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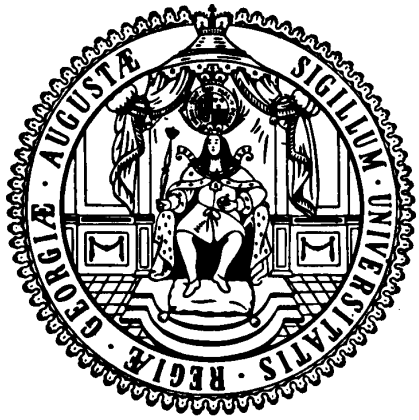

Diskussionsbeiträge · Documentos de Trabajo · Discussion Papers

Nr. 197

Trade as Aid: The Role of the EBA-Trade Preferences Regime in the Development Strategy

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August 2009

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Trade as Aid: The Role of the EBA-Trade Preferences Regime in the Development Strategy

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ABSTRACT

This study focuses primarily on trade preferences offered by the European Union (EU) and in particular on the Everything But Arms (EBA) trade preferences regime, which is targeted exclusively on least developed countries (LDCs). Using the gravity model, an estimation of the influence of the EBA preferences on exports from the ACP LDCs to the EU-15 is presented. The model is applied to the time period 1995 to 2005 for the ACP countries' exports to the EU-15 and estimated with the help of different econometric techniques. The core questions of the investigation are two: First, to examine the influence of the EBA preferences on the ACP LDCs' export performance and second to compare the impact of the EBA scheme with the one of official development assistance. In addition to their separate effects the combined impact of EBA and aid flows is also analysed. The main results show a very poor performance of the EBA regime. However, the combined effect of the EBA and aid on exports is positive, indicating that the development strategy of the developed countries, in this case of the EU, needs to include both sorts of assistance, aid and trade preferences.

JEL Classification: O24, C23, F13; F35,

Keywords: development aid; trade preferences; Everything But Arms; panel data

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Trade as Aid: The Role of the EBA-Trade Preferences Regime in the Development Strategy

1. Introduction

The role of trade preferences in the development debate is a very controversial topic. Established as a sort of aid to developing countries (DCs), its effects on growth and development are rather diverse (Brenton, 2003; Brenton and Ikezuki, 2005; Reinhardt and Oezden, 2005). The development debate turned its focus on trade as a more effective way of ensuring growth and economic and social prosperity in the DCs because of the mixed outcomes of aid programmes (Morrisey, 2006; Hansen and Tarp, 2000). The key advantage was seen in achieving substantial increase of exports from DCs to developed countries. Hence a Special and Differential Treatment (SDT) regime was introduced within the GATT/WTO framework in order to promote DCs' exports without exposing their home industries to higher competition.

This study will focus primarily on trade preferences offered by the European Union (EU) and in particular on the Everything But Arms (EBA) trade preferences regime, which is targeted exclusively on least developed countries (LDCs). The expectations about the EBA initiative have been very high, setting the hopes that this new scheme will deliver the breakthrough in the economic development of the poorest countries in the world. In contrast, this study will present arguments, which highlight the various threats of implementing trade preference regimes, not only to the beneficiary countries but also to the WTO framework.

The main questions, which will be examined, deal with the following: whether trade preferences are an effective development strategy and what is the impact of the EBA regime in particular on the African, Caribbean and Pacific (ACP) countries' exports into the EU. The effect of trade preferences will be compared to the one of official aid flows in order to show which one of the two development tools contributes more to the export performance of the ACP countries and whether trade preferences and aid act as complements or rather as substitutes to each other. Beginning with the economic and political effects of trade preferences as a whole the discussion will focus on the design of the EBA agreement and its impact on the beneficiary countries' exports. On the one side, ex-ante studies, based on general equilibrium models, generally predicted a small positive impact on exports and

welfare of the EBA scheme[1]. On the other side, ex-post studies lead to mixed results (Evenett, 2008).

The gravity model is used as the theoretical framework to investigate the influence of the EBA preferences on exports from the ACP LDCs to the EU-15. The model will be applied to the time period 1995 to 2005 for the ACP countries' exports to the EU-15 and estimated with the help of different econometric techniques – random- and fixed-effects, Hausman-Taylor estimator and Heckman regression method. The core questions of the empirical investigation will be two: First, to examine the influence of the EBA preferences on the ACP LDCs' export performance and second, to compare the impact of the EBA scheme with the effect of official development assistance (ODA). In addition to their separate effects the combined impact of EBA and aid flows will also be analysed. To our knowledge, this is the first study that specifically evaluates the influence of the EBA regime and compares trade preferences and development aid as development tools within the framework of the gravity model of trade.

The main findings are that the EBA agreement seems to have exactly the opposite effect on ACP LDCs' exports as its goals: instead of increasing the size of exports the arrangement actually reduces exports. In contrast, the interaction effect between EBA and ODA turns out to be a significant determinant of exports from ACP LDCs to the EU-15, showing a small and positive effect on exports. The ODA variable performs differently in the regressions but it has a significant and positive effect on exports when the model is estimated using the Heckman approach, although the results are not robust to changes in the specification of the model. It appears that neither the EBA scheme nor the ODA achieve their goals on its own but a mixed strategy using both development approaches seems to have a significant positive effect on LDCs' exports to the EU.

The study is structured as follows. Section 2 deals with the theory on which trade preferences are based, presenting also the problems caused by implementing these schemes. These concern issues such as the economic effects of trade preferences on the beneficiaries' economy, on their trade policy and on the future of the WTO. Section 3 focuses on the EU preference regimes and especially on the EBA initiative and its characteristics. The main differences between the EBA and the General Scheme of Preferences (GSP) of the EU will also be discussed in this section. Section 4 analyses the empirical effects of the EBA arrangement on trade. A review of previous studies is followed by estimation, applying the

[1] Somwaru and Trueblood (2002), Cernat, Laird, Monge-Raffarello and Turrini (2003) and Jensen and Yu (2005).

gravity model in order to measure the effect of the EBA initiative on ACP LDCs' exports. The empirical results will serve as the basis for our conclusions, outlined in Section 5 with regard to the main concern here – whether trade preferences should be a part of the development strategy of developed countries.

2. The political economy of Trade Preferences

After the Second World War, at the time of the Marshall Plan, aid was the tool most often used for supporting economic development and growth in the DCs. Official development assistance was seen as a very efficient and powerful instrument for stimulating growth (Jayasuriya, 2006). In the next decades the success of many countries following mainly the strategy of trade and investment liberalisation, like those in East Asia, attracted attention and induced a shift in the development strategy from aid to trade. The strategy of export-led growth formed the basis for establishing the GSP at the UNCTAD conference in New Delhi in 1968. The main problem with trade preferences was that they were in contradiction to two core principles of GATT, namely the principles of reciprocity and non-discrimination. For this reason the GSP regimes were not an integral part of the GATT legal framework until the so-called "Enabling Clause" was passed in 1979 and the GSP programmes became part of the GATT trade rounds (Hoekman, 2005).

Since the introduction of the first GSP schemes the development debate focused more intensively on trade and trade preferences and the way in which they could contribute to economic growth and prosperity. At the same time, the use of aid flows as a development tool declined because of mixed effects of aid disbursements on the DCs' growth (Hansen and Tarp, 2000; Morrissey, 2006). Basically, the nature of trade preferences is very similar to that of aid flows; trade preferences can also be regarded as transfer of resources from developed to developing countries (Clark, 1991). Through preferential market access DCs can be paid more for their export products and would "…be able to expand their exports into lucrative developed markets." (Borrell and Stoeckel, 2001). The main idea of trade preferences is to act as a substitute to aid disbursements by offsetting comparative disadvantages and setting incentives to invest in new activities and thus diversify the exports' structure and industrialise the economy (Hoekman and Prowse, 2005; Messerlin,Nielson and Zedillo, 2005). The gains from trade in comparison to aid come especially from the dynamic perspective, i.e. from spillover effects and dynamic benefits which are induced through higher integration in the world trade markets (Suwa-Eisenmann and Verdier, 2007). In addition, trade preferences

would have the role of an incentive to reform trade policies in these countries (McCulloch and Pinera, 1977; Messerlin, Nielson and Zedillo, 2005).

The main shortcoming of non-reciprocal trade preferences is the fact that this development strategy excludes one of the major sources of benefits, namely the reform within the country itself (Hoekman, 2005). The change of country's own trade policies and especially the reduction of trade barriers is one important source of gains through trade is (Borrell and Stoeckel, 2001; Erixon and Sally, 2006; Hoekman, Michalopoulos and Winters, 2003).

2.1. The Economic Effects of Trade Preferences

According to the UNCTAD conference on establishing the GSP regime, trade preferences in favour of DCs are defined as non-reciprocal, non-discriminatory and have to fulfil the following three goals (Resolution 21 (ii), UNCTAD (2009b)): First, to increase their export earnings; second, to promote their industrialisation and finally, to accelerate their rates of economic growth".

In this sense trade preferences have been expected to serve as a "catalyst in triggering virtuous circles leading to higher exports and revenues, increased supply capacity and, ultimately, economic growth" (UNCTAD, 2007). Additionally, LDCs could benefit from deeper tariff cuts. Whether the expectations of trade preference regimes have been satisfied in practice is the focus of this section, together with an examination of the economic effects of trade preferences. The arguments address the major economic problems of the implementation of preference schemes which are pointed out in the literature. Those problems are related to the product and country coverage, the rules of origin, the support of inefficient industries, trade diversion effects, uncertainty and conditionality and supply side constrains.

With respect to the product and country coverage, according to the GSP resolution passed by UNCTAD, trade preferences schemes are supposed to be generalised and non-discriminatory. Currently there are 11 GSP regimes notified to the UNCTAD Secretariat but none of these preference schemes encompasses all DCs and all tariff lines (Borrell and Stoeckel, 2001; Inama, 2006; UNCTAD, 2001).

