

# The Consequences of Agricultural Trade Liberalization for Developing Countries

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## 1. Introduction

Because developing countries' comparative advantage is seen to lie in agriculture, the protectionist agricultural policies in OECD countries are often criticized for preventing developing countries benefiting from world trade (Oxfam, 2005). Many studies suggest that developing countries will reap most of the benefits of trade liberalization, and that the gains for them would be considerable if an ambitious Doha agreement brought about freer trade (Hertel et al 2003; World Bank 2004).

However, recent studies suggest that the positive effects of the elimination of Northern agricultural subsidies, particularly for the least developed countries (LDCs) might have been overestimated (Panagaryia, 2005). OECD countries have much to gain from winding down the heavy protection they provide to their own farmers, but the high expectations that this will lead to a dramatic improvement in trade opportunities for the poorest farmers in developing countries seems misplaced. The very large gains for developing countries predicted by some models have been criticized on the grounds that they were largely driven by particular assumptions on market equilibrium (labor) and inaccurate tariff data, and that excessive country aggregation hid the contrasting fortunes of different developing country groups (Bouët et al 2005a). The fact that many modelers use the same set of data and parameters encouraged an illusion of consensus regarding the magnitude of the benefits of trade liberalization, which are now revised downwards. Typically, simulations of a Doha agreement on agriculture (which would only bring partial liberalization) now suggest welfare changes for developing countries that range between a loss of 2 billion US dollars a year (Bouët et al 2005a) to a gain of some 9 billion dollars (Anderson and Martin 2005). These results are far below the estimates that were published only a few months earlier by most institutions.

It is also becoming apparent that the consequences of agricultural liberalization for developing countries are complex, and that claims that developing countries as a whole would reap the main benefits are misplaced. The consequences of a Doha agreement on agriculture will be uneven both between countries and between economic agents (typically consumers and agricultural producers). This raises questions about the strategies to minimize the losses, for ethical reasons as much as to gather a consensus to support the multilateral process. Some of the losses experienced by developing countries result from the erosion of existing preferential access to EU and US markets. The ability of "special and differential treatment" for developing countries (a principle underlying all World Trade Organization agreements) to cushion potential negative effects, including a possible extension of non-reciprocal preferences for the most vulnerable countries, requires more examination.

In this paper, we take a closer look at the effects of the Doha agricultural negotiations on developing countries. We try to distinguish the different effects at stake and to identify the consequences for different country groups. We also analyze the separate impact of the different policy instruments, such as export subsidies, domestic support and tariff protection. We find that, while export subsidies lead to market distortions, their elimination will not bring the large gains that some non governmental organizations expect. By focusing mainly on tariffs, international organizations might underestimate the potential gains of eliminating farm subsidies in developed countries, especially in sectors such as cotton. Indeed, the role of tariff reductions must be nuanced because of existing preferential access for developing countries. We show that, in the agricultural sector, the non-reciprocal preferences granted so as to encourage "trade as aid" are well-utilized, even though the benefits are limited for the poorest countries because of supply side and non-tariff constraints. Overall, we believe that a further step in special and differential measures is needed to take account of the negative effects of the agricultural negotiations on selected countries, even though greater differentiation between developing countries faces conceptual, legal and political obstacles. Another conclusion is that agricultural issues should not be the exclusive focus of pro-development efforts. Several other topics, such as non-agricultural market access, "mode 4" of trade in services (temporary movements of natural persons) or even competition policy, might be worth further consideration.

## 2. Agricultural protectionism in developed countries

***The extent of agricultural protection.*** The agricultural protectionism of the Northern countries has long been denounced by developing countries. However, the results of impact studies are contradictory, and reflect some of the agenda of the different parties in the multilateral negotiations. For example, the Cairns Group and the United States emphasize the effects of "fortress Europe" on poor countries, while the European Commission stresses how the EU tariff structure allows it to import some eight times more agricultural foodstuffs from developing countries than Australia and the United States combined. Technical difficulties have fuelled the controversy on the actual level of agricultural protection. The simple measure of duty on agricultural products yields varying figures depending on the type of average used (trade weighted or not), and whether one focuses on bound or applied tariffs. For example, different authors provide estimates of the EU average tariff for agricultural products ranging from 10% to 40%, the figures by Gallezot (2003) contrasting with those of Messerlin (2001) (See Bureau and Salvatici 2004 for a comparison).

Bound tariffs negotiated at the WTO represent commitments on maximum tariffs, but much lower tariffs are sometimes applied, especially by developing and transition economies. In the case of the EU, lower tariffs are applied under preferential agreements and tariff rate quotas. Of the 150 members of the WTO, only ten do not benefit from some form of preference from the EU. The others, including all developing countries, can export to the EU with zero or reduced tariffs on at least certain products. The United States also has numerous preferential regimes, arising either from free trade agreements or in the framework of non-reciprocal regimes (*African Growth Opportunity Act* –AGOA, *Caribbean Basin Economic Recovery Act*, etc.). Every developed country also grants non-reciprocal preferences to developing countries within the framework of the Generalized System of Preferences (GSP). For this reason, the level of agricultural protection in a given country is not very meaningful *per se*. It must be gauged relative to the structure of exports from each country, and this requires bilateral measures of applied tariffs, which were made available only recently (Bouët et al, 2004). The use of such measures shows that obstacles to exports from developing countries are significant in Japan, where preferential systems have only a limited effect in agriculture. The protection level is also higher in the European Union than in the United States (Bureau and Salvatici, 2004). Protection is concentrated in a few sectors in the United States (sugar, dairy, tobacco) and more so in Canada (dairy). It is more widespread across products in the European Union. Indirect protection through subsidies is also pernicious, as in the case of cotton in the United States. Assessing Australian protection is difficult as it is essentially non-tariff based (Fontagné and Mimouni 2001). Finally, tariff protection is still high in developing countries, in particular in those that may represent a large market for other developing countries (India, and, in some sectors, China).

