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Non-Reciprocal Preference Erosion Arising From MFN Liberalitzation in Agriculture: What Are the Risks?

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Non-Reciprocal Preference Erosion Arising From MFN Liberalization in Agriculture: What Are the Risks?

by

Patrick Low, Roberta Piermartini and Jurgen Richtering[*]

March, 2006

Abstract

This paper estimates the risk of preference erosion for non-reciprocal preference recipients in the agricultural sector as a consequence of MFN tariff cuts. It is based on a simulation of a single tariff-cutting scenario. The measure of preference erosion risk is the difference in preference margins enjoyed by individual suppliers to the QUAD (Canada, EU, Japan, United States) markets before and after a MFN tariff reduction, multiplied by the associated trade flow. The paper does not attempt to determine how losses in preference margins translate into trade outcomes, but it does highlight which products and which non-reciprocal preference beneficiaries are the most vulnerable to erosion effects in the major developed country markets. Overall, the paper finds that the risk of preference erosion is small, but some countries are strongly affected in particular product lines (notably sugar and bananas).

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I. Introduction

Like previous trade rounds, a significant objective of the Doha negotiating agenda is to reduce trade barriers and open up new market opportunities for WTO Members. Unlike in previous rounds, however, concern about the erosion of non-reciprocal preferences has found clear expression in the negotiating positions of dozens of WTO Members and in negotiating texts.[1] Over the years, major trading countries have extended non-reciprocal preferences to developing countries through a range of schemes aimed at promoting export growth in beneficiary countries. The schemes have met with varying success.[2] They have clearly been effective enough, however, to give rise to demands from beneficiary countries for something to be done to mitigate or compensate in some way for the loss of competitive advantage that will result from non-discriminatory (MFN) trade liberalization. These demands have surfaced in the negotiations on trade in agricultural and non-agricultural products.

We recently completed a paper on non-reciprocal preference erosion in relation to non-agricultural market access (Low et al., 2005), and the present study applies a very similar methodology to estimate the dimensions of preference erosion risk in agriculture. The earlier paper discussed theoretical considerations underpinning the erosion question, along with a number of measurement issues. We do not repeat those discussions here. Rather, we proceed directly to a brief explanation of our methodology followed by a presentation of the preference erosion estimates..

The estimates pertain only to the preference schemes maintained by the so-called QUAD members (Canada, EU, Japan and the United States). The data are for the year 2003. Based on tariff line level information, we establish "theoretical maxima" estimates of non-reciprocal preference erosion in agriculture. The theoretical maximum is taken to be the trade weighted difference between MFN duties and preferential duties. This estimate is then subject to an adjustment factor. The adjustment

[1] Strictly speaking, this is not the first time the issue has been raised. Brazil, for example, argued for the preservation of preferential margins in the context of the Tokyo Round (see Document MTN/W/2 of 26 October 1973).

[2] Several studies over the years have assessed the role of preferences. See, for example, Murray (1977), Borrman, Borrman and Steger (1981), OECD (1983), Sapir and Lundberg (1984), Karsenty and Laird

recognizes that from the point of view of a non-reciprocal preference beneficiary, competing trade from other preference receivers – of both non-reciprocal and reciprocal preferences – does not face MFN tariff rates. When this competition from other geographical sources is taken into account it is apparent that risks from preference erosion are lower than if the relevant comparison is made simply in respect of MFN trade. Another adjustment factor that would have further reduced the estimates of preference erosion relates to utilization rates under the various preferential schemes. Data limitations have prevented inclusion of this element in the estimates. Where non-reciprocal preferences have not been fully utilized for one reason or another, an exporter is effectively at less risk from preference erosion as a consequence of MFN liberalization.

In order to focus on the value of non-reciprocal preferences, estimates are reported for those developing countries that only receive non-reciprocal preferences from at least one of the QUAD members. In other words, developing countries involved in reciprocal preferential trading arrangements with the QUAD countries in 2003 are excluded.[3]

After providing our base-line estimates of adjusted risk from preference erosion, we simulate MFN tariff cuts on the basis of the G20 agriculture proposal in order to gain a sense of what such a scenario would mean by way of preference erosion among recipients of non-reciprocal preferences. This exercise is strictly illustrative and the choice of the G20 proposal as the scenario does not imply any judgement on our part as to the desirability of this outcome over any other in the agriculture negotiations. Moreover, we do not apply any simulation techniques in order to estimate the possible aggregate trade or welfare outcomes arising from MFN liberalization and the resulting erosion of preferences. Our calculations only estimate the value of potential preference erosion in terms of margins lost through MFN liberalization, multiplied by the observed trade flows of the countries concerned. This measure approximately indicates the potential loss of economic 'rent' that exporters face following MFN liberalization – that is, the loss in the extra income from which exporters benefited thanks to preferences. The results show that in net terms, some countries lose overall because of reduced preference margins, while others gain as a result of MFN cuts.

Certain observations about the limitations of the analysis are in order. Firstly, like virtually all simulations regardless of the chosen methodology, our calculations are based on trade flows that are already influenced by the protection in place. Observed trade flows would be quite different if they were "free trade" flows. Secondly, we have not attempted to simulate the possible effects of changes

(1986), Brown (1987), Brown (1989), UNCTAD (1999), Ozden and Reinhardt (2003), OECD (2003),WTO (2004), Grossman and Sykes (2005).

in relative prices (from MFN liberalization) on supply and demand, and therefore on trade. This could have been done with a partial equilibrium elasticity analysis but we limit ourselves to a simple comparison of what happens to the estimated value of preferences at the country level when MFN tariff rates are cut, with everything else staying the same.

The use of a partial equilibrium model to analyze the impact of MFN liberalization on preference erosion would have allowed us to assess the impact that a change in preference margin on one product would have on the exports of a substitutable product and on the redistribution of export shares across countries. In other words, we would have been able to assess the trade effects of liberalization rather than just looking at changes in the preference margins. But such estimates of the trade effects arising from eroded preference margins requires knowledge of the responsiveness of supply and demand to price changes, as well as the degree of substitution that would occur between preferential and non-preferential suppliers. These measures of responsiveness to price changes, or elasticities, are subject to broad estimation based on limited information. It is therefore unclear what woud be gained by trying to translate the margin erosion estimate into a trade flow consequence.

Partial equilibrium analyses are limited in that they do not capture all the interactive consequences of a policy change on the economy as a whole. Analysts are well aware that policy changes have ripple effects throughout the economy, and that a comprehensive picture of the economy-wide effects of a policy change would require a general equilibrium model. In fact, a general equilibrium model, by taking into account income and resource constraints, would be able to estimate the effects of preference erosion on income as well as on trade flows. Once again, however, such models have formidable data requirements, produce highly aggregated results, and are typically sensitive to relatively small changes in assumptions.[4] Taking into account these limitations, and the utility of a high degree of disaggregation among products, exporters and import markets, we felt it was preferable to limit our examination of the preference erosion issue to the simple analysis of changes in "rents" for exporters losing preference margins.

A third limitation of the analysis is that because the estimates for this paper are all built on existing trade flows, we have no way of knowing whether a reduction in preference margins might be compensated by trade in product lines against which zero trade has been recorded in our data set. This is clearly an issue in agriculture, as will be seen below when we consider "sensitive" product

[3] The countries thus excluded from our reported estimates are Romania, Bulgaria, Turkey, Morocco, Mexico, Former Republic of Macedonia, Croatia, Jordan, Chile, South Africa, Israel, Tunisia, Costa Rica, Singapore.

[4] See Alexandraki and Lankes (2004), Francois et al. (2005) and Hoekman et al. (2005) for different analytical approaches.

exclusions from the tariff cuts. Many of the selected sensitive products have zero trade flows because of the height of existing tariffs. It should be noted that this particular problem may also exist in more sophisticated analyses involving partial or general equilibrium simulations.

Several aspects of this analysis suggest that the estimates of preference erosion arising from our MFN liberalization scenario may be upper bound estimates. First, we are using applied tariff rates rather than bound rates as the simulation base-line. In the QUAD countries, most bound rates are not much higher than applied rates, but to the extent that a binding overhang exists, we are assuming deeper MFN cuts than would actually occur, thus leading to higher estimates of preference erosion. Second**,** we assume that all the "economic rent" that accrues from preferences goes to the exporter. In practice, some of the margin is likely to be appropriated by the importing country, which means that the loss occurring from preference erosion is correspondingly less.[5] Third, we assume that the full impact of MFN liberalization will be felt immediately following agreement on the tariff reductions. In practice, MFN cuts are likely to be phased in over several years.

Other working assumptions underlying the analysis may go either way in terms of lowering or raising the estimates of preference erosion. First, as already noted, we make no attempt to calculate preference utilization rates, and simply assume these to be 100 per cent. If utilization rates are less than 100 per cent, which is almost certainly the case in many instances, then the initial value of preferences is lower and the risk from erosion less. However, since we assume full utilization of all preferences, including reciprocal preferences, we cannot be sure whether overall, we are over- or under-estimating preference margins. Second, for lack of data for the EU, we assume that trade on all lines subject to tariff rate quotas pays the MFN out-of-quota tariff rate.[6] This means that, given a certain preferential tariff rate, as long as trade remains within quota we estimate a higher preference margin than actually exists and therefore greater risk from preference erosion. However, since uncertainty exists in respect of some tariff lines as to whether preferential rates are in or out of quota rates, there is a possibility that for these products we underestimate preference erosion.

The paper is organized into three more sections. The next section (Section II) presents the basic data used to calculate the value of non-reciprocal preferences for each reported beneficiary country, adjusted for actual competition (including non-MFN trade) from all other suppliers to the QUAD markets. Section III explains the underlying assumptions of our simulation of a MFN tariff cut and

[5] Basing their analysis on the AGOA preference scheme, Olarreaga and Özden (2005) find that on average exporters receive about one third of the tariff rent.

[6] Canada, Japan and the US use different tariff codes to differentiate between in- and out-of-quota. In the case of Japan, it has not been possible to make a correlation table between the in- and the out-quota due to the complexity of the tariff schedule. Regarding the EU, the same tariff line numbers are used for both in- and out-of-quota; furthermore only the out-of-quota tariff is available. The methodology that has been adopted is to use out-of-quota duties for Canada, EU and US (except for sugar); Japan has both in- and out-of-quota.

presents the results. Section IV concludes. We have also included three short appendices to the paper in order to clarify aspects of our analytical approach. Annex A takes four countries for illustrative purposes and explains how non-discriminatory liberalization will impact preference margins, emphasizing how different the impact can be among countries. Appendix B uses a numerical example to describe exactly how calculations are made of adjusted preference margins – that is, how account is taken of the fact that not all the competitors of a preference-receiving country will be paying MFN tariffs on a given product in a particular market. Annex C analyzes the consequences of a key assumption in our study occasioned by a lack of data – namely that where tariff quotas are employed, the out-of-quota tariff rates are applicable for our preference margin calculations.

II. The value of non-reciprocal preferences in agriculture

Preference schemes by providers

The data presented below show the relative importance of preferential and non-preferential trade, both from the point of view of preference-giving and preference-receiving countries. Chart 1 and Chart 2 show graphically the import shares in each QUAD market by type of access under the GSP and various LDC schemes respectively. These charts are derived from the data contained in Annex Table A1. Chart 1 shows that the share of trade of GSP beneficiaries entering the QUAD markets MFN duty-free varies from some 30 per cent in the case of Japan to almost 70 per cent for Canada. The share of trade that receives preferential treatment, but at a positive duty rate, ranges from zero in the United States to some 25 per cent in the case of the European Union. As for duty-free preferences, shares vary between about 6 per cent for the EU and 25 per cent for the United States. All of the QUAD countries deny preferential access on some imports subject to positive MFN duties. This represents a 14 per cent share of Canada's imports, and 22 per cent, 50 per cent and 27 per cent respectively for the EU, Japan and the United States. For the QUAD as a whole, the figure is 27 per cent. If the extension of new preferences to beneficiaries who were going to suffer from the erosion of existing preferences were to be considered a possible compensatory mechanism, these figures suggest that considerable scope exists for such a move.

Chart 1: Imports under the GSP scheme by type of market access, 2003

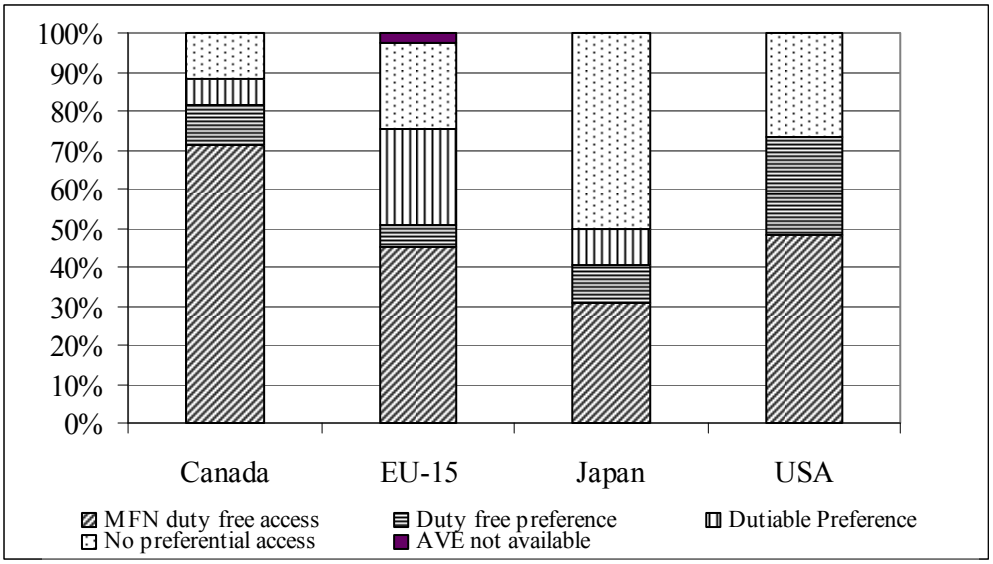
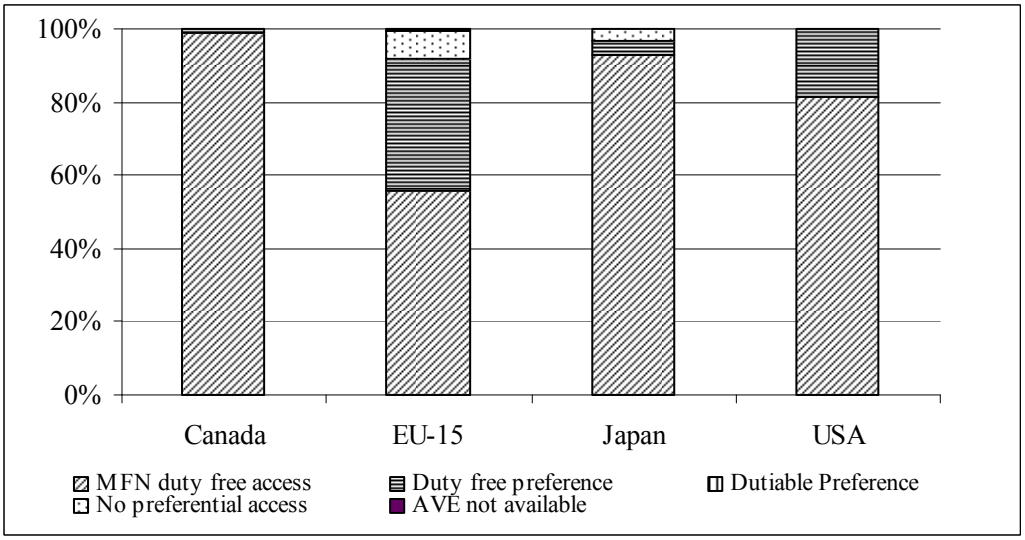


Chart 2: Imports under the LDCs schemes by type of market access, 2003



The picture for LDCs depicted in Chart 2 is quite different. In Canada practically all imports from LDCs are MFN duty free. For LDCs, therefore, no risk of preference erosion from MFN tariff cuts exists in the Canadian market. In Japan, the picture is similar, with more than 93 per cent of LDC exports entering MFN duty free, and the remaining 7 per cent is divided roughly equally between duty free preferential access and MFN dutiable trade with no preferences. In the United States the share of imports from LDCs entering MFN duty free is 81 per cent, with the balance constituting duty free preferential access. The picture for the EU is a little different, with only 56 per cent of LDC exports

entering MFN duty free. A further 36 per cent of LDC trade enjoys duty free preferential access and 8 per cent is MFN dutiable with no preferential access. For the QUAD as a whole, the share of LDC exports subject to risk from preference erosion is 30 per cent, which is accounted for primarily by the EU and to a lesser degree by the United States.

Finally, Annex Table A1 provides an interesting indication of the degree of individual commodity dependence of different country groupings. In other words, the product concentration of trade flows can be observed from the last column in Table A1, which shows the number of tariff lines against which trade occurs. In each case, the numbers are much lower for LDCs than GSP countries. For the QUAD as a whole, GSP beneficiaries record trade against 67 per cent of all agriculture tariff lines. The comparable figure for the LDCs is only 14 per cent.

Importance of preferences by beneficiaries

We now look at preferences from the point of view of beneficiary countries.[7] Annex Table A2 shows for each beneficiary country the share of their exports by destination market. The data highlight the overall strong reliance, especially of LDCs, on the EU market. Among LDCs, only Myanmar and Madagascar export the largest share of their exports to other markets (Japan and the United States, respectively). Table 1 below reports overall percentages for exports of GSP beneficiaries and LDCs by type of market access to the QUAD. This information is provided at the country level in annex Table A3.A. In addition, Table A3.B reports export shares of preference beneficiaries by type of market access for the EU. Table 1 also shows the average value of preferences measured both according to the traditional unadjusted measure of preference margins and the competition-adjusted measure.[8] These data come from Annex Table A4. The LDCs have a higher share of MFN duty free trade (59 per cent) in their total trade than GSP beneficiaries (46 per cent). Least-developed countries also have a lower share of MFN dutiable trade (4 per cent) than the GSP beneficiaries (29 per cent). In addition, the LDCs are relatively more prone to preference erosion than the GSP beneficiaries, since 37 per cent of their exports enjoy preferential access compared to 23 per cent for GSP beneficiaries. This is borne out by the average preference margin calculations reported in the final two columns of Table 1. The average preference margin for LDCs in the QUAD drops from 2.5 to 0.1 when competition from other countries benefiting from preferences is taken into account. In the case of GSP beneficiaries, the unadjusted preference margin is only 1.3 and the adjusted margin is

[7] In order to facilitate the interpretation of the series of tables in the annex, Appendix A describes country cases for Cameroon, Ecuador, Saint Lucia and Thailand.