There is a broad difference in the tariff cuts related to sensitive and non-sensitive products. The sensitive products include predominantly agriculture products, textiles and apparel which markets are still highly protected in the developed countries (Borrell and Stoeckel, 2001). According to the GSP schemes the products with the highest tariffs, the

sensitive products, receive the lowest preference margin[2] (Brenton and Ikezuki, 2005; IMF/World Bank, 2002). Taking into account that DCs have their comparative advantages predominantly in agriculture, apparel and textiles, it is questionable whether the preference schemes are designed in favour of DCs or the industrialised countries try rather to protect the interests of their domestic producers (Bouet, Fontagné and Jean, 2005).

Similarly to the product coverage selection, different GSP schemes grant preferential access to different countries. This selectivity among the DCs could cause in addition tensions between the included and excluded countries because some would be privileged on the expense of others (Hoekman and Özden, 2005). Other issue concerning the country selectivity is the fact that it is observable that each donor country has mostly its main focus on its former colonies (Borrel and Stoeckel, 2001; Francois, Hoekman and Manchin, 2006). Within the EU trade preference regimes the ACP countries enjoy an extraordinary preferential access to the EU market, broader than most other DCs.

The second economic problem is related to the administrative requirements and rules of origin. The idea behind the implementation of rules of origin is to prevent trade deflection but rules of origin can actually be used as non-tariff barriers and can therefore have a negative effect on exports (Francois, Hoekman and Manchin, 2006; Messerlin, Nielson and Zedillo, 2005; UNCTAD, 2001). Restrictive administrative requirements and standards can be considered in the same way. Of particular relevance for this study is the requirement about regional cumulation of value added. With regulations about it, donors want to stimulate broader production structure in each one of the DCs. However, cumulation regulations limit the recognition of expanding economic cooperation and trade among the DCs (UNCTAD, 2001).

The rules of origin, more than preventing trade deflection, seem to be acting as "adjustment burden" (Hoekman, 2005). The complexity of the GSP systems and the fact that every scheme has its own administrative requirements and rules of origin makes it difficult for DCs' exporters to comply simultaneously with all of them (Borrell and Stoeckel, 2001; Brenton and Ikezuki, 2005; Reinhardt and Özden, 2005; UNCTAD, 2001). The documentation and verification processes, which are associated with the observation and compliance with the standards and rules of origins, require substantial additional costs to the exporters (UNCTAD, 2001). In reality such standards and requirements have the character of non-tariff barriers which offset the value of the preference margins (Bouet, Fontagné and Jean, 2005; Francois, Hoekman and Manchin, 2006; Kennan and Stevens, 2005).

[2] The preference margin is the difference between the MFN tariff and the preferential tariff.

The third related problem is described by Borell and Stoeckel (2001) as the "kiss of death". On the basis of the fact that GSP programmes do not cover all products and all countries, the eligible countries feel induced to specialise in exporting those goods for which they receive the highest preferential margin (Brenton and Ikezuki, 2005). In this way GSP regimes can set distorted incentives for DCs preventing them to specialise in the products which they can produce efficiently. Most studies show that this effect happens in reality with trade preferences setting wrong incentives for industries in DCs (Alexandraki and Lankes, 2004; Borrell and Stoeckel, 2001; Hoekman and Özden, 2005; Messerlin, Nielson and Zedillo, 2005; McQueen, 1999). Encouraging industries that have little potential for expansion without trade preferences is in principle a waste of resources. DCs are pressed to specialise in line with the preferential market access and not with their comparative advantages and production structure (Borell and Stoeckel, 2001; Hoekman and Özden, 2005). This leads to reallocation of resources to inefficient sectors (Alexandraki, 2005; Borrell and Stoeckel, 2001; Hoekman and Özden, 2005). If industries are created and expanded artificially, without any other foundation or economic reason, it will lead to a net loss for the economy at the end because of displacing efficient trade flows (Borell and Stoeckel, 2001).

In this way preference schemes are locking beneficiary countries into industries by setting incentives which cannot be sustained in the long-run. The country will never be competitive on the world market because it has specialised in non-efficient industries, so its export earnings and national income remain dependent on trade preferences. This fact could present a threat for further multilateral liberalisation because of the fear of losing the privileged access. Specialising in wrong industries, without comparative advantage, is not only a threat for the efficient allocation of resources and factors of production; it also amplifies the effect of trade diversion. Inefficient specialisation of one country could come at the expense of other DCs which have a comparative advantage in this product but are not eligible for preference schemes. Discriminatory preference regimes supporting inefficient industries will lead with high probability to trade diversion among the DCs (Borell and Stoeckel, 2001; Francois, Hoekman and Manchin, 2006; Hoekman and Prowse, 2005; Keck and Low, 2004; Messerlin, Nielson and Zedillo, 2005).

Based on the fact that the production structure in many DCs is very similar, the probability of trade diversion due to the effects of trade preferences schemes is quite high (IMF/ The World Bank 2002). A number of authors state that most of the preference schemes divert rather than create new trade flows (Borrell and Stoeckel, 2001; Borchert, 2008;

Messerlin, Nielson and Zedillo, 2005). The increase of national income of some countries will come in this case at the expense of other DCs.

An additional motive for the dubious success of preference schemes is the uncertainty about the duration of the preferential market access. The "Enabling Clause" allows the industrialised countries to design the schemes freely; hence, there are no generally accepted rules which have to be followed by structuring the preferential regimes (Reinhardt and Özden, 2005). As a consequence none of the beneficiaries has a commitment on the part of the donors that the preferences will last in the long-run. Thus the uncertainty about the continuity of the preferential status may undercut the value of trade preferences (Brenton and Ikezuki, 2005; Hoekman and Özden, 2005; UNCTAD, 2001; UNCTAD, 2004). Because of this situation the incentives to invest are very low and the risks are too high (Hoekman, Michalopoulos and Winters, 2003; Hoekman and Özden, 2005). In contrast the WTO rules-based trade system offers this certainty for investors and traders, consequently the risks tend to be smaller (Hoekman and Özden, 2005; Hoekman and Prowse, 2005; McQueen, 1999; Keck and Low, 2004).

Moreover, this situation can be exploited by the developed countries and used as "bargaining chips" in negotiations with DCs (Messerlin, Nielson and Zedillo, 2005). The fear of withdrawal of the special status and of having made investments to no purpose can force DCs at the bargaining table to vote in favour rather than against the donor countries. This could be simultaneously a threat for the further trade liberalisation within the WTO trade rounds because the opposition against the protectionist trade policy of some of the developed countries would be much lower.

Another point of the characteristics of trade preferences, which is controversial, is the side conditions which are imposed on the beneficiary countries. Despite the initial idea of non-reciprocal trade preferences there are some conditions which have to be fulfilled in order to take advantage of the preferential status (Borrell and Stoeckel, 2001; Messerlin, Nielson and Zedillo, 2005; UNCTAD, 2001). Such non-trade related conditions are for example environmental and labour standards, property and workers' rights, actions against fraud and drug trafficking. Considering trade preferences as a type of development assistance, the side conditions of the trade preference schemes turn the regimes into a sort of tied aid (Borrell and Stoeckel, 2001).

Finally, the previous arguments addressed more the design and the problems of the characteristics of trade preferences per se. This one considers the supply-side constraints inside the DCs which hinder the utilisation of the preferential status (Borrell and Stoeckel,

2001; Hoekman and Prowse, 2005; Hoekman, Michalopoulos and Winters, 2003; Messerlin, Nielson and Zedillo, 2005; UNCTAD, 2001). Through the preferential market access the exporters from DCs are confronted with higher demand that often they cannot meet because of supply-side constraints in their own country. The biggest problems of DCs related to their export performance are often connected with the supply-side constraints in their own economy and not with the lack of demand in the target markets. Lack of supply capacity, high-cost environment, poor infrastructure, weak institutions and weak private sector, low skill capacity, structural rigidities and risky political environments are some of the major issues for the LDCs (Borrell and Stoeckel, 2001; Hoekman, Michalopoulos and Winters, 2003; UNCTAD, 2001). In the case of supply-side constraints it is perhaps more plausible to use trade-related technical assistance as a development instrument, in order to overcome the difficulties inside the country. These aspects are neglected by the implementation of trade preferences but are at the same time crucial elements of the development of a given country[3]. In this kind of situation it is possible that well targeted aid flows could be an important complement to the granted trade preferences.

2.2. Trade Preferences, Trade Policy and the Multilateral Trading System

Obtaining preferential market access has an effect on the trade policy of the receiving countries and not only on their economies. Benefiting from trade preferences can decrease the incentives for DCs to liberalise their own trade policies (Borrell and Stoeckel, 2001; Hoekman and Özden, 2005; Messerlin, Nielson and Zedillo, 2005; Reinhardt and Özden, 2005). Given the fact that the exporters of DCs have already received a preferential access to the markets of the industrialised countries, they lose interest in lobbying for such tariff liberalisation. In this case the trade policy of DCs ends up predominantly determined by the interests of the import-competing groups (Reinhardt and Özden, 2005). These groups would be in favour of higher domestic protection because in this way they acquire privileged position and price advantage compared to their competitors from abroad. As a result trade preferences can have reverse effects on the trade policy in the developing world (Hoekman and Özden, 2005). They can act as a "two-edged sword" (Hoekman and Özden, 2005): in the short-run perhaps some success would be reported but it can have a negative effect on the trade policy in the long-run. Therefore one should be aware of these issues while interpreting the long-term effects of trade preferences.

[3] Trade facilitation has been recently considered as one important way to improve trade performance in DCs.

