The Utilisation of EU and US Trade Preferences for Developing Countries in the Agri-Food Sector

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Abstract:

We calculate various indicators of the utilisation of preferences granted to developing countries by the EU and the US in the agricultural, food and fisheries sector. We conclude that only a very small proportion of the imports eligible to these preferences is actually exported outside a preferential regime. The rate of utilisation is therefore high. However, the flow of imports from poorest countries remains very limited in spite of rather generous tariff preferences, which leads to question the overall impact of the preferential agreements. In addition, preferential regimes overlap, and in such cases some regimes are systematically preferred to others. We use econometric estimates of the (latent) cost of using a given preference in order to explain why particular regimes are used. We focus on possible explanations, such as the cumulation rules (that restrict the use of materials originating from other countries), fixed administrative costs, and differences in the preferential margin.

Keywords – *Non Reciprocal Preferences, Trade and Development, Rules of Origin*
JEL Classification : *F13*

Introduction

The purpose of the paper is to assess how the non reciprocal preferences that theEuropean Union (EU) and the United States (US) grant to developing countries are utilized, and what are the determinants of the possible under-utilization of the various possible regimes.

The EU and the US, as well as other developed countries, provide developing countries (DCs) preferential access to their markets through the Generalized System of Preferences (GSP); the EU "Cotonou" agreement with African, Caribbean and Pacific (ACP) countries; and several regional United States (US) schemes such as the Africa Growth Opportunity Act (AGOA). In this paper, we focus on non-reciprocal agreements, but preferential access is also granted to developing countries under bilateral reciprocal arrangements, such as the EU-South Africa and the US-Morocco agreements.

The GSP and the other Non-Reciprocal Preferential Regimes (NRPRs) rely on the concept of "Trade as Aid". Since the 1970s, Trade as Aid has been thought to be a more effective way to promote development than the funding of projects, which generated rent seeking and whose impact often fell often short of the expected benefits (e.g. Easterly, 2001). Nevertheless, these trade preferences have been questioned, and it is now suggested that direct assistance payments could be a more efficient way of transferring income to DC producers (Anderson, 2004). Critics claim that preferences simply do not work because: NRPRs are limited in scope and exclude products that are important for developing countries' economies; many unilateral agreements are temporary and introduce an element of uncertainty which is unfavourable to investment and the creation of long-term trade flows; the administrative cost of proving eligibility for preference wipes out part of the preference margin while rules of origin limit the benefits (Panagaryia, 2003). These claims are supported by the fact that preferential tariffs have not generated significant trade flows (Brenton and Ikezuki 2004). Other critics claim that when preferences work they have perverse effects. It is claimed that: discrimination between certain regions or countries simply results in trade diversion

so that the benefits for some DCs are achieved at the expense of other DCs (Panagaryia 2003; IPC 2004); non-reciprocal agreements are used as instruments of foreign policy rather than development (Onguglo, 2001); they divide DCs in multilateral trade negotiations and undermine regional cooperation agreements (Michalopoulos, 1999; Hallaert, 2000, Limao and Olarreaga, 2006); they ossify production structures under sheltered market niches (Anderson 2004); they encourage corruption through the creation of rents (e.g. allocation of exports licences). Some authors even claim that countries which do not benefit from preferences can end up exporting more and being eventually better off (Ozden and Reihnardt, 2003).

None of these arguments is fully compelling. The authors who point out the poor performance of countries that benefited from these preferences have seldom provided convincing evidence about the counterfactual situation without preferences. Econometric results are ambiguous, and some suggest that these preferences have significant positive effects on growth (Pomfret 1997; Romalis 2003). Following a detailed examination of the effect of ACP preferences, Stevens and Kennan (2004) find that only 2.4% of ACP exports failed to use existing preference opportunities, concluding that "the system works but should be extended". Because opponents often criticize NRPRs for not going far enough or for including side conditions that limit the export possibilities offered, one may question whether the main issue they raise is the preference itself or the lack of preferences.

In this paper, we assess the utilisation of EU and US NRPRs in the agri-food sector and the impact of these preferences as far as trade flows are concerned. We find that only a very small proportion of the trade eligible to NRPRs preferences is actually exported outside a preferential regime, resulting in a high rate of utilisation. However, the flow of imports remains very limited, especially from poorest countries. Because some regimes seem systematically preferred to others, we use econometric estimates of the cost of using a given preference in order to identify the factors that determine this utilisation.

1. Non reciprocal preferences for developing countries

EU preferences. The EU grants non-reciprocal tariff concessions to imports originating from certain developing under the GSP. The new GSP scheme enables 112 developing countries and 66 territories to export agricultural products to the EU at reduced rates of duty. Since January 2006, a set of additional tariff reductions has been applied to countries complying with international agreements on environmental protection, child labour and forced labour, and the special scheme granted to countries that carry out anti-drug campaigns ("GSP Drugs" regime, concerning 12 Andean and Central American countries plus Pakistan) has been reformed. These preferences now fall under a "GSP plus" framework covering sustainable development and good governance. In 2001, in the context of GSP, the EU introduced the "Everything But Arms" (EBA) initiative in favour LDCs. Under the EBA, all products from 49 LDCs can enter the EU duty free without quantitative limitation (except rice and sugar, which are subject to a transition period until 2009).[1]

The Lomé Convention, which covers the cooperation agreements with the ACP countries, was replaced in 2000 by the Cotonou agreements. The 77 countries covered are also eligible to the GSP, including 40 eligible for the EBA. Non-reciprocal tariff preferences have been maintained on an exceptional and transitional basis until the end of 2007, but must then be replaced by reciprocal economic partnership agreements (EPAs).

An association arrangement binds the EU with states in the Association of Overseas Countries and Territories (OCTs). Depending on their legal status, some of these territories are eligible to the GSP. Some trade agreements in the Euro-Mediterranean partnership framework also involve preferential access to the EU market, albeit a limited one for agricultural products, even though they no longer fit into the category of "non reciprocal" agreements because of increased reciprocity over time.

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[1] There are 50 LDCs in all, but Myanmar is excluded from EU EBA for human rights reasons.

The new (2006) EU GSP significantly improves the coverage of the agricultural and food sector. A large number of products now enter the EU duty free under this regime. However, some agricultural products are still excluded. In addition, tariff reductions are limited for some agricultural goods. As part of the GSP, the EBA provides a much more generous set of preferences in terms of product coverage and preferential margin for the exports originating from LDCs. The (transitory) Cotonou regime also has a broad coverage, and most of the preferential tariffs are set to zero, though preferences are still restricted for products which continue to be protected under EU CAP market regimes. In particular, sugar, beef, bananas are only eligible for preference up to a particular volume of imports under the Cotonou agreement.

US preferences. The US NRPRs include the GSP and the preferences granted on a regional basis, i.e. the Caribbean Basin Economic Recovery Act (CBERA), the ATPA (Andean Trade Preference Act, replaced in 2003 by the Andean Trade Promotion and Drug Eradication Act or ATPDEA), and the 2000 Trade and Development Act. The latter includes the AGOA and the CBTPA (Caribbean Basin Trade Partnership Act). All eligible imports under these preferential schemes take place duty free.