Table 1 provides an estimate of applied tariffs for different agricultural sectors, for groups of countries. It shows that protection remains very high in some agricultural sectors, particularly in Europe and Asia, including for products of significant interest for developing countries, such as sugar. Table 2 also shows that Northern agricultural protection does not have the same effects on every developing country. The protectionist nature of the European Union, for example, affects particularly South American and Asian exporters which face average tariffs of between 14-18 per cent. However, African and Mediterranean countries face a lower tariff (6.7 and 7.3 per cent, respectively) because they can export to the EU under more generous preferential agreements than, say, Brazil or Thailand. This less unfavorable treatment of African exports is common to all major importers. Recent work also shows that most Asian and South American developing countries face particularly high tariffs for processed food products, which encourages exports of raw materials rather than processed ones. This issue of tariff escalation is much less severe for sub Saharan African exports to EU markets, again because of the existing preferences under the Cotonou or Everything But Arms schemes (Bureau et al 2004).

[INSERT TABLE 1]

[INSERT TABLE 2]

***The cost of agricultural protectionism for developing countries.*** Even though better data on applied tariffs has led to a downward revision of some earlier estimates, agricultural protectionism in the North still significantly restricts exports from developing countries. OECD agricultural protectionism costs developing countries some 26 billion dollars (while the protectionism of Southern countries costs slightly more) according to Anderson and Martin (2005). Other studies find gains in the order of 4 to 8 billion dollars annually for developing countries if developed countries fully opened their agricultural markets (Diao et al 2004; Tokarick, 2003), and gains of about 1 to 3.5 billion dollars in the case of a lowering by half of the agricultural tariffs in developed countries (Francois et al 2005, for example). These net estimates are modest, when expressed as a percentage of GDP. They rely on welfare measures, and take into account all impacts, including possible unfavorable effects for consumers linked to price rises. The cost of agricultural protectionism is larger if attention is focused on developing country farmers alone.

However, the gains from a cut in multilateral tariffs would be limited, if not negative, for the countries that already benefit from reduced tariffs. Bouët et al (2005a) find that sub-Saharan Africa suffers more from the domestic support policies of developed countries (cotton in particular) than from their tariff structure due to their preferential access to the EU and US markets. Eliminating multilateral tariffs in developed countries would actually have negative effects on African countries because these countries would face more competition from, say, Australia or Brazil on the EU market. More generally, the reduction in multilateral tariffs in developed countries would generate an erosion of preferences detrimental to sub-Saharan African, Caribbean countries and LDCs in general. These results, echoed by those of Laird et al (2004), temper optimism about the effects of a multilateral reduction of tariffs for developing countries as a whole, by highlighting the negative consequences of agricultural liberalization for a set of countries that includes some of the poorest ones.

### **3. Preferences granted to developing countries**

***Preferential market access.*** Developed countries have granted non-reciprocal preferences to particular sets of developing countries, which often reflect particular political or historical links. These preferences explain some of the uneven consequences of multilateral liberalization. If sub-Saharan Africa risks not benefiting much from lowered tariffs in a multilateral framework, it is because it benefits from preferential access to the European market under the Cotonou Agreement with African-Caribbean-Pacific countries (ACP) and to the US market under the AGOA (*African Growth and Opportunity Act*). Most other countries only benefit from the GSP, which has limited coverage for agricultural produce (the GSP nevertheless provides a much larger product coverage for LDCs, especially in the United States, and in the European Union under the specific component, the Everything But Arms initiative).

Preferences designed to offer commercial opportunities to developing countries are much criticized. Preferences are said to be poorly utilized, in part because the rules of origin governing eligibility are restrictive thus largely limiting their benefits (Brenton, 2003). Preferences are often tied to restrictive or debatable conditions, subject to frequent changes, and therefore fail to provide the stable environment necessary to develop production (Panagaryia, 2003). They are accused of providing incentives for a country to specialize in products for which it has no comparative advantage. Preferences are also said to divert trade between developing countries and to create as many losers as winners. It is claimed that preferences have no or even a negative effect on growth and delay growth-promoting reforms (Ozden and Reinhardt, 2003; Topp, 2003). Finally, preferences are also under attack in the World Trade Organization (WTO) as contradicting the basic normative principle of non-discrimination.

Some of the criticisms of preferences seem less substantiated in agriculture than in other sectors. This is the case of the underutilization of the preferences, and the baneful effect of rules of origin. Other criticisms nevertheless apply.

***The utilization of preferences in agriculture.*** Recent studies by OECD (2005a) and Wainio et al (2005) show that, contrary to a widespread belief, commercial preferences granted to developing countries by the European Union and the United States are rather well utilized for agricultural products. Among exports from developing countries, those eligible are essentially exported under these preferences. It is the case that, when examined in isolation, the apparent rate of utilization of a particular preference can appear low. For example, apparently only 43 per cent of eligible Andean country exports to the US enter under the Andean Trade Preferences Act, and for LDCs, less than 21 per cent of eligible exports benefit from the GSP-LDCs scheme (Table 3). However, once it is recognized that many of these eligible exports take advantage of other preferential schemes, the effective rate of utilization is much higher. In both the EU and the US, only a small share (about 11% and 13% respectively, see Tables 3 and 4) of eligible agricultural products were exported outside a preferential regime. These rare cases of eligible exports under the Most Favored Nation (MFN) regime are largely explained by small trade flows and/or low MFN tariffs which means that the importer did not judge it worthwhile to meet the eligibility criteria (OECD 2005a). In all other cases, a product eligible for a given preferential regime will be imported either under this regime, or under an alternative regime providing similar advantages. Studies inferring poor use of preferences might be valid in other sectors such as textiles but they are not supported by the available data for the agricultural, food and fisheries sector.

[INSERT TABLE 3]

[INSERT TABLE 4]

Some preferential regimes granted to developing countries appear more generous than others. Table 3 and Table 4 show that when exporters have the choice between two preferential regimes, they tend to favor particular agreements such as Cotonou for the European Union or the Caribbean Basin agreements for the United States. The apparent utilization rates for these agreements are much higher than for the GSP schemes, for example. The main explanation is that agreements such as Cotonou impose less administrative constraints, or are more flexible regarding the origin of the material used as inputs to exports than competing agreements. In the case of the United States, the GSP is also less predictable and has a shorter term horizon than the Caribbean Basin and Central America preferences.