Trade preference schemes may affect not only the trade policy inside the country but also the development of negotiations within the WTO. Success in the ongoing trade negotiations means reduction of the MFN tariffs of all countries in the world. If the MFN tariffs of the developed countries decrease, this leads on the one hand to lower preferential margins and higher competition for exporters from DCs included in the preferential schemes. On the other hand, countries that are excluded will benefit from a broader and deeper multilateral liberalisation while the preferences of the included would erode. Especially once the DCs are trapped into the "kiss of death" by the effects of preference schemes, it would be very cost-intensive to change the production structure. Therefore, many of the preferences-receiving DCs might turn against further multilateral liberalisation or at least in favour of a slower path (Borrell and Stoeckel, 2001; Bouet, Fontagné and Jean, 2005; Francois, Hoekman and Manchin, 2006; Keck and Low, 2004; Messerlin, Nielson and Zedillo, 2005; van der Mensbrugghe, 2006).

In this sense, the eligible DCs will not be in opposition to the developed countries in the WTO rounds and will be ready to compromise their sustainable economic development favouring their short-run profits (Brenton and Ikezuki, 2005). Thus trade preferences can act as a "stumbling block" to multilateral liberalisation process and distort the incentives of DCs to push further liberalisation of their trade policy (Alexandraki, 2005; Francois, Hoekman and Manchin, 2006).

On the basis of the negative side-effects on the economy, on the trade policy of DCs and on the multilateral trade liberalisation the question that can be raised is whether trade preference regimes can act as an efficient development strategy for all DCs. Development of different countries necessitates different tools designed on a case-by-case basis and not on the principle "one size fits all" (Borrell and Stoeckel, 2001; Hoekman, Michalopoulos and Winters, 2003; Keck and Low, 2004). Although many of the DCs have similar problems each one of them needs a unique solution adapted to its own circumstances and conditions.

3. The EBA Initiative: A New Option for LDCs?

As already discussed, the Everything But Arms agreement is an initiative of the EU targeted exclusively towards the LDCs, a follow-up of the decision of the Singapore Ministerial Conference of the WTO (2006) for an action plan to improve the market access for LDCs (EC No. 416/2001). In what follows the GSP and the EBA schemes will be examined in parallel in order to outline the differences between the trade preferences for

LDCs and the rest of the DCs. Further on, the advantages and disadvantages of the EBA agreement will be discussed and analysed on their own.

3.1. A Change in EU's Trade Preferences: The New GSP Scheme and the EBA Initiative

The EU GSP scheme is designed to promote development and economic prosperity to the DCs by stimulating exports and reducing poverty (EC No. 416/2001; COM 461 Final, 2004; EC No.980/2005; Commission Memo, 2004). Trade is seen as playing a major role in achieving these objectives. The EU GSP scheme is supposed to "help developing countries to benefit from globalisation, in particular by linking trade and sustainable development" (COM 461 Final, 2004). The agreement has undergone many transformations and improvements among which the introduction of the EBA regime is one of the most important.

Following the introduction of the new GSP scheme on 27.06.2005 there are only three arrangements within it: the general arrangement, the special incentive arrangement for sustainable development and good governance (which replaces the three former special schemes for labour rights, environmental protection and combating drug production and trafficking), and the EBA regulation (EC No.980/2005; COM 461 Final, 2004; Commission Memo, 2004). The EBA arrangement is part of the EU GSP scheme since it became effective on 05.03.2001.

There are specific regulations arranging the eligibility of different countries for benefits from the three GSP schemes (COM 461 Final, 2004; EC No.980/2005; UNCTAD, 2005). The requirements in order to receive preferences under the general scheme of GSP are two (Art. 3 EC No.980/2005). Firstly, the eligible country cannot be simultaneously defined by the World Bank as a high-income country, e.g. GNI per capita of $11 456 or more (World Bank Homepage). Secondly, the eligible country has to have insufficiently diversified exports structure. The requirements for the special incentive arrangement for sustainable development and good governance are more specific (Art. 9 EC No.980/2005). In order to apply for the additional preferences a country should ratify 27 international conventions and be classified as a "vulnerable country" (Art. 9 EC No.980/2005; UNCTAD, 2005). Compared to the eligibility criteria for the general GSP scheme the EBA agreement is especially targeted towards the LDCs defined on the basis of the UN definition for a LDC. A developing country is determined as a LDC according to three criteria, which take into account the general national income of the country, the indicators of the Human Assets Index and the Economic Vulnerability Index (European Commission Homepage; UNCTAD (2009b)). Currently, 49

countries fall under this definition and all of them are eligible to benefit from the EBA preferential market access.

Non-fulfilment of the requirements for the particular arrangement results in removal of the country from the list of eligible countries. This process is also called country graduation, where a country "graduates" from its previous level because it has developed and does not need preferential market access any more. Regarding the EBA agreement a country can graduate when it is excluded from the UN list of LDCs (Art. 12 EC No.980/2005). In each case of graduation there is a transition period for adaptation and making the necessary adjustments to make the losing of the preferential status less painful for the country.

Considering the product definition, there has been also a simplification in comparison to the previous GSP regulation. Instead of four types of products as in the previous system, under the current agreement there are only two: sensitive and non-sensitive products (UNCTAD, 2002). Additionally, 300 new products have been included so that the product coverage now is broader and some were moved from the sensitive category to the non-sensitive one (Commission Memo, 2004). All non-sensitive products receive duty-free entry into the EU whereas the MFN tariff of the sensitive products is reduced by 3.5%. For textiles and clothing the reduction is higher, namely 20%. The beneficiary countries from the special arrangement can take advantage of an additional duty-free access when exporting any of the 7200 covered products to the EU, regardless whether they are sensitive or non-sensitive (Commission Memo, 2004; UNCTAD, 2005)

The most generous product coverage and tariff cuts are granted under the EBA agreement. Under this arrangement the LDCs enjoy duty and quota free access, without any specific duties, for all products except for arms and munitions (Art. 1 EC No. 416/2001; Art. 12 EC No.980/2005; UNCTAD, 2002; UNCTAD, 2005). In comparison with the general GSP there are additional 919 HS8 product lines, which are included in the EBA regulation. At present there are three additional exceptions: rice, sugar and fresh bananas. The liberalisation of trade with these products follows a gradual process that started in 2001. While the deadline for bananas was 1.01.2006, for sugar it was 01.07.2009 and for rice 01.09.2009 (Art. 1 EC No. 416/2001; Art. 12 EC No.980/2005). It is noteworthy that concerning the product coverage and tariff cuts, the EBA regime is the most generous one of all preferential agreements made by developed countries with DCs.

Regarding the time limitation, the general EU GSP scheme is set every time for a time period of ten years but every two to three years there is a re-examination and adapting of the beneficiary countries' list (EC No.980/2005). The same is valid for the special agreement for

sustainable development and good governance. However, the EBA scheme is designed differently in this point. For the first time, trade preferences granted are not subject to periodic renewal (Art. 11 EC No. 416/2001). The beneficiary countries of the EBA can enjoy the preferential market access for an unlimited period of time, unless they graduate from the UN LDCs list. In this respect, similarly to the issues of product coverage and tariff cuts the EBA regime demonstrates significant progress as well.

As far as EBA is an organic part of the general GSP scheme there are common provisions for both. These consider issues such as country-product-graduation, temporal withdrawal, safeguard and surveillance measures as well as rules of origin. The provision, which will be of most relevance for this analysis, refers to the rules of origin (EC No.980/2005). One of the important issues in the rules of origin is the cumulation principle. Basically the EU rules of origin are based on the single-country principle. An exception is the permit for cumulation for four regional groupings: for the ASEAN, SAARC, CACM and the Andean Group (Art. 72 EEC No 1602/2000). It implies that if some of the inputs for the production originate from a country within the regional group they are not considered as third-country inputs but as such from the country (Art. 72 EEC No 1602/2000).

This duality of the cumulation principle inevitably leads to different treatment of countries where the DCs operating under the single-country principle face a disadvantage in comparison to countries-members of the selected regional groups. For LDCs the rules of origin can be a main obstacle of taking advantage of their preferential status. They can be also a barrier for new investments where investment needs to cover the whole production chain and cannot import inputs from abroad.

3.2. EBA Initiative: Utilisation and Effects

The EBA initiative clearly started with very ambitious goals and expectations. The objective of this section is to outline, on the basis of the previously described characteristics of the EBA scheme, the areas where the arrangement offers the LDCs real possibilities to improve their situations and also to highlight the disadvantages linked with it.

The major advantage of the EBA agreement is the unlimited time period of its implementation (Brenton, 2003; Inama, 2006; Messerlin, Nielson and Zedillo, 2005). Due to the fact that the arrangement is not subject to periodical renewal it offers higher certainty for exporters from LDCs and makes the investment decisions easier. It is also an incentive to diversify the export structure and to invest in new industries and products with the aim of

promoting industrialisation. No other preference agreement so far has been so advanced in this aspect.

Other positive characteristics of the EBA arrangement concern product and country coverage and tariff cuts. Under the agreement almost all products are covered, with the rest coming in the next years, which is an impressive development compared to the general GSP scheme (Inama, 2006). The LDCs can specialise in the products in which they have comparative advantages and will be ready to face the competition pressure one day when they will be no longer a LDC and under the EBA agreement. In addition, there are no more duties or quotas, which can hinder the take-off of the preferential scheme. It is also worth noting that the preferential access is available for all LDCs without any exclusion so the trade diversion effect is not supposed to outweigh the trade creation effect.

