargement stage. In doing so, all trade barriers between the EU-15 and Eastern Europe are removed as they now form a single economy. A second change is to enable implementation of the MFA quota removal as well as the implementation of the EBA initiative. This projections simulation is based on a relatively small number of exogenous shocks, including projections of regional endowments of agricultural land, physical and human capital, and the state of technology, population, and labor force. These are derived from a combination of historical data and World Bank projections for the growth of population, labor force, real GDP and investment (for a methodology, see Bach, *et al.*, 2000).

⁴ Even though Brazil, Argentina are also eligible for GSP, Mercosur is treated as a separate region given the current negotiations for a free trade region with the EU. China and India, two GS-eligible countries are also separated out given their significance in world trade.

Taking the updated 2005 database as the starting point, we examine the consequences of across the board EU MFN tariff cuts of 50% under two alternative scenarios with respect to preferential tariffs. In Scenario 1, preferential tariffs are lowered to the level equivalent to 50% of the initial MFN tariff. For preferential trade flows subject to tariffs below 50% MFN, no cuts are made. In this scenario, the MFN tariff cut results in varying degrees of preference erosion depending on the initial level of preferential rates. In scenario 2, all EU import tariffs are cut with a flat 50% rate (both MFN and preferential). This scenario can be viewed as an attempt by the EU to restore some of the margins of preference eroded as a result of cutting MFN tariffs. By comparing Scenario 1 and 2 we can assess whether or not such a move is beneficial to preferential partners.

4.2 Results

This section discusses the results of the scenarios analyzing the third-country impact of EU market access liberalization under different treatments of preferences. The results are in \$US millions for the 2001 GTAP database. We focus the discussion of the results on the trade balance. Change in net trade balance (which is the difference in the value of *f.o.b.* exports and *c.i.f.* imports) capture both supply and demand factors. Moreover, we can easily identify the most significant traded sectors that are affected by the policy change.

Table 4 reports the changes in regional net trade balance by commodity for three experiments. For experiment 1 (Table 4, top panel), the reduction of MFN tariffs by 50% (with lower or no tariff cuts on preferential rates) results in a significant expansion of MFN exports to the EU. At the same time preferential exporters, by facing lower tariff cuts for their exports see smaller changes in trade. However, the results are mixed among the various preferential groups. The GSP group does improve its trade balances given the smaller margin of preferences they

receive on a limited number of products. Hence for this group, tariff cuts do result in improved trade balances for many agricultural products. However, competition with MFN suppliers facing bigger tariff cuts result in trade loss for exports due to greater competition from China and the United States. Some of the trade for fruits and vegetables shift from preferential suppliers to suppliers like Mercosur and China.

For the GSP and MFN partners, the significant gains in trade vary by commodity. For Mercosur, the biggest gains are in beef and white meats and in processed food. For the U.S. the trade gains are in rice, white meats, processed foods and various crop products. Australia and New Zealand gain more in dairy products as expected. However, in the case of New Zealand, there is a substantial trade loss in bovine meats much of which was captured by the Mercosur exporters. This is mostly due to the great disparity of tariffs between the various suppliers, with Australia and New Zealand facing the lowest tariffs, while suppliers like Mercosur face higher tariffs for bovine meat (table 4).

On the whole, a unilateral across-the-board tariff cuts by the EU does result in a clear differential response with MFN partners showing substantial trade gains while ACP and EBA partners show little improvement in their trade with the EU. The GSP group shows moderate gains in net trade balances owing to smaller preference margins that cover fewer products.

This result supports the argument for cutting preferences as well. What will be the impact of providing additional tariff cuts to preferential partners with the aim of “minimizing” preference erosion? This question is addressed by experiment 2 in which all partners experience 50% tariff cuts including MFN and preferential rates. Overall if we take the change in the net trade balance for the agriculture and food sector as a whole, the MFN partners exhibit only a smaller overall gain compared to experiment 1. For preferential partners, we observe a significant improvement

in the trade position, except for EBA, which unequivocally loses out under both trade liberalization scenarios. This latter result is not surprising given that EBA countries already benefit from almost total duty free access and any tariff concessions to competing suppliers could only come at the expense of EBA beneficiaries.