[8] Appendix B provides a numerical example on how adjusted preference margins are calculated in this paper.

negative (-0.4). This means that at least some developing countries face market conditions worse than their competitors in QUAD markets.[9]

In order to generate the data in Table A4, and for the simulation of the MFN duty reduction reported in the next section, it was necessary to have information on *ad valorem* equivalent (AVE) tariffs. Many tariffs in agriculture are expressed as specific duties, and the analysis would have been severely limited in terms of product coverage if we had not used AVEs. The calculation of AVEs can be a complex matter and a number of alternative methodologies are available. For the present purposes, we have based our AVE calculations on the estimates undertaken by the International Trade Centre for the joint ITC/UNCTAD/WTO exercise of reporting to the United Nations on progress towards the attainment of the Millennium Development Goals, except for the United States, where we have used data submission on AVEs to the WTO Secretariat.[10] We were unable to obtain data for a few AVEs and the associated trade flows have been excluded from the analysis. Columns 5 and 9 of Tables A3.A and A3.B show at the country level what shares of imports and of tariff lines are affected by this problem. For the vast majority of countries, the share of imports for which AVEs are not available is lower than 3 per cent. The aggregate trade share for the countries featured in Table A3.A was only 2 per cent.

Table 1: Export shares by tariff regime: agricultural products, 2003
(percentages)

	Exports to the QUAD			Preference Margin	
	MFN-duty free	MFN dutiable	Preferential Access	Un-adjusted	Competition-Adjusted
Developing countries (DC)	46	29	23	1.3	-0.4
LDCs	59	4	37	2.5	0.1
Total (DC + LDC)	46	29	24	1.4	-0.4

The percentage of exports that enjoy preferences in the QUAD markets (Table A3.A, column 4) and preference margins (Table A4) are very different across individual countries.[11] For some countries,

[9] Recall that the adjustment for competition is made considering all competitors in the same markets, thus including countries that benefit from reciprocal preferences as well as countries that benefit from non-reciprocal preferences.

[10] We did not use AVE data submissions for Canada, the EU and Japan because they record final bound rates, while our data are 2003 applied rates. In addition, we need AVEs for preferences to make our calculations and these were not part of the submissions.

[11] Table A3.A in the annexes reports data on the percentage of exports to the QUAD that benefit from preferential access or MFN treatment by each individual exporting developing country and LDC (beneficiary of exclusively non-reciprocal preferences). In addition, Table A3.A reports for the same set of country data on how diversified their exports are (this is measured by the percentage of tariff lines on which they export). The figures for the value of the preferences, including the adjustment for competition, for each individual country

such as Bangladesh, Belize, Botswana, Dominica, Dominican Republic, Georgia, Guyana, Mauritius, Namibia, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Senegal, Swaziland and Zimbabwe, preferential schemes cover over 75 per cent of their total agricultural exports to the QUAD. For other developing countries, preferential trade is not a significant share of their trade. Among these countries are Brunei Darussalam, Burundi, Central African Republic, Chad, Guinea, Guinea Bissau, Korea, Maldives, Mali, Mongolia, Myanmar, Rwanda and Sierra Leone, for all of whom preferential access into the QUAD represents less than 5 per cent of their agricultural exports. It is worth noting that most of these countries (exceptions are Dominican Republic, Myanmar and Republic of Korea) strongly rely on the EU market for their exports (Table A2) and that it is their type of market access to the EU that determines their dependence on preference (Table A3.B).

It is also interesting to note that the countries named above whose preferential trade represents over 75 per cent of total exports also tend to appear among the countries enjoying the highest preference margins from the QUAD, whether adjusted for competition or not (see Table A4, columns 7 and 1 respectively). In addition, the majority of these countries have a very narrow export base (see Table A3.A, columns 6-8). For many of these countries, bananas or sugar account for the high degree of product concentration in their export composition. As will be seen in the next section, these are among the key commodities where preference erosion is a significant consequence of MFN liberalization, particularly in the EU market.

Estimates of the value of preferences are quite sensitive to the specific measure used for the calculations. For example, Chart 3 shows the value of preferences for agricultural exports to the QUAD estimated with and without the margin adjusted for the preferences that the QUAD grants to other countries.[12] For some countries, like Ecuador, Colombia and Thailand, preference margins turn out to be negative when adjusted for competition from other preference beneficiaries. This means that overall, the exports of these countries benefit from less beneficial treatment than other countries competing in the QUAD market.

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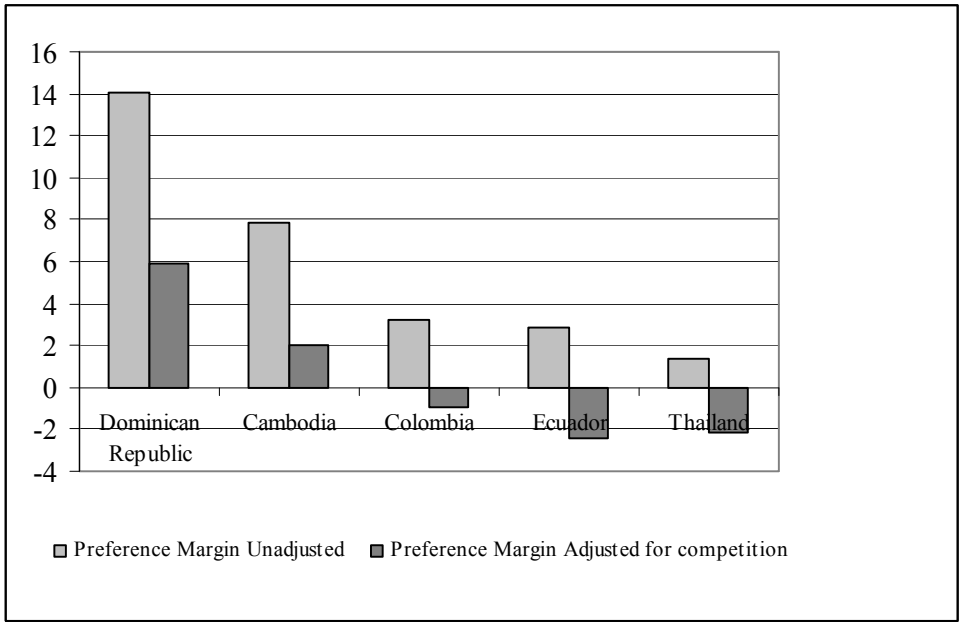
are reported in Table A4. Note that the overall figures for developing countries refer to all developing country Members of WTO excluding those with reciprocal preferential agreements as listed in footnote 3.

[12] Data for preference margin, adjusted and unadjusted are reported in Table A4 in the annexes.

Chart 3: Value of the Preference for agricultural products exports to QUAD, Selected Countries



III. Simulating a MFN tariff cut in agriculture

In this section we simulate a MFN tariff cut on agricultural products and estimate the impact of this cut on the value of non-reciprocal preferences. Preference erosion is calculated as the change in the value of the preference before and after the MFN cut. We wish to emphasize, once again, that the assumptions described below which define our simulated MFN liberalization scenario should not in any way be taken as a view on our part regarding the desirability or likelihood of a particular outcome in the agricultural negotiations. The scenario simply allows us to illustrate the degree of preference erosion risk that would arise for non-reciprocal preference beneficiaries were a non-discriminatory liberalization episode of this magnitude to occur.

A simulation in agriculture is more complex than a comparable exercise in NAMA because of the multiple parameters used to define the MFN cut. As noted in Section I, we chose to simulate the G20 proposal in relation to market access. In order to do this, four different parameter assumptions were worked into the analysis. First, the tariff reductions involve cuts that vary according to the base rate from which the cut is made. Lower base rates attract lower cuts. Ranges of base rates from 0-20 per cent, 20-50 per cent, 50-75 per cent, and above 75 per cent were cut by 45 per cent, 55 per cent, 65 per cent and 75 per cent respectively. Second, allowance was made for sensitive products

representing 2 per cent and 4 per cent of tariff lines in two different simulation exercises.[13] For these tariff lines, only half the calculated cut was applied. We assumed that the 2 (or 4) per cent of selected sensitive tariff lines were those that attracted the highest applied duties in each of the QUAD countries. Third, we applied a cap of 100 per cent on all other tariffs. Fourth, in the absence of data on in-quota and out-of-quota imports for the EU against tariff lines subject to tariff rate quotas (TRQs) and given that only out-of-quota tariffs are available, we simply assumed that all imports against these lines were outside the quota, except for Japan.[14] A consequence of this assumption is that we underestimate overall preference margins when the in-quota preference margin is larger than the out-of-quota preference margin. However, this assumption will translate into an under-estimation of the risk of preference erosion only when the MFN tariff rate, after MFN liberalization, falls below the preferential out-of-quota rate. Another consequence of this assumption is that we do not consider the benefits arising from country-specific quota allocation on an MFN basis. Appendix C provides a detailed explanation of the impact of using preferential and MFN out-of-quota rates to estimate the risk of preference erosion.

EU and US tariff rate quotas in the sugar and banana sectors are treated differently. In the case of cane or beet sugar, the EU has in place a tariff quota system that allocates duty-free quotas entirely to India and to eligible ACP producers according to the Sugar Protocol and Special Preferential Sugar scheme. Since there are no out-of-quota preferences, we would not capture preference margins if we used out-of-quota rates. In order to take into account the actual preferences given to beneficiaries of this EU quota system, we assume that all preferential trade occurs in quota and use an in-quota duty free rate for sugar preferences. A similar operating assumption was made for the US, that has in place a preferential duty free tariff quota system. Box 1 provides further information on the trade regime for sugar in the QUAD.

Box1: Sugar Regime

The sugar regime greatly differs across QUAD countries. Japan does not grant any preference on sugar. Canada provides MFN duty free access on raw sugar for use by sugar refineries in the production of refined sugar used in wine. On other raw sugar Canada applies MFN duties in the range between $22 and $31 per tonne and provides duty free preferences depending upon the preference regime and specific tariff lines.. The EU and the United States regimes for sugar imports share some common features: both the EU and the United States apply a tariff quota regime on sugar and provide domestic support. Because of this, domestic sugar prices are two or three times higher

[13] The percentages do not reflect the G-20 proposal. The G-20 proposed that no more than 1 per cent of tariff lines could be declared sensitive products. However, there are other proposals for about 8 per cent (the EC) and 15 per cent (G-10). The 2 per cent and 4 per cent assumptions made in this study were chosen for illustrative purposes only.

[14] An exception had to be made for Japan because the complexity of its tariff schedule does not permit a distinction between in- and out-of-quota rates.

than prevailing world prices. Therefore, valuable quota rents can be captured by those exporters who hold quota licences. Both the United States and the EU operate a three-tariff quota system for sugar with out-of-quota duties that effectively prohibit access outside the quotas.

In the EU, three different systems apply to cane or beet sugar, raw cane sugar for refining and chemically pure fructose. The tariff quota for cane and beet sugar is reserved entirely for ACP countries and India, and it is in-quota duty free. Mauritius receives the largest share of the quota. The Everything but Arms (EBA) initiative will provide duty-free and quota-free access to sugar originating in LDCs by 1 July 2009. Until this time, LDCs benefit from duty free quota access which increases on an annual basis. Out-of-quota imports for cane or beet sugar are subject to bound duties up to 419€/t. In addition, the EU allocates country-specific quotas to Brazil and Cuba and an MFN quota for raw cane sugar for refining, where the bound in-quota duty is 98€/t, while out-of-quota duty is 339€/t. Finally, the tariff quota on chemically pure fructose is administrated on an MFN basis. The sugar price in the EU is maintained through export refunds. These are intended to cover the difference between the EU domestic sugar market price and the world price. Refunds are paid for sugar beat or cane harvested in the EU and sugar imported under the ACP Protocol and the agreement with India. The EU sugar system has been challenged under the existing WTO rules by other Members.

The United States operates three tariff quota regimes for raw cane sugar, other cane or beet sugars or syrups and sugar-containing products. In the United States, sugar imports are subject to out-of-quota bound duties up to 704$/t plus 8.5 per cent. In-quota rates are significantly lower. For example, for raw cane sugar they are approximately between 9.43-14.61$/t, while the out-of-quota rate is bound at 338.7$/t. Caribbean countries that have quota allocations benefit from duty free access under the GSP and the CBI.

In the case of bananas, we assume for the EU a MFN *ad valorem* rate of 30 per cent and a duty free preferential rate for ACP countries.[15] This assumption is introduced to reflect the measures relative to the import regime for bananas recently adopted by the Council of the European Union, which entered into force as of 1 January 2006.[16] Box 2 provides further information on the trade regime for bananas in the EU, United States, Canada and Japan.

Box 2: The Banana Regime

Among QUAD countries only the EU maintains a preferential tariff quota for bananas. The United States and Canada grant duty-free MFN treatment to bananas, with the sole exception of a 1.4 per cent tariff on dry plantains in the case of the United States. Japan applies an ad-valorem MFN rate of 20 per cent (from April to September) and 25 per cent (from October to March) on fresh bananas, a rate of 3 per cent on dried bananas, and duty-free access for LDCs.

The EU import regime for bananas has changed several times. The EC regime for bananas has been challenged by other Members under the WTO. For the year 2005, the EU tariff quota system consisted of a total MFN tariff quota of over 3 million metric tons (of which 2.2 million metric tons were bound) subject to a bound in-quota duty of 75 euros per metric ton and a preferential tariff quota

[15] The 30 per cent rate assumed here is the estimated tariff equivalent of the MFN tariff rate of 176 euros per tonne formally adopted by the Council of the European Union on 29 November 2005.

[16] A request for consultation under the DSU Article 21.5 has been submitted by Honduras to the WTO against the European Communities concerning the measures the latter recently adopted with regard to the banana import regime. Our assumption in no way implies a judgment as to the final outcome in this matter.

of 750,000 metric tons at zero duty. The final bound out-of-quota rate for non-preferential suppliers was 680 euros per metric ton, while the out-of-quota preferential duty was 380 euros per metric ton. The banana import measures adopted by the Council of the European Union on 29 November 2005 provides that as from 1 January 2006, the tariff rate for bananas shall be 176 euros per tonne and that a zero-duty autonomous tariff quota of 775,000 tonnes should be opened to bananas originating in ACP countries.

Belize, Cameroon, Cote d'Ivoire, Dominica, St. Lucia and Saint Vincent and the Grenadines depend significantly on this system, as a large share of their 2003 exports to QUAD countries consist of bananas (20.9 per cent, 9.9 per cent, 4.6 per cent, 26.5 per cent, 62.4 per cent and 24 per cent of total exports, respectively), and the EU absorbs virtually all exports of bananas from most of these countries.

The results of the simulation are reported in Annex Table A5.A for the QUAD as a whole. Table A5.B presents results for the EU and the United States only, but without the assumptions on sensitive product exclusions. Table A5.A shows, for each beneficiary of non-reciprocal preferences, the change in the aggregate value of preference margins before and after adjustment for competition, and with and without the exclusion of sensitive products. Columns 3, and 8 of the table show the fully adjusted estimate of preference erosion in the cases respectively of no flexibility and 2 per cent flexibility for sensitive products. A separate section in Table A5.A shows in aggregate form the difference made to the results of using a 4 per cent sensitive product threshold instead of a 2 per cent threshold. Varying the flexibility assumption in this manner makes very little difference to the aggregate simulation results.

Column 3 of Table A5.A shows that following the MFN tariff reduction, developing countries (excluding LDCs) register a positive margin gain of $256.2 million under the best scheme available to them in each QUAD market. Underlying this net figure are aggregate losses of $205.1 million and gains of $461.3 million. In the case of LDCs, the corresponding numbers are a net gain of $10.4 million, reflecting aggregate losses of $3.8 million and gains of $14.1 million. These results show that if all developing and least-developed countries receiving non-reciprocal preferences are taken together, the net benefit in terms of changes in adjusted preference margins is positive following MFN liberalization. In other words, in terms of our margin analysis, these countries taken together stand to gain more from MFN liberalization[17] than they lose from the consequential preference erosion.[18] However, while the degree of preference erosion may be rather modest in the aggregate, some

[17] Recall that the gain from MFN liberalization in this paper arises from a country improved market access to the QUAD relative to the other countries. The figures for the gains from MFN liberalization do not account for the gains arising simply from lower barriers to trade.

[18] Note once again that our simulation exercise has excluded developing countries that have reciprocal preference agreements (free trade areas or customs unions) with any QUAD country, notwithstanding the fact that these excluded countries may also benefit from non-reciprocal preferences.

countries are particularly affected, either in terms of the share of lost preference margin in total exports (column 4) or in terms of absolute amounts (column 3).

Columns 5 and 10 indicate the value of trade under tariff lines that continues to attract positive MFN or positive preferential duty rates after the simulated cuts. This information provides an idea as to the scope that may exist for additional preferences that could compensate for the erosion of existing ones. Granting additional preferences would be a temporary palliative, since additional preferences today imply an additional threat from preference erosion tomorrow. In any event, several of the countries suffering large losses in preference margins, or losses that represent a large share of total trade, do not enjoy much scope for additional preferences in the QUAD markets on the basis of the existing commodity composition of trade.

Before exploring these results in a more disaggregated manner, a few points about the simulations are worth mentioning. First, the fact that the numbers in columns 1-5 and columns 6-10 in Table A5.A are virtually the same for nearly all countries (with the exception of Argentina, Brazil, China, Fiji, Guatemala, Malawi, Thailand and Zimbabwe) means that preference erosion estimates are barely influenced by the exclusion of 2 per cent or 4 per cent of sensitive products from MFN tariff cuts. The reason for this is clear. Our assumption that QUAD countries would choose to exclude the tariff lines attracting the highest applied tariffs under the sensitive products rubric means that these are also the lines on which preferential treatment is unlikely to be on offer. Moreover, under a number of the selected tariff lines no trade at all occurs, on account of the high tariffs. Thus, little or no erosion can occur. This does not, of course, mean that the exclusion of sensitive products from MFN reductions has no effect on real market access opportunities – on the contrary, high protection is inhibiting trade. Annex Table A6 lists the sensitive products selected under our exclusion criterion in each of the QUAD markets, indicating the total trade against these products.

In a recent study, Jean et al. (2006) claim that allowing 2 per cent of tariff lines of sensitive products in developed countries and 4 per cent in developing countries dramatically reduces the effectiveness of tariff reduction as a means of increasing market access. Their result appears to contradict ours. A number of important factors explain the differences in the results. First, Jean et al. assume that countries choose to exclude those products from the MFN formula cut that account for the highest levels of tariff revenues. We assume that countries classify as sensitive the products with the highest tariff rates – in other words, the products that are already the most protected. This means that while the Jean et al. study would exclude highly traded products, our study excludes products with very high duties and mostly little or no trade. We considered it more likely that tariff (protection) patterns and

not tariff revenue collections would be more influential in determining the selection of sensitive products.

Second, Jean et al. use 2001 tariff data from MacMap at HS 6 digit classification, while we use 2003 data from CAMAD at the tariff line level. This means they are aggregating up the excluded tariff lines, when the modality for sensitive products is in reality expressed at the tariff line level. Third, Jean et al. assume that sensitive products tariffs are reduced by 15 per cent, while we apply the established modality of half of the otherwise applicable cut to sensitive products. Finally, they assume a progressive tariff reduction formula with cuts of 45 per cent, 70 per cent and 75 per cent in bound rates, with tariff intervals' transition points at 15 per cent and 90 per cent, while we use the tariff intervals and percentage cuts considered in the G-20 proposal on applied rates.[19] The Jean at al. study does separately identify the impact of sensitive product flexibilities on changes in developing country access to developed country markets following liberalization.