Although substantial steps have been made to improve the design of the EU trade preferences to LDCs, the EBA scheme is still far from perfect. While the inclusion of all LDCs without exceptions in the arrangement can be a positive achievement, the majority of DCs are still disadvantaged because the LDCs are more preferred in comparison to them (Hewitt and Page, 2002; Kennan and Stevens, 2001; Messerlin, Nielson and Zedillo, 2005). This fact may lead to potential losses for the non-LDC DCs which still face tariffs and quotas for their exports. It is assumed that especially for the non-LDC ACP countries this negative effect can be significant (Hewitt and Page, 2002; Kennan and Stevens, 2001; Messerlin, Nielson and Zedillo, 2005).

Since the LDC and non-LDC ACP countries directly compete in the same industries, with the EBA regime the non-LDC countries could experience competitive disadvantage for their export products to the EU (Hewitt and Page, 2002; Kennan and Stevens, 2001). It is also worth noting that since 2001 the ACP LDCs are eligible to export to the EU under two different agreements: the Cotonou and the EBA. Under the EBA arrangement they are granted deeper tariff reductions, while the Cotonou arrangement offers them more flexible rules of origin (The Cotonou Agreement 2000). Concluding, one can anticipate a negative effect on the non-LDCs ACP countries' exports since the ACP LDCs are entitled for a broader market access to the EU.

The increase of exports and diversification of the export structure are some of the main goals of the EBA agreement. However, neither of both objectives seems to be fulfilled. The LDC Report of UNCTAD (2008) shows that despite of high growth rates of exports which are the main driver of the economic performance of LDCs their export structure remains concentrated on primary commodities and low-skilled, labour-intensive manufactures.

Primary commodities including fuels comprised 77% of the LDCs' merchandise exports in the years 2005 and 2006 (UNCTAD, 2008). The report also underlines the significant difference between the African and the Asian LDCs. While the Asian are more specialised in the production of manufactured goods the exports of the African LDCs consist almost completely of primary products and fuels, which have made 91.5% of their exports in the years 2005 and 2006.

Despite of the high export growth rates in the last years in the LDCs the economic situation has been persistently lagging behind. The export performance is indeed an important factor of their economic development but in order to improve it other measures need to follow, targeted at their supply capacity and "inside the borders"-problems. Furthermore, technical regulation and standards have to be taken into account in order to improve the economic situation in these countries. For these reasons, it is questionable whether the EBA scheme can achieve its ambiguous goals and report a soon success.

The assumption that the EBA would have higher utilisation rates than the other GSP schemes can be doubted on the basis of the available data. In the first place, the export share of the 919 products liberalised with the introduction of the EBA agreement has remained very low, 0.03% of total LDCs' exports to the EU in 2001 (Brenton, 2003). Second, the three products with delayed liberalisation - bananas, rice and sugar - had an export share of 0.47% of total LDCs' exports to the EU in 2001. The figures show that the new liberalised products are not of much relevance for the LDCs and have had a very low share in the LDCs' exports at least in the beginning.

In addition, the fact that none of the ACP LDCs have requested a preferential access under the EBA arrangement is striking (Brenton, 2003). Although there were goods exported from ACP LDCs to the EU, which were eligible for a preferential status, the latter was not requested. This situation has occurred because most of the ACP LDCs export still primarily under the Cotonou Partnership Agreement (UNCTAD, 2007). A study by UNCTAD (2007) shows an extremely high utility ratio[4] of the Cotonou Agreement, fluctuating between 65% and 80% in the period from 1998 to 2004. Obviously for the ACP LDCs it has been still more profitable to export under the Cotonou Agreement than under the EBA.

The reasons lie in the different rules of origin and administrative requirements under the EBA and Cotonou agreements (Brenton, 2003; Keck and Low, 2004; McQueen, 1999). Compared to the Cotonou Agreement the rules of origin and the requirements under the EBA regime are much stricter (Brenton, 2003; Candau, Fontagne and Jean, 2004; Messerlin,

[4]The utility ratio is the ratio of imports that really enter under the preference regime to all dutiable imports.

Nielson and Zedillo, 2005; UNCTAD, 2001). For the ACP LDCs using the EBA regime means additional documentation, new rules of origin and other regulations about cumulation (Keck and Low, 2004).

The issue about regional cumulation is a central one. Under the Cotonou agreement the ACP countries enjoy the right of full cumulation. In this way all ACP countries together are regarded as one customs territory and therefore "manufacturing operations may be carried out in every beneficiary country" (UNCTAD, 2001). In contrast, under the EBA arrangement the GSP rules of origin and administrative requirements apply. All available data point to the fact that most ACP LDCs still export under the Cotonou agreement which stresses how important is the flexibility of the rules of origin (UNCTAD, 2001). In contrast, for the Asian LDCs the EBA regime is a great opportunity to improve their export structure and revenues so they are actually the effective users of the arrangement (Brenton, 2003; Kennan and Stevens, 2001).

Although the restrictive rules of origin and administrative requirements are often considered to be the main reasons for the underutilisation of the EBA regime there are also other possible explanations. The utilisation of trade preferences depends on the national conditions and specifically on the supply capacity of the recipient country (Hewitt and Page, 2002; Kennan and Stevens, 2001). The EBA agreement is targeted at the poorest countries in the world so it is plausible to suppose that they possess only a limited capacity to produce and export more goods. Transport, infrastructure and potential to adjust the production structure are some of the conditions for effective participation of the EBA regime. If these are not available it cannot be expected that the beneficiary countries will experience an increase in their exports. Preferential market access on its own is not sufficient to solve the supply-side constraints of the LDCs so it is essential that exporters have simultaneously access to a functioning financial and credit market in order to afford restructuring of the production facilities (Jensen and Yu, 2005).

As already discussed, trade preferences can have a negative influence on the development of trade negotiations within the WTO. This is also the case with the EBA initiative (Hewitt and Page, 2002; Kennan and Stevens, 2001). The core of the EBA regime is the liberalisation of all agricultural products some of which are very important for the LDCs. In this way LDCs benefit double from the access to the EU agriculture market (Jensen and Yu, 2005): First, they profit from the lower competition compared to the world market because the EU agricultural market is highly protected. Second, the LDCs benefit from the higher EU prices. In the case of further liberalisation of the CAP, the subsidies for the EU

producers would decrease and that would lead to falling prices, sinking the import tariffs and raising competition (Jensen and Yu, 2005). This effect would induce some welfare losses for LDCs due to preference erosion. For this reason the probability is relatively high that these countries will oppose fast liberalisation of the CAP in order to benefit longer from a higher preference margin.

Summarising the characteristics of the EBA regulation, it is obvious that some substantial improvements have been made. However, some problematic issues still remain. The next section will turn to the empirical evaluation of the performance of the EBA initiative in order to draw some conclusions about its real effectiveness.

4. Empirical Estimations of the Effect of the EBA Initiative

This part is devoted to the empirical questions and analysis of the effects of the EBA initiative, starting with a summary of the recent studies that estimate the effects of preferential agreements on trade.

4.1. Overview of Empirical Studies evaluating the EBA Scheme

There are two clearly differentiated strands in the empirical literature. The first strand of studies uses Computable General Equilibrium (CGE) models to quantify the effect of implementing the the EBA initiative. Usually CGE models are employed to forecast the future impact of given policies on the exports and welfare of DCs and on the EU. In the second strand we find studies that use the gravity model (GM) of trade to estimate the effects of the initiatives on bilateral trade flows, taking into account that this regime may result not only in greater imports from beneficiary countries by may also divert trade away from non-beneficiary countries.

Below, three empirical studies which examine the impact of the EBA arrangement on LDCs' exports, on their welfare and terms-of trade as well as on third countries and on the EU itself will be first discussed. All three lie in the first group (CGE) and use the GTAP general equilibrium model (GEM). The model estimates the aggregate impact and makes possible to analyse the welfare changes in all groups of countries, which is its main advantage. But the model neglects all kinds of administrative requirements, institutional aspects and rules of origin which is the reason why its results could be seen as over-optimistic. Evenett (2009) presents a comprehensive survey of studies based on GEM. According to the author, most of the estimates of the gains to LDCs from the EBA scheme lie between US$300-400 million,

whereas it is found to have cost the EU between US$200-300 million. Since some of the effects for third DCs are negative, the world net-welfare effect of this initiative could be close to zero. We now give some details of the estimates found by three selected studies.

Somwaru and Trueblood (2002) examine scenarios that present different stages in EU trade liberalisation. The first one considers trade liberalisation only to the LDCs which shows the isolated effect of EBA agreement in a global framework. According to their estimations, the LDCs will experience welfare gains while in comparison the EU will suffer from a welfare loss which is less than 0.01% of its GDP. The LDCs' exports will increase due to the preferential market access of the EBA scheme by 3%. The trade diversion effect will be relatively small which indicates the limited capacity of LDCs to increase their exports. The welfare gains in the LDCs offset these losses leading to small increase in global welfare. Some reallocation of resources to more efficient employment takes place which demonstrates that factors of production are being moved to sectors with comparative advantage. However, Somwaru and Trueblood (2002) point out that the benefits are perhaps overestimated because the model uses bound tariffs which are in most cases higher than the applied ones and this makes the trade liberalisation effect bigger.

The second study (Cernat, Laird, Monge-Raffarello and Turrini, 2003) examines the aggregated and disaggregated impact of the introduction of the EBA scheme. The results of the aggregate impact of the EBA agreement show that the positive, trade creating, effect outweighs the negative, trade diverting effect. The beneficiary countries experience welfare gains and the Sub-Sahara African (SSA) LDCs are the biggest winners. The gains come from improvement in the allocation of resources due to better exploitation of comparative advantages. The EU and the rest of the world record welfare losses due to diversion from more efficient trade flows. The biggest losers among the other DCs which are not included in the EBA scheme are the Asian DCs and the non-LDC ACP countries. The study estimates also the effect of the EBA arrangement at disaggregated level within a partial equilibrium framework. The outcome is that the most important sector for the LDCs' gains is sugar. The authors conclude that there could be moderate positive welfare and trade gains, especially for the SSA LDCs, and that most will take place within the sugar sector. In this way, temporary trade preferences could help the LDCs to catch up. Still, fears exist that preferences could induce ineffective specialisation and interests which oppose multilateral trade liberalisation and a diversion from possibly more efficient producers. It should be also mentioned that the supply-side constraints limit sizeable welfare gains of the LDCs.