Under the GSP, the US grants preferences to 131 and developing transition countries and some 19 territories.[2] The US GSP contains specific conditions for a list of 42 LDCs, giving them access duty free for a larger set of products. The CBERA provides duty free access to 24 Central American and Caribbean states and territories. Since 2005, the Central American Free Trade Area (CFTA) agreement with Central American countries and the Dominican Republic has *de facto* included preferences that were granted on a non-reciprocal basis into a reciprocal agreement. The US grants preferences to four South American countries under the ATPDEA. The AGOA covers 36 sub-

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[2] Note that the US definition of a LDC differs from that of the United Nations, and some countries are excluded from the preferences because of political or human rights reasons.

Saharan countries. A large number of products eligible under a regional preference are also eligible for the GSP.[3]

Exclusions. The EU and US GSP schemes largely exclude agricultural products that would compete with local production such as beef and sugar (EU) or tobacco, rice and cotton (US). In the EU, these "sensitive" products can be imported at preferential rates under the Cotonou agreement, but are subject to strict quotas. In the case of the US, when these products are eligible for preferences, they remain subject to the overall quantitative ceilings under WTO commitments. That is, non reciprocal preferences are withdrawn for such products when the WTO tariff rate quota is filled, even when filled by countries that are not eligible for these preferences. Some countries are excluded from the benefits of the US GSP for not meeting certain programme qualifications, such as protecting intellectual property, or not providing access to US goods and services, or failing to respect some workers rights, or because their GNP per capita exceeds international threshold levels.

A "graduation" mechanism limits exports of particular products under the GSP. The purpose of graduation is to share the benefits of the preferences between developing countries. In the EU, a formula based on the development index and the degree of specialization of the exporting country, was used to prevent exporters that are very competitive in particular products from taking an "unduly" large share of the market. Under the new GSP, graduation is now based on a simple criterion that no longer relies on development indexes. Graduation is now triggered when a group of products (defined as a "section" of the statistical classification) from a particular country exceed 15% of the EU imports of the same products under GSP over the last three consecutive years (LDCs do not face such restrictions). In the US, the "Competitive Need Limits" also remove the preferences for those countries that take a large share of the market, though LDCs are also unaffected.

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[3] For a more complete description of the US preferential regimes see Dean and Wainio (2006).

2. The utilisation of the preferences

Several authors have claimed that the preferential arrangements of the US and the EU were under-utilized (UNCTAD-WTO, 2000; Mattoo et al 2002; Brenton, 2003). The main reasons put forward to explain this under-utilisation refer to the constraints of rules of origin. The cost of complying with requirements relating to certification, traceability and administrative documentation is also invoked. Uncertainty regarding the eligibility to preferences, and the risk of financial penalties if later found in violation of complex rules, has also been mentioned. In the following sections, we assess whether preferences are indeed under-utilized in the agricultural and food sector, and we attempt to identify the main explanatory factors.

Data. The US International Trade Commission (USITC) provides data on imports under each preferential regime for the US. Here, we used data at the 8 digit level, and the *ad valorem* equivalent of specific tariffs developed by the USITC. We used the CIF value of imports in order to be consistent with the data available in the EU. These data are freely available from USITC.

Access to EU data is more difficult. There is no official compilation of statistics on EU imports under each preferential regime. As a result, EU authorities do not provide such data to international organizations.[4] However, EU importers must fill a declaration at customs which takes the form of a "Single Administrative Declaration" or SAD. This is the primary source for the data on values and quantities that is used by Member countries and Eurostat (the statistical office of the EU) to compile external trade statistics. However, in addition, the SAD includes information on the tariff regime, which has so far not been used in the external trade database. This is the source we use in this study. However, the data is unprocessed and the information is based on the duty requested and not the duty collected. Because this declaration is made under the importer's responsibility, some claims might be erroneous (e.g. claims to import under the GSP from a non-eligible country, which

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[4] This explains that, for example, the WTO' Integrated database (IDB) does not provide this information for the EU, and the UNCTAD's TRAINS and the World Bank's WITS dataset do not include all preferential regimes.

will then be denied by EU customs). Significant work is needed to control and correct declarations so as to retrieve the actual regime that will eventually be used. , Algorithms were constructed to check the consistency of the declaration with the regulation, as expressed in the official Integrated Tariff of the Community (TARIC). Erroneous claims (roughly 5% of the declarations) were identified and corrected so as to be consistent with the regulation. The overall trade flow was checked for consistency with the Comext data. Eventually only 0.1% of the value of EU agri-food imports could not be safely allocated to a particular regime. Data for each import flow under a particular regime are matched to the corresponding tariff.

Indicators. There are several ways to define the utilisation of preferences. We call our first indicator the *apparent* rate of utilisation of a particular agreement. It is defined as the ratio of the value of actual imports under a given NRPR, to the value of imports eligible to this NRPR. It provides information of the utilisation of the regime, but it ignores the fact that a regime can be under-utilized simply because there may be other, equally or more generous, options for exporters.

The second indicator takes into account the fact that a product is often eligible to two preferential regimes, and that the export can only take place under one of them. We call this second indicator the *actual* rate of utilisation. For a particular regime, say GSP, the *actual* rate is the value of imports eligible to the GSP scheme which are imported from the GSP eligible countries under any preferential regime, as a ratio of the total value of imports eligible for the GSP, including those imported under the MFN regime.

Our third indicator is the *aggregate* rate of utilisation: the ratio of the imports from a given country under any NRPR and the imports eligible under these NRPRs. This indicator takes into account the overall utilisation of NRPRs, given the fact that several of them overlap in terms of product coverage.

These three indicators are based on a ratio where the numerator is the value of actual exports by the developing country to the EU or the US. In some cases, non-preferential tariffs are prohibitive. In this situation, exports under either preferential conditions or not may both be minimal but the ratio of exports under the preferential regime and (actual) exports eligible would be close to 100%. In other words, the preference utilisation rates will provide a biased image of the actual utilisation of the preference. We define the *potential* rate of utilisation as the ratio of exports of a particular (developing) country to the EU or US under a set of preferences to the total exports of this country to all destinations. This indicator makes it possible to compare the actual preferential exports to the export potential of the particular country. It helps identifying the upward bias of the utilisation rates defined previously when non-preferential tariffs are prohibitive.

The utilisation of preferences in the EU. Overall, a very substantial volume of imports takes place under NRPRs in the EU. Imports under non-reciprocal regimes account for 20% of the total EU imports in the agro-food sector, that is roughly 30% of MFN-dutiable imports (One third of EU imports are subject to zero tariffs under MFN).