Overall, the conclusion that permitted flexibilities will significantly reduce the gains from a plausible tariff-cutting scenario under the Doha negotiations would appear questionable at best. Nevertheless, it is important to note that results are likely to change, perhaps significantly, for different hypotheses on the sensitive products. What would the results have been, for example, if we had selected products for exclusion on which the risk of preference erosion was most acute rather than the products that were currently the most protected?

Another notable feature of our results is that the 100 per cent cap is not relevant for non-sensitive products. In order for the cap to operate in our analysis, a tariff would have to exceed 400 per cent before it was cut – under the G20 proposal, a tariff of 400 per cent would attract a 75 per cent cut, bringing it down to 100 per cent.

Turning to the question of which countries are the most susceptible to preference erosion, Column 4 of Table A5.A shows the calculated value of preference erosion risk as a share of total agriculture exports for each country. The countries most severely affected in these terms are Belize (8.1 per cent), Botswana (15.5 per cent), Cameroon (4.9 per cent), Dominica (8.9 per cent), Fiji (4.3 per cent), Guyana (4.1 per cent), Mauritius (7 per cent), Namibia (9.5 per cent), Saint Kitts and Nevis (4.7 per cent), Saint Lucia (12.1 per cent), and Saint Vincent and the Grenadines (11.9 per cent), and Swaziland (4.3 per cent). Table A5.B indicates that all these countries suffer from preference erosion primarily in the EU market.

[19] As discussed previously, the choice between bound rates and applied rates does not for the most part make a large difference in the analysis.

Table A7 examines the commodity composition of preference erosion risk for 13 of the most severely affected countries. [20] Fruit and vegetables (mainly denoting bananas) and sugar represent the highest product shares of exports to the QUAD for most of these countries and constitute the bulk of the threat of preference erosion. The table shows that the adjustment for competition from other traders in the QUAD markets has relatively less impact on the preference margin for bananas than for sugar in most of cases. This is because more than 75 per cent of the banana market was already subject to MFN duties in 2003.

The situation with respect to sugar is somewhat different from that of bananas. In Columns 1 and 2 of Table A5.A, many beneficiaries of sugar preferences appear to lose significantly from preference erosion in terms of overall export shares. But after the adjustment for competition from other suppliers, including preferential suppliers, the preference erosion estimate falls dramatically. This is because unlike in the case of bananas, where a good deal of competition comes from non-preferential or less favoured sources, competition in the EU sugar market is predominantly among countries enjoying the same favourable treatment in the importing market. More than 90 per cent of EU cane sugar (HS 17011) imports are from countries that benefit from the EU Sugar Protocol. Adjustment for this competition offers a more realistic view of what is really at stake in the sugar market and demonstrates that preference margins are simply not worth as much to individual countries when many other countries are enjoying the same advantages. The countries for whom this is true include Barbados, Fiji, Guyana, Jamaica, Mauritius, Saint Kitts and Nevis, Swaziland, and Trinidad and Tobago. An important point to note here is that our analysis of the vulnerability of sugar exporters to preference erosion is based only on what happens to tariffs. We do not include any consideration is what is likely to occur in the EU market when the impending reform of the guaranteed price system for countries under the Sugar Protocol takes effect.

Returning briefly to Table A7, we note that other products vulnerable to preference erosion in these selected countries include coffee and tea, sugar, alcoholic beverages and tobacco.. For the group of 13 most affected countries, Table A8 reports the three most important export products at HS 6 digit level, their shares of total exports to the QUAD markets, and their average adjusted preference margins. It is interesting to note that, except for Jamaica, for each of these countries, only three quite narrowly defined products account for more than 75 per cent of total exports to the QUAD.

[20] The criteria for the inclusion of countries in Table A7 are as follows: (1) the adjusted preference value in terms of agricultural exports to the QUAD declines by more than 2 per cent, and (2) the share of agricultural exports to the QUAD represents more than 10 per cent of total exports. Angola, Botswana, Congo

IV. Conclusions

By way of conclusion, it is worth emphasizing once again the nature of our calculations and how they should be interpreted. Essentially, what we observe in our calculations of preference erosion is how preference margins are reduced when a MFN tariff reduction is introduced. We make the estimates of preference erosion for individual countries taking into account the fact that competing suppliers into given markets may also enjoy preferential treatment. This makes it unrealistic simply to calculate changes in preference margins in terms of differences between MFN and preferential duty rates on bilateral trade flows – the competition must be reckoned with in order to appreciate what is really at stake. The adjustment of preference margin calculations in this manner makes a major difference for some product lines in certain markets.

But what we are calculating is not the trade consequences of preference erosion. We only compute changes in preference margins and assign them a monetary value by multiplying estimated erosion margins by the associated trade flow (under the relevant tariff line). This gives us a magnitude that can be compared with trade flows, but it is not an estimate of changes in trade flows. What happens to trade flows after a policy change will depend on how different suppliers react to changes in the conditions of competition and how consumers react to changes in relative prices. It is for this reason that we often refer to preference erosion risk in the paper. The estimates are useful in identifying relative risks among countries, but they should not be taken as indicators of trade impact, and far less as income or welfare consequences of trade liberalization.

A general caveat to this analysis also bears repetition. The trade liberalization process in agriculture is complex. We have had to make a range of assumptions in order to calculate our estimates. These have been spelled out in the paper. By choosing a single simulation scenario, we are obviously excluding other possible outcomes where preference erosion risk could assume different dimensions. Perhaps the most sensitive and potentially influential assumption in the paper concerns the sensitive product exclusions, particularly in terms of the choice importing Members will make of which lines to exclude. In our simulation, we have assumed that the lines chosen would be those carrying the highest applied tariff rates. But what if the choice included products in respect of which preference erosion risk was most acute? In that case, the preference erosion risk would be greatly mitigated, with the resultant loss of potential trading opportunities for non-preferential or less preferred suppliers. As it is, in our paper sensitive product exclusions turn out to have a small impact on preference erosion

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and Trinidad and Tobago, which suffer relatively high agricultural preference erosion risk, have been excluded on the basis of the negligible share of agricultural exports in these countries' total exports.

risk, precisely because the highly protected products chosen for exclusion from formula cuts are traded relatively little.

By assuming that trade flows subject to tariff rate quotas would occur outside quota values, we could have under-stated or over-stated the preference erosion risk. We will also have over-simplified stories in such product lines as sugar and bananas, where the existence of TRQs renders market outcomes more complex than our analysis has allowed. We do not, however, believe that these over-simplifications have fundamentally undermined our estimates – rather, they may have simply made them more approximate.

Other notable assumptions that have influenced our estimates are intrinsic to the choice of a particular negotiating proposal. These include the designation of tariff ranges and the MFN cuts to be applied to these ranges, the size of the sensitive product designation, and the value of the cap. While the magnitude of the preference erosion risk would be affected to a degree by changes in these parameter assumptions, it is less obvious that relative impacts among affected Members would change very much.

The main conclusions of this study may be summarized as follows:

- Like NAMA, the overall estimates of risks from preference erosion constitute small numbers. The aggregate estimated risk for all non-reciprocal preference-receiving Members listed in Table A5.A is a positive value of $266.6 million, of which the LDCs account for $10.4 million. These positive numbers should be interpreted to mean that overall, developing countries do not face any preference erosion risk – on the contrary, they would benefit in preference erosion terms from a MFN cut. Underlying these net positive numbers, however, are total losses of $208.8 million ($3.8 million for LDCs) and total gains of $475.4 million ($10.4 million for LDCs).
- Unlike in NAMA, the risk of preference erosion in agriculture is far more concentrated in terms of particular products and countries. The most affected products include bananas (Belize, Cameroon, Dominica, Saint Lucia, Saint Vincent and the Grenadines, and Swaziland); sugar (Barbados, Belize, Fiji, Guyana, Jamaica, Mauritius, Saint Kitts and Nevis, Swaziland) and beverages and spirits (Barbados, Belize, Jamaica). Much of the impact occurs in the EU market.
- On the basis of assumptions made about the composition of products regarded as sensitive, the sensitive product exclusions have almost no effect on preference erosion, albeit for sugar in the United States. This would continue to be the case to a large degree if the share of sensitive products were allowed to increase, but only if the same assumption was made as to

the criterion for the choice of products. If the composition of products chosen as sensitive moved in the direction of including those where preference erosion was a significant risk, then the picture could change significantly. Moreover, we have made no attempt in the paper to consider how far quotas may be expanded under current tariff-rate-quota arrangements by way of compensation for formula cut exclusions.

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APPENDIX

A. Country-specific illustrations on preference erosion risk

In order to illustrate the very diverse risks at the country level from preference erosion,we have selected two ACP Members – Cameroon and St. Lucia – and two other countries – Ecuador and Thailand – that benefit less from preferences in the QUAD markets.

The two ACP Members rely heavily on the EU market, which takes in more than 95 per cent of their exports to the QUAD (Table A2). Both countries enjoy considerable preference margins, but only in the EU market, for their export products (Table A4). The trade-weighted preference margins are 29 per cent for St. Lucia, which is linked to its preferential treatment for bananas, and 12 per cent for Cameroon, where it is related to a slightly larger basket of goods dominated by cocoa and bananas. In fact, at less then 1 per cent, the preference margin for cocoa is negligible (Table A7). The adjusted weighted preference margins are not much lower (22 per cent and 9 per cent respectively), which indicates that their export markets are fairly well shielded from other important suppliers. In the case of Cameroon, however, preferential access covers less than half of total exports (Table A3.A and B), as the larger part of its exports enter the QUAD markets – essentially the EU – MFN duty-free.

Ecuador and Thailand trade in all QUAD markets (Table A2). However, they hardly benefit from any preference margin in any of their markets (Table A4). Thailand faces non-zero MFN duties for two-thirds of its exports. For Ecuador this share is over one-third (Table A3.A). In the case of the EU market, the MFN dutiable export shares increase to 80 per cent and 61 per cent, respectively (Table A3.B). The weighted preference margins in the QUAD are just 3 per cent and 1 per cent for Ecuador and Thailand, respectively. Taking into account the competition from other preferential suppliers the adjusted weighted preference margins become negative (-2 per cent) in both countries. This implies that on average, for their respective products, other exporters with sizable market share have better preferences than the GSP schemes enjoyed by Ecuador and Thailand. In the case of Ecuador, this is clearly the effect of the EU banana preferences. In the case of Thailand, it covers a broader spectrum of products. GSP preferences do not seem to give these countries effective preferential access when the preferential arrangements enjoyed by competitors supplying those markets are taken into account.

a lack of product diversification is a key factor that increases the preference erosion effect (Table A8). In the case of St. Lucia, exports of bananas alone account for 94 per cent of its agricultural exports. Cameroon's two major export products – cocoa and bananas – are fairly evenly split, with a combined share of 84 per cent. Such high product concentration renders these economies very vulnerable to

external shocks, such as those resulting from preference erosion. Ecuador has a slightly more diversified export structure and Thailand is a very diversified exporter.

Differences in the impact of preference erosion among countries are, of course, reflected in our tariff-cutting simulation. The reductions in preference margins resulting from the cuts in the MFN duties is quite significant for the two ACP Members (Table A5.A). Adjusted preference margins in the fruit and vegetables category, which includes bananas, are reduced by some 12-13 percentage points. This results in a change of the adjusted preference value of about 5 per cent and 12 per cent of 2003 export values for Cameroon and St. Lucia respectively. The EU market plays the key role in this scenario (Table A5.B).

The reductions in exports resulting from increased competition in their export markets is likely to be much larger. Estimates of such medium-term developments can only be predicted with more sophisticated dynamic models, and even then they will heavily rely on various assumptions. The figures for the change in the preference value should be thought of more as a cross-country comparative index than as a monetary value that would reflect associated adjustment costs.

Looking at other countries in a similar situation, one can identify bananas and sugar as accounting for a large share of the loss of preference value in several of the small island economies. High export concentration also precludes the option of opening additional product lines for additional preferences.

Bigger and often more efficient agricultural producers like Ecuador and Thailand, on the other hand, appear to gain from MFN liberalization in terms of preference erosion margins. In adjusted terms, both countries gain better market access and improve their adjusted preference value by a significant amount – an amount which is larger in absolute terms than the negative figures shown for most of the smaller economies. Furthermore, there is considerable scope in both countries to benefit from additional preferences or from further MFN cuts, although only in the EU market (Table A5.B). The latter implied gains would significantly exceed the gain in the adjusted preference value as a result of our simulated MFN reductions. As mentioned above, such medium-term dynamic effects are likely to outweigh the static calculations presented here in this paper.

B. Calculating adjusted preference margins: a numerical example

The purpose of calculating adjusted preference margins is to establish the real conditions of competition among suppliers to a given import market. Our calculations involve three steps. First, we calculate the adjusted value of the preference. Then we apply the tariff reduction formula on the MFN rates and recalculate the new adjusted value of the preference. Finally, we compute the erosion of the preference as the change in the adjusted values of the preference.

The computation of the adjusted measures of the value of the preference requires information about MFN and preferential rates and the volume of trade by type of market access. The first panel in the table below (step 1) describes the initial situation. We assume, for example, that a preference-giving country, country Q, levies a MFN tariff of 20 per cent on imports from country A, but provides preferential access to Country B and Country C at the rate of 5 per cent and 10 per cent respectively (column 2). Country Q's imports from A, B and C equal $5000, $2000 and $4000 respectively. Traditionally, the preference margin for each country (column 5) is calculated as the difference between the MFN tariff rate and the actual applied rate (that is, the preferential rate or the MFN rate depending on whether a country receives a preference or not), and the value of the preference (column 6) will simply be the product of the preference margin and the value of the imports.

For each country we calculate the adjusted preference margin as the difference between the average rate applied to the country's competitors (that in the table is called adjusted MFN rate and it is shown in column 7) and the actual applied rate to that country (column 2), where, for example, the adjusted MFN rate for country A is the trade-weighted average between 5 per cent and 10 per cent, the tariff rates applied to B and C. The adjusted preference value is simply the adjusted preference margin times the value of imports. It is interesting to note that the adjusted preference margin is negative for country A, since its exports suffer worse than average treatment in country Q's market.

Assume now that country Q decides to reduce MFN import tariffs. The second panel of the table (Step 2) describes the situation after a MFN tariff cut of 25 per cent. The MFN rate falls from 20 per cent to 15 per cent. By assumption, import values do not change. Following the same methodology described in Step 1, we calculate both the unadjusted and the adjusted preference margin and the value of the preference. It is interesting to note that this approach allows us to capture the benefit a country facing the MFN tariff – country A in this example – enjoys in terms of the reduction of its disadvantage relative to B and C, the preferred countries.

Changes before and after the application of the MFN tariff cut are reported in the third panel (Step 3) of the table. The figures for the adjusted values of preference erosion are shown in column 9. That is, they are the difference between the adjusted preference value before (column 9, Step 1) and after the tariff cut (column 9, Step 2)

Step 1. Situation before tariff cut

Country	MFN rate (%)	Actual applied rate (%)	Imports value (dollars)	Duty collected (dollars)	Pref margin (%)	Pref value (dollars)	Adj MFN (%)	Adj Pref margin (%)	Adj Pref value (dollars)
	1	2	3	4	5	6	7	8	9
A	20	20	5,000	1,000	0	0	8.3	-11.7	-583
B	20	5	2,000	100	15	300	15.6	10.6	211
C	20	10	4,000	400	10	400	15.7	5.7	229

Step 2: After tariff cut of 25%

Country	MFN rate (%)	Actual applied rate (%)	Imports value (dollars)	Duty collected (dollars)	Pref margin (%)	Pref value (dollars)	Adj MFN (%)	Adj Pref margin (%)	Adj Pref value (dollars)
	1	2	3	4	5	6	7	8	9
A	15	15	5,000	750	0	0	8.3	-6.7	-333
B	15	5	2,000	100	10	200	12.8	7.8	156
C	15	10	4,000	400	5	200	12.1	2.1	86

Step 3: Effects of tariff reduction on preference values and margins (all figures are changes)

Country	MFN rate (%)	Actual applied rate (%)	Imports value (dollars)	Duty collected (dollars)	Pref margin (%)	Pref value (dollars)	Adj MFN (%)	Adj Pref margin (%)	Adj Pref value (dollars)
	1	2	3	4	5	6	7	8	9
A	-5	-5	0	-250	0	0	0.0	5.0	250
B	-5	0	0	0	-5	-100	-2.8	-2.8	-56
C	-5	0	0	0	-5	-200	-3.6	-3.6	-143

Description of column headings

1	MFN	MFN duty rate
2	Pref	Actually applied duty: preferential duty or MFN if nor preferences
3	Imports	Imports
4	Duty collected	Column 3 * Column 2 / 100
5	Pref margin	Column 1 – Column 2
6	Pref value	Column 5 * Column 3
7	Adj MFN (Country A)	(Country B column 4 + Country C column 4) / (Country B column 3 + Country C column 3)
8	Adj margin	Column 7 – Column 2
9	Adj Pref value	Column 8 * Column 3 / 100

C. The effect of using out-of-quota rates to estimate preference erosion

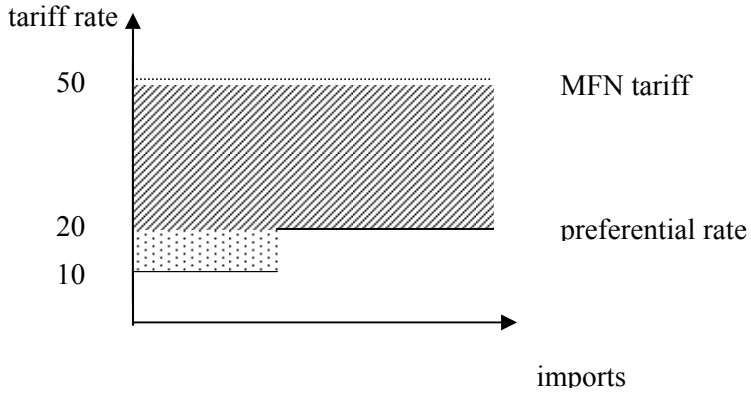
In order to clarify the implications of using out-of-quota rates to estimate preference erosion, we need to distinguish two cases: (i) when the MFN regime is quota-free and (ii) when there is a MFN quota.

(i) MFN quota-free

Suppose that country A's imports of good j from country B are subject to a preferential TRQ. That is, imports up to a quota limit are permitted at an in-quota tariff of 10 per cent, while the out-of-quota preferential tariff is 20 per cent. In addition, assume that the MFN tariff is 50 per cent. In this situation, the value of the preference will be given by the total value of the revenue forgone (i.e. the difference between the MFN and the relevant preferential rate times the import value). Graphically, the value of the preference can be represented by the total shaded area in Chart 1.a.