Finally, Jensen and Yu (2005) also analyse the aggregate impact of the EBA initiative with the help of the GTAP model. The authors examine several scenarios; two of them regard the implementation of the EBA agreement. The first one considers the assumption that there is an immediate liberalisation of all products, including sugar, rice and bananas; the second one, the rather more realistic case, where the pre-EBA tariffs remain for these three products. The results of the first scenario are similar to the previous studies. The effect on trade is substantial, the imports of the EU from LDCs increase, whereas those of sugar and other products which had before EBA high tariffs present the biggest increase. As in the other two studies, a small but rather insignificant trade diversion effect is predicted, leading to a small decrease in the exports of the rest of the world to the EU. The macroeconomic and welfare effects turn out to be positive for all LDCs with differences in the size. This positive effect is the result of the improved allocation of resources and the terms-of-trade due to higher export prices. These estimates are maybe over-optimistic because the model assumes that the safeguard measures and the rules of origin are no obstacle to exports and that there are functioning markets in the LDCs which can directly react to the granting of preferential market access. The important role of the sensitive products is observable in the second scenario where there is no liberalisation of sugar, bananas and rice. In this case the welfare gains for the LDCs are substantially reduced. There are no significant allocation efficiency gains and the terms-of-trade effects are minimal. These results lead to the conclusion that the positive impact of the implementation of the EBA scheme lies particularly in the liberalisation of exactly these three products, and especially sugar.

Summarising the main points of the studies, it can be concluded that a positive impact on the exports and welfare of the LDCs is expected from the implementation of the EBA scheme, but a relatively small one. Taking into account that the benefits of the EBA regime could be over-estimated in the abovementioned studies, it is questionable whether there will be any positive effect at all. The next section will present our empirical estimations which lead to rather controversial conclusions compared to the discussed studies.

In the second strand of the literature, there are a number of very recent studies that use the GM to estimate the effects on trade of different preference schemes (Evenett, 2009). We focuss on the main findings of three of them that are closely related to our work: Persson and Wilhemsson (2006); Verdeja (2007) and Gamberoni (2007).

Persson and Wilhemsson (2006) estimate a gravity model using panel data techniques (fixed effects) on a large sample of EU importers and developing country exporters over the period 1960-2002. The main findings are that certain preference schemes have had large effects

on DCs exports– the largest are found for the ACP countries, where the preferences increase exports by about 30 %.

Verdeja (2007) estimates cross-sectional and panel data GM for ten different periods between 1973 and 2000, using several estimation techniques. They obtain a negative and significant effect of the EU GSP when using a two-stage fixed effect estimator proposed by Martínez-Zarzoso and Nowak-Lehmann (2003). They argue that this might result from the low utilization rate of GSP preferences.

A slightly different approach is followed by Gamberoni (2007). The author decomposes the total value of trade into the extensive margin (number of products traded) and the intensive margin (average value traded) and then estimates the effects of trade preferences on each margin. It is the only paper within the GM framework that specifically considers the EBA regime, together with another three unilateral preference programs. Interestingly, the main findings indicate that the ACP and the EBA regimes decrease trade (conditional on trade being present) by 11 percent and 19 percent respectively and also both regimes decrease the number of products traded (extensive margin of trade). This later effect implies an anti-diversification bias effect of these preferences.

4.2. Empirical Model and Estimations

The effect of the EBA initiative on the ACP countries' exports will be estimated with the use of the gravity model which is based on Newton's law of gravity in physics. The use of the gravity equation for explaining bilateral trade flows was pioneered by Tinbergen (1962) and Pöyhönen (1963). In the field of international trade flows the two points represent two countries, their masses are replaced by their GDP per capita and the distance is mostly the distance between their capitals or between the most important cities in economic sense. Meanwhile the gravity equation has been theoretically justified (Anderson, 1979; Bergstrand, 1989; Deardoff, 1995; Anderson and van Wincoop, 2003) and captures the potential demand and supply factors influencing trade flows and all aiding or hindering trade variables such as dummy variables for common language or colonial history. The gravity model is today often used in explaining bilateral trade flows between different countries or examining trade creation and diversion effects of free trade areas (e.g. Oguledo and Macphee, 1994; Carrère, 2006). However, in the field of trade preferences and especially with respect to the EBA initiative there are, to our knowledge, only a few empirical studies that use this method (Evenett, 2008). The gravity equation has the advantage that it takes into account the supply

changes in the DCs and respectively the demand changes in the developed countries. It considers also a long-run equilibrium view of trade patterns between two countries (Nilsson, 1997). A similar method as in this analysis is applied by Nilsson (2002) who examined the effect of EU's GSP and the Lomé Convention and by the abovementioned GM studies (Persson and Wilhemsson, 2006; Verdeja, 2007 and Gamberoni, 2007). The most important differences between these studies and the gravity model applied in this study is that whereas those only examined the effect of different GSP regimes, we focus specifically on the effect of the EBA regime and we also consider the effect of development assistance on trade and the combined effect of both development strategies -EBA and ODA- on trade.

The gravity equation will be applied to the bilateral trade flows between the 79 ACP countries and the EU-15 for the time period between 1995 and 2005. Because of the selected time frame only the countries of the EU-15 have been taken into account. Out of the 79 ACP countries 48 were in the time period 1995 to 2005 also LDCs with Senegal and Timor-Leste being added from the UN to the LDC list in 2000 and 2003 respectively (UN-OHRLLS Homepage). Timor-Leste gained officially independence in 2002. During 2003 the country became member of the ACP group and with it accessed the ACP-EC Partnership Agreement (ACP-EC Agreement ACP/21/002/03 REV 1). Therefore, Timor-Leste is added in the dataset as ACP and LDC country from 2003 onwards. A list of the exporter (ACP) and importer (EU-15) countries is provided in Table A.1 in the Appendix.

The main objective of the empirical estimation is to examine the effect of the introduction of the EBA scheme on the exports of ACP LDCs to the EU-15. Official aid flows are also included in the equation in order to compare their impact on exports and to see which way of providing development assistance is more effective in order to induce exports. The selection has fallen on the ACP countries because in the examined period most of the LDCs were also ACP countries and in this way the effect of the EBA initiative can be filtered out. It is also of especial interest to examine whether the EBA introduction has had an impact exactly on the ACP LDCs' exports because before the EBA scheme they have already possessed a more preferential market access to the EU. In addition, the ACP countries have a very similar export structure and are direct competitors in some industries so it will be interesting to see whether the EBA scheme gives an advantage for the ACP LDCs compared to the non-LDC ACP countries.

The gravity equation in its log-linear form which is applied in this investigation looks as follows:

$$lnX_{jit} = \beta_{ji} + \beta_1 lnGDP_{jt} + \beta_2 lnGDP_{it} + \beta_3 lnPOP_{jt} + \beta_4 lnPOP_{it} + \beta_5 lnDIST_{ji} +$$

$$+ \beta_6 lnODA_{jit} + \beta_7 COL + \beta_8 ISLAND + \beta_9 LANDLOCKED + \beta_{10} COMMONLANG +$$
$$+\beta_{11} EBA + \beta_{12} lnODA_{jit}*EBA + \varepsilon_{jit} \quad (1)$$

where:

lnX_{jit} stands for the logarithmic exports from each of the ACP countries (country j) to each one of the EU-15 countries (country i), in current US dollars.

$lnGDP_{jt}$ and $lnGDP_{it}$ are respectively the logarithmic gross domestic products of the exporter and importer country, both in current US dollars.

$lnPOP_{jt}$ and $lnPOP_{it}$ present the logarithmic population size in the countries j and i.

lnDIST is the logarithmic distance in kilometres between the most important city in terms of population in each country calculated following the great circle formula.

$lnODA_{ijt}$ is the first lag of the logarithmic of official development assistance received by the ACP countries from each of the EU-15 countries in US dollars.

COL is a binary variable showing whether one of the countries has governed the other over a long period of time.

ISLAND is a dummy variable, taking the value of one when the exporting country, the ACP country, is an island.

LANDLOCKED is a binary variable indicating whether the exporting country is landlocked.

COMMONLANG is a binary variable indicating whether the pair of countries shares a common official language.

EBA is a dummy variable indicating whether the exporting country is eligible for the EBA scheme.

lnODA*EBA is an interaction term between the EBA dummy variable and the lnODA variable indicating their joint influence.

β_{ji} are country-pair effects and ε_{jit} is the error term which is assumed to be iid.

The summary statistics of the variables are presented in Table 1.

Table 1. Summary statistics

The gravity model is estimated using panel data techniques since this methodology is able to control for unobserved heterogeneity by adding country-pair-specific effects and time effects and it reduces the systematic influences from omitted variables (Egger, 2000). The use

of panel data reduces also the collinearity between the explanatory variables and combines the characteristics of cross-sectional data and time series (Hsiao, 2003). The data is taken from different data bases: the figures for distance, colonial history and common language are from the CEPII database. The GDP and population values for the ACP-countries are extracted from the UNCTAD database, the population size of the EU-15 countries and export figures from the EUROSTAT and the GDP for the EU-15 countries and the ODA amounts are from the OECD database.

Possible shortcomings of this specification of the gravity model concern the time period and the use of yearly data. First, in the ten years time period there are only five years in which the EBA agreement is implemented. It can be argued that it is too early to examine an effect of the introduction of EBA and that the real impacts of the preference scheme will be visible later. The second shortcoming comes from the fact that only yearly data from the variables are taken into account. In this case an event such as the introduction of the EBA agreement in March 2001 is considered as in power for the whole year 2001.