***Rules of origin.*** The criticisms of preferential regimes are less substantiated in agriculture than in other sectors with respect to rules of origin. Such rules have been shown to impose considerable constraints on would-be users of preferences, for example, in the textile industry (Brenton 2003, Inama 2003). In the food sector, the problem is less severe, perhaps because a large proportion of the exports of developing countries are primary goods not affected by the rules governing origins of components or intermediate inputs. In most cases, other obstacles (technical standards, poor infrastructure) appear more restrictive than rules of origin in the food sector, if we are to believe enquiries carried out among processors by Bureau et al (2004) and by OECD (2005a).

However, a number of small countries experience problems justifying enough local content when it comes to exporting processed foods. Stevens and Kennan (2004) raise this issue for several sub Saharan African countries. In the fisheries sector, they stress the difficulties for countries with a small maritime domain to supply processing plants all year round, given that origin is linked to the catching regions. In such cases, rules of origin do limit the benefit of preferential access. A particular problem posed by EU rules of origin is the lack of cumulation among countries that benefit from the GSP, except within a handful of regional groupings. Allowing further cumulation (i.e. considering material used by country A and originating from country B as "local" provided that country A and B are both eligible for the EU preference) would make it easier to make use of the GSP. In the case of the Everything But Arms initiative, which as part of the GSP is subject to the same restrictions,

cumulation with all other developing (and perhaps all neighboring) countries would be necessary, since cumulation would bring little practical advantage if it were restricted to other LDCs. In the United States, the rules of origin impose a value added content requirement, but also traceability of the material purchased, which requires significant compliance costs for countries where the production sector is fragmented and lacks administrative capacity.

***Other limitations of preferential regimes.*** Some other criticisms of preferences apply to the agricultural sector. It is true that some countries have developed industries on which they are now very dependent in areas where they have little comparative advantage (sugar in Barbados, bananas in the Windward islands, etc.). Note, however, that this occurred because preferences were granted for a limited number of products only, or were particularly large for these products and not for others (the EU sugar and banana protocols under the ACP agreements). With a broader set of preferences, this issue is not as much of a problem.

A criticism of preferences is that they simply divert trade. Preferences are, by nature, a source of trade diversion, and it is understood and accepted that, say, the GSP diverts trade towards developing countries. However, trade diversion occurs also between developing countries. Countries such as Brazil and India complain about the benefits granted to sub-Saharan Africa under the Cotonou agreement. Caribbean countries expressed strong criticisms when the EU adopted the Everything But Arms initiative, fearing competition for their banana and sugar exports. Sri Lanka complains about losing market share to Bangladesh because of the EU and US GSP for LDCs.

The particular trade diversion between developing countries generated by the present configuration of preferences lacks justification. Some non-reciprocal preferences are characterized by arbitrariness. The EU preferences seem tied to historical and colonial links and the US ones are dependent on geo-political aspects. However, there is a stronger justification for providing a specific treatment for countries that cannot pull themselves out of a poverty trap, or which have consistently failed to take advantage of trade liberalization (Cline, 2004). LDCs fall into these categories and, as Cline shows, the entire sub-Saharan Africa is also in a situation that calls for particular measures, compared to most Asian countries. Preferences based on a formula taking account of the degree of a country's development are more defensible. When provided to the poorest countries, preferences are unlikely to result in large negative effects for other developing countries: the Everything But Arms initiative has not generated significant trade diversion from developing countries (Yu and Jensen, 2005). A concomitant increase of trade with other developing countries (intra-LDCs in particular) has even been observed. Although it is difficult to establish a causal link, it has been suggested that preferential access to the EU has helped to build export capacities and had a spillover effect (Gallezot and Bureau, 2005).

The most relevant objection to granting preferential access to developing countries in agriculture is perhaps that it is difficult to agree on eligibility criteria. The *per capita* income is an obvious indicator to use in deciding which country should be eligible for preferences. However, countries that are only slightly less poor than, say, the LDCs which are granted preferences, would suffer from a threshold effect. Another point is that agricultural preferences are likely to lose significant value in the future, because of the decrease in multilateral tariffs, and the reform of domestic policies, for example in the EU and US sugar sectors.

***Are preferences ineffective in the agricultural sector and would their erosion be harmless?*** Table 5 shows that preferential regimes for developing countries account for a significant share of the imports of agricultural and food products (20%) into the EU. They account for 12% of all US imports in this sector, but it is noteworthy that a large share of imports is subject to a zero MFN duty. However, the preferences granted to very poor countries fail to generate large trade flows: in spite of the absence of quotas and tariffs, the EU Everything But Arms initiative only represents 0.4% of EU agricultural and food imports (though many eligible imports enter duty free under competing agreements). The US *African Growth Opportunity Act* represents only 0.2% of US food imports, and most of them come from South Africa. From this perspective, the impact of the preferences granted to the poorest countries is disappointing.

The explanation for this is to be sought in problems of competitiveness or in poor compliance with sanitary standards or plant disease controls more so than in the side conditions of preferential agreements (OECD, 2005a). For example, the Everything But Arms initiative led to considerable preferential margins in the animals and meat sectors, given the very high EU tariffs and the absence of coverage by the regular GSP for these products. However, there has been no significant export to the EU, even though animals is a sector where LDCs have some significant export potential (live sheep and beef exported to the Middle East and to other developing countries). Sanitary obstacles have prevented the large tariff cuts translating into exports to the European Union.

[INSERT TABLE 5]

It is difficult to evaluate the impact of preferences on growth and development. The European Commission itself expressed serious doubts about the benefits of the ACP preferential regime during the design of the Cotonou agreement. However, statistical studies showing the ineffectiveness of preferences (Ozden and Reinhardt, 2003; Stockel and Borrell, 2001) are not particularly convincing. Perhaps the situation would have been much worse without preferences. The Cotonou agreement and the GSP cover significant exports to the EU, and it is unclear whether such flows would take place without these preferential regimes. Moreover, several recent studies contradict assertions of the ineffectiveness of preferences as development aid, at least in the agricultural sector. In a very detailed study of African countries, Stevens and Kennan (2004) show that preferences in textiles but also in agriculture and fisheries "are used and work" on a global scale, and that the problems are caused more by the limitations of these preferences (limited product coverage, restrictive conditions, problems of technical standards imposed for tariff exemptions, etc.). Clearly, some trade flows would not have taken place without these preferences. This is confirmed by Wainio and Gehlhar (2004) who also show that exports from developing countries fell when preferences have been eroded by the lowering of US tariffs imposed on competing countries. An econometric study conducted over a wide sample of countries even suggests that countries which benefit from the American and/or European GSP on average have experienced significant extra growth (Romalis, 2003).