Table 1. EU imports of agro-food products under various regimes (2002)

Regime	Country eligible	Value of imports Million euros	Share in total imports
Preferential imports from developing countries		13 316	20.01%
Non reciprocal preferences			
Cotonou	Africa, Caribbean, Pacific	5 500	8.26%
GSP (excluding East Europe)	Almost all developing countries	4 257	6.40%
GSP "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%

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

Trade under NRPRs is larger than trade under reciprocal agreements, even including trade with the ten acceding members of the EU under the association agreements in 2002. The largest volume of preferential imports takes place under the Cotonou agreement (Table 1). Imports under the Cotonou agreement account for 8.3% of total imports, i.e. roughly 13% of all MFN-dutiable imports of the EU. Imports under the GSP are also significant, representing almost 10% of the dutiable imports from all origins.

Table 2 provides information on the rate of utilisation of the EU preferences for developing countries. The image given by the low *apparent* rate of utilisation of some preferential regimes is somewhat misleading, since a large share of the imports eligible for a particular NRPR is also eligible for another preferential regime. For example, the apparent rate of utilisation of the GSP is only 50%, but many products eligible for the GSP are also eligible for other preferences. A large share of the imports eligible for the GSP is actually imported under the Cotonou regime. Hence, rather than indicating under-utilisation of the GSP *per se*, the apparent rate of utilisation here indicates competition between two systems of preference. In total, only 14% of the imports eligible for the GSP actually take place under the MFN regime, i.e. without preferences, so the *actual* rate of utilisation of the GSP is 86%.

Similarly, the low apparent rate of utilisation of the EBA (17% of the imports eligible actually use the EBA regime) is largely due to the fact that imports eligible to the EBA enter the EU under the Cotonou regime. Indeed, in 2002, African countries exported 95% of their total under the Cotonou regime, although they had the choice between the Cotonou and the EBA preferences. Overall, only 4% of the imports eligible to the EBA entered the EU under the MFN regime, and the actual rate of utilisation was therefore 96% (Table 2).

Table 2. Utilisation of EU non reciprocal preferences for agricultural and food products (2002)

Regime Used	Import eligible by regime 1000 Euros	Actual Import under regime 1000 Euros	Apparent rate of utilisation	Actual rate of utilisation
Non reciprocal regimes	[1]	[2]	[3]=[2]/[1]	Imports eligible to a particular regime but entering 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 utilisation is constructed as the ratio of imports under any preference to the total 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.

Overall, considering all NRPRs as a whole and accounting for the effects of the overlapping regimes, only 11% of the EU imports eligible for one or several preferential regimes do not use any preference. That is, the *aggregate* rate of utilisation of EU NRPRs is 89%. The low *apparent* rate is nevertheless informative. These data clearly indicate that, given the choice, exporters prefer the Cotonou regime over the GSP and the EBA. Thus, the *apparent* rate of utilisation of the Cotonou preferences (93%) is very close to the *actual* rate (95%).[5] This raises the question of the motivations of the choice of a particular regime.

Utilisation of preferences in the US. US agri-food imports mainly originate from developed countries (Table 3). Imports from developing countries are mostly tropical products facing a zero MFN duty. That is, imports from developing countries that actually enter the US under a preferential regime represent 12.7% of US imports, and half of these are imports from Mexico under the NAFTA. Overall, imports under NRPRs account for 6.2% of all US imports, and 13% of US dutiable imports (figures for 2002).

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[5] Note that the *apparent* rate of utilisation of the GSP-Drugs regime is also high (93%). The explanation is that countries that use these preferences (South American countries) are not eligible for other regimes such as the ACP, and they export products that face high MFN tariffs.

The largest flows of imports from DCs occur under the GSP regime. GSP imports represent 2.2 % of US imports (or 5% of US MFN dutiable imports) in the food sector. It is noteworthy that the import flows under the CBERA are roughly similar to the import flows under the entire GSP, while the CBERA covers only 14 relatively small countries. The ATPA accounts for 0.68% of total imports (or 1.4% of US dutiable imports), and the AGOA a mere 0.23% of total imports (0.4% of dutiable imports), with roughly 137 millions USD of imports (Table 3).

Table 3. US imports of agro-food products under various regimes, 2002

Regime	Country eligible	Value of imports Million USD	Share in total imports
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, Chile, etc.	22	0.04%
Mexico under the NAFTA	Mexico	4 044	6.75%
Imports under a zero MFN duty from developing countries		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 USITC. Figures for 2002, Chapters 1 to 24 of the Harmonized system. GSP indicates the Generalized System of Preferences. MFN stands for Most Favoured Nation.

Table 4 shows the utilisation of the various US NRPRs. The rate of utilisation of the ATPA (later replaced by the ATPDEA) is the lowest, with an *apparent* rate of 43% for the four countries eligible (Table 3). However, this figure is explained by some particular factors in 2002, and probably underestimates the actual utilisation of the regime under more normal conditions.[6] The

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[6] The ATPA expired on December 4 2001, and even though it was renewed retroactive to that date on August 6 2002, this had a significant impact on 2002 imports. Indeed, during the period where ATPA was not in effect, imports were subject to MFN duties. Duties paid later qualified for refund when ATPA was renewed, retroactive to the dates it had expired. However, the USITC does not move imports back from MFN to ATPA in the statistics, when this is the case. We thank John Wainio for pointing this out. According to his estimates (personal communication), the apparent rate of utilisation was 93% in 2001 rising to 99% in 2003, suggesting that 68% substantially underestimates the real rate for 2002.

apparent rate of utilisation of the GSP is 58%. However, a product eligible to the GSP can sometimes enter US territory duty-free under a competing scheme, CBERA, AGOA or ATPA. As with the EU, the overlapping of preferences suggests that the *actual* rate of utilisation is a more informative indicator. The actual rate is 94% in the case of GSP, 85% in the case of AGOA and 99% in the case of ATPA preferences. Altogether, the *aggregate* rate of utilisation rate for non-reciprocal preferences is 87%, this figure being probably a lower bound given the statistical problem for the ATPA for that particular year.

Table 4. Utilisation of US non reciprocal preferences for agricultural and food products, 2002

Regime used	Imports eligible, by regime, 1000 USD	Actual import under the regime 1000 USD	Apparent rate of utilisation	Actual rate of utilisation
Non reciprocal regimes	[1]	[2]	[3]=[2]/[1]	Imports eligible to a particular regime but entering 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 utilisation 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)

Again, as with the EU, some agreements seem to be favoured by exporters when the product is eligible to several preferential regimes. For example, the analysis of flows when preferences overlap suggests that CBERA is systematically preferred when the product could also be imported under GSP. However, in contrast to the EU, the preferential margin does not appear to affect the choice of the exporter, since all duties are zero under US NRPRs in the case of agricultural and food products. Clearly, other aspects, such as administrative requirements or rules of origins, must interfere.

3. The determinants of preferential exports

Tables 1 to 4 show that the low *apparent* rate of utilisation for certain regimes is largely explained by the eligibility of a given product to alternative regimes. When exporters to the EU or the US are given the choice, they seem to favour a particular regime (e.g. Cotonou in the case of the EU, CBERA in the case of the US). A low apparent rate suggests that the corresponding agreement provides less benefits than the competing regime, or come with more strings attached. There are several explanations.