Expectations about the sign and effect of the independent variables on exports can be drawn from the theory and from the simple correlation statistics which are presented in Table 2.

Table 2. Simple Correlations

The effect of both GDP variables is expected to be positive. The GDP variables reflect the economic size of the exporting and importing country respectively. So, it is plausible that both shall have a positive sign since higher GDP indicates higher supply capacity in the exporting country and higher import demand in the importing country. The sign of the population variables is ambiguous. A bigger country could export more than a smaller country because economies of scale can be better employed and import more because of the need of a bigger variety of goods. But on the other side large population leads to a large domestic market and hence higher self-sufficiency and higher absorption effect within the country so a negative sign of the population variables is also possible. In this case population seems to influence positively the exports' development. Since distance is used as a measure for transport and transaction costs it is expected that its coefficient will have a negative effect on bilateral trade flows which is in accordance with the negative correlation with exports shown in Table 2. The two dummy variables for colonial history and common language are expected to affect positively the exports from the ACP countries to the EU-15. A common official language reduces the trade-related costs. In addition, if one of the ACP countries is a former

colony of one of the EU-15 it is assumed to alleviate the difficulties of the exporter-importer relationship. A negative impact of the binary variables for being an island or landlocked could be expected due to higher transport costs because of the difficult access of the exporting countries in these cases.

The signs and the size of the effect of the ODA and EBA variables are of particular interest for this study. For the EBA coefficient a positive sign is expected although it may be insignificant because of its underutilisation on the side of the ACP LDCs. In contradiction to this assumption is the simple correlation between EBA and exports presented in Table 2, which is negative. This result will be later confirmed by the empirical estimations. The expectations for the ODA coefficient are mixed. Earlier studies find that development assistance could have both negative and positive effects on exports. According to the simple correlation ODA should have a positive influence on the exports' from the ACP LDCs to the EU-15.

The gravity model is estimated using different econometric methods, random and fixed effects, Hausman-Taylor and Heckman estimators, in order to capture if there are substantial differences among the results and to infer whether the result are robust. Time dummies have been added to all regressions and in addition, an interaction term between them and the EBA dummy has been generated. Table 3 offers a summary of the estimation outcomes.

Table 3. Estimation results

Using fixed or random effects depends on the correlation between the regressors and the effects. Estimating the gravity equation with fixed effects allows for endogeneity between the regressors and the individual time-invariant effects (Wooldridge, 2002). A disadvantage of this estimation method is the fact that there is no estimation of coefficients of time-invariant variables which may explain how the variable determines the exports between two countries (Balgati, Bresson and Pirotte, 2003). On the contrary, the random effects technique requires exogeneity of all regressors and the random effects otherwise the estimated coefficients are inconsistent (Hsiao, 2003; Wooldridge, 2002). In order to observe whether the effect of the EBA scheme changes depending on the year time dummies and interaction effects between them and the EBA variable are generated. Adding time dummies to the regressions might help better explain the data and thus to raise the explanatory power. Egger

(2000) claims that the correct specification of the gravity model is estimating it with panel data using fixed and time effects.

Comparing the outcome of the random and fixed effects regressions offers some interesting results. Looking first at the two regressions it is observable that there are some substantial differences between the estimated effects and the expected ones as well as between the two regressions (Table 3). The GDP variables have the same sign in both regressions but surprisingly the GDP of the importer country turns out to have a negative effect on the bilateral exports. But it is insignificant using both fixed and random effects. Another substantial difference between both estimation methods is the signs and significance levels of the population variables. While in the random effects regression both population variables turn out to be significantly positive indicating in this way that a bigger country tend to export and import more goods, the fixed effects estimation shows the opposite influence. Especially, the population of the importing country seems to be an important determinant of bilateral trade flows from the ACP countries into the EU-15. Since distance, colonial history, common language, landlocked and island are time-invariant dummies only the random effects regression provides estimation of their effects. As assumed, distance has a negative influence on exports implying that transport costs are still a significant obstacle to trade. Having a colonial history or a common language amplifies as suggested significantly the size of the trade flows. The dummy for island has surprisingly a positive sign but insignificant. Being a landlocked country is plausibly a barrier to trade flows. Taking a look at the time dummies and the interaction effects between them and the EBA dummy indicates that barely one of them is significant. Using fixed effects none of the time dummies is significant while using random effects there are two significant: for the years 1999 and 2000. None of the interaction effects are significant, neither using fixed or random effects.

Turning to the variables of most relevance for this study shows some interesting results. The most surprising one is the highly significant very strong negative impact of the EBA dummy on exports in both regressions. As indicated in the simple correlation estimation the EBA agreement seems to have exactly the opposite effect on ACP LDCs' exports as its goals: the arrangement does not improve the size of their exports it actually decreases their volume. In contrast, the interaction effect between EBA and ODA turns out to be positive and highly significant as a determinant of exports from ACP LDCs to the EU-15. The ODA variable performs differently in both regressions but it is always insignificant. It appears that neither the EBA scheme nor the ODA achieve their goals on its own but a mixed strategy

using both development approaches seems to have a significant positive effect on LDCs' exports.

Comparing the R-squared of the models with fixed and random effects illustrates that the fixed effects model has a quite poor explanatory power. The random effects model explains in contrast around 50% of the model's variation.

The third estimation of the gravity equation is using the Hausman-Taylor estimator (Hausman and Taylor, 1981). The Hausman-Taylor technique allows for some but not all of the regressors to be correlated with the individual effects. In this way it solves the "all or nothing choice" between the fixed and random effects concerning the endogeneity between the regressors and the individual effects (Baltagi, Bresson and Pirotte, 2003). The variables are divided into three groups: endogenous (population and ODA), time-variant exogenous (GDP, EBA and interaction term between EBA and ODA, time dummies and interaction effect between time dummies and EBA) and time-invariant exogenous (distance, colonial history, common language, island and landlocked). The results from the Hausman-Taylor regression can be found in column 3 of Table 3.

As in the previous two regressions the GDP of the exporting country has a significant positive influence on exports while the GDP of the importing country affects negatively the bilateral trade flows. Again the population of the importing country has a remarkable strong significant positive effect on exports. This outcome may be explained by the fact that the exporting countries, in this case the EU-15, offer many opportunities through their big market for the ACP exporters. Distance has remarkably a positive sign but it is insignificant. From the dummy variables only the one for common language is significant and affects positively the exports. The EBA dummy has still a significant and strong negative influence on exports, ODA is insignificant and the interaction term between them positively significant. From the time dummies and the interaction effects between them and the EBA dummy is none significant for the exports' development from the ACP countries to the EU-15.

The last model which is applied to estimate the gravity equation is related to the problem of zero-valued trade flows. Usually, as in the regressions before, a log-linear form of the gravity equation has been used which drops out all zero bilateral flows. However, dropping out zero flows reduces the explanatory power of the model because it loses relevant information about the bilateral trade patterns of the pair of countries. Therefore many authors argue that leaving out the zero flows is not a correct specification of the gravity equation, it leads to a possible sample selection bias (de Groot and Linders, 2006; Heckman, 1979; Helpman, Melitz and Rubenstein, 2008). For that reason Heckman (1979) proposes a

relatively simple model in order to solve the problem. The author considers the sample selection bias as a specification error and presents a new model how to deal with the issue. For this purpose Heckman (1979) suggests a two-stage model where at the first stage the probability of existence of trade flows is examined, the selection equation. Through estimating this one it is observable which variables affect the probability of trade flows to exist at all. In the second stage the influence of the variables on the volume of trade flows is measured.

The Heckman selection model is specified as follows:

1. Selection equation, where π_{ji} represents the probability of export from country j to country i in year t :

$$\pi_{jit} = \gamma_0 + \gamma_1 lnGDP_{jt} + \gamma_2 lnGDP_{it} + \gamma_3 lnPOP_{jt} + \gamma_4 lnPOP_{it} + \gamma_5 lnDIST_{ji} + \gamma_6 lnODA_{jit} + \gamma_7 COL + \gamma_8 ISLAND + \gamma_9 LANDLOCKED + \gamma_{10} COMMONLANG + \gamma_{11} LDC + \gamma_{12} EBA + \gamma_{13} lnODA_{jit} * EBA + \mu_{jit} \quad (2)$$

2. Regression equation:

$$lnX_{jit} = \beta_0 + \beta_1 lnGDP_{jt} + \beta_2 lnGDP_{it} + \beta_3 lnPOP_{jt} + \beta_4 lnPOP_{it} + \beta_5 lnDIST_{jt} + \beta_6 lnODA_{jit} + \beta_7 COL + \beta_8 ISLAND + \beta_9 LANDLOCKED + \beta_{10} LDC + \beta_{11} EBA + \beta_{12} lnODA_{jit} * EBA + \varepsilon_{jit} \quad (3)$$

The variable which is used as a “selection rule” and included therefore only in the selection equation is the common language dummy. Using other variables as a “selection rule” (island or landlocked) delivers similar results. The estimation results of the Heckman model are presented in columns 4 and 5 of Table 3. The outcomes of the Heckman regression illustrate a more detailed picture of the way how the regressors influence bilateral exports.