There remain important questions for which precise information is lacking. This is true regarding the extent of the real benefits to developing countries, and more so for the sharing of these benefits. What exactly are the repercussions of the ACP agreements for various categories of the population? How are the preferential rents (including import quota rents) distributed? What are the indirect effects (corruption) of import or export license allocation? It is not known precisely if this "Trade as Aid" is more effective than more direct assistance policies, the consequences, for example of the EU banana and sugar protocols being controversial on this point. However, excessive criticism of preferential regimes seems to be made in order to avoid the defense of preferences being used as an obstacle to multilateral liberalization. By doing so, one takes the risk of depriving many developing countries of assistance which may be quite effective.

In addition, skepticism about the benefit drawn from preferences does not imply that their removal would be harmless. Various authors have argued that erosion of non-reciprocal preferences is a problem of limited magnitude at the worldwide level, focused on a handful of products and on a limited number of countries (see e.g. Subramanian, 2003). Indeed, the losses generated by the erosion of preferences for LDCs are in line with the magnitude of their gains from those preferences, i.e. small. The main losers are small island economies, and assistance can be targeted to mitigate the impact of preference erosion on these small-sized countries (Alexandraki and Lankes, 2004). However, Bouët et al (2005b) argue that the magnitude of forthcoming difficulties for poor countries has been understated. According to their estimates, 14 countries earned in 2001 tariff quota rents worth more than half a percentage point of their GDP (more than one point in 8 countries).

There is little original work on the actual allocation of the rents. Borrell (1999) or Topp (2003) who suggest that the banana protocol brings almost no benefit to developing countries, while costing

much more to EU consumers, are often quoted. However, as noted by FAO (2004), the authors provide little empirical justification or theoretical basis for their claims. Some evidence suggests that, under the sugar protocol, countries such as Mozambique or the Windward Islands have managed to condition the attribution of licenses to the funding of public services or schools, and have therefore kept at least a fraction of the preferential rent. In Guyana, the rent is estimated to amount to 10% of GDP and is the backbone of Guyanese economy (LMC, 2004). The rent of sugar and orange juice preferences is described as having a significant positive impact on the expansion of some income-generating sectors in Guyana and Belize (FAO, 2004). Stevens (2003) shows that the allocation of quotas under the Cotonou sugar protocol provides some market power to the ACP countries when facing a trading firm, allowing them to keep some of the rent (he shows that a monopsonist in the sugar sector cannot play one supplier off against another as this firm does in other situations with no allocated quota).

Bouët et al (2005b)'s calculation also shows that the "true" average preferential margin in agriculture is higher than 1 point for 47 developing countries, and higher than 2 points for 33 countries. Bouët et al stress that preferential schemes such as the EU-Cotonou Agreement or the US-Caribbean Basin Initiative are of particular importance for beneficiary countries. The erosion of preferences is likely to be a major challenge for several African and Caribbean countries, whose export specialization is in large part shaped by preferences. Sugar, bananas, textiles and clothing, and meat products figure largely in the preferences debate, but these products are key for several developing countries.

Furthermore, the poor countries concerned generally have a very low adjustment capacity due to the combination of an often-deficient capital market, of the existence of many obstacles to labor mobility, of the absence of safety nets and of training capacities, etc. They might well face severe difficulties when trying to reallocate part of their production factors toward other sectors. Contraction of internal demand is often the only domestic way for them to adjust to external imbalances.

#### **4. The impact of domestic subsidies**

Tariffs are often seen as being the main issue that should be tackled by trade negotiators. Anderson and Martin (2005), for example, believe that 92% of the gains of agricultural liberalization will come from the reduction of tariffs, while the elimination or reform of agricultural subsidies would have only limited impact. However, the impact of domestic subsidies may not be as harmless as this figure suggests.

The overall welfare effect may hide some large but contradictory effects that offset one another, generating losses in some food importing countries and gains in others. The removal of EU and US agricultural subsidies may have significant consequences on the world price of some commodities. This is the case of the subsidies on cotton, tobacco and even soybeans. Bouët et al (2005a) find, for example, that elimination of US payments to cotton producers would lead to a large increase in the world price (US exports amounting to some 40% of world trade). Albeit contrasted across countries, the impact of EU and US domestic subsidies on developing countries should not be underestimated. With a significant cut in US and EU cotton subsidies, the share of Sub Saharan Africa in world trade could increase dramatically. On the other hand, textile-producing countries that cannot produce cotton within their own borders could lose market shares in clothing to countries such as China, and suffer from deterioration in their terms of trade.

It is more difficult to assess the impact of domestic subsidies in sectors where payments are less linked to production. Recent agricultural policy reforms have been characterized by a move of farm support towards payments which are less tied to the quantity produced. Payments coupled to production count for only marginal amounts in the European Union or in the United States in the cereal or meat sectors, for example. As a result, "green box" payments (which, in WTO terms, refer to transfers to farmers which are not dependent on either current prices or the quantity produced) are now very large.



Some developing countries, backed by non governmental organizations such as Oxfam, argue that decoupling is only a cosmetic revamping of support which remains at the same level (Watkins, 2004). However, one cannot deny that decoupled payments are much less distorting than the former market price support and output subsidies. The main question is perhaps whether EU and US payments are actually decoupled. OECD estimates suggest that the combination of payments linked to production and market price support (i.e. "coupled") still exceeds the amount of transfers to producers that are genuinely decoupled. In the EU, the decoupling is only partial, and the new "single farm payment" remains conditional on the maintenance of the land in good agricultural condition, even though it does not require actual production. In the US, "countercyclical" payments top up some lump sum payments, depending on market conditions. As a result, the combination of payments is *de facto* linked to the market price. The considerable subsidies given to the crop insurance program are also linked to the market situation. In such cases, the overall linkage of the payment to the quantities produced is unclear. More generally, payments are only truly "decoupled" if the capital market is perfect, and if private consumption decisions are separable from the production side of the household. Several studies make it clear that to give a sum of money, even unconditionally, to a farmer necessarily influences the amount produced (Chavas and Holt 1990; Sumner 2003). In reducing the risk of insolvency, even decoupled payments encourage higher production or riskier cultivation. There is often an implicit anticipation that cultivated areas will be used as a reference in the next reform which keeps land in cultivation.