In the EU, certain schemes provide larger preferential margins than others, compared to the MFN tariffs. This could easily explain the choice of the Cotonou regime when the product is also eligible to the GSP. The regular GSP often provides limited tariff reductions compared to the MFN tariffs, while most tariffs are zero or minimal under the Cotonou regime. However, this explanation does not hold in the case of the competition between Cotonou and EBA regimes, since the EBA tariff for a given products is always equal to or lower than the Cotonou tariff.[7]

In the US, all preferential tariffs under NRPRs are zero, so the preferential margin cannot explain the choice of one regime over another. However, the use of the CBERA against competing regimes that provide an equivalent preferential margin also seems rather systematic. Clearly, there must be determinants other than tariffs for choosing a particular regime. We consider administrative requirements, agreement-specific costs, rules of origin and differences in the predictability of the regime as potential determinants of the systematic choice of a particular regime.

Predictability. The short time horizons of some preferential schemes and the uncertainty introduced by their frequent reviews may encourage exporters to give priority to more predictable arrangements. Indeed, in some cases, there is delay and uncertainty about when an agreement will be renewed. This is particularly the case with the US preferences (Wainio and Gibson 2003; Dean

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[7] The apparent utilisation rates for those products eligible *only* for GSP and *only* for EBA are 80% and 98% respectively. In contrast, when products are eligible for both Cotonou and EBA, the *apparent* utilisation rates are 93% and 4%, respectively.

and Wainio 2006). Predictability may explain why the CBERA seems to be favoured by exporters when they could also use the GSP. The CBERA has no expiry date, and it can therefore be considered as "permanent". The GSP is subject to frequent revisions and a country can be graduated each year by unilateral decision, introducing a degree of unpredictability. Delays between expiration and renewal (e.g. September 2001 and August 2002 respectively) results in uncertainty that deters exports. The same phenomenon characterizes the ATPA.

However, while this phenomenon may play an important role in explaining the apparent under-utilisation of some US regimes, it cannot be invoked in the case of permanent and predictable regimes such as the EU EBA.

Rules of origin and administrative costs. Rules of origin requirements have often been invoked as an explanation why NRPRs are under-utilized (Brenton and Manchin, 2002; Augier et al, 2003, Inama 2003). In most EU agreements, when products contain goods that have not been "wholly obtained" in the country benefiting from a preference, the EU imposes some conditions on "sufficient transformation" of materials. The exact conditions depend on the regime, but they are mainly based on changes in tariff headings (see Stevens 2003). However, there are significant differences between agreements regarding the geographical cumulation rules. For example, the Cotonou agreement allows for significant diagonal cumulation, meaning that inputs originating from countries A or B, used by country C in its exports to the EU will be counted as originating from C if A and B are also eligible to the same preference as C. In the case of the GSP, including the EBA, however, only a limited regional cumulation was allowed in 2002.[8]

Regarding US agreements, there is usually a requirement that the value-added and the inputs originating from the beneficiary country must represent at least 35% of the value of the final

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[8] Cumulation is allowed between the countries belonging to either the Association of South East Asian Nations. It is also allowed between members of the Andean Community, members of the Central American Common Market and members of the South Asian Association for Regional Cooperation. The cumulation is only within each of these groups, not between countries belonging to different groups (there are a few exceptions for textiles made in some LDCs).

product. Regional cumulation means that some associations of countries are treated as one country (Andean Group, Association of South East Asian Nations, Caribbean Common Market, West African Economic and Monetary Union, Southern African Development Community). There is also a limited degree of diagonal cumulation in the sense that ATPDEA eligible countries can use inputs from countries eligible for the CBERA.

Such rules of origin raise difficulties for some countries which cannot find the raw materials or other intermediate consumptions within their own boundaries. It is particularly a problem for small and/or landlocked countries. Rules of origin constraints require local production even with little comparative advantage (though, the US rules of origin, allow material originating from the US to be counted as being produced in the benefiting country, up to a given proportion). Such requirements result in extra costs.

Other requirements for eligibility for preferential treatment, in particular the obligations of product tracking and traceability, the administrative formalities, the obligations of documentation, etc. also involve significant costs (Estevadeordal and Suominen, 2003). All these costs add to the regular administrative costs for preferential trade, and. could be significant cause of low utilisation of preferences.

Assessing the costs of compliance. Carrere et al (2004) proposed a method for estimating the tariff equivalent of compliance costs. Their method relies on the idea that the importer balances the preferential margin and the costs of compliance. They use a latent variable approach to estimate the cost of compliance.[9] Francois *et al.* (2006) use an sample-splitting method that identifies a

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[9] Their approach consists in recovering the cost of compliance from a limited dependent variable (a Tobit estimation of the rate of utilisation of the preference depending on the preferential margin and an index characterizing the degree of restrictiveness of the rules of origin). Note that they attribute these costs to rules of origin requirements, but in practice their estimates capture a broader set of costs.

threshold as the preferential margin below which traders have no incentive to ask for preference because the costs of obtaining the preference exceeds the benefits. [10]

A very simple approach, based on the "revealed preference", can be applied to the EU and US NRPRs, as a first approximation of the costs of compliance. It can be assumed that the preferential margin is larger than the cost of compliance if the rate of utilisation of preference is 100%. This assumption allows us to estimate an upper bound to the cost of compliance. The preference margin for the products where the utilisation rate is zero can be used to obtain a lower bound. When the utilisation of the preference is partial (i.e. the rate belongs to the |0,1| interval), there is a degree of indifference between using the preference or not, so that the preferential margin is offset by the costs of compliance. The cost of compliance can be approximated by a particular moment or characteristic of an assumed distribution (e.g. average, median, etc.). This method can be used for different agreements, different areas of origin, and different degrees of processing of the product traded.

Here, we approximate the cost of compliance by taking the (non weighted) mean of the preferential margin for imports characterized by a rate of utilisation located in the |0,1| interval. This is obviously a crude indicator, but it nevertheless shows significant differences when we compare different agreements, different levels of development of the exporting country and different degrees of processing. For example. the indicator suggests that the cost of compliance with EU GSP requirements corresponds to a 2.5% tariff for non LDC-countries. The figure reaches 10% for the LDCs exporting under the EBA. The estimate is 3% for primary products and 6% for processed products under the Cotonou agreement. In the case of the US agreements, the figure ranges between 5% and 7%, but the costs of compliance could be higher for processed products under the AGOA (our estimate is 11%, but this is based on very small flows that do not make it possible to be fully

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[10] Francois et al (2006) estimate this threshold by regressing the utilisation rate of the Cotonou agreement (and not the trade flow as a regular gravity equation) directly on a set of variables that usually characterises the gravity equation.

conclusive). Even though this first approximation of the cost of compliance is rudimentary, the figures obtained are consistent with the estimates in the literature (Francois et al, 2006; Estevadeordal and Suominen, 2003; Carrere and de Melo 2003, 2004). They suggest that, on average, the cost of compliance with the NRPR offsets a preferential margin that is significant.