It is observable that many of the variables change either their sign or significance level between the two stages of the model. Such examples are the GDP of the importing country which influences positively the probability of exports to take place but negatively their volume. The same can be monitored for the population of the exporting country whereas the variable changes also its significance level. The most important difference between the Heckman model and the previous regressions lies in the significance levels of the ODA variable. For the first time it is highly significant, and in this case in both equations: the selection equation and the gravity equation. It appears that development assistance has a small positive influence on the probability of trade flows to take place and a slightly higher effect

on their volume: a 10 percent increase in ODA increases exports from ACP countries to EU countries by 16 percent. In comparison, the EBA dummy shows still a strong negative effect on exports: an ACP country exports a 84 percent ([exp(-1.83)-1]*100) less when it is eligible for the EBA scheme than when it is not. Important is also the outcome of the interaction term between both variables. It is in both stages positive but only in the selection regression significant, indicating that the probability of exporting to the EU increases for ACP LDCs with higher levels of aid. Interpreting the results would lead to the conclusion that ODA is an effective development strategy also on its own while the EBA scheme leads rather to the opposite effect of its objectives. A mixed approach, including both strategies, has a small positive effect on the existence of trade flows. Looking at the time dummies it is observable that these for the years 2001, 2002, 2003, 2004 and 2005 affect positively the exports development from the ACP countries to the EU-15. These results can be interpreted as an increase of ACP exports over time due to external factors. In contrast, none of the interaction effects between the time dummies and the EBA variable are significant, pointing towards the ineffectiveness of the introduction of the EBA scheme in 2001.

Summing up the results from the estimations of the gravity model for the exports from the ACP countries to the EU-15, and comparing them with the expectations about the determinants of the export flows, substantial differences are observed. Regarding the Heckman selection model as the most reality-related model important conclusions can be drawn for political actions concerning the questions which were examined through the estimation: Is the EBA initiative boosting the exports of the ACP LDCs and what is its effect compared to ODA?

The results related to the first question point out that the EBA initiative fell short of the success which was expected. The EBA coefficient is throughout the different econometric techniques constantly negative and highly significant. In contrast to these results the empirical studies which were presented at first in the empirical part showed a modest but throughout a constant positive influence of the EBA scheme on the exports of LDCs. This difference may be attributed to the fact that the results from the general equilibrium models are overestimated as they do not regard rules of origin or other administrative requirements which act as non-tariff barriers. In fact, as shown in the first chapter rules of origin and especially the cumulation regulations are of great importance for LDCs. Our results are however in accordance with the evidence found by Gamberoni (2007) who also considered the existence of zero trade flows and found a negative effect of the EBA regime on LDCs exports.

It is possible that after the liberalisation of the three most sensitive products the sign of the EBA dummy might change. Two of the empirical studies describe that exactly these sectors are very valuable for some of the LDCs (Cernat, Laird, Monge-Raffarello and Turrini, 2003; Jensen and Yu, 2005). Since sugar is a key export product, particularly for the African LDCs, an improvement in the effect of the EBA scheme is very likely to be expected. It will be therefore interesting to re-examine this effect after the full liberalisation of rice, sugar and bananas to compare the results and possible changes. Another point worth mentioning is that the presented empirical studies take into account all LDCs, inclusive the Asian LDCs. As previously pointed out, it was expected that these countries will enjoy the greatest benefits from the introduction of the EBA scheme because unlike the ACP LDCs they do not have any other special or more privileged access to the EU-market. In contrast, the ACP LDCs still possess the right to export under the Cotonou Agreement which offers them more flexible rules of origin. So, the positive results from the empirical studies can be mainly the result of the increase of exports from the Asian LDCs to the EU and not from the ACP LDCs. It could be concluded that the ACP LDCs still prefer to export under the Cotonou Agreement and do not take advantage of their eligibility for the EBA initiative. As already mentioned, the Cotonou Agreement is still highly utilised but one can observe that its utility ratio has been decreasing since 2002 which could be a positive sign for the EBA arrangement (UNCTAD, 2007). This trend can be explained with the difficulties these countries might be experiencing in reorganising their export industries quickly. Using the EBA trade preferences instead of those from the Cotonou Agreement means new rules of origins and regulations which are complex and demand some time to be introduced. It is possible that in the long-run more and more ACP LDCs will utilise the EBA scheme depending on how much additional costs they will have to bear from the change. Therefore an implication for the further trade policy of the EU will be to make the rules of origin and cumulation regulations of the EBA arrangement similar to those from Cotonou so that the ACP LDCs will have a real incentive to use it.

Still, it is striking that the EBA dummy has a negative impact on the ACP LDCs' exports. One may explain the lack of substantial influence of the EBA arrangement on the export performance of the LDCs with the low supply capacity, poor infrastructure, necessity of technical assistance, restrictive rules of origin and other administrative requirements.

Concluding, it seems that until today trade preferences have not met the hopes that through granting more and deeper preferential access to the markets of the developed countries LDCs can improve their economic development in the future. Trade preferences on their own seem not to be the most efficient development strategy for helping the LDCs to

escape out of poverty. The empirical estimations done in this research also confirm that the EBA scheme, although being the most advanced and developed preference scheme, cannot on its own support the process of export-led growth, at least in the ACP LDCs. Besides, it is important to take into consideration the complicating effect of such trade preferences schemes on the multilateral trade negotiations or the threat of driving LDCs to more protectionist trade policies. In the final account, the evidence about the EBA scheme from the figures and the different empirical estimations shows a rather poor performance of this development tool. There is no sign that the EBA introduction has made any difference to the export development of the LDCs in its first five years of implementation. Based on these considerations and on the empirical evidence, it is difficult to accept that trade preference present more efficient way of providing development assistance to the poorest countries in relation to aid flows.

On the second question, compared to EBA, ODA shows better performance results. The results of the Heckman regression are considered as the most reliable, this will mean that aid flows perform better than the EBA initiative in relation to the export performance of the ACP LDCs. Despite the various critiques about the possible negative effect of aid on the economic performance of the receiving country, in this particular case it has a positive impact on the export performance of the ACP countries. Considering this argument it should be taken into account that the ACP countries receive on average more ODA from the EU-15 than other DCs because of their long-term close economic and political relationship. In addition, some of the aid flows are targeted exactly at trade-related problems in the ACP countries which is perhaps one of the reasons for the positive effect of ODA on exports. This finding corresponds to the problem discussed - many of the LDCs need not only trade preferences but, in the first place, more targeted aid to overcome their initial production situation. Only when they are able to produce and export more goods the preferential market access becomes valuable.

The third variable of special interest for this study – the interaction term between EBA and ODA - has a rather stable coefficient throughout all regressions. The interaction term indicating the effect when a country eligible for the EBA scheme received additional aid in the previous year has a small but positive effect on export performance. This outcome leads to the conclusion that the development strategy of the developed countries, in this case of the EU, needs to include both sorts of assistance, aid and trade preferences. The two development tools act rather as complements than as substitutes to each other. Combining them can help the ACP LDCs to overcome their initial problems and take advantage of the granted access to developed countries' markets. In this sense one can think of a dual development strategy with

two interrelated pillars: one representing aid and the second trade preferences. More direct aid or technical assistance can be targeted at infrastructure or production facilities projects enabling the LDCs to improve their supply side conditions which then would give them the chance to take greater advantage of the trade policy. Perhaps this could be a way to make the EBA preference scheme work better and to contribute significantly to the improvement of the LDCs' export performance.

Nevertheless, taking into account the results from the empirical analysis there is no proof justifying an important contribution of the EBA scheme and if it continues in this way it is doubtful whether this will be the case in the future. This brings back the question about the problematic effects of trade preferences in the long-run concerning the development of the world trading system and the trade policy of the LDCs. Similar to the infant-industry protection, once introduced it is very difficult to be removed afterwards because the beneficiaries will always try to keep the protection. Therefore, to avoid such problems it is necessary to advise against such trade preference schemes or at least make them more conform with the WTO rules in a way not to discriminate other DCs and to grant the same level of preferences to all DCs. Subsidising inefficient industries in LDCs does not help them, it is only a waste of resources. In this sense the WTO framework needs to be made friendlier to DCs without exposing them and the future of the world trading rounds at a risk.

V. Conclusion

The objective of this study was to examine the role of trade preference schemes as a development tool, and especially the EBA initiative. The economic and political effects of preferential access for DCs to developed countries' markets and particularly the EU have been of controversial nature. These effects refer to the situation inside the beneficiary country such as supply constraints and "behind the border" problems as well as impacts on third countries and on the development of the multilateral trade negotiations. Many arguments can be made against the implementation of trade preferences as a development strategy because of its possible slowing-down and deforming influence in the long-run. Besides, it is doubtful whether DCs and especially LDCs can benefit from the granted preferential access at all. As shown in the case of LDCs, which enjoy the broadest and preferable access to the EU market, there were none, at least until now, substantial increases or improvements in the export performance of ACP LDCs. The only group of countries which has benefited from the introduction of the EBA scheme so far is perhaps the group of the Asian LDCs.

The main conclusion, which can be drawn from the empirical analysis, is that eligibility for the EBA scheme alone does not contribute to the increase of the exports of the ACP LDCs. Unlike EBA, ODA seems to support this aim in a more effective way. Therefore, it is questionable whether preference schemes should be used as a replacement to aid flows in this particular case. It is possible that with additional aid flows the infrastructure and supply capacity in the LDCs can be advanced and in this way the exports of LDCs will be enhanced. But the negative effects on third countries, such as trade diversion, and on the multilateral trade liberalisation will remain. Especially, when the eligible countries succeed to increase their exports, the trade diversion effect will become even bigger. This raises the question whether it is worth threatening the development of the developing region as a whole and also the objectives and principles of the WTO. The focus of the solution should lie not only in the short-run results but mainly in the sustainability in the long-run. In this sense the development strategy should be conform to all core principles of the WTO and contribute to the economic development of DCs with the least possible losses for other countries.