For the other preferential partners, most of the trade gains come from a small number of key sectors. For the ACP group, the top two beneficiary sectors are sugar and beef exports. The trade gains in these sectors more than compensate for smaller negative balances in products such as grains, non-beef meats, vegetable oils and processed foods. Southern Mediterranean partners show trade gains mostly in vegetable (olive) oil, bovine meats, and some gains in fruits and vegetables. For Turkey, however, the gains come more from white meats, vegetable oils and dairy. The GSP group, which includes a larger set of countries, show trade gains in a wider set of products, most notably white meats, fruits and vegetables, rice and processed foods.

5. Summary and Conclusions

In this paper we examine preferences in the European Union case, and ask what impact will an across the board MFN tariff cut have on preferential versus MFN suppliers. The results presented in this paper are very preliminary reflecting a work in progress. There are a number of caveats to bear in mind in interpreting the results. First, biases in tariff data aggregation need to be addressed. Second, the scenarios are highly simplified as they consider only a unilateral tariff cut by the EU- an unrealistic assumption given the general trend toward reciprocity between the EU and its preferential partners. Also, the analysis deals only with the tariff side and not the quantitative restrictions, characteristics of many agricultural preferential schemes. With this in mind, the preliminary results show that EU agriculture preferences confer a market access advantage for beneficiary countries, especially the EBA and ACP countries, which is eroded

under MFN tariff cuts. A combination of across-the-board MFN and preferential tariff cuts (to restore margins of preference) lead to broader scope for increased trade, enabling both preferential and non-preferential developing country partners to expand trade with the EU. For example, under the MFN tariff cut only, the ACP group experiences a slight decrease in its trade balance; but when the preferential tariffs are also cut by half, ACP shows a significant trade boost equivalent to one-third of initial exports to the EU. The analysis also shows that the composition of trade changes under liberalization is concentrated in a small set of sectors that varies by partner. This has implications for how the EU might restore margins of preference (whether across the board tariff cuts or sector-specific measures).

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Table 1. Agricultural exports (value and shares) to the European Union by partner (2001).

HS Products	IMPORTS TO THE EUROPEAN UNION FROM (\$US MILLION):												
	WORLD	PREFERENTIAL PARTNERS							MFN PARTNERS				
	Extra-EU	ACP	GSP	EBA	TUR	SOMED	ZAF	PREF	PREF	AUS/NZL	MERCS	USA	CHN
							TOT	SHR					
2 Meat and edible meat offal	4413.9	128.0	271.0	4.9	1.8	4.8	31.0	441.5	10.0	816.6	987.5	38.4	54.7
4 Dairy prod; birds' eggs; natural ho	2580.8	6.8	54.1	1.1	4.6	0.2	0.1	66.9	2.6	399.3	57.5	24.7	36.2
6 Live tree & other plant; bulb, root	1305.1	67.6	477.0	234.7	12.9	9.4	26.9	828.6	63.5	12.9	12.8	85.7	21.7
7 Edible vegetables and certain roots	3386.7	30.7	523.3	190.4	114.4	326.5	13.6	1198.9	35.4	58.0	87.8	151.4	219.1
8 Edible fruit and nuts; peel of citr	8401.6	242.4	2145.6	530.9	856.2	303.0	782.6	4860.6	57.9	288.6	718.3	807.2	56.8
9 Coffee, tea, matn and spices.	3921.7	109.9	1526.6	651.7	19.2	10.5	79.5	2397.4	61.1	1.2	843.0	23.2	79.1
10 Cereals	1860.5	57.4	336.7	0.5	39.4	5.4	1.3	440.6	23.7	65.8	261.6	448.3	7.0
15 Animal/veg fats & oils & their clea	2505.6	113.1	1119.9	81.0	77.7	137.6	3.7	1532.9	61.2	12.9	91.7	170.3	17.3
17 Sugars and sugar confectionery.	1822.3	713.4	71.1	75.0	20.0	28.3	6.7	914.5	50.2	1.2	27.5	41.8	20.0
20 Prep of vegetable, fruit, nuts or o	3493.9	62.3	623.8	65.3	371.6	80.5	74.8	1278.2	36.6	27.9	582.4	194.1	283.8
22 Beverages, spirits and vinegar.	3851.6	225.1	111.4	4.4	24.5	19.5	271.8	656.8	17.1	699.8	83.1	698.1	21.8
24 Tobacco and manufactured tobacco su	2566.4	352.3	159.1	189.7	115.2	0.2	2.8	819.4	31.9	0.3	374.9	767.5	16.1
52 Cotton.	4070.9	68.9	834.3	301.9	501.3	248.4	9.2	1964.0	48.2	77.7	84.4	103.7	150.8
Total Agriculture/Food (\$US Mi)	76244.7	3105.4	11813.3	5129.0	2377.0	1917.6	1551.6			2814.7	10971.0	7342.2	2091.8
Share of Total Imports to EU (%)		4.1	15.5	6.7	3.1	2.5	2.0			3.7	14.4	9.6	2.7