The characteristics of products imported under competing regimes. A comparison of the imports that are eligible to both the Cotonou agreement and the EU EBA shows that most of the imports under EBA (65%) are primary products while most of the imports (65%) under the Cotonou products are products at the first degree of transformation (e.g. cocoa powder or butter, carded and combed cotton, processed fruits and fish, etc.). In addition, while, the share of raw commodities eligible to both regimes, but imported under the EBA is relatively significant (12%), it falls to a very low level when the products are semi-processed or processed. Imports of processed products take place either under Cotonou (49%) or under the MFN (48%) regime. This suggests that it is easier to import processed products under the Cotonou than the EBA. The more constraining cumulation clauses of the EBA could therefore play a role in the systematic choice of the Cotonou regime for products with dual eligibility.

The rules of origin under the EBA are the same as those of the regular GSP. If we focus on exports from non-LDC countries which are eligible for both the EU GSP and the Cotonou regime, this phenomenon is much less visible. Indeed, again, a large share (49%) of GSP imports are raw materials. But the share of semi-processed (30%) and processed material is significant. In addition, there is little difference in the share of products that are imported under the GSP (10%) and the Cotonou regime (58%) between raw material and processed products. The most likely explanation is that LDCs face even a greater difficulty in complying with the GSP-EBA rules of origin than the non LDCs. Supply side constraints, as well as the small size of some of the LDCs and the difficulty of finding local materials are likely to raise particular problems.

For those products which are eligible for both US GSP and US agreements with the Caribbean basin and Central America, the degree of processing also has an impact (albeit limited) on the utilisation of the agreement. 72% percent of the raw commodities use the CBI, while the percentage of processed products that use the CBI is only 60%. For those products that are eligible to both the ATPA and the GSP, there is no significant difference between the degree of processing in the utilisation of a given agreement. This can be explained by the rather similar rules of origin clauses across US agreements.

Descriptive statistics confirm that the largest share of those imports which are eligible for a preference (Cotonou or GSP in the EU, GSP in the US) and which are imported under the MFN regime are small shipments. When the value of the import flow is higher than €5000, the proportion of exports that do not use the preference falls considerably. In the case of the EU, descriptive statistics also confirm the role of the preferential margin. Clearly, products subject to a low MFN tariff are less likely to be imported under a preferential regime, since the cost of compliance is likely to outweigh the benefits.

The determinants of the choice of a particular regime. In order to investigate the determinants of the choice of a preferential regime, we consider two possible situations. First, we consider the case where the product is eligible to only one NRPR. The exporter faces the choice between this NRPR and the MFN regime. In this case, the choice will depend on the preferential margins (in the EU) and on the costs of using the NRPR. We use a bivariate probit model to estimate the determinants of the choice between the MFN regime and the NRPR.

Second, we consider the case where a product is eligible to two NRPRs. The exporter has to choose between these NRPRs and the MFN regime. In this case there is a possible competition between the two preferential regimes and the exporter will compare the preferential margins as well as compliance costs. In this case we estimate a multinomial probit model to explain the choice of a particular regime when the exporter has three possible alternatives.

Among the possible explanatory variables of the utilisation of a particular preferential regime, we include the preferential margins between two regimes, the degree of processing of the products, the size of the export flow, and some indicators of economic development such as the GDP per capita.[11] Data on the GDP per capita in purchasing power parity comes from the International Monetary Fund. We use this variable as a proxy for the degree of development of a country, on the grounds that exporters in more developed countries will face less difficulty in filling the administrative requirements for eligibility to a preference, and also that their own administration will be more efficient (transparent and rapid procedures for allocating export licenses, etc.).

The degree of processing is constructed as an *ad hoc* variable, taking three different values, to capture the difficulties raised by rules of origin requirements. A raw commodity, provided that it is eligible for preference, will face little constraint under rules of origin. Constraints will be more severe if the product combines several materials. We used the Food and Agricultural Organization technical chain diagrams (FAO 1996) to classify goods into three categories: raw commodity; processed good using a small number of different materials; processed goods using a large number of different materials. Rules of origin will normally impose more constraints on this last category.

We include the value of shipment on the grounds that, in order to request the preferential treatment, exporters face some fixed costs, and that they might prefer to export small shipments under the MFN regime to avoid these costs.[12] The preferential margin is, according to the models, either relative to the MFN tariff, or to alternative preferences. Note that in the case of the US, all preferential tariffs are zero, so the preferential margin is only relative to the MFN tariff.

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[11] We also attempted to introduce proxy variables that could capture some possible sources of under-utilisation of preferences, such as corruption in the allocation of export licenses. However, the corruption index (source, Transparency International) did not prove significant in any of the specifications of the model, perhaps because it shows too little variability across developing countries.

[12] The variable included in the regression is not the actual individual shipment but the sum of shipments of the exporter for that particular year. Source: Single Administrative Unit, data available at the 10 digit level.

MFN vs a NRPR: a bivariate probit model. We first estimate a binomial probit model with data on shipments under each regime to test the determinants of choosing the MFN regime rather than any of the preferential regimes, when the product and the exporting country were both eligible to a NRPR. Eligibility for a preference involves a cost *c*, while there is no such cost involved when using the MFN regime. These costs refer to a series of constraints imposed by the preferential agreements (administrative documents for eligibility to the regime, traceability of these documents, possible certification, costs of complying with rules of origin, etc.). Assume that the cost associated with exporting under the NRPR is an unobservable variable defined by a linear combination of explanatory variables *x*, $c = x\beta + \varepsilon$ where ε_j has a normal distribution with zero mean and a variance σ^2. We observe the dummy variable *y*, which indicates whether the MFN regime is chosen (*y*=1) or not (*y*=0), where this variable is defined as: *y*=1 if $c > \bar{c}$ and *y*=0 otherwise.

The probability of choosing the MFN regime rather than the NRPR is[13]:

$$\Pr^{MFN} = \Pr(y = 1) = \Pr(\varepsilon > -x\beta) = F(x\beta),$$ where F is the cumulative distribution function of the normal distribution. In this specification, the variables explaining the choice of the MFN regime rather than the preference include the preferential margin, the degree of processing, the value of shipments and the GDP per capita.

Table 4 shows that the results conform to expectations, though with some interesting exceptions. For both the EU and the US, the preferential margin contributes significantly to a higher use of the NRPR In the EU, the higher the degree of processing, the less likely the use of MFN, and the more likely the use of preferential regime. This is not the case for US, where the degree of processing affects the utilisation of a preference negatively - a higher degree of processing induces exporters to use the MFN regime to a greater extent, as would be expected if rules of origin are more difficult to meet for processed products. The EU case is somewhat puzzling. A possibility is that sanitary and

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[13] $\bar{c}$ is normalized to 0.

phytosanitary restrictions (which hamper the exports of raw material more than processed products as far as pathogens and invasive species are concerned) interact with the export specialization of the different countries and lead to this result.

For both the EU and the US, the size of shipments contribute significantly to a higher use of the NRPRs. This confirm the assumption that there is a fixed cost for using a preference.