TABLES

Table 1: Summary Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Lexports	10435	13.86279	3.584209	0.067659	22.62336
Lgdpj	12750	21.13228	1.747081	16.28049	26.21239
Lgdpi	12915	26.52476	1.231008	23.49279	28.55258
Lpopj	12915	14.24148	2.397114	7.397562	18.76679
Lpopi	12915	16.36403	1.337698	12.91325	18.22875
Ldist	12915	8.903302	0.418459	7.776782	9.805546
L1.Loda	6557	13.9514	2.467668	9.21034	20.96543
Col	12915	0.065815	0.247968	0	1
Island	12915	0.344948	0.47537	0	1
Landlocked	12915	0.191638	0.393605	0	1
commonlang	12915	0.155246	0.362153	0	1
Eba	12915	0.235772	0.424497	0	1

Note: Lexports denotes bilateral exports from the ACP countries to the EU, Lgdpj and Lgdpi denote GDP in the exporter and importer countries, respectively, Lpopj and Lpopi denote population in the exporter and importer countries respectively, Ldist is the distance between countries j and i, Li.loda is development aid given by each EU donor to each ACP recipient country, Col is a dummy that takes the value of one when the countries j and i have had a colonial relationship in the past, Island is a dummy that takes the value of one when country j is ab Island, landlocked is a dummy that takes the value of one when one of the countries j and i is a landlocked country, Commonlang is a dummy that takes the value of one when the countries j and i have a common official language and Eba is a dummy that takes the value of one when country j is eligible for the EBA regime.

Table 2. Simple Correlations

	lexports	Lgdpj	lgdpi	lpopj	lpopi	ldist	loda	col	island	landl	commonl	eba
lexports	1											
lgdpj	0.431	1										
lgdpi	0.436	-0.147	1									
lpopj	0.267	0.760	-0.196	1								
lpopi	0.451	-0.154	0.985	-0.197	1							
ldist	-0.029	0.038	-0.048	-0.188	-0.062	1						
L1.loda	0.335	0.251	0.235	0.409	0.214	-0.095	1					
col	0.233	-0.082	0.258	-0.133	0.264	0.005	0.294	1				
island	-0.077	-0.264	0.107	-0.517	0.107	0.371	-0.311	0.068	1			
landlocked	-0.075	-0.043	-0.038	0.195	-0.041	-0.086	0.138	-0.031	-0.303	1		
commonlang	0.095	-0.057	-0.037	-0.080	-0.047	-0.009	0.226	0.604	0.025	0.022	1	
eba	-0.201	-0.119	0.021	0.135	-0.047	-0.185	0.117	-0.030	-0.124	0.137	-0.014	1

Note: Lexports denotes bilateral exports from the ACP countries to the EU, Lgdpj and Lgdpi denote GDP in the exporter and importer countries, respectively, Lpopj and Lpopi denote population in the exporter and importer countries respectively, Ldist is the distance between countries j and i, Li.loda is development aid given by each EU donor to each ACP recipient country, Col is a dummy that takes the value of one when the countries j and i have had a colonial relationship in the past, Island is a dummy that takes the value of one when country j is ab Island, landlocked is a dummy that takes the value of one when one of the countries j and i is a landlocked country, Commonlang is a dummy that takes the value of one when the countries j and i have a common official language and Eba is a dummy that takes the value of one when country j is eligible for the EBA regime.

Table 3: Empirical Estimations

	RETD	FETD	HTTD	Heckman lexports	select
Exporter GDP	0.996***	0.809***	0.857***	1.032***	0.374***
	(14.609)	(8.084)	(10.428)	(25.451)	(8.543)
Importer GDP	-0.598	-0.279	-0.947**	-0.956***	0.369*
	(-1.542)	(-0.409)	(-2.208)	(-4.094)	(1.716)
Exporter POP	0.133*	-0.721	0.445***	-0.018	0.098**
	(1.786)	(-0.999)	(2.756)	(-0.484)	(2.330)
Importer POP	1.994***	-1.178	2.729***	2.162***	0.457***
	(5.298)	(-0.387)	(5.722)	(9.597)	(2.614)
Distance	-0.591**	(dropped)	1.054	-0.462***	-0.496***
	(-2.097)		(1.368)	(-4.434)	(-4.616)
ODA	0.002	-0.022	-0.024	0.164***	0.067***
	(0.133)	(-1.244)	(-1.417)	(8.833)	(3.205)
Colonial History	0.945***	-	0.241	1.159***	0.237
	(2.808)		(0.282)	(10.394)	(0.728)
Island	0.151	-	0.015	0.113	0.717***
	(0.613)		(0.029)	(1.151)	(6.748)
Landlocked	-0.351*	-	-0.442	-0.182**	0.038
	(-1.685)		(-1.018)	(-2.434)	(0.486)
Common Language	0.803***	-	1.354**		0.411***
	(2.701)		(2.248)		(4.366)
EBA	-1.612***	-1.577***	-1.602***	-1.833***	-1.611***
	(-5.117)	(-4.849)	(-6.207)	(-4.106)	(-3.227)
ODA*EBA	0.086***	0.090***	0.088***	0.039	0.071**
	(4.408)	(4.424)	(5.367)	(1.408)	(2.188)
1997	-0.021	0.017	0.009	-0.099	0.103
	(-0.309)	(0.221)	(0.13)	(-0.726)	(0.82)
1998	0.094	0.142	0.127	0.08	0.14
	(1.266)	(1.540)	(1.621)	(0.578)	(1.087)
1999	-0.183**	-0.119	-0.143	-0.236*	0.335**
	(-2.155)	(-1.029)	(-1.613)	(-1.680)	(2.414)
2000	-0.170*	-0.099	-0.119	-0.144	0.277*
	(-1.676)	(-0.660)	(-1.070)	(-0.980)	(1.936)
2001	0.042	0.069	0.067	0.656***	0.696**
	(0.329)	(0.377)	(0.47)	(3.339)	(2.510)
2002	-0.093	-0.041	-0.051	0.514**	1.428***
	(-0.669)	(-0.197)	(-0.326)	(2.572)	(3.288)
2003	-0.093	0.002	-0.036	0.561***	1.127***
	(-0.655)	(0.009)	(-0.221)	(2.797)	(3.144)
2004	-0.049	0.103	0.053	0.479**	0.930***
	(-0.299)	(0.42)	(0.287)	(2.278)	(2.901)
2005	0.015	0.184	0.121	0.605***	0.422*
	(0.085)	(0.686)	(0.621)	(2.931)	(1.653)
EBA*2002	0.119	0.134	0.117	0.128	-0.377
	(0.856)	(0.989)	(0.859)	(0.463)	(-0.729)
EBA*2003	0.087	0.115	0.083	0.091	-0.207
	(0.679)	(0.912)	(0.616)	(0.329)	(-0.459)
EBA*2004	-0.036	0.011	-0.04	-0.058	0.121
	(-0.264)	(0.078)	(-0.292)	(-0.210)	(0.288)
EBA*2005	-0.207	-0.121	-0.195	-0.289	0.161
	(-1.440)	(-0.819)	(-1.432)	(-1.052)	(0.439)

Constant	-21.436***	35.773	-40.156***	-16.190***	-21.765***
	(-4.352)	(0.854)	(-3.763)	(-5.998)	(-6.927)
R-squared	0.497	0.085			
N	6097	6097	6097	6548	
Rmse	1.203653	1.11053			
Aic		18601.88			
Bic		18742.91			

Note: RETD denotes Random Effects with Time Dummies; FETD denotes Fixed Effects with Time Dummies and HT denotes Hausman-Taylor. *** Denotes significance at 1% level; ** denotes significance at 5% level; * denotes significance at 10% level

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Appendix

Table A.1. List of Exporter and Importer Countries

Exporter (ACP) Country	Exporter (ACP) Country	Importer (EU-15) Country
Angola (LDC)	Malawi (LDC)	Austria
Antigua & Barbuda	Mali (LDC)	Belgium
Bahamas	Marshall Islands	Denmark
Barbados	Mauritania (LDC)	Finland
Belize	Mauritius	France
Benin (LDC)	Federal States of Micronesia	Germany
Botswana	Mozambique (LDC)	Greece
Burkina Faso (LDC)	Namibia	Ireland
Burundi (LDC)	Nauru	Italy
Cameroon	Niger (LDC)	Luxembourg
Cape Verde (LDC)[5]	Nigeria	The Netherlands
Central African Republic (LDC)	Niue	Portugal
Chad (LDC)	Palau	Spain
Comoros (LDC)	Papua New-Guinea	Sweden
Congo	Rwanda (LDC)	United Kingdom
Cook Islands	Samoa (LDC)	
Cote d'Ivoire	Sao Tome and Principe (LDC)	
Cuba	Senegal (LDC)[6]	
Democratic Republic of Congo (LDC)	Seychelles	
Djibouti (LDC)	Sierra Leone (LDC)	
Dominica	Solomon Islands (LDC)	
Dominican Republic	Somalia (LDC)	
Equatorial Guinea (LDC)	South Africa	
Eritrea (LDC)	St. Vincent and the Grenadines	
Ethiopia (LDC)	St. Kitts and Nevis	
Fiji	St. Lucia	
Gabon	Sudan (LDC)	
Gambia (LDC)	Suriname	
Ghana	Swaziland	
Grenada	Tanzania (LDC)	
Guinea (LDC)	Timor-Leste (LDC)[7]	
Guinea-Bissau (LDC)	Togo (LDC)	
Guyana	Tonga	
Haiti (LDC)	Trinidad and Tobago	
Jamaica	Tuvalu (LDC)	
Kenya	Uganda (LDC)	
Kiribati (LDC)	Vanuatu (LDC)	
Lesotho (LDC)	Zambia (LDC)	
Liberia (LDC)	Zimbabwe	
Madagascar (LDC)		

[5] Cape Verde graduated from the LDC list in December 2007.
[6] Senegal has been added to the LDC list in 2000.
[7] Timor-Leste has been added to the ACP countries and LDC list in 2003.