There are few solid quantitative results on the effect of such aid on production. Abler and Blandford (2005) suggest that the effects on the quantities produced are limited. However, some 35 billion euros of EU direct aid, and some 30 billion dollars of US payments (OECD 2005b) are unlikely to be neutral on the world market. Recent econometric work suggests that even decoupled payments have large indirect impacts on production in the US (Key et al 2005). The results from most economic models suggest that developing countries can expect few gains even from a large reduction in these direct payments, but this conclusion is subject to uncertainty regarding the proper way to model these payments, which parallels the imperfect knowledge of their economic impact (Gohin 2005).

## 5. Export subsidies

**EU export refunds.** EU resistance to renouncing export subsidies has been one of the main blocking points during the Doha agricultural negotiations. At an economic level, export subsidies are a very inefficient support instrument. A large share of the money spent by the taxpayer benefits foreign consumers. However, for the EU, renouncing the possibility of subsidizing exports is the same as renouncing the maintenance of an intervention price structurally higher than world prices for the many commodities for which it is now a net exporter: European "refunds" are the keystone of the common market organizations. The July 2004 agreement foresees the ending of export subsidies, although without an exact date (WTO 2004). It is likely that this will require further adjustments in the Common Agricultural Policy, and in particular a further decrease in intervention prices.

Have export subsidies (essentially EU subsidies in the last few years) had a very negative impact on developing countries? Such subsidies face strong criticism from various non-governmental organizations that highlight the unfair and harsh competition in some industries: beef and poultry in West Africa, milk in Jamaica or in India. These effects are real, especially as the amounts concerned can vary considerably from one year to the next according to the quantities which must be removed from the European market to support prices. However, they are not uniform. Developing countries which are net importers of food benefit from more favorable terms of trade. They largely abstained from condemning too openly these export subsidies during the Doha round, because they reduce the price they pay for imports.

A recent study by Gallezot and Bernard (2004) reviewed the amounts and destinations of European export subsidies. It shows that they vary considerably according to the product but also to the destination, the main subsidies being granted to milk powder and sugar, those on beef and poultry now representing only limited quantities. According to this study, subsidies are principally aimed at countries that are dependent on imports. It is difficult, however, to assess the responsibility of these

subsidies for the inability of local farmers to develop local adequate agricultural production and it is undeniable that the subsidies are unfair competition for other potential suppliers.

***The end of export refunds.*** European subsidies have clearly limited trade in the South, depriving some countries with significant production potential of markets in nearby countries. In some sectors, such as West African beef, these subsidies frequently represent half the cargo value. Nevertheless, the removal of subsidies would not greatly alter the situation for developing countries, except for the particular cases underlined by the NGOs. The assessments of Bouët et al (2005a) suggest that such removal will have an important effect on the world price only in the sugar and dairy product sectors. The end of refunds will hardly have any impact on those developing countries which sell their sugar higher than the world price in the framework of preferential quotas. With dairy produce, only some developing countries like Argentina have a definite comparative advantage. Subsidized exports of milk affect essentially West Africa, which historically does not have significant production potential. In short, the removal of such subsidies is desirable to end unfair competition, but the overall positive effect on developing countries must not be overestimated, and the consequences are, at least in the short term, negative for the net food importing countries.

## **6. The effects of Doha**

Several recent assessments of the effect of a possible agricultural agreement under the Doha rounds have focused on developing countries (Anderson et al 2005). The study by Bouët et al (2005a) considers carefully the preferential regimes granted to developing countries. In particular, this study shows that the lowering of Most Favored Nation (MFN) duties by Northern countries erodes the preferences granted to sub-Saharan Africa and modifies significantly the origin of EU imports. Countries such as Australia or Brazil would then replace some of the preferential exports of Africa, the Caribbean or the Andean countries.

The reduction of internal support would have a more significant effect than other measures in the rice, cotton and, to a lesser degree, the cereal and oil crop sectors (Bouët et al, 2005a). In the sugar sector, the removal of export subsidies would have the most significant impact. In the other sectors, particularly fruit and vegetables, it is the lowering of tariffs which is most important.

Apart from significant impacts on the world price of rice, milk and sugar, the price effects of the Doha round will be small. Growth in production would certainly occur for developed countries in the Cairns group and, to a lesser extent, developing countries of the same group (Brazil, Argentina and Thailand particularly). It is principally the exports of the Cairns group (and to a lesser degree, China and the East-Asian developing countries) which would increase, to the detriment of EU exports. African countries would see no significant growth in their exports, because they can already access the EU market with little tariff protection.

The welfare effects in developing countries presented in Table 6 are the combination of changes in their terms of trade, allocative efficiency, and government revenues, as well as gains for agricultural producers and losses for consumers. In Mediterranean countries and sub-Saharan countries, the welfare effect of the Doha Round would be negative. In sub-Saharan countries, this is caused by the erosion of preferences, which leads to both lower rents and some trade diversion. In Mediterranean countries, this is due to both the erosion of preferences and the deterioration of their terms of trade, caused by higher import prices for cotton (an input of the textile industry) and food products. Other developing countries (Asian and some South American countries) would experience a net increase in welfare, but by a limited amount. Some of the poorest countries, or at least some countries that include the largest number of the poor, such as India or Pakistan (part of "South Asia" in Table 6) experience a slight increase in welfare, mainly due to allocative efficiency gains generated by the elimination of their own domestic distortions. However, others, also among the poorest, experience welfare losses. This is the case of sub-Saharan Africa, which includes many of the least developed countries.