Because of data limitations, in this paper we use out-of-quota rates to estimate the value of preferences. Under the circumstances described above, our working assumption provides an estimated value of the preference which is lower than the actual value by the value of the dotted area.

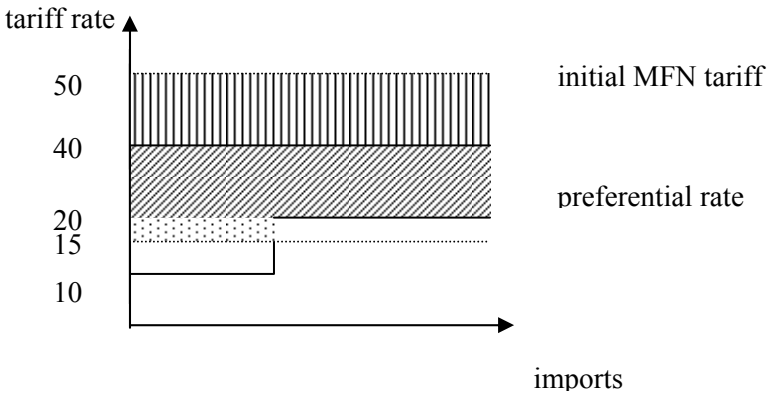
Chart 1.a: The value of preferences under preferential quotas



This underestimation does not in general undermine the validity of our estimates of preference erosion. The risk of preference erosion is the change in the value of the preference following a MFN tariff cut. Suppose that country A reduces the MFN tariff on good j to 40 per cent. The risk of preference erosion is represented by the vertical-line shaded are in Char 1.b comprising the difference between the old and the new MFN rate. In general, as long as the new MFN tariff stays above the preferential out-of-quota rate, our estimate of the risk of preference erosion is correct. But, if the new

MFN rate falls below the out-of-quota preferential rate (to 15 percent, say), we will underestimate the risk of preference erosion by the value of the dot-shaded area.

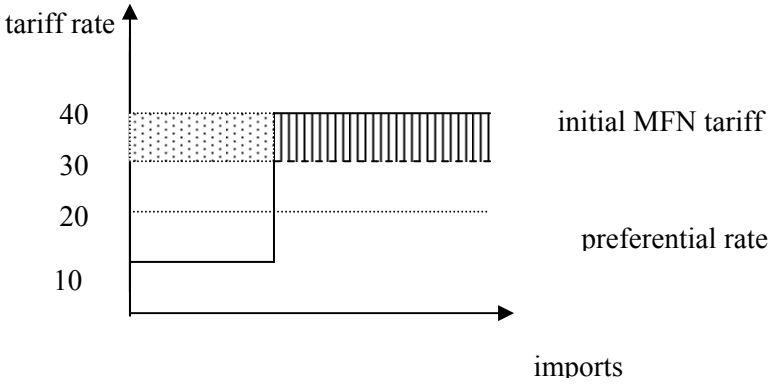
Chart 1.b: Preference erosion under preferential quotas



(ii) MFN quota

In order to analyse the consequences of using out-of-quota rate to estimate the risk of preference erosion in the case MFN tariff-rate quotas, we need to distinguish between the case when the preferential regime is quota-free and when it is subject to a quota. Suppose, first, that country A imposes a MFN tariff rate quota on imports of good i with an in-quota rate of 10 per cent and an out-of-quota rate of 40 per cent. In addition, country A provides preferential treatment to imports of country B on good i at a preferential rate of 20 per cent. Suppose that following liberalization, the out-of-quota MFN rate is reduced to 30 per cent. Since there is no change in the treatment of in-quota imports, the value of the preference actually eroded will be that of the vertical-line shaded area. However, since we do not distinguish between in and out-of-quota trade, we will overestimate the risk of preference erosion by the dot-shaded area.

Chart 2: Preference erosion under MFN quota



The implications of using out-of-quota rates to estimate the risk of preference erosion when there are both preferential and MFN tariff rate quotas are more complex. A number of possible situations can emerge, depending on whether the in-quota preference margin is equal, smaller or greater than the out-of-quota preference margin.

In general, the use of out-of-quota rates may result in an under-estimation of preference erosion risk when two conditions are satisfied: the out-of-quota preference margin is smaller than the in-quota preference margin, and the MFN tariff rate after liberalization falls below the preferential out-of-quota rate. Data for the United States and Canada show that the use of out-of-quota rates does not have any significant impact on our estimates for preference erosion. Unfortunately, in the case of the EU, we are not able to quantify the probability that our simulations underestimate the risk of preference erosion. However, data in Table A9 provides some indication for the case of MFN quotas. The table shows that only 16 developing countries and one LDC have more than 20 per cent of exports to the EU under bound TRQs. Of these, only seven countries (Belize, Botswana, Cameroon, Jamaica, Mauritius, Namibia and Swaziland) have weighted average applied preferential rates greater than zero and therefore present a risk of underestimation of preference erosion. In the case of Japan, we were unable to distinguish between in-quota and out-of-quota rates.

Table A1
Non reciprocal schemes in selected markets, agricultural products, 2003
(Million dollars and percentages)

		Category	Imports Value	Imports %	Number of national tariff lines Number	Number %	Number With trade(%)
Canada	**GSP**	**All tariff lines**	**2,848.7**	**100.0**	**1,372**	**100.0**	**71.7**
		MFN duty free access	2,032.1	71.3	551	40.2	33.7
		Preferential access	482.1	16.9	297	21.6	15.9
		Duty free preference	296.0	10.4	101	7.4	6.0
		Non ad val. duties	0.7	0.0	1	0.1	0.1
	LDC	**All tariff lines**	**35.6**	**100.0**	**1,372**	**100.0**	**14.1**
		MFN duty free access	35.2	98.9	551	40.2	9.4
		Preferential access	0.4	1.1	724	52.8	4.7
		Duty free preference	0.4	1.1	724	52.8	4.7
		Non ad val. duties	0.0	0.0	1	0.1	0.1
	Commonwealth Caribbean Countries	**All tariff lines**	**38.6**	**100.0**	**1,372**	**100.0**	**17.1**
		MFN duty free access	14.4	37.4	551	40.2	9.7
		Preferential access	24.1	62.6	667	48.6	7.2
		Duty free preference	24.1	62.6	667	48.6	7.2
		Non ad val. duties	0.0	0.0	1	0.1	0.1
EU-15	**GSP**	**All tariff lines**	**42,372.2**	**100.0**	**2,115**	**100.0**	**76.1**
		MFN duty free access	19,041.2	44.9	402	19.0	16.5
		Preferential access	12,936.1	30.5	843	39.9	35.6
		Duty free preference	2,431.4	5.7	128	6.1	5.5
		Non ad val. duties	1,188.5	2.8	43	2.0	1.9
	LDC	**All tariff lines**	**1,560.5**	**100.0**	**2,115**	**100.0**	**23.9**
		MFN duty free access	870.8	55.8	402	19.0	7.6
		Preferential access	565.3	36.2	1,652	78.1	15.3
		Duty free preference	565.3	36.2	1,652	78.1	15.3
		Non ad val. duties	6.8	0.4	43	2.0	0.7
	ACP	**All tariff lines**	**8,519.7**	**100.0**	**2,115**	**100.0**	**35.7**
		MFN duty free access	4,190.4	49.2	402	19.0	9.5
		Preferential access	3,331.4	39.1	1,018	48.1	20.0
		Duty free preference	2,643.4	31.0	765	36.2	16.6
		Non ad val. duties	39.9	0.5	43	2.0	0.8
	Countries fighting drugs	**All tariff lines**	**4,617.4**	**100.0**	**2,115**	**100.0**	**32.9**
		MFN duty free access	1,236.9	26.8	402	19.0	8.4
		Preferential access	1,525.1	33.0	1,498	70.8	22.3
		Duty free preference	1,435.0	31.1	1,322	62.5	19.1
		Non ad val. duties	66.2	1.4	43	2.0	1.1
Japan	**GSP**	**All tariff lines**	**10,795.1**	**100.0**	**1,858**	**100.0**	**59.7**
		MFN duty free access	3,308.5	30.7	461	24.8	16.8
		Preferential access	2,035.7	18.9	343	18.5	14.3
		Duty free preference	1,063.6	9.9	155	8.3	6.7
		Non ad val. duties	0.0	0.0	5	0.3	0.0
	LDC	**All tariff lines**	**175.9**	**100.0**	**1,858**	**100.0**	**6.5**
		MFN duty free access	163.7	93.1	461	24.8	3.4
		Preferential access	6.8	3.9	460	24.8	1.5
		Duty free preference	6.8	3.9	457	24.6	1.5
		Non ad val. duties	0.0	0.0	5	0.3	0.0
USA	**GSP**	**All tariff lines**	**13,073.1**	**100.0**	**1,808**	**100.0**	**65.4**
		MFN duty free access	6,321.8	48.4	384	21.2	16.8
		Preferential access	3,240.3	24.8	554	30.6	24.7
		Duty free preference	3,239.2	24.8	554	30.6	24.7
		Non ad val. duties	19.3	0.2	1	0.1	0.1
	LDC	**All tariff lines**	**350.4**	**100.0**	**1,808**	**100.0**	**10.1**
		MFN duty free access	285.6	81.5	384	21.2	4.4
		Preferential access	64.6	18.4	1,149	63.6	5.5
		Duty free preference	64.6	18.4	1,149	63.6	5.5
		Non ad val. duties	0.0	0.0	1	0.1	0.0
	African Growth Opportunity Act	**All tariff lines**	**1,044.3**	**100.0**	**1,808**	**100.0**	**17.4**
		MFN duty free access	763.9	73.2	384	21.2	6.1
		Preferential access	274.5	26.3	1,171	64.8	10.8
		Duty free preference	274.5	26.3	1,171	64.8	10.8
		Non ad val. duties	0.0	0.0	1	0.1	0.0
	Andean Trade Preference Act (ATPA) and Andean Trade Promotion and Drug Eradication Act (ATPDEA)	**All tariff lines**	**1,943.4**	**100.0**	**1,808**	**100.0**	**26.1**
		MFN duty free access	1,048.3	53.9	384	21.2	6.7
		Preferential access	893.8	46.0	1,191	65.9	18.4
		Duty free preference	893.8	46.0	1,191	65.9	18.4
		Non ad val. duties	0.0	0.0	1	0.1	0.0

Table A1 (cont'd)
Non reciprocal schemes in selected markets, agricultural products, 2003
(Million dollars and percentages)

			Imports		Number of national tariff lines		
		Category	Value	%	Number	%	With trade (%)
	Caribbean Basin Economic Recovery Act (CBI)	**All tariff lines**	**2,907.6**	**100.0**	**1,808**	**100.0**	**30.3**
		MFN duty free access	1,340.2	46.1	384	21.2	7.8
		Preferential access	1,555.0	53.5	1,193	66.0	21.3
		Duty free preference	1,555.0	53.5	1,193	66.0	21.3
		Non ad val. duties	11.3	0.4	1	0.1	0.1
QUAD	**GSP**	**All tariff lines**	**69,089.1**	**100.0**	**7,153.0**	**100.0**	**68.3**
		MFN duty free access	30,703.6	44.4	1,798	25.1	20.0
		Preferential access	18,694.2	27.1	2,037	28.5	23.5
		Duty free preference	7,030.3	10.2	938	13.1	10.8
		Non ad val. duties	1,208.5	1.8	50	0.7	0.6
	LDC	**All tariff lines**	**2,122.4**	**100.0**	**7,153.0**	**100.0**	**14.0**
		MFN duty free access	1,355.2	63.9	1,798	25.1	6.0
		Preferential access	637.0	30.0	3,985	55.7	7.2
		Duty free preference	637.0	30.0	3,982	55.7	7.2
		Non ad val. duties	6.8	0.3	50	0.7	0.2

Table A2
Share of exports in QUAD, by market, agricultural products, 2003
(in % of total exports to QUAD)

Developing countries	QUAD Market			
	Canada	Japan	US	EU
Albania	0.7	1.8	14.4	83.1
Antigua and Barbuda	1.0	1.6	0.6	96.9
Argentina	1.7	3.1	11.0	84.2
Armenia	1.3	0.9	85.2	12.5
Bahrain	0.2	.	.	99.8
Barbados	8.8	0.1	21.2	69.9
Belize	1.6	3.1	24.4	71.0
Bolivia	3.5	6.8	30.7	59.0
Botswana	0.0	.	0.1	99.9
Brazil	2.9	8.8	13.7	74.5
Brunei Darussalam	0.0	4.8	18.2	76.9
Cameroon	0.7	0.9	3.2	95.3
China	2.9	55.7	16.9	24.6
Colombia	7.2	6.6	44.2	42.0
Congo	0.1	1.3	25.6	73.0
Cuba	4.5	4.5	.	90.9
Côte d'Ivoire	2.5	0.7	15.5	81.3
Dominica	0.3	0.6	5.2	94.0
Dominican Republic	2.5	0.4	71.6	25.4
Ecuador	5.0	6.6	34.4	54.0
Egypt	0.8	4.0	11.9	83.4
El Salvador	4.0	5.1	58.2	32.6
Fiji	0.3	6.5	20.9	72.2
Gabon	14.1	.	31.0	54.9
Georgia	0.7	0.4	12.5	86.3
Ghana	2.3	14.4	1.6	81.7
Grenada	4.8	1.3	18.0	75.9
Guatemala	7.2	5.4	66.9	20.5
Guyana	3.3	0.1	3.7	92.8
Honduras	4.6	3.0	54.5	37.9
Hong Kong, China	11.5	11.2	46.2	31.1
India	3.7	9.9	34.1	52.2
Indonesia	2.1	8.8	29.8	59.2
Jamaica	6.3	10.0	37.4	46.4
Kenya	0.8	2.2	4.8	92.2
Korea, Republic of	2.9	72.6	19.6	4.9
Kuwait	0.0	.	13.4	86.6
Kyrgyz Republic	0.0	0.3	0.1	99.6
Macao, China	37.2	3.9	28.6	30.3
Malaysia	1.4	21.2	22.2	55.2
Mauritius	0.2	1.1	2.2	96.5
Moldova	1.3	0.9	2.1	95.7
Mongolia	0.0	17.5	2.5	80.1
Namibia	0.1	0.1	0.3	99.5
Nicaragua	4.6	2.1	63.5	29.7
Nigeria	2.2	2.1	8.5	87.2
Oman	4.6	59.9	30.1	5.4
Pakistan	3.6	3.9	11.2	81.3
Panama	0.6	1.0	13.7	84.7
Papua New Guinea	0.3	3.5	10.1	86.1
Paraguay	0.3	8.9	7.2	83.5
Peru	4.2	2.2	37.4	56.2
Philippines	2.7	41.9	33.4	22.0
Qatar	.	.	2.7	97.3
Saint Kitts and Nevis	0.0	0.2	4.6	95.2
Saint Lucia	0.1	.	0.8	99.0
Saint Vincent and the Grenadines	0.5	.	2.0	97.5
Sri Lanka	3.5	22.6	13.0	60.9

Table A2 (cont'd)
Share of exports in QUAD, by market, agricultural products, 2003
(in % of total exports to QUAD)

	QUAD Market			
	Canada	**Japan**	**US**	**EU**
Suriname	0.1	0.6	2.1	97.1
Swaziland	0.2	3.1	6.1	90.6
Taipei, Chinese	4.5	54.8	31.0	9.7
Thailand	2.9	44.3	19.2	33.5
Trinidad and Tobago	5.2	1.7	29.0	64.2
United Arab Emirates	0.7	1.4	4.6	93.2
Uruguay	14.5	0.6	22.2	62.8
Venezuela, Bolivarian Republic of	0.6	5.4	22.5	71.4
Zimbabwe	0.5	6.0	4.5	89.0
Total Developing	**3.1**	**18.6**	**21.2**	**57.2**

	QUAD Market			
LDCs	**Canada**	**Japan**	**US**	**EU**
Angola	.	.	0.3	99.7
Bangladesh	1.4	2.0	9.5	87.1
Benin	0.0	1.1	1.2	97.7
Burkina Faso	0.1	23.2	1.1	75.6
Burundi	0.9	0.7	21.1	77.2
Cambodia	9.5	.	7.3	83.2
Central African Republic	0.1	.	1.0	98.9
Chad	.	0.1	8.9	91.1
Democratic Republic of the Congo	0.0	0.2	10.1	89.7
Djibouti	.	3.4	9.8	86.8
Gambia	0.0	4.2	.	95.7
Guinea	23.1	0.2	1.1	75.7
Guinea-Bissau	.	.	2.7	97.3
Haiti	2.7	1.3	46.8	49.3
Lesotho	.	.	.	100.0
Madagascar	2.7	3.8	48.1	45.3
Malawi	0.2	9.2	19.5	71.1
Maldives	0.3	.	0.4	99.3
Mali	0.6	0.0	0.4	99.0
Mauritania	2.5	1.7	0.9	94.9
Mozambique	0.1	6.8	10.1	83.0
Myanmar	1.8	63.4	18.8	16.0
Nepal	0.2	4.8	4.1	90.9
Niger	9.8	0.6	40.0	49.7
Rwanda	0.0	0.1	12.2	87.6
Senegal	0.0	0.4	0.8	98.7
Sierra Leone	6.8	0.1	2.2	90.9
Solomon Islands	0.5	4.1	20.8	74.6
Tanzania	1.1	18.3	4.8	75.8
Togo	1.5	1.5	1.8	95.1
Uganda	1.2	2.7	13.3	82.9
Zambia	0.0	12.0	1.2	86.8
Total LDC	**1.7**	**7.1**	**19.0**	**72.3**
TOTAL	**3.0**	**18.3**	**21.1**	**57.6**

Table A3.A
Imports of agricultural products from preference beneficiaries by type of market access, QUAD, 2003
(in % of total bilateral imports, million dollars)