However the positive sign of GDP per capita means that countries with higher GDP per capita tend to prefer the MFN regime rather than other more preferential routes. This could be explained, perhaps, by the fact that more developed countries tend to export processed products, and thus face rules of origin constraints for transformed products which lead to preference for the MFN regime rather NRPRs. However, given that the model already includes the effect of processing, this result is difficult to interpret.

Table 4. Binomial probit estimates: MFN vs one NRPR

Probit regression				
European Union	Log Likelihood = -11353.837	Number of observations: 16975		
MFN	Coefficient	Standard Error	Z	P>|z|
GDP/capita	.00003***	2.31E-06	11.08	0
Degree of Processing	-.09***	0.143429	-6.27	0
Preferential margin	-.015***	.0009988	-15.00	0
Value of shipment	-.00004***	3.48 E-06	-12.25	0
Constant	.15***	.0281587	5.47	0

United States	Log Likelihood = -3008.2438	Number of observations: 5141		
MFN	Coefficient	Standard Error	Z	P>|z|
GDP/capita	.0000199***	5.99E-06	3.32	0.001
Degree of Processing	.1039026**	.0428736	2.42	0.015
Preferential margin	-2.81E-08***	6.31E-09	-4.45	0.000
Value of shipment	-1.162721***	.3527096	-3.30	0.001
Constant	-.7034272***	.0547139	-12.86	0.000

***: significant at 1%, **: significant at 5% and *:significant at 10%.

MFN vs two NRPR: a multinomial probit model. We now consider the case where a given country can export to the EU (US) under 3 different regimes. These are, respectively R1 and R2, and the

MFN regime is denoted as R3.[14] The *ad valorem* tariffs associated with a particular regime are t_i ($i=1,2,3$). Eligibility for a preference R_j ($j=1,2$) involves a cost c_j. The c_j, are not observed. The exporter will compare the benefits of using the preference, i.e. the preferential margin, to the cost of using a given regime. If we assume that these costs are fixed, the decision to use a preference rather than the MFN regime corresponds to the case where $c_j < q.p^w(t_3-t_j)$. This means that, if this cost is expressed as a value of CIF imports, the preferential margin $PM_j=(t_3-t_j)$ is a threshold against which c_j can be compared. We assume that this cost can be expressed as a linear combination of explanatory variables $x: c_j = x_j \beta + \varepsilon_j$ where ε_j is a random error term characterized by a density function $F(.)$. The probabilities associated with the three trade regimes are:

$$
\begin{aligned}
p_1 &= \Pr(\textit{choice} = R_1) = \Pr(c_1 - PM_1 < c_2 - PM_2, c_1 < PM_1) \\
&= \Pr(\varepsilon_1 - \varepsilon_2 < x_2\beta_2 - x_1\beta_1 + PM_1 - PM_2, \varepsilon_2 < -x_1\beta_1 + PM_1)
\end{aligned} \tag{1}
$$

$$
\begin{aligned}
p_2 &= \Pr(\textit{choice} = R_2) \\
&= \Pr(\varepsilon_2 - \varepsilon_1 < x_1\beta_1 - x_2\beta_2 + PM_2 - PM_1, \varepsilon_2 < -x_2\beta_2 + PM_2)
\end{aligned} \tag{2}
$$

$$
p_3 = \Pr(\textit{choice} = R_3) = \Pr(\varepsilon_1 > -x_1\beta_1 + PM_1, \varepsilon_2 > -x_2\beta_2 + PM_2) \tag{3}
$$

The random terms $(\varepsilon_1, \varepsilon_2)$ follow a bivariate normal density, with zero mean and a covariance matrix Σ

$$
\Sigma = \begin{bmatrix} \sigma_1^2 & \sigma_{12} \\ \sigma_{21} & \sigma_2^2 \end{bmatrix}
$$

With $\mu_{12} = \varepsilon_1 - \varepsilon_2$, $\mu_{21} = \varepsilon_2 - \varepsilon_1$, the probability of choosing the R1 regime is

$$
p_1 = \int_{-\infty}^{x_2\beta_2 - x_1\beta_1 + PM_1 - PM_2} \int_{-\infty}^{-x_1\beta_1 + PM_1} f(\mu_{12}, \varepsilon) \, d\mu_{12} d\varepsilon_1
$$

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[14] More explicitely R1=GSP and R2=Cotonou, or R1=GSP and R2=EBA for the EU; R1=GSP and R2=ATPA or R1=GSP and R2=CBI for the US.

$$p_2 = \int_{-\infty}^{x_1\beta_1 - x_2\beta_2 + PM_2 - PM_1} \int_{-\infty}^{-x_2\beta_2 + PM_2} f(\mu_{21}, \varepsilon_2) d\mu_{21} d\varepsilon_2 \, ,$$

where $f(\mu_{jk}, \varepsilon_j)$ is the density of the bivariate normal distribution with $(\mu_{jk}, \varepsilon_j) \approx N(0, \Sigma_j)$,

$$\Sigma_j = \begin{bmatrix} \sigma_j^2 + \sigma_k^2 - 2\sigma_{jk} & \sigma_j^2 - \sigma_{jk} \\ \sigma_j^2 - \sigma_{jk} & \sigma_j^2 \end{bmatrix} , \; (k = 1,2, k \neq j)$$

Considering N observations, the likelihood of the model is $L = \prod_{i=1}^{N} \prod_{r_i=1}^{N} (p_{r_i})^{r_i}$

The results of applying this model to shipments from DCs to the EU under competing regimes are shown in Table 5. Here we consider the major determinants of choice of preference to be the size of the shipment and the degree of processing. The GDP per capita explanatory variable has been dropped from final version of this model because it was not significant.

In the EU, we first focus on the products that could be exported under either the regular GSP or the Cotonou agreement. We then focus on exports that are eligible for both the Cotonou and EBA regimes (Table 5). The degree of processing is statistically significant and appears with a positive coefficient in the case of the Cotonou regime. This means that the more processed a product, the higher the cost of compliance, and the lower the probability of choosing the Cotonou regime. Cumulation rules are more restrictive under the EBA and GSP than under the Cotonou agreement. As expected, the results confirm that, for small shipments, exporters are less likely to use a preference. For products that are jointly eligible to the Cotonou and EBA regimes, and everything else equal, the probability of using the EBA rather than the MFN is lower than the probability of using the Cotonou agreement for small shipments. This is consistent with the revealed preference hypothesis that there are larger fixed costs of compliance are for using the EBA than for using the Cotonou regime, perhaps because it takes time to get used to a new regime.