[INSERT TABLE 6]

Note that the farm sector in sub-Saharan Africa benefits from higher world prices, even though trade liberalization hurts consumers. This is not the case in South Asia, because of larger cuts in agricultural tariffs (an indication of the effects on the farm sector is given by the returns to agricultural land in Table 6). This shows that the domestic risks would be different across countries: more expensive food for the urban population could lead to some instability in one case, while the risks could come from a stressed farm sector in the other case. Recent studies focusing on the poverty impact of trade liberalization, which combine household surveys with economic models, also show the uneven consequences on different population groups (see e.g. Hertel and Winters 2005). Welfare gains at the national level can even be compatible with a larger number of people below the poverty level (Bussolo et al 2004; Valenzuela et al 2005). This calls for flexibility in implementing the measures in final Doha agreement, so that individual developing countries can adapt to the local situation. Such flexibility is included in the special and differential treatment of the July 2004 Framework Agreement (WTO 2004) and endorsed in the December 2005 outcome of the WTO Ministerial meeting in Hong Kong (WTO 2005), at least in a limited extent.

## **7. Non tariff issues and developing countries**

The share of developing countries in world agri-food exports has continually decreased, from 40% to 24% in thirty years. Sub-Saharan Africa's market share has declined from 9% to less than 3%, and consists essentially of raw or lightly processed products. One reason is that developing countries have largely remained outside the phenomenon of intra-regional liberalization, which has increased trade within large areas of the world. Neither African nor Asian regional integration has been very convincing and Mercosur integration remains incomplete. Overall, developing countries continue to impose very high tariffs among themselves, often adding non transparent import taxes and a multiplicity of bureaucratic obstacles. Some estimates find that the gains for developing countries obtained by eliminating tariffs between themselves exceed the gains obtained by cutting developed countries tariffs (Anderson and Martin, 2005).

***Sanitary and technical issues.*** Another reason for the lack of integration into the world market is because technical, sanitary and plant disease controls restrict agricultural and food exports from a large number of developing countries. These problems are particularly acute with primary products, due to measures against epidemics, contagious diseases or invasive species. For example, the EU prohibited the import of African fish and shellfish at the end of the 1990s for fear of cholera, severely handicapping one of this region's few dynamic sectors. Numerous countries that are not deemed to be free of foot and mouth disease cannot export animal products: for these, the opening of markets by an agreement within the Doha Round would be largely theoretical. The phytosanitary barriers to the importation of fruit and vegetables are very restrictive and sometimes unpredictable, and lead to penalizing retention periods (this is also the case in Japan and Australia, see OECD, 1999).

It might be thought that sanitary and pest control problems, especially questions of microbe contamination and invasive species, would be less of a problem for processed products. These, however, do not gain easier entry to the European or American market. Indeed, standards imposed by the developed countries often concern the processing chain and not only the final quality of the product (Henson et al 2000). Food firms must observe the technical standards and Hazard Analysis at Critical Control Points procedures which pose problems of cost, infrastructure and traceability for developing countries.

The SPS Agreement (on sanitary and phytosanitary standards) states that more restrictive controls than those based on international standards must have scientific justification based on risk analysis. Nevertheless, the SPS Agreement has a limited value for developing countries, which have made only infrequent use of it to open markets. The agreement favors countries which have accumulated significant expertise in the field of scientific evaluation used in arbitration cases, and because it only includes very minor references to economic issues, it allows developed countries to act against very

small risks. The special and differential treatment for developing countries (Article 10 of the SPS agreement and Article 12 of the Technical Barriers to Trade or TBT agreement, which recommend giving consideration to the difficulties for developing countries to comply with Northern standards) has had little effect. It is easily understood that, with public opinion so sensitive on matters of food safety, caution encourages very restrictive measures. However, the fact is that technical conditions placed on the exports of developing countries are *de facto* obstacles which limit the effects of lowering customs tariffs.

***The increasing significance of private standards.*** Perhaps a more significant phenomenon is that the standards governing international (and national) trade are increasingly beyond public control, which alone is capable of being the subject of international agreements. Increasingly, private players are imposing their own standards on importers and producers from developing countries (Reardon, 2004). These requirements exceed public regulations, particularly regarding production processes, certification and traceability, three areas where the poorest countries are especially handicapped by the lack of capital, infrastructure and skilled workers. Moreover, private sector standards appear to amplify the effects of reputation, distributors in developed countries having not only to manage the risk but the media coverage of risk with public opinion. It was found that, out of fear of potential risks, there are importers (e.g. those involved in school meals) who systematically refused supplies from developing countries despite a seemingly satisfactory bill of health (Bureau et al, 2004).

In short, there is a set of factors not pertaining to negotiation on tariffs which considerably limit the integration of developing countries into the world market. More generally, there are supply side constraints, such as infrastructure, capital and skilled labor constraints, that will limit considerably the impact of tariff concessions in the food sector. Again, not all developing countries are affected in the same way. For example, Blasetti and Piniero (2003) show that the food sector in Argentina and Brazil is confident of its capacity to respond to all EU technical and sanitary requirements in the near future, even if those on traceability pose some problems for Argentina exporters (it is also problematic for other developed countries). Non-tariff factors seem to marginalize the poorest countries the most, and sub Saharan Africa in particular.

## **8. Conclusion**

This paper highlighted the contrasting interests of various types of developing countries faced with the perspective of liberalization in the agricultural and food sector. For most middle-income developing countries confronted with high protection in their main markets, liberalization can be a source of substantial growth in prospects and prices for a relatively high-performing export sector. For net food importing countries, including most of the LDCs and the small island developing states, and for cotton importing countries (North Africa, Bangladesh), agricultural trade liberalization may have overall negative consequences, because of terms of trade effects. For most sub-Saharan African countries and LDCs, negative consequences also result from the erosion of their preferential access to the EU and US markets. For poorest countries, non-tariff issues and supply side constraints are likely to limit even further the possible expansion of their exports that could result from more open agricultural markets.

These contrasting effects have long been underestimated. They are now supported by a growing body of quantitative analyses that have challenged the idea that cutting agricultural tariffs and ending farm subsidies would benefit all developing countries. However, showing that the situation is complex has not made the policy message simpler. While it becomes clear that some of the poorest countries are likely to lose from an agricultural agreement in the Doha round, some of the beneficiaries include a large number of poor people (China, India, Brazil, Thailand). In addition, in net food importing countries, the large losses for some agents are offset, at least partially, by gains for other agents (urban consumers vs farmers).