	QUAD countries								
	Bilateral imports	Imports (%)				% of ag. sub-headings with at least one national tariff lined with trade on any Quad market			
		MFN duty free access	MFN dutiable access	Preferential access	Non Ad val. Duties	MFN duty free access	MFN dutiable access	Preferential access	Non Ad val. Duties
Developing Countr	1	2	3	4	5	6	7	8	9
Albania	23	75	1	25	0	0.9	5.4	5.9	0.0
Antigua and Barbuda	12	88	0	12	0	0.4	3.0	2.9	0.0
Argentina	5,183	57	23	14	6	23.6	30.8	28.9	1.3
Armenia	3	26	31	43	0	2.6	1.5	3.8	0.0
Bahrain	1	88	1	11	0	0.1	1.2	0.6	0.0
Barbados	45	27	0	73	0	0.9	3.2	4.2	0.1
Belize	117	3	5	92	0	0.6	3.6	3.9	0.0
Bolivia	70	75	3	22	0	1.0	6.7	7.4	0.0
Botswana	37	1	0	99	0	0.1	0.9	0.6	0.0
Brazil	11,472	61	31	6	2	32.1	41.2	32.1	1.3
Brunei Darussalam	0	98	0	2	0	0.0	0.4	0.3	0.0
Cameroon	612	57	0	43	0	1.9	7.8	8.0	0.1
China	7,820	35	49	16	0	52.1	55.7	42.8	1.7
Colombia	2,453	49	21	30	0	7.1	22.3	27.6	0.4
Congo	18	61	0	39	0	0.0	2.2	1.3	0.0
Cuba	230	4	35	61	0	3.5	7.5	7.0	0.1
Côte d'Ivoire	2,655	68	0	32	0	2.0	10.0	11.4	0.1
Dominica	11	10	1	89	0	0.4	2.3	3.9	0.1
Dominican Republic	670	22	0	76	2	3.8	18.1	20.7	0.7
Ecuador	1,610	33	35	32	0	4.6	24.8	22.0	0.7
Egypt	411	38	12	49	2	13.3	23.3	26.6	0.9
El Salvador	195	63	1	36	0	3.8	10.1	12.0	0.1
Fiji	157	4	7	90	0	4.2	6.8	7.1	0.1
Gabon	0	89	1	11	0	0.1	2.3	0.7	0.0
Georgia	32	9	9	83	0	1.3	3.0	3.6	0.0
Ghana	755	80	0	20	0	4.1	14.3	19.0	0.7
Grenada	15	95	0	5	0	0.0	2.3	2.0	0.0
Guatemala	1,140	65	1	34	0	2.9	16.9	18.1	0.3
Guyana	162	2	3	79	16	0.6	7.5	5.1	0.3
Honduras	517	62	2	36	0	1.2	10.7	12.6	0.0
Hong Kong, China	169	23	72	5	0	29.1	32.7	10.6	0.6
India	2,040	61	10	23	6	26.2	43.7	37.9	1.3
Indonesia	2,265	51	33	16	0	18.1	27.1	22.7	0.7
Jamaica	327	27	1	73	0	1.3	13.9	15.3	0.1
Kenya	846	32	1	67	0	2.2	10.7	13.3	0.3
Korea, Republic of	982	16	83	1	1	36.6	27.9	11.1	1.2
Kuwait	2	81	4	15	0	0.6	2.0	1.7	0.0
Kyrgyz Republic	4	74	0	26	0	0.3	2.3	1.9	0.0
Macao, China	1	78	14	9	0	1.3	3.3	1.6	0.0
Malaysia	1,895	28	38	34	0	17.2	24.5	21.3	0.3
Mauritius	336	7	3	90	0	1.3	4.8	6.7	0.0
Moldova	63	43	9	48	0	4.8	6.8	8.1	0.3
Mongolia	17	97	2	1	0	0.4	2.2	0.9	0.0
Namibia	69	10	0	90	0	0.6	4.1	3.0	0.1
Nicaragua	213	56	17	27	0	2.5	6.2	6.7	0.0
Nigeria	545	93	0	7	0	4.2	12.0	14.3	0.1
Oman	7	12	81	8	0	2.2	2.0	2.3	0.0
Pakistan	329	31	5	45	19	8.0	20.6	20.6	0.9
Panama	283	7	77	16	0	1.5	6.2	8.0	0.1

Table A3.A (cont'd)
Imports of agricultural products from preference beneficiaries by type of market access, QUAD, 2003
(in % of total bilateral imports, million dollars)

	QUAD countries								
		Imports (%)				% of ag. sub-headings with at least one national tariff lined with trade on any Quad market			
Developing countries		MFN duty free access	MFN dutiable access	Preferential access	Non Ad val. duties	MFN duty free access	MFN dutiable access	Preferential access	Non Ad val. duties
		1	2	3	4	5	6	7	8
Papua New Guinea	357	34	0	66	0	0.0	3.2	2.2	0.0
Paraguay	316	89	6	3	3	3.5	8.3	6.2	0.1
Peru	759	39	2	59	0	7.2	23.7	27.2	0.6
Philippines	1,486	22	33	46	0	17.7	24.9	22.7	0.4
Qatar	0	32	2	67	0	0.1	0.9	1.2	0.0
Saint Kitts and Nevis	10	4	0	94	2	0.0	1.0	1.0	0.1
Saint Lucia	25	1	0	99	0	0.3	2.6	2.6	0.0
St Vincent & Grenadines	16	2	0	98	1	0.1	1.7	1.7	0.1
Sri Lanka	202	58	16	27	0	9.0	20.3	18.4	0.4
Suriname	13	12	5	38	45	1.5	4.8	9.7	0.4
Swaziland	130	1	4	96	0	1.5	1.6	5.6	0.0
Taipei, Chinese	550	40	60	0	0	38.5	32.1	0.0	0.3
Thailand	3,574	16	65	17	2	30.3	36.6	33.9	0.9
Trinidad and Tobago	59	25	0	74	0	1.0	10.0	10.4	0.1
United Arab Emirates	189	91	4	5	0	7.5	13.3	11.6	0.7
Uruguay	507	29	63	7	0	8.7	14.6	10.3	0.7
Venezuela, Bolivarian Rep.	161	68	9	22	1	.	.	.	.
Zimbabwe	441	19	5	76	0	1.2	6.4	10.1	0.3
Total Developing	**55,617**	**46**	**29**	**23**	**2**	**.**	**.**	**.**	**.**
LDCs									
Angola	1	90	0	10	0	0.0	1.6	1.6	0.0
Bangladesh	18	12	2	80	6	0.4	6.8	11.4	0.6
Benin	27	93	0	7	0	0.0	2.5	1.6	0.0
Burkina Faso	39	79	11	11	0	0.1	2.8	3.2	0.0
Burundi	28	99	0	2	0	0.0	1.3	0.6	0.0
Cambodia	3	16	0	18	66	0.0	1.5	1.3	0.3
Central African Republic	8	100	0	0	0	0.0	1.0	0.1	0.0
Chad	45	100	0	0	0	0.0	1.0	0.0	0.0
Dem. Rep. of the Congo	19	75	0	25	0	0.0	2.8	2.5	0.0

Djibouti	1	77	0	24	0	0.0	1.7	1.5	0.0
Gambia	6	37	0	63	0	0.0	1.7	1.6	0.0
Guinea	38	96	0	4	0	0.0	3.6	4.1	0.0
Guinea-Bissau	2	97	0	3	0	0.0	1.3	2.3	0.0
Haiti	26	70	0	30	0	0.4	6.8	5.1	0.0
Lesotho	0	92	0	8	0	0.0	0.1	0.1	0.0
Madagascar	378	76	1	23	0	0.1	10.1	9.7	0.6
Malawi	291	23	8	69	0	0.4	3.2	2.5	0.1
Maldives	1	99	0	1	0	0.1	0.6	0.1	0.0
Mali	41	98	0	2	0	0.0	3.5	2.8	0.1
Mauritania	1	63	0	38	0	0.0	1.6	1.5	0.0
Mozambique	55	33	11	56	0	0.1	2.9	2.2	0.0
Myanmar	28	83	16	0	1	4.8	7.2	1.7	0.1
Nepal	7	17	73	11	0	0.1	4.3	2.6	0.0
Niger	5	42	0	58	0	0.3	1.6	1.3	0.0
Rwanda	15	99	0	2	0	0.0	1.5	0.9	0.0
Senegal	97	24	0	76	0	0.1	4.8	7.5	0.1
Sierra Leone	11	98	0	2	0	0.0	5.1	3.2	0.0
Solomon Islands	2	90	0	10	0	0.0	1.5	0.1	0.0
Tanzania	158	58	0	42	0	0.1	8.3	7.5	0.1
Togo	42	80	0	20	0	0.1	5.5	5.2	0.0
Uganda	217	70	0	30	0	0.1	7.1	7.4	0.1
Zambia	81	23	28	50	0	0.3	2.9	2.8	0.4
Total LDC	**1,691**	**59**	**4**	**37**	**0**	**.**	**.**	**.**	**.**
TOTAL	**57,308**	**46**	**29**	**24**	**1**	**.**	**.**	**.**	**.**

Table A3.B
Imports of agricultural products from preference beneficiaries by type of market access, EU, 2003
(in % of total bilateral imports, million dollars)

	EU								
	Bilateral imports	Imports (%)				% of ag. sub-headings with at least one national tariff lined with trade			
		MFN duty free access	MFN dutiable access	Preferential access	Non Ad val. Duties	MFN duty free access	MFN dutiable access	Preferential access	Non Ad val. Duties
Country	1	2	3	4	5	6	7	8	9
Albania	19	71	0	29	0	0.1	4.5	5.6	0.0
Antigua and Barbuda	12	88	0	12	0	0.3	1.6	2.3	0.0
Argentina	4,363	60	20	13	7	10.4	15.5	20.0	1.3
Armenia	0	56	4	40	0	0.7	0.9	2.0	0.0
Bahrain	1	88	1	11	0	0.1	0.9	0.6	0.0
Barbados	31	18	0	81	0	0.4	1.6	2.3	0.1
Belize	83	1	4	95	0	0.1	1.5	1.7	0.0
Bolivia	41	72	0	28	0	0.3	3.8	4.8	0.0
Botswana	37	1	0	99	0	0.1	0.4	0.4	0.0
Brazil	8,551	66	28	4	2	23.3	19.3	14.2	1.3
Brunei Darussalam	0	97	0	3	0	0.0	0.1	0.1	0.0
Cameroon	583	55	0	45	0	1.2	5.6	7.7	0.1
China	1,923	51	10	39	1	15.2	25.9	30.0	1.6
Colombia	1,031	34	45	21	0	1.0	7.0	18.2	0.3
Congo	13	68	0	32	0	0.0	1.6	1.3	0.0
Cuba	209	2	36	62	0	1.9	3.6	6.2	0.1
Côte d'Ivoire	2,158	62	0	38	0	1.3	6.2	9.6	0.1
Dominica	10	9	0	91	0	0.3	1.5	3.3	0.1
Dominican Republic	170	17	0	80	3	0.9	4.3	11.9	0.6
Ecuador	870	10	61	30	0	0.9	7.4	15.5	0.6
Egypt	343	39	5	55	2	5.1	13.8	22.4	0.9
El Salvador	64	85	2	13	0	0.1	1.9	1.6	0.0
Fiji	114	2	0	98	0	0.0	1.2	1.5	0.0
Gabon	0	80	1	19	0	0.1	0.9	0.7	0.0
Georgia	27	6	1	93	0	0.4	1.7	2.5	0.0
Ghana	617	77	0	23	0	1.7	8.1	16.2	0.7
Grenada	12	94	0	6	0	0.0	0.9	1.0	0.0
Guatemala	234	54	1	46	0	0.1	4.8	8.4	0.0
Guyana	150	1	3	78	17	0.3	2.0	1.0	0.3
Honduras	196	70	6	24	0	0.1	3.0	5.4	0.0
Hong Kong, China	53	10	90	0	0	21.1	12.7	0.0	0.6
India	1,065	55	5	28	12	7.1	22.3	27.1	1.3
Indonesia	1,341	34	46	20	0	4.5	12.2	17.2	0.7
Jamaica	152	8	0	92	0	0.1	3.0	8.1	0.1
Kenya	780	29	1	70	0	1.2	6.5	12.3	0.3
Korea, Republic of	48	39	59	0	3	19.0	8.4	0.0	1.0
Kuwait	1	83	0	17	0	0.3	1.6	1.7	0.0
Kyrgyz Republic	4	74	0	26	0	0.0	2.3	1.9	0.0
Macao, China	0	96	0	4	0	0.1	0.9	0.4	0.0
Malaysia	1,046	19	52	30	0	3.9	11.1	15.2	0.3
Mauritius	324	5	3	93	0	0.6	3.9	6.5	0.0
Moldova	60	43	7	49	0	2.0	4.1	7.2	0.3
Mongolia	14	100	0	0	0	0.0	1.6	0.3	0.0
Namibia	68	10	0	90	0	0.4	3.3	2.9	0.1
Nicaragua	63	81	0	19	0	0.3	2.3	3.0	0.0
Nigeria	475	93	0	7	0	2.5	7.4	12.0	0.1
Oman	0	41	0	60	0	0.0	0.7	1.9	0.0
Pakistan	268	26	0	50	24	0.9	10.9	16.5	0.9
Panama	240	2	90	8	0	0.6	2.5	4.2	0.1
Papua New Guinea	307	24	0	76	0	0.0	2.8	1.6	0.0
Paraguay	264	93	2	1	3	1.6	5.1	3.8	0.1
Peru	427	41	1	57	1	0.6	10.9	17.7	0.6
Philippines	327	26	54	20	0	3.9	7.0	14.5	0.4
Qatar	0	30	2	68	0	0.1	0.7	1.2	0.0
Saint Kitts and Nevis	9	2	0	99	0	0.0	0.3	1.0	0.0
Saint Lucia	25	0	0	100	0	0.3	0.4	1.7	0.0
St Vincent & Grenadines	16	1	0	98	1	0.1	0.4	1.2	0.1
Sri Lanka	123	59	18	22	0	3.2	10.3	13.9	0.4
Suriname	12	10	5	38	46	1.0	3.6	9.3	0.4
Swaziland	118	0	1	99	0	0.4	0.7	4.9	0.0
Taipei, Chinese	53	30	70	0	0	18.1	9.4	0.0	0.3
Thailand	1,199	6	80	9	5	21.0	14.2	17.7	0.9
Trinidad and Tobago	38	22	0	78	0	0.3	2.5	3.8	0.1
United Arab Emirates	176	95	0	5	0	2.0	9.7	11.0	0.7
Uruguay	318	43	48	9	1	4.3	9.3	4.9	0.7
Venezuela, Bolivarian Rep	115	68	12	21	0	.	.	.	.
Zimbabwe	392	15	1	85	0	0.6	4.1	9.6	0.3
Total Developing	**31,787**	**49**	**24**	**25**	**3**	**.**	**.**	**.**	**.**

Table A3.B (cont'd)
Imports of agricultural products from preference beneficiaries by type of market access, EU, 2003
(in % of total bilateral imports, million dollars)

	EU								
		Imports (%)				% of ag. sub-headings with at least one national			
Country	Bilateral imports	MFN duty free access	MFN dutiable access	Preferential access	Non Ad val. Duties	MFN duty free access	MFN dutiable access	Preferential access	Non Ad val. Duties
	1	2	3	4	5	6	7	8	9
Angola	1	90	0	10	0	0.0	1.5	1.6	0.0
Bangladesh	16	7	0	87	6	0.1	3.8	8.5	0.6
Benin	26	93	0	8	0	0.0	2.3	1.5	0.0
Burkina Faso	30	72	14	14	0	0.1	2.2	2.5	0.0
Burundi	21	98	0	2	0	0.0	1.3	0.4	0.0
Cambodia	2	0	0	21	79	0.0	0.6	0.7	0.3
Central African Rep.	8	100	0	0	0	0.0	0.7	0.0	0.0
Chad	41	100	0	0	0	0.0	1.0	0.0	0.0
Dem. Rep. of the Congo	17	72	0	28	0	0.0	2.5	2.3	0.0
Djibouti	1	76	0	25	0	0.0	1.6	1.2	0.0
Gambia	6	34	0	66	0	0.0	1.6	1.6	0.0
Guinea	29	96	0	4	0	0.0	2.6	3.2	0.0
Guinea-Bissau	2	97	0	4	0	0.0	1.2	2.3	0.0
Haiti	13	78	0	22	0	0.1	1.6	1.9	0.0
Lesotho	0	92	0	8	0	0.0	0.1	0.1	0.0
Madagascar	171	47	2	51	0	0.1	8.1	8.5	0.6
Malawi	207	16	1	83	0	0.1	2.5	2.0	0.1
Maldives	1	99	0	1	0	0.0	0.4	0.1	0.0
Mali	41	98	0	2	0	0.0	3.0	2.6	0.1
Mauritania	1	64	0	36	0	0.0	1.0	1.0	0.0
Mozambique	46	31	13	56	0	0.1	2.0	1.9	0.0
Myanmar	4	72	23	1	5	0.1	1.7	1.2	0.1
Nepal	7	12	80	8	0	0.1	2.2	1.7	0.0
Niger	2	63	0	37	0	0.0	1.0	0.9	0.0
Rwanda	13	98	0	2	0	0.0	1.3	0.7	0.0
Senegal	96	23	0	77	0	0.1	4.3	7.0	0.1
Sierra Leone	10	99	0	1	0	0.0	3.6	1.6	0.0
Solomon Islands	2	87	0	13	0	0.0	1.5	0.1	0.0
Tanzania	120	45	0	55	0	0.0	7.1	6.7	0.1
Togo	40	79	0	21	0	0.0	3.9	5.1	0.0
Uganda	180	64	0	36	0	0.0	4.5	7.1	0.1
Zambia	70	11	32	57	0	0.3	2.0	2.6	0.3
Total LDC	**1,223**	**49**	**4**	**47**	**0**	.	.	.	.
TOTAL	**33,010**	**49**	**23**	**25**	**3**	.	.	.	.