HS Products	SHARE OF TOTAL EXPORTS SHIPPED TO EU:										
	PREFERENTIAL PARTNERS							MFN PARTNERS			
	ACP	GSP	EBA	TUR	SOMED	ZAF	AUS	MERCS	USA	CHN	
2 Meat and edible meat offal	48.9	25.0	15.2	4.1	69.6	44.8	29.6	34.3	1.0	7.8	
4 Dairy prod; birds' eggs; natural ho	0.5	7.9	1.9	12.0	4.3	0.5	4.9	10.4	3.3	18.1	
6 Live tree & other plant; bulb, root	88.4	20.7	87.4	78.3	57.0	64.8	22.7	71.2	25.4	24.3	
7 Edible vegetables and certain roots	63.6	16.6	68.8	26.9	88.3	31.6	10.0	26.4	7.8	11.2	
8 Edible fruit and nuts; peel of citr	55.6	25.7	17.6	58.4	73.7	55.3	16.9	46.1	20.0	8.9	
9 Coffee, tea, matn and spices.	30.2	31.2	28.8	36.8	78.1	48.3	7.7	49.2	7.3	8.3	
10 Cereals	30.7	7.2	2.0	19.5	0.0	0.7	0.2	7.0	3.7	0.4	
15 Animal/veg fats & oils & their clea	55.7	14.6	62.2	41.9	80.9	13.1	4.7	5.0	10.0	12.4	
17 Sugars and sugar confectionery.	74.6	1.5	31.1	6.8	19.3	1.2	0.5	0.8	6.3	6.9	
20 Prep of vegetable, fruit, nuts or o	60.0	25.5	78.2	65.3	5.2	35.3	11.2	31.2	11.0	20.5	
22 Beverages, spirits and vinegar.	22.9	16.6	5.7	50.2	49.7	50.8	47.1	20.6	31.7	3.2	
24 Tobacco and manufactured tobacco su	17.5	19.9	30.8	21.0	12.3	6.4	1.0	28.8	16.9	6.7	
52 Cotton.	10.3	10.5	21.1	54.3	50.9	18.1	6.4	20.6	2.2	2.7	

Table 2. Tariffs facing exports to the European Union by sector and partner (% ad valorem).