The fact that some countries lose from the erosion of preferences is not a justification for rejecting the multilateral process of trade liberalization. These negative consequences are limited in the case of LDCs, because these countries are only able to draw limited gains from the tariff

preferences they have been granted. The losses are more significant for small islands that have specialized in the production of sugar and bananas under preferential access to the EU, but specific assistance measures can be more easily targeted on small sized countries.

However, equity, as well as the need to gather a consensus for the continuation of a multilateral process, requires acknowledging the negative impacts, and looking for ways to compensate or reduce them. Under WTO rules, special and differential treatment mainly consists of a lower level of obligations and longer implementation periods to phase in trade disciplines. Basically, these are options for opting out of the liberalization process, and are unlikely to alleviate possible negative effects resulting from multilateral liberalization in third countries (Matthews, 2005). If the international community wants to offset some of the negative effects of the Doha round, more ambitious and positive measures must be implemented than the provisions of the Uruguay Round Agreement on Agriculture, or the declarations of intention in the SPS and TBT agreements, or the 1994 Declaration on Net Food Importing Developing Countries.

Several forms of direct assistance for those countries adversely affected by trade liberalization have been proposed (Prowse 2005; Page 2005). They include the constitution of special funds or the use of financial facilities. The announcement by several donors of increased funding of 'aid for trade' measures at the WTO Hong Kong meeting is to be welcomed, even if it is unclear how much of this is genuinely new money as opposed to a reallocation of previously committed funds. The 1960's conception of special and differential treatment, which relied heavily on trade preferences for developing countries, such as the GSP, is often seen as carrying too many unwanted consequences. The recent growth of criticism of trade preferences doubtless responds to anxieties as to their often arbitrary and even, in some cases, harmful character. Countries excluded from the benefits of such agreements can legitimately feel wronged. The fear of seeing preferences used in the defense of protectionist interests is another reason for distrust. Finally, the argument that preferences can only be a short term policy, given the progressive reduction of multilateral tariffs and the reform of agricultural policies in developed countries, cannot be ignored. However, these critiques of preferential regimes underestimate the growing difficulty of the poorest countries in the export of agricultural produce. Their marginalization can only increase if no measures are taken in their favor. In this case, equality of treatment is not synonymous with fairness.

Among the 150 WTO members, more than 100 are treated as developing countries. The extent of their economic weakness, which special and differential treatment is supposed to address, varies greatly. If special and differential treatment is seen as a form of adjustment to the outcome of the Doha negotiations, one must acknowledge that Brazil or China and Bangladesh or Mauritius will benefit very unevenly from the negotiations.

If further differentiation between developing countries is sought, simple reference to historical or geographical criteria is arbitrary and inappropriate. Only a more objective approach, contingent exclusively on widely accepted development criteria, would provide the basis for a redefinition of fairness in the international trading system. In order to reach a fair agreement, the option of demanding that the countries that benefit most from the Doha round (including some developing countries), should apply low or zero tariffs on imports from the poorest, or the more vulnerable countries, should be explored. If a set of intermediate countries also decided to grant GSP preferences to the poorest, for the latter, the expansion of their market could offset some of the losses caused by multilateral liberalization. This would also help them benefit from increased access to the most rapidly growing markets, where quality standards are perhaps more accessible.

The December 2005 decision in Hong Kong to grant duty-free and quota-free access to the market of developed and "developing countries in the position to do so" to LDCs (WTO 2005) is in line with this idea. The exact provisions are still to be defined. It is unclear which countries would actually grant this preferences, what would be the exemptions (Japan already opposed access to its market for rice, the US for sugar, etc.) and how stringent would be the non-tariff (sanitary and phytosanitary) issues as well as the side conditions (rules of origin). In addition, the system should also be designed so as to avoid a threshold between LDCs that are members of the WTO and those that are not, and between LDCs and countries that are only slightly less poor. A more differentiated

list of countries carries the risk of adding complexity to an already overwhelmed multilateral regime. An option could be a coordinated reconsideration of all existing preferences, and the move towards a reformed GSP, which would differentiate more between countries so as to target those that benefit less from liberalization. This would be perhaps the beginning of a multi speed system, more adapted to the diversity of situations.

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**Table 1. Average tariffs applied by sector, per cent**

	EU 25	USA	Asia Developed	EFTA	Cairns Developed
Paddy rice	62.9	4.6	289.9	12.3	0.0
Processed rice	138.1	4.9	314.0	11.6	0.0
Coarse grains	24.3	1.1	83.9	82.6	0.1
Wheat	0.5	2.4	69.2	134.4	1.2
Sugar	128.5	34.8	120.4	48.2	3.5
Oilseeds	0.0	4.3	62.4	38.5	0.1
Live animals	36.2	0.1	20.4	53.6	0.0
Animal products	4.3	0.6	9.9	33.7	8.3
Meat	62.8	3.2	25.2	177.6	5.9
Meat products	20.0	3.6	31.8	167.9	30.4
Dairy products	39.6	18.8	40.2	91.7	76.6
Fibers	0.0	1.6	0.2	0.0	0.0
Fruits & vegetables	17.9	2.7	17.1	31.8	1.7
Other crops	2.3	2.7	3.7	20.0	1.4
Fats	4.6	3.5	4.2	36.2	2.1
Beverage Tobacco	13.7	2.4	13.1	15.9	7.2
Food	10.1	4.2	12.6	20.8	6.8
Total agrofood	16.7	4.7	22.5	47.7	10.8

Source: MacMap\_HS6 using ad valorem equivalents. The figures indicate the percentage tariff, weighted by the exports of a reference group of countries so as to account for the relative importance of each product without suffering from the well known endogeneity bias of regular trade weighted averages.