Table A4
Weighted duty margins, agricultural products, 2003
(weighted by bilateral imports)

	Weighted preference margins					Adjusted weighted preference margin				
	QUAD	CAN	EU	JAP	US	QUAD	CAN	EU	JAP	US
Country	1	3	4	5	6	7	9	10	11	12
Albania	2	0	3	1	0	0	-1	1	0	0
Antigua and Barbuda	1	1	1	0	2	0	0	0	0	1
Argentina	0	0	0	2	1	-1	0	-1	1	-4
Armenia	2	0	3	0	2	0	-1	-1	0	0
Bahrain	0	0	0	.	.	0	0	0	.	.
Barbados	34	4	45	0	8	4	0	6	0	1
Belize	35	0	38	0	31	14	0	15	0	16
Bolivia	8	0	8	0	9	2	0	2	0	2
Botswana	17	2	17	.	0	16	-2	16	.	0
Brazil	1	11	0	0	0	-3	0	-1	0	-17
Brunei Darussalam	0	3	0	0	0	0	0	0	0	0
Cameroon	11	0	12	0	0	9	0	9	0	0
China	1	1	2	1	0	-1	-2	-5	0	-1
Colombia	3	12	2	0	4	-1	-1	-3	0	1
Congo	21	0	16	0	37	4	0	2	0	10
Cuba	7	7	8	0	.	-12	2	-13	0	.
Côte d'Ivoire	4	0	5	0	0	2	0	2	0	0
Dominica	22	0	23	0	4	17	0	18	0	1
Dominican Republic	14	1	19	4	13	6	0	12	0	4
Ecuador	3	0	3	5	3	-2	0	-5	0	0
Egypt	2	1	3	0	1	0	-2	0	0	0
El Salvador	12	79	2	0	14	2	0	0	0	4
Fiji	48	0	64	0	8	7	-1	9	0	2
Gabon	1	0	3	.	0	1	0	1	.	0
Georgia	3	0	3	0	0	-1	0	-1	0	0
Ghana	2	0	2	0	2	0	0	0	0	0
Grenada	1	0	1	0	0	1	0	1	0	0
Guatemala	6	19	5	0	5	0	0	1	0	0
Guyana	58	78	59	0	29	8	0	8	0	7
Honduras	4	0	2	0	5	0	0	0	0	0
Hong Kong, China	0	2	0	0	0	-2	-2	-5	0	-2
India	1	1	1	1	1	0	0	-1	0	0
Indonesia	1	1	1	3	0	-1	0	-1	0	0
Jamaica	20	2	41	0	3	5	0	9	0	1
Kenya	7	0	8	2	0	2	0	3	1	0
Korea, Republic of	0	1	0	0	0	-1	-2	-3	0	-3
Kuwait	1	0	1	.	0	0	-2	0	.	-1
Kyrgyz Republic	1	0	1	0	0	0	0	0	0	0
Macao, China	0	1	0	0	0	0	-1	0	0	0
Malaysia	1	2	1	4	0	0	-1	-1	2	0
Mauritius	58	4	60	0	12	11	0	11	0	3
Moldova	2	0	2	0	1	-1	-1	-1	0	0
Mongolia	0	0	0	0	0	0	0	0	0	0
Namibia	11	0	11	0	0	10	0	10	0	0
Nicaragua	5	0	5	0	6	1	0	1	0	1
Nigeria	0	0	1	0	0	0	0	0	0	0
Oman	0	0	2	0	0	0	-2	-1	0	-1
Pakistan	6	0	7	0	1	2	0	3	0	0
Panama	4	0	1	2	21	-5	0	-7	1	5
Papua New Guinea	4	0	4	0	5	3	0	3	0	1
Paraguay	1	3	0	0	8	0	-2	-1	0	1
Peru	8	0	7	1	11	3	0	4	0	2
Philippines	6	2	1	7	8	1	0	-1	2	2
Qatar	2	.	2	.	0	-1	.	-1	.	0
Saint Kitts and Nevis	64	3	65	0	0	7	0	8	0	0
Saint Lucia	29	0	29	.	4	22	0	22	.	1
St Vincent & Grenadines	29	3	29	.	1	22	0	22	.	1
Sri Lanka	1	0	1	1	0	0	0	0	0	0
Suriname	7	0	8	0	0	2	0	2	0	0
Swaziland	47	0	48	0	53	7	0	7	0	14
Taipei, Chinese	0	0	0	0	0	-2	-2	-4	-1	-2
Thailand	1	1	1	2	2	-2	-1	-7	1	-1
Trinidad and Tobago	35	4	48	0	15	5	1	6	0	4
United Arab Emirates	0	2	0	0	0	0	-1	0	-1	-1
Uruguay	0	0	0	2	2	-2	-4	-1	0	0
Venezuela, Bolivarian Rep	2	1	3	0	1	1	0	1	0	0
Zimbabwe	10	7	11	0	0	2	2	4	0	-24
Total Developing	**1.3**	**1.6**	**1.5**	**0.4**	**1.7**	**-0.4**	**-0.4**	**-0.3**	**0.1**	**-1.4**

Table A4 (cont'd)
Weighted duty margins, agricultural products, 2003
(weighted by bilateral imports)

	Weighted preference margins					Adjusted weighted preference margin				
	QUAD	CAN	EU	JAP	US	QUAD	CAN	EU	JAP	US
Country	1	3	4	5	6	7	9	10	11	12
Angola	4	.	4	.	0	4	.	4	.	0
Bangladesh	10	0	11	2	5	2	0	3	2	-3
Benin	1	0	1	0	0	0	0	0	0	0
Burkina Faso	1	0	2	0	0	-6	0	-8	0	0
Burundi	0	0	0	1	0	0	0	0	1	0
Cambodia	8	0	15	.	1	2	0	4	.	0
Central African Republic	0	1	0	.	0	0	0	0	.	0
Chad	0	.	0	0	0	0	.	0	0	0
Dem. Rep. of the Congo	6	0	7	0	0	1	0	1	0	0
Djibouti	2	.	2	0	0	0	.	1	0	0
Gambia	6	0	6	0	.	2	0	2	0	.
Guinea	0	0	0	0	1	0	0	0	0	0
Guinea-Bissau	0	.	0	.	0	0	.	0	.	0
Haiti	1	0	1	0	1	0	0	0	0	0
Lesotho	1	.	1	.	.	1	.	1	.	.
Madagascar	2	0.1	3.8	0.0	0.0	0.1	0.0	0.2	0.0	0.0
Malawi	14	0	17	1	10	2	0	3	1	-4
Maldives	0	0	0	.	0	0	0	0	.	-4
Mali	0	0	0	0	0	0	0	0	0	0
Mauritania	4	7	4	2	0	1	1	1	1	0
Mozambique	11	1	6	0	59	-3	0	-6	0	16
Myanmar	0	0	0	0	0	-1	0	-8	0	0
Nepal	1	0	1	2	2	-43	0	-48	1	2
Niger	2	0	2	0	3	2	0	1	0	3
Rwanda	0	0	0	3	0	0	0	0	3	0
Senegal	6	7	6	0	1	3	1	3	0	0
Sierra Leone	0	0	0	7	1	0	0	0	7	0
Solomon Islands	1	0	1	0	0	0	0	1	0	0
Tanzania	8	0	11	0	0	2	0	2	0	0
Togo	2	0	2	0	0	1	0	1	0	0
Uganda	2	0	3	0	0	1	0	1	0	0
Zambia	5	0	6	0	1	-16	0	-18	0	0
Total LDC	**2.5**	**0.0**	**2.9**	**0.1**	**1.8**	**0.1**	**0.0**	**0.2**	**0.1**	**-0.3**
TOTAL	**1.4**	**1.6**	**1.5**	**0.3**	**1.7**	**-0.4**	**-0.4**	**-0.2**	**0.1**	**-1.4**

Table A5.A
Impact of MFN tariff reduction on preference value and scope for future preferences, QUAD, agricultural products, 2003
(G20 proposal applied on 2003 MFN applied rates)

	QUAD									
	Without Flexibilities					With Flexibilities 2 % highest tariff				
	Change in the preference value for unadjusted & adjusted pref. margin				Scope for additional pref	Change in the preference value for unadjusted & adjusted pref. margin				Scope for additional pref
	No adjustment		With adjustment			No adjustment		With adjustment		
	Mill USD	% of imports	Mill USD	% of imports	Mill USD	Mill USD	% of imports	Mill USD	% of imports	Mill USD
Country	1	2	3	4	5	6	7	8	9	10
Albania	-0.2	-1.0	0.0	-0.2	0.0	-0.2	-1.0	0.0	-0.2	0.0
Antigua and Barbuda	0.0	-0.4	0.0	-0.2	0.0	0.0	-0.4	0.0	-0.2	0.1
Argentina	-16.5	-0.3	34.9	0.7	190.2	-16.5	-0.3	31.0	0.6	248.0
Armenia	0.0	-1.1	0.0	-0.1	0.1	0.0	-1.1	0.0	-0.1	0.1
Bahrain	0.0	-0.4	0.0	-0.1	0.0	0.0	-0.4	0.0	-0.1	0.0
Barbados	-9.5	-21.3	-1.2	-2.8	0.0	-9.5	-21.3	-1.2	-2.8	0.0
Belize	-24.3	-20.8	-9.5	-8.1	0.6	-24.3	-20.8	-9.5	-8.1	0.6
Bolivia	-3.2	-4.5	-0.7	-0.9	0.2	-3.2	-4.5	-0.7	-0.9	0.2
Botswana	-6.5	-17.3	-5.8	-15.5	8.6	-6.5	-17.3	-5.8	-15.5	10.8
Brazil	-39.5	-0.3	242.5	2.1	607.6	-39.5	-0.3	178.9	1.6	1,039.6
Brunei Darussalam	0.0	-0.1	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0
Cameroon	-37.4	-6.1	-29.8	-4.9	0.1	-37.3	-6.1	-29.8	-4.9	0.1
China	-49.6	-0.6	44.3	0.6	282.1	-49.6	-0.6	24.9	0.3	304.5
Colombia	-43.7	-1.8	15.0	0.6	68.1	-43.7	-1.8	14.7	0.6	70.9
Congo	-2.5	-13.7	-0.5	-2.5	0.0	-2.5	-13.7	-0.5	-2.5	0.0
Côte d'Ivoire	-54.9	-2.1	-22.1	-0.8	1.5	-54.9	-2.1	-22.1	-0.8	1.5
Cuba	-13.9	-6.0	12.7	5.5	20.5	-13.9	-6.0	12.7	5.5	20.5
Dominica	-1.3	-12.1	-1.0	-8.9	0.0	-1.3	-12.1	-1.0	-8.9	0.0
Dominican Republic	-54.0	-8.1	-21.0	-3.1	0.4	-54.0	-8.1	-21.0	-3.1	0.4
Ecuador	-24.4	-1.5	22.2	1.4	81.6	-24.4	-1.5	22.2	1.4	81.6
Egypt	-8.2	-2.0	-1.4	-0.4	15.0	-8.2	-2.0	-1.4	-0.4	15.0
El Salvador	-15.1	-7.7	-2.5	-1.3	0.3	-15.1	-7.7	-2.5	-1.3	0.3
Fiji	-49.2	-31.2	-6.7	-4.3	7.7	-49.2	-31.2	-6.7	-4.3	19.1
Gabon	0.0	-0.6	0.0	-0.1	0.0	0.0	-0.6	0.0	-0.1	0.0
Georgia	-0.7	-2.2	-0.1	-0.4	0.9	-0.7	-2.2	-0.1	-0.4	0.9
Ghana	-5.3	-0.7	-0.6	-0.1	0.1	-5.3	-0.7	-0.6	-0.1	0.2
Grenada	-0.1	-0.5	0.0	-0.3	0.0	-0.1	-0.5	0.0	-0.3	0.0
Guatemala	-39.7	-3.5	-1.9	-0.2	8.7	-39.7	-3.5	-2.9	-0.3	21.3
Guyana	-51.5	-31.9	-6.6	-4.1	0.9	-51.5	-31.9	-6.6	-4.1	0.9
Honduras	-9.9	-1.9	0.9	0.2	2.1	-9.9	-1.9	0.1	0.0	2.9
Hong Kong, China	-0.3	-0.2	2.1	1.2	5.1	-0.3	-0.2	2.1	1.2	5.1
India	-13.6	-0.7	2.1	0.1	24.1	-13.6	-0.7	1.9	0.1	25.1
Indonesia	-11.9	-0.5	3.0	0.1	37.1	-11.9	-0.5	2.9	0.1	37.1
Jamaica	-40.8	-12.5	-8.5	-2.6	0.7	-40.8	-12.5	-8.5	-2.6	0.7
Kenya	-27.3	-3.2	-5.8	-0.7	2.0	-27.3	-3.2	-5.8	-0.7	2.0
Korea, Republic of	-0.2	0.0	5.5	0.6	52.4	-0.2	0.0	5.5	0.6	52.4
Kuwait	0.0	-0.6	0.0	-0.1	0.0	0.0	-0.6	0.0	-0.1	0.0
Kyrgyz Republic	0.0	-0.7	0.0	0.0	0.0	0.0	-0.7	0.0	0.0	0.0
Macao, China	0.0	-0.2	0.0	0.1	0.0	0.0	-0.2	0.0	0.1	0.0
Malaysia	-14.5	-0.8	0.2	0.0	28.4	-14.5	-0.8	0.2	0.0	28.4
Mauritius	-127.6	-38.0	-23.4	-7.0	0.5	-127.6	-38.0	-23.4	-7.0	0.5
Moldova	-0.8	-1.3	0.2	0.3	1.5	-0.8	-1.3	0.2	0.3	1.5
Mongolia	0.0	-0.1	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0
Namibia	-7.5	-11.0	-6.5	-9.5	11.7	-7.5	-11.0	-6.5	-9.5	12.4
Nicaragua	-6.3	-3.0	-1.2	-0.6	4.4	-6.3	-3.0	-1.2	-0.6	4.5
Nigeria	-1.2	-0.2	-0.1	0.0	0.1	-1.2	-0.2	-0.1	0.0	0.1
Oman	0.0	-0.1	0.0	0.2	0.2	0.0	-0.1	0.0	0.2	0.2
Pakistan	-8.0	-2.4	-2.7	-0.8	0.6	-8.0	-2.4	-2.7	-0.8	0.6
Panama	-6.2	-2.2	7.6	2.7	29.4	-6.2	-2.2	7.6	2.7	29.4
Papua New Guinea	-6.4	-1.8	-4.9	-1.4	0.0	-6.4	-1.8	-4.9	-1.4	0.0
Paraguay	-1.3	-0.4	0.8	0.2	2.3	-1.3	-0.4	0.8	0.2	2.7
Peru	-32.1	-4.2	-8.4	-1.1	4.1	-32.1	-4.2	-8.4	-1.1	4.1
Philippines	-65.1	-4.4	-15.5	-1.0	68.4	-65.1	-4.4	-15.6	-1.1	70.1
Qatar	0.0	-1.9	0.0	-0.2	0.0	0.0	-1.9	0.0	-0.2	0.0
Saint Kitts and Nevis	-3.9	-40.5	-0.5	-4.7	0.0	-3.9	-40.5	-0.5	-4.7	0.0
Saint Lucia	-4.0	-15.8	-3.1	-12.1	0.0	-4.0	-15.8	-3.1	-12.1	0.0
St Vincent & Grenadines	-2.5	-15.5	-1.9	-11.9	0.0	-2.5	-15.5	-1.9	-11.9	0.0
Sri Lanka	-1.3	-0.7	-0.1	0.0	2.6	-1.3	-0.7	-0.1	0.0	2.6
Suriname	-0.2	-1.9	0.0	-0.4	0.2	-0.2	-1.9	0.0	-0.4	0.2
Swaziland	-39.1	-30.1	-5.6	-4.3	1.9	-39.1	-30.1	-5.6	-4.3	1.9
Taipei, Chinese	0.0	0.0	7.0	1.3	17.5	0.0	0.0	7.0	1.3	17.5
Thailand	-29.0	-0.8	55.7	1.6	312.4	-29.0	-0.8	35.7	1.0	550.5
Trinidad and Tobago	-13.3	-22.5	-1.8	-3.1	0.0	-13.3	-22.5	-1.8	-3.1	0.0
United Arab Emirates	-0.5	-0.3	-0.1	0.0	1.1	-0.5	-0.3	-0.1	0.0	1.1
Uruguay	-1.5	-0.3	4.8	0.9	46.3	-1.5	-0.3	4.8	0.9	57.3
Venezuela, Bolivarian Rep.	-1.8	-1.1	-0.5	-0.3	1.9	-1.8	-1.1	-0.5	-0.3	2.0
Zimbabwe	-24.4	-5.5	-3.0	-0.7	16.7	-24.4	-5.5	-4.7	-1.1	39.1
Positive	***0.0***		***461.3***			***0.0***		***353.3***		
Negative	***-1,054.1***		***-205.1***			***-1,054.1***		***-208.0***		
Total Developing	**-1,054.1**	**-1.9**	**256.2**	**0.5**	**1,971.1**	**-1,054.1**	**-1.9**	**145.3**	**0.3**	**2,788.8**

Table A5.A (cont'd)
Impact of MFN tariff reduction on preference value and scope for future preferences, QUAD, agricultural products, 2003
(G20 proposal applied on 2003 MFN applied rates)

		QUAD									
		Without Flexibilities					With Flexibilities 2 % highest tariff				
		Change in the preference value for unadjusted & adjusted pref. margin				Scope for additional pref	Change in the preference value for unadjusted & adjusted pref. margin				Scope for additional pref
		No adjustment		With adjustment			No adjustment		With adjustment		
		Mill USD	% of imports	Mill USD	% of imports	Mill USD	Mill USD	% of imports	Mill USD	% of imports	Mill USD
	Country	1	2	3	4	5	6	7	8	9	10
	Angola	0.0	-2.6	0.0	-2.3	0.0	0.0	-2.5	0.0	-2.2	0.0
	Bangladesh	-0.8	-4.3	-0.1	-0.5	0.3	-0.8	-4.3	-0.1	-0.6	0.8
	Benin	-0.1	-0.3	0.0	-0.1	0.0	-0.1	-0.3	0.0	-0.1	0.0
	Burkina Faso	-0.2	-0.5	1.6	4.1	1.0	-0.2	-0.5	1.6	4.1	1.0
	Burundi	0.0	-0.1	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0
	Cambodia	0.0	-1.2	0.0	-0.3	0.0	0.0	-1.2	0.0	-0.3	0.0
	Central African Republic	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Chad	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Dem. Rep. of the Congo	-0.6	-3.4	-0.1	-0.6	0.0	-0.6	-3.4	-0.1	-0.6	0.0
	Djibouti	0.0	-0.8	0.0	-0.1	0.0	0.0	-0.8	0.0	-0.1	0.0
	Gambia	-0.2	-2.8	0.0	-0.4	0.0	-0.2	-2.8	0.0	-0.4	0.0
	Guinea	0.0	-0.1	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0
	Guinea-Bissau	0.0	-0.1	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0
	Haiti	-0.1	-0.5	0.0	0.0	0.0	-0.1	-0.5	0.0	0.0	0.0
	Lesotho	0.0	-0.7	0.0	-0.6	0.0	0.0	-0.7	0.0	-0.6	0.0
	Madagascar	-3.0	-0.8	0.3	0.1	0.7	-3.0	-0.8	0.3	0.1	0.7
	Malawi	-24.5	-8.4	-0.8	-0.3	19.5	-24.5	-8.4	-3.1	-1.1	48.1
	Maldives	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Mali	-0.1	-0.1	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	0.0
	Mauritania	0.0	-1.6	0.0	-0.2	0.0	0.0	-1.6	0.0	-0.2	0.0
	Mozambique	-3.4	-6.2	1.4	2.5	1.4	-3.4	-6.2	1.4	2.5	1.4
	Myanmar	0.0	0.0	0.2	0.8	0.5	0.0	0.0	0.2	0.8	0.5
	Nepal	0.0	-0.4	2.0	28.1	1.2	0.0	-0.4	2.0	28.1	1.2
	Niger	-0.1	-1.1	0.0	-0.7	0.0	-0.1	-1.1	0.0	-0.7	0.0
	Rwanda	0.0	-0.1	0.0	-0.1	0.0	0.0	-0.1	0.0	-0.1	0.0
	Senegal	-2.7	-2.8	-0.5	-0.6	0.0	-2.7	-2.8	-0.5	-0.6	0.0
	Sierra Leone	0.0	-0.1	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0
	Solomon Islands	0.0	-0.3	0.0	-0.2	0.0	0.0	-0.3	0.0	-0.2	0.0
	Tanzania	-7.6	-4.8	-1.4	-0.9	0.0	-7.6	-4.8	-1.4	-0.9	0.0
	Togo	-0.4	-1.0	-0.1	-0.3	0.0	-0.4	-0.9	-0.1	-0.3	0.0
	Uganda	-2.3	-1.1	-0.5	-0.2	0.0	-2.3	-1.1	-0.5	-0.2	0.0
	Zambia	-1.9	-2.4	8.6	10.6	5.3	-1.9	-2.4	8.6	10.6	5.3
	Positive	***0.0***		***14.1***			***0.0***		***14.1***		
	Negative	***-48.2***		***-3.8***			***-48.2***		***-6.0***		
	Total LDC	**-48.2**	**-2.9**	**10.4**	**0.6**	**30.0**	**-48.2**	**-2.8**	**8.1**	**0.5**	**59.0**
	Positive	***0.0***		***475.4***			***0.0***		***367.4***		
	Negative	***-1,102.3***		***-208.8***			***-1,102.2***		***-214.0***		
	TOTAL	**-1,102.3**	**-1.9**	**266.6**	**0.5**	**2,001.1**	**-1,102.2**	**-1.9**	**153.4**	**0.3**	**2,847.8**