Table 5. Multinomial Probit estimates: MFN vs two NRPR (EU)

European Union	Mean Log Likelihood = -.444327	Number of observations: 1851
Relative to MFN	Coefficient	Standard Error
Constant Cotonou	1.33***	.15
Degree of Processing Cotonou	.26***	.09
Value of shipment Cotonou	-.51***	.10
Constant GSP	2.93***	.18
Degree of Processing GSP	.11	.10
Value of shipment GSP	-.51***	.11

European Union	Log Likelihood = -.759311	Number of observations: 1471
Relative to MFN	Coefficient	Standard Error
Constant Cotonou	.09	.10
Degree of Processing Cotonou	.39***	.12
Value of shipment Cotonou	-.76***	.11
Constant EBA	1.52***	.55
Degree of Processing EBA	0.33	.43
Value of shipment EBA	-.42***	.22

***: significant at 1%, **: significant at 5% and *:significant at 10%.

In the case of the US, reported in Table 6, the number of observations subject to dual eligibility is much smaller than in the EU. Fewer countries and products are eligible to both the GSP and the CBI on the one hand, and the GSP and the ATPA on the other hand. The results show that the degree of processing decreases the probability of using the CBI relative to the MFN, while, for products that are also eligible to the GSP, the size of shipment is not significant for the GSP. Few exports eligible to both regimes actually take place under the GSP. Small shipments have a larger probability of using the MFN regime, consistent with the assumption that there is a fixed cost for using a preference. Estimates suggest that this fixed cost is comparable in the case of the CBI and the GSP. Results for imports that are eligible to both the ATPA and the GSP are more surprising, even though the parameters are less significant. Again the value of the shipment affects the probability of using a preferential regime positively, and the results imply that the implicit fixed cost is comparable between the ATPA and the GSP. However, for the US, the degree of processing favours the use of a preferential regime, contrary to our rules of origin arguments. This might be

due to the particular type of exports of the Andean countries under preferential regimes (tuna, processed vegetables, etc.).

Table 6. Multinomial Probit estimates: MFN vs two NRPR (US)

United States	Mean Log Likelihood = -.822806	Number of observations: 835
Relative to MFN		
Constant CBI	-1.25***	.16
Degree of Processing CBI	0.1312**	.0749
Value of shipment CBI	-2.0803***	.4255
Constant GSP	-.8903***	.1646
Degree of Processing GSP	.0763	.0768
Value of shipment GSP	-2.0236***	.4253
	Log Likelihood =-1.06615	Number of observations: 656
United States	Coefficient	Standard Error
Relative to MFN		
Constant ATPA	-.4867***	.5262
Degree of Processing ATPA	-.1145**	.0718
Value of shipment ATPA	-.0454*	.0311
Constant GSP	-.5181**	.2803
Degree of Processing GSP	.1179**	.0682
Value of shipment GSP	-.0475**	.0292

***: significant at 1%, **: significant at 5% and *:significant at 10%.

4- The low imports/high utilisation issue

The *apparent* and *aggregate* rates of utilisation of the preferences are ratios based on actual exports (the denominator is the value of exports). Such ratios might be high while the preference fails to generate significant trade flows. The high aggregate rates found in this study only tell us that few products eligible for preferential treatment are imported outside the preference system. This does not mean that the schemes fulfil their objectives. The case of the US AGOA illustrates the paradox: 85% of food exports from African countries that are eligible under the agreement (and dutiable under MFN) do enter duty-free under the scheme. The system is therefore used. Nevertheless, with the exception of South Africa, the export flows from almost all countries to the US are very small, only a few ten thousands dollars in most cases. That is, a high rate of utilisation does not mean that the preferences "work" in terms of actually creating trade.

Incomplete product coverage of the preferential scheme may explain that even though the aggregate rate of utilisation is high, exports are minimal, provided that MFN tariffs are prohibitive. This explanation may be valid for some Asian and South American countries. It does not explain the small imports under generous preferential schemes such as the EBA or the US-GSP for LDCs, whose product coverage is large. The combination of high MFN duties and administrative obstacles for using preferences is another possible explanation. However, several studies (OECD 2005; Stevens and Kennan 2002; Djankov et al 2006 combining statistical estimates and surveys of importers or exporters suggest that the main explanations for the somewhat disappointing level of LDCs exports in spite of the preferences lie outside the issue of tariff protection. Technical requirements in the importing countries, supply side constraints and administrative inefficiencies in the exporting countries seem to be the main obstacle to a larger use of preferences. Many developing countries have not been declared free from a series of animal diseases and are not allowed to export meat and dairy products, for example. The capacity of exporting countries to meet the quality and traceability requirements imposed by the EU and the US also appear as a considerable obstacle to a larger use of available preferences. In many cases, the US and EU administrations deems processing plants and control, inspection and certification procedures to be deficient (Henson et al, 2000). The standards imposed by the private sector, in particular in terms of traceability, control all along the processing chain, liability and certification seem to be difficult for LDCs.

The *potential* rate of utilisation, i.e. the ratio of the exports to the EU (or US) under NRPRs to the exports of the particular country worldwide, provides some useful information. For a given country, it shows the importance of the NRPRs outlet relatively to the export capacity of the country for this particular set of products. In the case of sub-Saharan Africa, this indicator shows contrasting results between countries. Exports to the EU under NRPRs account for less than 10% of total exports of Benin or Sudan, for example. The percentage is less than 20% for 11 of the 47 sub Saharan

countries. However, for 27 of these countries, the NRPRs of the EU account for more than half of their exports, and for 9 countries, they account for more than 80% of the exports. This is typically the case for most West African countries. For this group of countries, the limitations to more exports to the EU are unlikely to be found in the rules of origin, technical or administrative requirements of the NRPRs, while in the case of Sudan, an exporter of live animals, SPS measures are likely to play a major role. African exports under US NRPRs only account for a small fraction of their total exports (most exports of African countries are directed to the EU, which is a market of choice for raw material). If administrative or technical rules are an issue, these are general constraints, which are not specific to the NRPRs.

5. Conclusion

A number of recent studies have concluded that NRPRs are systematically under-utilized by developing countries. Our results suggest that that the utilisation rate for non-reciprocal agreements is generally very high, even though this sometimes corresponds to very limited trade flows. Barely more than 10% of the imports eligible to a preference enter the EU or the US market outside a preferential regime. Taken individually, the utilisation rate for some schemes may seem relatively low, whether in the EU (the GSP, and especially the EBA component) or in the US (the GSP or the ATPA). But this is mostly due to the fact that products are eligible for preferential treatment under more than one scheme.

Some regimes appear to be systematically preferred by exporters when two regimes compete. For instance, the Cotonou regime tends to be favoured by exporters to the EU when they have the choice with the GSP or even the EBA, and the CBERA regime is often chosen by exporters to the US when they have the choice of the GSP. Higher preferential margins (e.g. the Cotonou compared to the EU GSP regime) are only part of the explanation. The rules of origin requirements contribute to explaining why the Cotonou is preferred to the EU GSP, including the EBA, since Cotonou is less restrictive in terms of geographical cumulation. The short term horizon and the uncertainty

resulting from annual reviews and possible graduation in the US GSP could explain why the CBERA, a more predictable agreement, is often preferred. Econometric estimates support the assumption that there is a fixed cost of compliance when an exporter wishes to use a preferential regime, and that this is a particular deterrent for small shipments.