**Table 2. Average applied bilateral tariffs in the agricultural sector, per cent**

Tariffs applied by →	EU 25	USA	Asia developed	EFTA	Cairns developed
applied to ↓					
EU 25	-	5.8	22.2	52.0	15.7
USA	16.2	-	28.9	57.9	5.1
Asia developed	12.5	3.7	-	17.9	6.2
EFTA	7.9	3.9	11.6	-	10.6
Cairns developed	25.9	3.4	24.9	79.8	-
Mediterranean	7.3	4.0	14.1	25.7	3.7
Sub-Saharan Africa	6.7	3.0	12.0	8.9	0.7
Cairns developing	18.3	3.8	24.0	34.7	5.9
China	13.5	5.1	21.7	36.7	8.7
South Asia	14.4	1.8	33.7	21.9	1.8
Rest of the World	15.1	2.1	17.4	25.8	2.6
Average	16.7	4.7	22.5	47.7	10.8

Source: MacMap\_HS6 using ad valorem equivalents. Weighted by exports of a reference country group (see Bouët et al 2004).

**Table 3. Utilization of US non reciprocal preferences for agricultural and food products, year 2002**

Regime used	Imports eligible, by regime, 1000 USD	Actual import under the regime 1000 USD	Apparent rate of utilization	Effective rate of utilization
NON RECIPROCAL REGIMES	[1]	[2]	[3]=[2]/[1]	Imports under any of the 4 preferential regimes / [1]
Total	4 136 950	3 606 911	87%	
AGOA	161 928	137 202	85%	85%
ATPA	959 224	408 319	43%	65%
CBI	1 689 600	1 629 023	96%	99%
GSP (regular)	2 455 655	1 415 038	58%	94%
GSP-LDCs	83 010*	17 329	21%	87%

\* excluding eligibility to regular GSP. Source: computation by authors from USITC data, based on CIF imports for 2002, chapters 1 to 24 of the HS96. The effective rate of utilization is constructed as the ratio of imports under any preference to the imports eligible for a given preference. AGOA is the Africa Growth Opportunity Act. ATPA indicates the Andean Trade Preference Act. CBI is the Caribbean Basin Initiative (now CBERA and CBTPA)

**Table 4. Utilization of EU non reciprocal preferences for agricultural and food products, year 2002**

Regime Used	Import eligible by regime 1000 Euros	Actual Import under regime 1000 Euros	Apparent rate of utilization	Effective rate of utilization
NON RECIPROCAL REGIMES	[1]	[2]	[3]=[2]/[1]	Imports under any of the 4 preferential regimes / [1]
Total	18 609 825	12 292 289	89%	
Cotonou (ACP)	5 926 849	5 500 091	92.8%	95%
GSP (regular)	8 754 532	4 385 644	50.1%	86%
GSP-Drug	1 833 684	1 714 354	93.5%	95%
E.B.A	1 682 244	293 527	17.4%	96%

Source: Computations by J. Gallezot, from Taxud (Single administrative declaration) and TARIC data, based on CIF imports data for 2002, chapters 1 to 24 of the HS96. The effective rate of utilization is constructed as the ratio of imports under any preference to the imports eligible to a given reference. GSP Drug indicates the special GSP provisions for countries combating drug trafficking. EBA is the Everything but Arms Initiative. MFN stands for Most Favored Nation

**Table 5. EU and US imports of agro-food products under various regimes, year 2002**

Regime	Country eligible	Value of imports Millions € o \$	Share in total imports
<b>EUROPEAN UNION</b>			
Preferential imports from developing countries		13 316	20.01%
Non reciprocal preferences		0	
Cotonou	Africa, Caribbean, Pacific	5 500	8.26%
GSP (excluding East Europe)	Almost all developing countries	4 257	6.40%
SGP "plus" (drugs)	Countries fighting drug trafficking	1 714	2.58%
Everything but arms	Least developed (except Myanmar)	294	0.44%
Others	Overseas territories.	399	0.60%
Reciprocal preferences			
Bilateral agreements with developing countries	Maghreb, Mashrek, etc.	1 153	1.73%
Imports under a zero MFN duty from developing countries	All developing countries	15 567	23.39%
Imports under a non zero MFN duty from developing countries		11 724	17.61%
Total imports from developing countries		40 737	61.20%
Total EU imports		66 559	100.00%
<b>UNITED STATES</b>			
Preferential imports from developing and emerging countries		7 607	12.70%
Non reciprocal preferences			
Africa Growth Opportunity Act	Sub Saharan Africa	137	0.23%
Andean Trade Promotion Act	4 andean countries	408	0.68%
Caribbean Basin Initiative	Caribbean and Central America	1 629	2.72%
GSP (except Eastern Europe)	Most developing countries	1 350	2.25%
GSP for LDCs	US list of LDCs	17	0.03%
Reciprocal preferences			
Bilateral agreements with developing countries	Jordan, Gaza, Chili, etc.	22	0.04%
Mexico under the NAFTA	Mexico	4 044	6.75%
Imports under a zero MFN duty from developing country		20 811	34.74%
Imports under a non zero MFN duty from developing countries		14	0.02%
Total imports from developing countries		28 417	47.43%
Total US imports		59 910	100.00%

Source: Authors using data from Gallezot, sourceTaxud and TARIC-Eurostat and from USITC. Figures for 2002, Chapters 1 to 24 of the Harmonized system. GSP indicates the Generalized System of Preferences. MFN stands for Most Favored Nation.

**Table 6. Impact of an agreement on agriculture in the Doha round (percentage changes compared to a 2005 reference)**

	Changes in food and agricultural production	Agri-food Exports	Agri-food Imports	Returns to agricultural land	Changes in global welfare
EU 25	-1.57	2.7	12.8	-15.06	0.14
USA	-1.05	0.8	2.8	-0.21	0.05
Asia Developed	-2.08	11.8	9.6	-1.79	0.05
EFTA	-2.73	-3.8	3.7	1.10	-0.11
Cairns Developed	3.66	12.8	2.8	1.08	0.04
Mediterranean	0.73	8.8	-1.5	0.77	-0.16
Cairns Developing	1.25	10.4	-0.7	0.60	0.00
China	0.01	13.2	10.1	0.30	0.15
RoW	0.64	6.8	-0.7	1.15	-0.10
South Asia	-0.01	6.4	7.8	-0.10	0.17
SubSaharan Africa	0.76	4.7	-0.8	0.22	-0.03
<b>World</b>	<b>-0.39</b>	<b>6.1</b>	<b>6.0</b>	<b>-</b>	<b>0.08</b>

Source : Bouët et al 2005a.