Table A5.A (cont'd)
Impact of MFN tariff reduction on preference value and scope for future preferences, QUAD, agricultural products, 2003
(G20 proposal applied on 2003 MFN applied rates)

		QUAD									
		Without Flexibilities					With Flexibilities 4 % highest tariff				
		Change in the preference value for unadjusted & adjusted pref. margin				Scope for additional pref	Change in the preference value for unadjusted & adjusted pref. margin				Scope for additional pref
		No adjustment		With adjustment			No adjustment		With adjustment		
		Mill USD	% of imports	Mill USD	% of imports	Mill USD	Mill USD	% of imports	Mill USD	% of imports	Mill USD
	Country	1	2	3	4	5	6	7	8	9	10
DEVing	***Positive***	***0.0***		***461.3***			***0.0***		***325.0***		
DEVing	***Negative***	***-1,054.1***		***-205.1***			***-993.8***		***-192.7***		
DEVing	**Total Developing**	**-1,054.1**	**-1.9**	**256.2**	**0.5**	**1,971.1**	**-993.8**	**-1.8**	**132.3**	**0.2**	**3,050.4**
LDC	***Positive***	***0.0***		***14.1***			***0.0***		***14.5***		
LDC	***Negative***	***-48.2***		***-3.8***			***-46.3***		***-5.8***		
LDC	**Total LDC**	**-48.2**	**-2.9**	**10.4**	**0.6**	**30.0**	**-46.3**	**-2.7**	**8.7**	**0.5**	**59.2**
	Positive	***0.0***		***475.4***			***0.0***		***339.4***		
	Negative	***-1,102.3***		***-208.8***			***-1,040.1***		***-198.5***		
	TOTAL	**-1,102.3**	**-1.9**	**266.6**	**0.5**	**2,001.1**	**-1,040.1**	**-1.8**	**141.0**	**0.2**	**3,109.5**

Table A5.B
Impact of MFN tariff reduction on preference value and scope for future preferences, agricultural products, EU & US,2003
(G20 proposal applied on 2003 MFN applied rates)

	Without Flexibilities									
	EU					US				
	Change in the preference value for unadj. and adj. preference margin				Scope for additional preferences	Change in the preference value for unadj. and adj. preference margin				Scope for additional preferences
	No adjustment		With adjustment			No adjustment		With adjustment		
	Mill USD	% of imports	Mill USD	% of imports	Mill USD	Mill USD	% of imports	Mill USD	% of imports	Mill USD
Country	1	2	3	4	5	6	7	8	9	10
Albania	-0.2	-1.2	0.0	-0.2	0.0	0.0	0.0	0.0	0.0	0.0
Antigua and Barbuda	0.0	-0.4	0.0	-0.2	0.0	0.0	-1.2	0.0	-0.1	0.0
Argentina	-11.8	-0.3	19.7	0.5	143.3	-2.2	-0.4	15.8	2.8	41.7
Armenia	0.0	-2.6	0.0	-0.3	0.0	0.0	-0.9	0.0	-0.1	0.1
Bahrain	0.0	-0.4	0.0	-0.1	0.0	.	.	.	.	.
Barbados	-9.0	-28.9	-1.2	-3.8	0.0	-0.4	-4.4	-0.1	-0.6	0.0
Belize	-19.3	-23.3	-6.9	-8.3	0.3	-5.0	-17.6	-2.5	-8.9	0.0
Bolivia	-1.9	-4.5	-0.3	-0.8	0.0	-1.3	-6.0	-0.3	-1.6	0.0
Botswana	-6.5	-17.3	-5.8	-15.5	8.6	0.0	0.0	0.0	0.0	0.0
Brazil	-9.0	-0.1	60.6	0.7	299.3	-3.3	-0.2	182.8	11.6	258.9
Brunei Darussalam	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cameroon	-37.3	-6.4	-29.8	-5.1	0.1	0.0	0.0	0.0	0.0	0.0
China	-28.6	-1.5	47.1	2.4	70.5	0.0	0.0	6.9	0.5	17.9
Colombia	-8.5	-0.8	19.8	1.9	63.6	-19.2	-1.8	-5.1	-0.5	2.0
Congo	-1.4	-10.5	-0.2	-1.2	0.0	-1.1	-23.78	-0.3	-6.30	0.0
Cuba	-13.5	-6.5	12.8	6.1	20.0	.	.	.	.	.
Côte d'Ivoire	-54.8	-2.5	-22.1	-1.0	1.4	-0.1	0.0	0.0	0.0	0.0
Dominica	-1.3	-12.7	-1.0	-9.5	0.0	0.0	-1.9	0.0	-0.6	0.0
Dominican Republic	-17.3	-10.2	-9.6	-5.7	0.1	-36.5	-7.6	-11.3	-2.4	0.0
Ecuador	-11.8	-1.4	23.7	2.7	72.7	-7.0	-1.3	-1.2	-0.2	0.0
Egypt	-8.0	-2.3	-1.5	-0.4	12.5	-0.1	-0.3	0.0	0.0	2.0
El Salvador	-0.5	-0.7	0.2	0.3	0.3	-9.9	-8.7	-2.7	-2.3	0.0
Fiji	-47.5	-41.8	-6.3	-5.5	0.0	-1.6	-5.0	-0.4	-1.3	0.0
Gabon	0.0	-1.1	0.0	-0.2	0.0	0.0	0.0	0.0	0.0	0.0
Georgia	-0.7	-2.6	-0.1	-0.4	0.8	0.0	-0.1	0.0	0.0	0.0
Ghana	-5.2	-0.8	-0.6	-0.1	0.1	-0.1	-0.7	0.0	-0.1	0.0
Grenada	-0.1	-0.6	0.0	-0.4	0.0	0.0	0.0	0.0	0.0	0.0
Guatemala	-5.6	-2.4	-1.2	-0.5	0.2	-22.3	-2.92	-0.7	-0.10	8.4
Guyana	-47.3	-31.5	-6.4	-4.2	1.0	-1.1	-18.28	-0.3	-4.70	0.0
Honduras	-1.8	-0.9	0.2	0.1	1.5	-8.1	-2.9	0.7	0.2	0.6
Hong Kong, China	0.0	0.0	1.4	2.6	2.5	0.0	0.0	0.6	0.8	1.4
India	-9.5	-0.9	1.8	0.2	18.1	-2.7	-0.4	0.5	0.1	4.6
Indonesia	-8.1	-0.6	3.6	0.3	29.7	-0.5	-0.1	0.0	0.0	2.2
Jamaica	-39.2	-25.9	-7.9	-5.2	0.3	-1.4	-1.1	-0.6	-0.5	0.3
Kenya	-26.9	-3.5	-5.6	-0.7	1.6	-0.1	-0.2	0.0	0.0	0.0
Korea, Republic of	0.0	0.0	0.9	1.8	1.7	0.0	0.0	2.5	1.3	5.3
Kuwait	0.0	-0.7	0.0	-0.1	0.0	0.0	0.0	0.0	0.3	0.0
Kyrgyz Republic	0.0	-0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Macao, China	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Malaysia	-6.3	-0.6	3.7	0.4	24.0	0.0	0.0	0.5	0.1	1.9
Mauritius	-127.1	-39.2	-23.2	-7.2	0.5	-0.6	-7.6	-0.2	-2.1	0.0
Moldova	-0.8	-1.3	0.2	0.3	1.5	0.0	-0.3	0.0	-0.1	0.0
Mongolia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Namibia	-7.5	-11.0	-6.5	-9.5	11.7	0.0	0.0	0.0	0.0	0.0
Nicaragua	-1.7	-2.6	-0.2	-0.3	0.0	-4.7	-3.5	-1.0	-0.7	4.4
Nigeria	-1.2	-0.2	-0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Oman	0.0	-1.3	0.0	0.0	0.0	0.0	-0.1	0.0	0.4	0.1
Pakistan	-7.8	-2.9	-2.6	-1.0	0.1	-0.1	-0.4	-0.1	-0.1	0.2
Panama	-1.0	-0.4	8.9	3.7	29.3	-5.2	-13.3	-1.3	-3.3	0.1
Papua New Guinea	-5.3	-1.7	-4.5	-1.5	0.0	-1.2	-3.2	-0.3	-0.8	0.0
Paraguay	-0.1	0.0	0.9	0.4	1.3	-1.1	-5.0	-0.2	-0.7	0.9
Peru	-14.1	-3.3	-5.3	-1.3	3.6	-18.0	-6.4	-3.1	-1.1	0.0
Philippines	-2.8	-0.9	0.9	0.3	8.9	-24.7	-5.0	-6.4	-1.3	5.0
Qatar	0.0	-2.0	0.0	-0.2	0.0	0.0	0.0	0.0	0.0	0.0
Saint Kitts and Nevis	-3.9	-42.5	-0.5	-5.0	0.0	0.0	0.0	0.0	0.0	0.0
Saint Lucia	-4.0	-15.9	-3.1	-12.2	0.0	0.0	-1.6	0.0	-0.6	0.0
St Vincent & Grenadines	-2.5	-15.9	-1.9	-12.2	0.0	0.0	-0.7	0.0	-0.3	0.0
Sri Lanka	-0.9	-0.7	0.0	0.0	1.3	0.0	-0.2	0.0	-0.1	0.0
Suriname	-0.2	-1.9	0.0	-0.4	0.2	0.0	0.0	0.0	0.0	0.0
Swaziland	-36.3	-30.9	-4.9	-4.2	1.7	-2.7	-34.3	-0.7	-9.3	0.0
Taipei, Chinese	0.0	0.0	1.3	2.4	2.2	0.0	0.0	2.3	1.4	3.5
Thailand	-3.8	-0.3	58.2	4.9	125.8	-6.8	-1.0	4.7	0.7	33.0
Trinidad and Tobago	-11.8	-30.8	-1.4	-3.7	0.0	-1.5	-8.9	-0.4	-2.3	0.0
United Arab Emirates	-0.5	-0.3	-0.1	-0.1	0.7	0.0	0.0	0.1	0.6	0.1
Uruguay	-0.3	-0.1	3.1	1.0	29.2	-1.2	-1.0	0.0	0.0	8.6
Venezuela, Bolivarian Rep.	-1.7	-1.5	-0.5	-0.4	1.8	-0.1	-0.2	0.0	0.0	0.1
Zimbabwe	-24.4	-6.2	-6.5	-1.7	1.7	0.0	-0.1	3.5	17.8	15.0
Positive	***0.0***		***268.8***			***0.0***		***220.9***		
Negative	***-698.9***		***-168.0***			***-191.9***		***-39.2***		
Total Developing	**-698.9**	**-2.2**	**100.9**	**0.3**	**995.7**	**-191.9**	**-1.6**	**181.7**	**1.5**	**418.1**

Table A5.B (cont'd)
Impact of MFN tariff reduction on preference value and scope for future preferences, agricultural products, EU & US,2003
(G20 proposal applied on 2003 MFN applied rates)

	Without Flexibilities									
	EU					US				
	Change in the preference value for unadj. and adj. preference margin				Scope for additional preferences	Change in the preference value for unadj. and adj. preference margin				Scope for additional preferences
	No adjustment		With adjustment			No adjustment		With adjustment		
	Mill USD	% of imports	Mill USD	% of imports	Mill USD	Mill USD	% of imports	Mill USD	% of imports	Mill USD
Country	1	2	3	4	5	6	7	8	9	10
Angola	0.0	-2.6	0.0	-2.4	0.0	0.0	0.0	0.0	0.0	0.0
Bangladesh	-0.8	-4.7	-0.1	-0.8	0.0	0.0	-2.0	0.0	2.8	0.3
Benin	-0.1	-0.3	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Burkina Faso	-0.2	-0.7	1.6	5.4	1.0	0.0	-0.2	0.0	-0.1	0.0
Burundi	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cambodia	0.0	-1.4	0.0	-0.3	0.0	0.0	-0.4	0.0	-0.2	0.0
Central African Republic	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chad	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dem. Rep. of the Congo	-0.6	-3.8	-0.1	-0.6	0.0	0.0	0.0	0.0	0.0	0.0
Djibouti	0.0	-0.9	0.0	-0.1	0.0	0.0	-0.2	0.0	0.0	0.0
Gambia	-0.2	-2.9	0.0	-0.4	0.0	.	.	.	.	.
Guinea	0.0	-0.1	0.0	0.0	0.0	0.0	-0.4	0.0	-0.1	0.0
Guinea-Bissau	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Haiti	-0.1	-0.5	0.0	-0.1	0.0	-0.1	-0.6	0.0	0.0	0.0
Lesotho	0.0	-0.7	0.0	-0.6	0.0	.	.	.	.	.
Madagascar	-3.0	-1.8	0.3	0.2	0.7	0.0	0.0	0.0	0.0	0.0
Malawi	-21.5	-10.4	-3.5	-1.7	0.5	-3.0	-5.2	2.8	4.9	19.0
Maldives	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0
Mali	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mauritania	0.0	-1.6	0.0	-0.2	0.0	0.0	0.0	0.0	0.0	0.0
Mozambique	-1.3	-2.7	2.0	4.3	1.4	-2.1	-38.7	-0.6	-10.3	0.0
Myanmar	0.0	0.0	0.2	5.2	0.2	0.0	0.0	0.0	0.0	0.0
Nepal	0.0	-0.3	2.0	31.0	1.2	0.0	-0.8	0.0	-0.7	0.0
Niger	0.0	-1.0	0.0	-0.4	0.0	0.0	-1.4	0.0	-1.2	0.0
Rwanda	0.0	-0.1	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Senegal	-2.7	-2.8	-0.5	-0.6	0.0	0.0	-0.3	0.0	-0.2	0.0
Sierra Leone	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	0.0	-0.2	0.0
Solomon Islands	0.0	-0.4	0.0	-0.3	0.0	0.0	0.00	0.0	0.00	0.0
Tanzania	-7.5	-6.3	-1.4	-1.1	0.0	0.0	-0.13	0.0	-0.01	0.0
Togo	-0.4	-1.0	-0.1	-0.3	0.0	0.0	0.0	0.0	0.0	0.0
Uganda	-2.3	-1.3	-0.5	-0.3	0.0	0.0	0.0	0.0	0.0	0.0
Zambia	-1.9	-2.7	8.6	12.3	5.3	0.0	-0.3	0.0	-0.2	0.0
Positive	***0.0***		***14.7***			***0.0***		***2.8***		
Negative	***-42.8***		***-6.5***			***-5.3***		***-0.6***		
Total LDC	**-42.8**	**-3.5**	**8.2**	**0.7**	**10.3**	**-5.3**	**-1.6**	**2.2**	**0.7**	**19.4**
Positive	***0.0***		***283.6***			***0.0***		***223.7***		
Negative	***-741.7***		***-174.5***			***-197.2***		***-39.8***		
TOTAL	**-741.7**	**-2.2**	**109.1**	**0.3**	**1006.0**	**-197.2**	**-1.63**	**183.9**	**1.52**	**437.5**

Table A6
Top 2% of national tariff lines with the hightest applied duties in each of the QUAD market, agricultural products, 2003

Market	Chapters		Nbr. of national tariff lines
Canada	02	Meat and edible meat offal	3
	04	Dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere specified or included	11
	16	Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates	3
	18	Cocoa and cocoa preparations	2
	19	Preparations of cereals, flour, starch or milk; pastrycooks' products	4
	21	Miscellaneous edible preparations	2
	22	Beverages, spirits and vinegar	1
	35	Albuminoidal substances; modified starches; glues; enzymes	1
	Imports in selected tariff lines in per cent of total imports in agriculture : 0.577		
EU	02	Meat and edible meat offal	5
	04	Dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere specified or included	21
	07	Edible vegetables and certain roots and tubers	2
	15	Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes	4
	17	Sugars and sugar confectionery	1
	20	Preparations of vegetables, fruit, nuts or other parts of plants	4
	22	Beverages, spirits and vinegar	4
	23	Residues and waste from the food industries; prepared animal fodder	1
	Imports in selected tariff lines in per cent of total imports in agriculture : 0.782		
Japan	04	Dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere specified or included	15
	10	Cereals	10
	17	Sugars and sugar confectionery	2
	19	Preparations of cereals, flour, starch or milk; pastrycooks' products	5
	21	Miscellaneous edible preparations	4
	50	Silk	1
	Imports in selected tariff lines in per cent of total imports in agriculture : 0.780		
USA	04	Dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere specified or included	15
	12	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal plants; straw and fodder	2
	16	Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates	1
	17	Sugars and sugar confectionery	2
	18	Cocoa and cocoa preparations	1
	19	Preparations of cereals, flour, starch or milk; pastrycooks' products	2
	20	Preparations of vegetables, fruit, nuts or other parts of plants	3
	21	Miscellaneous edible preparations	3
	24	Tobacco and manufactured tobacco substitutes	7
	Imports in selected tariff lines in per cent of total imports in agriculture : 0.954		
QUAD	**Imports in selected tariff lines in per cent of total imports in agriculture : 0.814**		

Table A7

Impact of G20 cut on preference margins by selected countries and MTN categories, QUAD, 2003