	ACP	EBA	GSP	SoMED	ZAF	MERCS	USA	AUS	CHN
Rice	25.3	19.5	91.9	69.1	44.3	70.7	83.6	58.5	141.0
Wheat	0.0	0.2	0.4	0.5	0.0	1.6	1.2	2.7	0.0
Grains	16.1	1.1	9.0	0.9	7.7	27.1	7.1	17.8	19.0
FruitVeg	20.7	12.0	33.8	10.7	11.0	13.7	4.5	5.1	42.0
OthCrops	0.9	0.7	1.6	1.7	1.5	5.2	11.4	3.1	3.8
LiveAnimals	0.5	0.2	0.3	0.6	0.7	4.9	0.8	3.7	0.1
AnimalProd	0.6	0.1	1.7	0.1	0.0	2.0	2.2	0.2	3.0
BovineMeats	76.9	3.4	47.5	139.1	72.7	87.3	20.3	12.8	8.8
WhiteMeats	7.6	6.7	22.6	6.1	1.8	28.7	26.9	8.1	10.7
VegOils	0.2	0.0	5.1	73.5	1.7	1.0	6.5	6.4	1.3
Dairy	10.7	9.1	24.8	15.3	38.0	32.5	31.6	36.0	4.1
Sugar	146.7	75.8	81.0	7.9	39.3	134.5	23.4	53.4	140.9
Bev_Tobac	4.0	1.4	11.2	11.7	7.6	8.1	11.2	5.9	7.4
OtherFood	2.5	0.2	8.9	1.6	12.4	12.1	15.5	14.5	10.3
Textiles	0.4	0.9	6.6	0.2	2.0	5.7	6.5	4.6	8.6
Apparels	0.4	1.3	9.2	0.1	3.7	4.1	10.2	7.2	10.8

Source: GTAP database version 6.5

Table 3. Model Aggregation.

SECTORS

1	Wheat	Wheat
2	Grains	Cereal grains nec
3	FruitVeg	Vegetables, fruit, nuts
4	OilSeeds	Oil seeds
5	OthCrops	Sugar cane, sugar beet, Crops nec
6	Cotton	Plant-based fibers
7	LiveAnimals	Cattle,sheep,goats,horses
8	AnimalProd	Animal products nec, Raw milk, Wool, silk-worm cocoons
9	ExtractMnrls	Forestry, Fishing, Minerals nec
10	Energy	Coal, oil, gas
11	BovineMeats	Meat: cattle,sheep,goats,horse
12	WhiteMeats	Meat products nec
13	VegOils	Vegetable oils and fats
14	Dairy	Dairy products
15	Rice	Paddy rice, Processed rice
16	Sugar	Sugar
17	OtherFood	Food products nec
18	Bev_Tobac	Beverages and tobacco products
19	Textiles	Textiles
20	Apparels	Wearing apparel
21	OthMnfcs	Other manufacturing
22	Services	Service sectors

REGIONS

1	ACP	Botswana, Zimbabwe, Rest of South African CU, Rest of the Caribbean, Rest of FTAA, Rest of South America, Rest of Oceania, Rest of SADC
2	ASIA4	Hong Kong, Korea, Taiwan, Singapore
3	AUS	Australia
4	CAN	Canada
5	CHL	Chile
6	CHN	China
7	EBA	Bangladesh, Malawi, Mozambique, Tanzania, Zambia, Madagascar, Uganda, Rest of Sub-Saharan
8	EFTA	Switzerland, Rest of EFTA
9	REUR	Ex-Yugoslavia, Bulgaria, Romania, rest of Europe
10	EU25	25 Member European Union
11	GSP	Indonesia, Malaysia, Philippines, Thailand, Vietnam, Colombia, Peru, Venezuela, Rest of Andean Pact, Central America, Russian Federation, Rest of Former Soviet Union, Rest of Middle East
12	IND	India
13	JPN	Japan
14	MERC	Argentina, Brazil, Uruguay
15	MEX	Mexico
16	NZL	New Zealand
17	SAFR	South Africa
18	SMED	Morocco, Tunisia, Rest of North Africa
19	TURK	Turkey
20	USA	United States
21	ROW	Albania, Bulgaria, Romania, Sri Lanka, Rest of East Asia, Rest of South Asia, Rest of North America

Table 4. Changes in trade balance (\$US millions).