While the rates of utilisation are high, the preferential regimes fail to generate significant export flows from some developing countries, in particular most of the sub-Saharan countries and LDCs. Rules of origin requirements and partial coverage of the agreements seem to play only a minor role in explaining the small export flows. The main explanations seem to lie in the inability of these countries to match the technical, sanitary, phytosanitary and traceability requirements imposed by developed countries, and in particular the private standards imposed by importers and retailers. This suggests that, in order to benefit from the opportunities offered by the EU and US NRPRs, LDCs would need technical and financial assistance with their infrastructure and administration and high levels of inward investment, which, in terms of our results, would increase the size of export flows, and hence the use of preferential agreements. More predictable preferential regimes, with more possibilities of geographical cumulation could help foreign investment and, as a result, the diffusion of technological and services packages, which seem necessary to meet the quality and traceability requirements imposed by the importers. However, many of the obstacles mentioned by the importers surveyed by OECD (2005) lie outside the scope of the preferential regimes. Political conditions and poor governance, for example, are often mentioned as major deterrents to foreign investment and transfers of technology and service, without which preferences are unlikely to translate into actual exports.

REFERENCES

Anderson K. (2004). Subsidies and Trade Barriers. Copenhagen Consensus Challenge Paper, 24-28 may 2004; Copenhagen.

Beghin J. and Aksoy A. (2003). "Agricultural Trade and the Doha Round: Lessons from Commodity Studies". Briefing paper 03-BP42, CARD, Iowa State University.

Augier P., Gasiorek M. and Lai-Tong C. (2003). The Impact of Rules of Origin on Trade Flows. Working Paper, University of Sussex.

Borrell B. (1999). Bananas: Straightening Out Bent Ideas on Trade as Aid. Paper presented at the World Bank Conference on "Agriculture and the New Trade Agenda: Interests and Options in the WTO 2000 Negotiations", Geneva, Switzerland, October 1-2, 1999.

Brenton P. (2003). Integrating the Least Developed Countries into the World Trade System: The Current Impact of EU Preferences under Everything But Arms. Working Paper, The World Bank.

Brenton P. and Ikezuki T. (2005). "The Impact of Agricultural Trade Preferences, with Particular Attention to the Least Developed Countries."' In M. Aksoy and J. Beghin, eds., Global Agricultural Trade and Developing Countries. Washington, D.C.: World Bank.

Brenton P. and Manchin M. (2002). Making the EU Trade Agreements Work. The Role of Rules of Origin. Centre for European Policy Studies, CEPS Working Document 183, Brussels, March.

Candau F., Fontagne L. and Jean S. (2004). The Utilisation Rate of Preference in the EU, Working Paper, Technical Seminar on Tariff Preferences and their Utilisation, WTO, Geneva.

Carrère C. and De Melo J. (2004). Are Different Rules of Origin Equally Costly? Estimates from NAFTA, Working Paper, IDB-INRA-DELTA-CEPR conference in Washington DC.

Dean J. and Wainio J. (2006). Quantifying the Value of US Tariff Preferences. Working paper, US International Trade Commission (revised January).

Djankov S., Freund S. and Pham C.S. (2006). Trading on Time. World Bank Working Paper WPS3909.

Easterly W. (2001). The Elusive Quest for Growth: Economists' Adventures and Misadventures in the Tropics , MIT Press, Cambridge.

Estevadeordal A. and Suominen K. (2003). Rules of Origin: A world Map and Trade Effects. Paper prepared for the workshop "The Origin of Goods",DELTA, Paris, 23 May 2003.

FAO (1996). Technical Conversion Factors for Agricultural Commodities. Statistics Division, Food an Agriculture Organisation, Rome.

Francois, J., Hoekman, B. and Manchin, M. (2006). "Preference Erosion and Multilateral Trade Liberalization", World Bank Economic Review 20, 2, 197-216.

Hallaert J.J. (2000). Un bilan mi-parcours du SPG européen. Groupe d'Economie Mondiale, Sciences Po, Institut d'Etudes Politiques, Paris.

Henson, S.J., Brouder, A. and Mitulah M. (2000). "Food Safety Requirements and Food Exports from Developing Countries: The Case of Fish Exports from Kenya to the European Union". American Journal of Agricultural Economics. 82 (5), pp 1159-1169.

Inama S. (2003). Quantifying the Trade Effects of Rules of Origin on Preference: The Case of GSP, AGOA and ACP preferences. Paper presented at the workshop "The Origin of Goods", IADB, INRA, DELTA, CEPR, Paris, 23 May 2003.

IPC (2003). "Revisiting Special Preferences for Developing Countries". IPC Brief, International Food & Trade Policy Council, May.

Limao N. and Olarreaga, M. (2006). "Trade Preferences to Small Developing Countries and the Welfare Costs of Lost Multilateral Liberalization", World Bank Economic Review, 20, 2, 217-240.

Maddala G S. (1983). "Limited-dependant and qualitative variables in econometrics". Cambridge University Press.

Mattoo A, Roy D. and Subramanian A. (2002). The AGOA and its Rules of Origin: Generosity Undermined? World Bank Policy Research Working Paper 2908.

Michalopoulos C. (1999). Trade Policies and Market Access Issues for Developing Countries: Implications for the Development Round. Policy Research Working Papers 2214, The World Bank, Washington DC.

OECD (2005).Preferential Trading Arrangements in Agricultural and Food Markets. The Case of the European Union and the United States. Organisation for Economic Co-operation and Development, Paris.

Ongluglo B.P. (1999). Developing Countries and Unilateral Trade Preferences in the New International Trading System. In M. Rodriguez Mendoza, P. Low and B. Kotschwar (editors), Trade Rules in the Making: Challenges in Regional and Multilateral Negotiations. Washington, DC. The Brookings Institution Press/Organisation of American States.

Ozden C. and Reinhardt E. (2003). The Perversity of Preferences: The Generalized System of Preferences and Developing Country Trade Policies. Working Paper, International Economics, Trade, Capital Flows Series, The World Bank

Panagariya A. (2002). "EU Preferential Trade Arrangements and Developing Countries". The World Economy 25(10): 1415-1432.

Romalis J. (2003). "Would Rich Country Trade Preferences Help Poor Countries Grow? Evidence from the Generalized System of Preferences", mimeo, Chicago GSB.

Stevens C. (2003). "Agricultural Reform and Erosion of Preferences", mimeo, Institute of Development Studies, University of Sussex, november.

Stevens C. and Kennan J. (2004). "Comparative Study of G8 Preferential Access Schemes for Africa. Report on a DFID Commissioned Study". Institute of Development Studies, University of Sussex, April 2004.

UNCTAD-WTO (2000). "The Post-Uruguay Round Tariff Environment for Developing Countries Exports: Tariff Peaks and Tariff Escalation". UNCTAD/WTO joint study. TD/B/COM.1/14/Rev1, United Nations Conference on Trade and Development, Geneva

UNCTAD (2001). Improving Market Access for Least Developed Countries. United Nations Conference on Trade and Development UNCTAD/DITC/TNCD/4, Geneva, May.

Wainio J. and Gibson P. (2003). The Significance of Non-Reciprocal Trade Preferences for Developing Countries. Paper presented at the International Agricultural Consortium and University of Calabria, University of California joint meeting, Capri, June 23-27.