		Barbados	Belize	Cameroon	Dominica	Fiji	Guyana	Jamaica	Mauritius	Namibia	Saint Kitts and Nevis	Saint Lucia	Saint Vincent and the Grenadines	Swaziland
Imports (million USD)	**Ag and Non-ag**	**83**	**201**	**2,146**	**29**	**329**	**456**	**1,067**	**1,458**	**679**	**60**	**38**	**64**	**303**
	Agricultural pdts	**45**	**117**	**612**	**11**	**157**	**162**	**327**	**336**	**69**	**10**	**25**	**16**	**130**
Import share (% of Ag products)	12 FRUIT & VEGETABLES	0.0	46.7	36.4	74.4	2.8	2.3	18.9	0.6	19.5	0.2	98.2	97.3	27.7
Pref. margin		3.9	23.8	29.2	28.3	1.3	8.9	15.6	3.9	2.0	17.1	29.1	29.0	8.4
Pref. margin adj.		0.9	17.8	24.3	21.5	-0.1	0.8	10.1	0.7	-0.5	10.2	22.3	22.3	2.6
Pref. margin adj. after cut		0.6	8.1	11.0	9.8	-0.1	0.5	4.7	0.5	0.1	6.3	10.1	10.0	1.9
Pref. margin adj. after cut + flexibilities		0.6	8.1	11.0	9.8	-0.1	0.5	4.7	0.5	0.1	6.3	10.1	10.0	1.9
Change in pref value adj, after cut (mio $)		0.0	-5.3	-29.7	-1.0	0.0	0.0	-3.3	0.0	0.1	0.0	-3.0	-1.9	-0.2
Import share (% of Ag products)	13 COFFEE, TEA, MATE, & COCOA		0.0	56.8	7.8	0.0	0.2	11.4	0.1		1.4	0.1		
Pref. margin			0.0	1.0	2.0	0.4	0.0	0.1	0.4		0.0	0.0		
Pref. margin adj.			0.0	0.0	0.1	-0.2	0.0	0.0	0.1		0.0	0.0		
Pref. margin adj. after cut			0.0	0.0	0.1	-0.3	0.0	0.0	0.0		0.0	0.0		
Pref. margin adj. after cut + flexibilities			0.0	0.0	0.1	-0.3	0.0	0.0	0.0		0.0	0.0		
Change in pref value adj, after cut (mio $)			0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Import share (% of Ag products)	14 SUGARS	43.8	33.5	0.0		78.8	70.5	23.0	90.5		94.9			65.2
Pref. margin		66.8	55.4	3.5		61.0	67.4	66.9	64.4		67.1			65.9
Pref. margin adj.		8.0	7.4	-2.2		8.3	8.5	8.4	11.7		7.8			8.7
Pref. margin adj. after cut		2.8	2.6	-2.4		2.9	3.0	2.9	4.1		2.7			3.0
Pref. margin adj. after cut + flexibilities		2.8	2.6	-2.4		2.9	3.0	2.9	4.1		2.7			3.0
Change in pref value adj, after cut (mio $)		-1.0	-1.9	0.0		-6.7	-6.3	-4.1	-23.3		-0.5			-4.8
Import share (% of Ag products)	17 ANIMALS AND PRODUCTS THEREOF	1.3	0.1	0.2			0.8		5.3	71.4	2.0			2.9
Pref. margin		0.0	0.0	0.0			0.0		0.0	14.9	0.0			11.7
Pref. margin adj.		0.0	0.0	0.0			0.0		0.0	13.4	0.0			10.4
Pref. margin adj. after cut		0.0	0.0	0.0			0.0		0.0	0.0	0.0			0.0
Pref. margin adj. after cut + flexibilities		0.0	0.0	0.0			0.0		0.0	0.0	0.0			0.0
Change in pref value adj, after cut (mio $)		0.0	0.0	0.0			0.0		0.0	-6.6	0.0			-0.4
Import share (% of Ag products)	20 BEVERAGES & SPIRITS	51.7	18.1	0.1	3.2	15.3	7.2	37.3	0.8	0.2	0.3	1.1	0.5	3.8
Pref. margin		8.2	27.7	3.0	6.8	0.7	15.9	4.4	7.7	0.0	4.4	18.3	5.3	33.6
Pref. margin adj.		1.8	19.8	0.8	2.9	0.3	4.9	1.6	2.4	0.0	1.6	6.9	0.7	8.3
Pref. margin adj. after cut		0.8	9.4	0.5	1.8	0.2	2.2	0.8	1.4	0.0	0.9	3.1	0.4	4.4
Pref. margin adj. after cut + flexibilities		0.8	9.4	0.5	1.8	0.2	2.2	0.8	1.4	0.0	0.9	3.1	0.4	4.4
Change in pref value adj, after cut (mio $)		-0.2	-2.2	0.0	0.0	0.0	-0.3	-1.0	0.0	0.0	0.0	0.0	0.0	-0.2

Table A8
Share of exports of agricultural products to Quad market for first 3 sub-headings by selected countries, 2003

Country	Sub-headings		Cumulative share of exports (agricultural products)	Average preference margin
Barbados	220840	Rum and tafia	46	6.6
	170111	Raw cane sugar (excl. added flavouring or colouring)	89	66.9
	220710	Undenatured ethyl alcohol, of actual alcoholic strength of >= 80%	94	24.8
Belize	080300	Bananas, incl. plantains, fresh or dried	36	30.0
	170111	Raw cane sugar (excl. added flavouring or colouring)	67	60.1
	200911	Frozen orange juice, unfermented, whether or not containing added sugar or other sweetening matter (excl. containing spirit)	79	35.6
Cameroon	180100	Cocoa beans, whole or broken, raw or roasted	42	0.0
	080300	Bananas, incl. plantains, fresh or dried	76	30.0
	180310	Cocoa paste (excl. defatted)	84	5.8
Dominica	080300	Bananas, incl. plantains, fresh or dried	70	29.6
	210390	Preparations for sauces and prepared sauces; mixed condiments and seasonings (excl. soya sauce, tomato ketchup and other tomato sauces, mustard, and mustard flour and meal)	77	7.7
	090111	Coffee (excl. roasted and decaffeinated)	81	0.0
Fiji	170111	Raw cane sugar (excl. added flavouring or colouring)	78	61.6
	220110	Mineral waters and aerated waters, not containing added sugar, other sweetening matter or flavoured	93	0.6
	151311	Crude coconut oil	94	5.6
Guyana	170111	Raw cane sugar (excl. added flavouring or colouring)	70	68.0
	100620	Husked or brown rice	86	0.0
	220840	Rum and tafia	92	15.6
Jamaica	170111	Raw cane sugar (excl. added flavouring or colouring)	23	67.1
	220840	Rum and tafia	37	8.2
	220710	Undenatured ethyl alcohol, of actual alcoholic strength of >= 80%	52	2.5
Mauritius	170111	Raw cane sugar (excl. added flavouring or colouring)	88	66.3
	010611	Live primates	93	0.0
	170310	Cane molasses resulting from the extraction or refining of sugar	95	0.0
Namibia	020130	Fresh or chilled bovine meat, boneless	61	12.8
	080610	Fresh grapes	78	1.4
	020230	Frozen, boneless meat of bovine animals	88	29.3
Saint Kitts and Nevis	170111	Raw cane sugar (excl. added flavouring or colouring)	93	67.1
	170390	Beet molasses resulting from the extraction or refining of sugar	95	
	010611	Live primates	97	0.0
Saint Lucia	080300	Bananas, incl. plantains, fresh or dried	94	30.0
	070990	Fresh or chilled vegetables (excl. potatoes, tomatoes, vegetables of the Allium spp., cabbages of the genus Brassica, lettuces of the species Lactuca sativa and Cichorium, carrots, turnips, salad beetroot, salsify, celeriac, radishes and similar edible roots, cucumbers and gherkins, leguminous vegetables, artichokes, asparagus, aubergines, mushrooms, truffles, fruits of the genus Capsicum or of the genus Pimenta, spinach, New Zealand spinach and orache spinach)	97	12.8
	220840	Rum and tafia	98	23.9
Saint Vincent and the Grenadines	080300	Bananas, incl. plantains, fresh or dried	93	30.0
	071490	Roots and tubers of arrowroot, salep, Jerusalem artichokes and similar roots and tubers with high starch or inulin content, fresh, chilled, frozen or dried, whether or not sliced or in the form of pellets and sago pith (excl. manioc "cassava" and sweet potatoes)	96	8.7
	100630	Semi-milled or wholly milled rice, whether or not polished or glazed	96	0.0
Swaziland	170111	Raw cane sugar (excl. added flavouring or colouring)	65	66.6
	200830	Citrus fruit, prepared or preserved, whether or not containing added sugar or other sweetening matter or spirit, n.e.s.	72	15.8
	080540	Fresh or dried grapefruit	79	1.0

Table A9
Imports of agricultural products into the EU from preference beneficiaries by type of market access and tariff lines subject to bound quota, 2003

	Imports (%)				Weighted MFN Duty				Weighted Duty applied	
	No quota		TL with Quota		No quota		TL with Quota		No quota	TL with Quota
	No Pref	Pref	No Pref	Pref	No Pref	Pref	No Pref	Pref	Pref	Pref
Country	1	2	3	4	5	6	7	8	9	10
Albania	70.9	29.0	.	0.1	0.0	9.1	.	10.9	0.1	0.0
Antigua & Barbuda	88.0	11.0	0.1	0.8	0.0	3.7	12.0	84.2	0.0	61.2
Argentina	69.2	11.0	16.2	3.7	1.9	7.2	65.7	13.9	4.2	13.4
Armenia	59.9	40.1	.	.	0.7	21.6	.	.	15.0	.
Bahrain	88.0	10.6	1.4	.	0.0	13.7	91.1	.	9.9	.
Barbados	18.6	18.7	0.1	62.6	0.0	17.4	23.7	66.9	0.1	0.0
Belize	4.7	8.0	.	87.3	3.4	11.7	.	43.4	0.0	0.5
Bolivia	72.4	27.5	0.1	0.1	0.0	30.3	61.4	3.8	0.1	0.0
Botswana	0.9	1.4	.	97.8	0.0	16.6	.	93.8	0.0	76.2
Brazil	72.3	14.9	12.0	0.8	1.3	10.0	75.1	13.3	9.1	12.0
Brunei Darussalam	97.1	2.9	.	.	0.0	9.8	.	.	6.3	.
Cameroon	54.8	8.7	0.0	36.5	0.0	9.8	5.6	30.0	0.0	0.1
China	55.6	38.9	3.1	2.4	1.4	13.0	13.2	110.8	8.8	108.0
Colombia	34.1	20.8	45.0	0.1	0.0	9.0	30.0	13.8	0.5	0.0
Congo	68.1	8.9	.	22.9	0.0	11.1	.	67.1	0.0	0.0
Cuba	17.8	61.7	18.8	1.7	16.6	20.2	52.0	15.2	7.8	11.7
Côte d'Ivoire	62.1	29.9	0.3	7.7	0.0	8.3	65.3	32.7	0.0	0.0
Dominica	9.4	17.4	.	73.2	0.1	9.7	.	29.8	0.5	0.0
Dominican Republic	16.9	41.6	2.7	38.8	0.1	17.4	.	30.0	0.1	0.0
Ecuador	9.5	29.4	61.0	0.0	0.1	10.5	30.0	14.2	0.6	0.0
Egypt	41.9	41.0	3.3	13.7	0.4	12.1	43.0	13.4	7.1	8.4
El Salvador	84.8	13.3	1.8	.	0.0	11.9	67.1	.	0.0	.
Gabon	80.9	19.1	.	.	0.1	13.3	.	.	0.0	.
Georgia	6.8	93.2	.	.	0.4	7.2	.	.	3.8	.
Ghana	76.8	22.1	0.0	1.1	0.0	7.7	5.6	15.5	0.0	2.2
Grenada	93.8	3.4	.	2.8	0.0	10.6	.	30.0	0.1	0.0
Guatemala	53.9	45.6	0.5	.	0.0	10.5	30.0	.	0.0	.
Guyana	1.8	7.6	19.7	70.8	1.6	16.8	43.8	67.1	0.0	0.0
Honduras	70.3	24.0	5.6	0.1	0.0	7.9	30.0	6.8	0.0	0.0
Hong Kong, China	98.2	.	1.8	.	9.2	.	4.8	.	.	.
India	57.1	25.1	13.4	4.4	0.4	7.8	56.0	13.7	3.4	10.7
Indonesia	34.2	65.8	0.0	0.0	0.0	6.6	45.3	143.0	5.5	139.5
Jamaica	7.6	24.5	0.0	67.8	0.0	13.7	28.1	56.5	0.5	0.2
Kenya	29.0	70.1	0.9	0.0	0.0	10.9	67.1	13.5	0.0	4.4
Korea, Republic of	93.2	.	6.8	.	6.5	.	19.6	.	.	.
Kuwait	83.0	16.7	0.3	.	0.0	11.5	117.0	.	7.4	.
Kyrgyz Republic	74.2	23.3	.	2.5	0.0	7.8	.	5.7	4.1	2.2
Macao, China	95.9	4.1	.	.	0.0	7.8	.	.	2.7	.
Malaysia	18.7	81.3	0.0	0.0	0.0	6.2	18.9	12.5	4.9	9.0
Mauritius	6.8	2.1	0.3	90.8	1.5	9.8	65.3	66.3	0.9	0.1
Moldova	50.5	49.4	0.1	0.1	2.1	8.9	.	14.8	5.3	14.4
Mongolia	99.9	0.1	.	.	0.0	2.1	.	.	0.1	.
Namibia	9.7	1.6	0.1	88.5	0.0	9.6	66.7	74.3	0.7	61.9
Nicaragua	80.8	18.9	0.0	0.2	0.0	25.4	30.0	10.7	0.0	0.0
Nigeria	92.9	7.0	0.0	0.0	0.0	7.6	36.9	44.5	0.0	37.1
Oman	40.5	59.5	.	.	0.0	5.7	.	.	2.3	.
Pakistan	26.0	50.4	23.6	0.1	0.0	11.3	44.7	10.0	0.0	0.8
Panama	1.5	8.0	90.6	.	0.0	10.9	30.0	.	0.0	.
Paraguay	93.2	1.6	5.1	0.0	0.0	7.9	77.5	15.2	5.2	11.7
Peru	41.2	54.7	1.4	2.7	0.0	13.0	30.3	14.7	1.4	3.5
Philippines	26.3	73.6	0.2	.	0.1	7.2	60.0	.	5.7	.
Qatar	31.7	68.3	.	.	2.6	8.0	.	.	4.7	.
Saint Kitts and Nevis	1.5	1.0	.	97.5	0.0	7.6	.	67.1	0.0	0.0
Saint Lucia	0.5	4.9	.	94.6	0.3	14.2	.	30.0	0.1	0.0
St. Vincent & Grenadines	0.9	0.8	0.9	97.4	0.0	8.5	.	29.7	1.8	0.0
Sri Lanka	59.6	40.0	0.5	0.0	0.1	6.5	61.2	7.4	3.7	5.1
Suriname	10.3	33.2	51.3	5.2	0.1	11.1	43.8	11.3	0.1	0.2
Swaziland	0.0	23.3	0.7	75.9	4.7	16.9	65.1	62.7	0.2	4.2
Taipei, Chinese	97.6	.	2.4	.	8.1	.	4.4	.	.	.
Thailand	34.6	39.6	25.8	0.1	10.2	13.6	86.7	13.0	12.4	9.5
Trinidad and Tobago	22.2	8.0	.	69.8	0.3	10.2	.	67.1	0.2	0.0
United Arab Emirates	94.6	5.2	0.2	0.0	0.0	17.6	43.8	6.4	11.7	2.9
Uruguay	50.0	9.5	38.5	2.0	2.3	14.4	70.9	18.4	13.5	17.7
Venezuela, Bolivarian Rep.	68.0	20.2	11.5	0.3	0.0	15.4	30.0	14.2	0.0	0.2
Zimbabwe	14.9	73.8	0.2	11.1	0.2	9.1	65.3	47.6	0.1	5.3
Total Developing	**54.9**	**27.4**	**12.1**	**5.6**	**1.3**	**9.7**	**54.2**	**45.7**	**4.8**	**9.3**

Table A9 (cont'd)
Imports of agricultural products into the EU from preference beneficiaries by type of market access and tariff lines subject to bound quota, 2003

Country	Imports (%)				Weighted MFN Duty				Weighted Duty applied	
	No quota		TL with Quota		No quota		TL with Quota		No quota	TL with Quota
	No Pref	Pref	No Pref	Pref	No Pref	Pref	No Pref	Pref	Pref	Pref
	1	2	3	4	5	6	7	8	9	10
Angola	89.8	4.3	.	5.9	0.0	20.2	.	54.9	0.0	0.0
Bangladesh	6.9	86.7	1.2	5.2	1.4	12.0	.	16.4	0.0	0.0
Benin	92.5	6.9	.	0.6	0.0	5.9	.	36.2	0.0	0.0
Burkina Faso	71.9	13.8	14.3	.	0.0	11.2	67.1	.	0.0	.
Burundi	98.3	1.7	.	.	0.0	9.4	.	.	0.0	.
Cambodia	0.2	20.8	53.2	25.7	0.0	15.1	.	.	0.0	0.0
Central African Republic	100.0	.	.	.	0.0	.	.	.	.	.
Chad	100.0	.	.	.	0.0	.	.	.	.	.
Dem. Rep. of the Congo	72.4	27.5	.	0.0	0.0	25.8	.	30.0	0.0	0.0
Djibouti	75.5	24.2	.	0.2	0.0	7.7	.	13.0	0.0	0.0
Gambia	34.2	65.6	.	0.2	0.0	9.8	.	1.5	0.0	0.0
Guinea	95.6	4.3	.	0.1	0.0	6.4	.	12.9	0.0	0.0
Guinea-Bissau	96.5	3.5	.	.	0.0	8.6	.	.	0.0	.
Haiti	78.2	21.7	0.0	.	0.0	5.2	43.8	.	0.0	.
Lesotho	92.4	7.6	.	.	0.0	19.2	.	.	0.0	.
Madagascar	47.1	50.3	2.0	0.6	0.0	6.8	65.3	61.2	0.0	0.0
Malawi	16.1	63.2	1.0	19.7	0.0	7.2	65.3	64.9	0.0	0.0
Maldives	99.1	0.9	.	.	0.0	5.1	.	.	0.0	.
Mali	97.6	2.3	.	0.0	0.0	11.7	.	33.8	0.0	0.0
Mauritania	63.8	36.2	.	.	0.0	9.9	.	.	0.0	.
Mozambique	30.9	55.0	13.0	1.1	0.0	8.9	67.1	69.5	0.0	0.0
Myanmar	71.9	0.7	22.5	5.0	0.0	7.0	65.3	.	0.0	0.0
Nepal	12.4	7.5	80.1	.	0.0	10.0	67.1	.	0.0	.
Niger	62.6	35.6	.	1.8	0.0	4.2	.	36.3	0.0	0.0
Rwanda	98.4	0.9	.	0.7	0.0	6.5	.	30.0	0.0	0.0
Senegal	23.4	76.6	0.0	0.0	0.0	8.1	43.8	26.4	0.0	0.0
Sierra Leone	98.6	1.4	.	0.1	0.0	4.6	.	32.4	0.0	0.0
Solomon Islands	86.8	13.2	.	.	0.0	6.4	.	.	0.0	.
Tanzania	45.4	43.8	.	10.8	0.0	7.8	.	67.1	0.0	0.0
Togo	79.4	20.4	.	0.1	0.0	9.6	.	104.7	0.0	0.0
Uganda	63.8	35.9	.	0.3	0.0	7.9	.	8.8	0.0	0.0
Zambia	10.8	56.9	32.0	0.2	0.0	10.5	67.1	13.1	0.0	0.0
Total LDC	**49.2**	**42.3**	**3.8**	**4.8**	**0.0**	**8.1**	**66.8**	**64.5**	**0.0**	**0.0**
TOTAL	**54.7**	**27.9**	**11.8**	**5.6**	**1.2**	**9.6**	**54.4**	**46.3**	**4.5**	**9.0**