	Experiment 1- 50% cuts in MFN tariffs; proportional (or no) cuts in preferential tariffs										
	ACP	EBA	GSP	So_MED	TURK	S_AFR	MERCS	USA	AUS	NZL	CHN
Rice	-25.4	11.9	-58.3	-3.9	-0.4	0.3	-2.9	104.9	8.4	0.0	241.8
Wheat	4.7	5.4	38.6	32.8	5.2	2.3	-119.2	-32.1	-7.2	-0.5	-6.8
Grains	2.4	0.9	2.9	6.9	0.2	2.0	21.6	39.4	3.0	-0.2	6.4
FruitVeg	-4.4	-16.3	-16.2	-9.7	-14.7	-20.8	58.8	6.3	0.0	31.7	203.1
OthCrops	-4.2	-27.6	4.2	3.6	19.2	-1.7	-210.0	185.5	-2.1	-3.8	-32.9
LiveAnimals	-0.3	0.1	-9.5	1.4	0.4	0.1	-6.4	-26.2	-6.3	-0.6	-0.6
AnimalProd	1.5	3.0	2.9	2.6	4.5	-0.3	-44.0	38.8	-1.9	-52.6	-61.5
BovineMeats	-20.7	1.1	18.3	5.9	-0.5	-1.5	2699.3	82.7	25.1	-227.1	-2.7
WhiteMeats	4.6	1.4	36.7	2.2	4.4	-1.1	314.1	255.6	9.7	5.1	-48.2
VegOils	3.7	12.7	75.0	6.2	7.2	3.7	-154.7	-0.9	-0.2	-0.4	-14.8
Dairy	2.6	1.9	17.9	7.6	1.0	0.8	-29.3	71.3	148.2	583.6	-3.3
Sugar	-14.5	-55.8	21.7	4.1	0.0	4.9	30.3	11.8	3.8	2.9	-0.2
Bev_Tobac	-3.3	4.6	-1.7	2.1	0.6	-4.1	-1.9	86.2	31.5	1.0	1.9
OtherFood	-14.1	-32.5	-16.6	-0.1	-6.5	-3.3	675.5	446.0	23.1	-0.6	-3.9
TOTAL AG/FOOD	-67.2	-89.1	115.8	61.9	20.8	-18.7	3231.0	1269.5	235.2	338.5	278.3
	Experiment 2 - 50% cuts in MFN and preferential rates										
	ACP	EBA	GSP	So_MED	TURK	S_AFR	MERCS	USA	AUS	NZL	CHN
Rice	-26.8	38.4	115.5	9.0	0.7	0.4	-1.5	75.9	7.3	0.0	174.5
Wheat	-38.7	10.8	-65.1	-13.7	8.4	-0.1	-96.0	1.1	6.1	-0.3	-4.6
Grains	-5.4	2.2	-17.6	-3.2	-1.3	1.9	35.2	63.5	4.1	-0.2	9.2
FruitVeg	29.4	-70.3	1012.1	55.0	-29.4	55.0	16.3	-30.3	2.1	12.0	187.2
OthCrops	-131.7	50.7	-219.8	-7.3	29.7	-6.6	-174.1	196.4	0.8	-2.8	-23.0
LiveAnimals	-4.0	1.2	-34.5	-10.9	0.5	0.1	-6.0	-31.1	6.9	-0.2	-0.6
AnimalProd	-13.8	5.6	-33.0	-3.7	-3.2	-4.7	-41.6	40.1	-11.8	-48.9	-56.1
BovineMeats	334.2	3.6	43.0	125.0	9.0	28.0	2496.5	77.5	19.4	-238.6	-2.4
WhiteMeats	-24.3	4.6	622.9	2.1	48.8	-3.3	295.6	254.9	6.8	-0.4	-40.3
VegOils	-31.0	9.6	3.0	454.0	251.0	2.1	-129.9	-7.0	-0.3	-0.6	-10.7
Dairy	-7.4	4.1	43.2	2.1	64.8	3.5	-26.5	62.6	139.3	573.9	-3.7
Sugar	1269.8	-546.1	40.9	-15.2	20.7	3.3	-2.7	-2.3	10.3	0.1	-1.2
Bev_Tobac	1.7	9.7	0.7	4.8	6.2	17.7	-2.0	75.9	23.5	0.4	0.1
OtherFood	-65.8	-38.7	164.0	-16.9	21.6	37.6	593.7	450.6	25.9	1.6	4.5
TOTAL AG/FOOD	1286.2	-514.6	1675.5	581.2	427.5	134.9	2957.1	1227.8	240.4	296.1	232.8

Source: Authors' model simulations