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Chief Economist Note

A comparative analysis of EU and US trade preferences for the LDCs and the AGOA beneficiaries

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**** The views expressed in this document are the authors' and do not necessarily reflect those of the European Commission.***

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Abstract

In light of the much praised US African Growth and Opportunity Act (AGOA), this study compares EU and US preferential trade policies towards the least developed countries (LDCs) under the EU Everything but Arms (EBA) initiative and the countries covered by the US AGOA. The descriptive analysis examines and compares product coverage, diversification of imports, share and value of preferential imports and preference utilisation rates. The empirical analysis, conducted in a gravity setting, compares the relative trade creating effects of the EU and US schemes. Excluding mineral fuels, it finds that EU preferential trade policies generate about twice as much trade as do corresponding US policies.

Executive Summary

- The EU imports more goods duty free (MFN-0 tariffs and imports under preferences) than does the US
- EU preference schemes offer preferences on more products and are better utilized than US preferences
- The econometric analysis indicates that EU trade policy has generated close to twice as much imports compared to US trade policy

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INTRODUCTION

The EU and the US have specific trade preference programmes directed towards developing countries in general and, primarily in the case of the EU, towards least developed countries (LDCs) in particular. The main EU preference programme for LDCs is the Everything but Arms (EBA) initiative, which forms part of its Generalized System of Preferences (GSP), and is available to all LDCs.2 On the US market, LDCs benefit from a specific GSP scheme for LDC countries and from the US' African Growth and Opportunity Act (AGOA) for which 39 countries, developing as well as LDCs, in sub-Saharan Africa are eligible.

The US AGOA scheme has been widely praised by both media (e.g. The Economist):

"Western governments should open up to trade rather than just dish out aid. America's African Growth and Opportunity Act, which lowered tariff barriers for many goods, is a good start, but it needs to be widened and copied by other nations." The Economist, Africa rising, December 3, 2011.

…and academics (e.g. Professor Paul Collier):

"[...] as a European […] it's very painful to discover that AGOA works really very well, […] and EBA, the European scheme, is worse than useless." Professor Collier speaking at the Carnegie Council, January 2008. http://www.carnegiecouncil.org/studio/transcripts/0017.html

The purpose of this paper is to make a comparison between the preferential trade policies of the EU and the US with respect to (i) the LDCs and (ii) the countries eligible for the US AGOA and thus to examine the alleged success of the US trade policy compared EU trade policy vis-à-vis these two groups of beneficiaries.

The literature quantitatively assessing and comparing the impact of EU and US preferential trade policies is relatively scarce,3 but generally points to that EU trade policy seems to have generated more exports from developing countries compared to US trade policy.

Nilsson (2007) finds the effects of the EU trade policy to be about 50 per cent higher for low income countries, the bulk of which are LDCs, compared to the overall effects of US trade policy on developing country exports. Haveman and Schatz (2003) estimate that EU preference programs have increased exports from LDCs by about 45 per cent in the year 2000 compared to 10 per cent in the case of the US. Bourdet and Nilsson (1997) analyse the impact of EU and US GSP schemes over the 1976–92 period and find that value of exports that could be attributed to the EU GSP scheme compared to the US scheme was in the range of 40 per cent higher.

[2] The United Nations assigns the LDC classification to a country based on three criteria: per capita gross national income, human assets and economic vulnerability to external shocks. The latter two are measured by two indices of structural impediments, namely the human assets index and the economic vulnerability index. For more information, see http://www.unohrlls.org/en/ldc/164/.

[3] GAO (2001) and Stevens and Kennan (2004) provide qualitative comparisons of mainly EU and US trade policies vis-à-vis developing countries while Kommerskollegium (2005) carries out a qualitatively comparative analysis of the trade policies of the EU, the US, Canada and Japan.

Finally, studies on the impact of preference erosion (see e.g. Francois et al. (2005) and OECD (2005)) commonly find relatively greater negative effects of EU trade liberalisation on preferences-dependent developing countries' exports compared to other preference donors, thereby pointing to a relatively greater importance of EU preferences.

The remainder of the paper is structured as follow: Section 2 examines the main EU and US preferential trading schemes for developing countries and LDCs. Section 3 presents detailed descriptive and comparative statistics on EU and US imports from the LDCs and the AGOA beneficiaries in terms of total trade value, how much of the imports that is entering the EU and the US under zero duty most favoured nation (MFN rates, how much is eligible for duty-free treatment and what is the degree of preference utilisation. Section 4 spells out the model we use to econometrically estimate the relative impact of EU vs. US trade policy on beneficiaries' exports and presents the regression results. Finally, Section 5 summarises the findings and concludes.

AN OVERVIEW OF EU AND US TRADE POLICIES TOWARDS DEVELOPING COUNTRIES[4]

The EU's Generalized System of Preferences (GSP) and Economic Partnership Agreements (EPAs)

Exports from developing countries to the EU are covered by non-reciprocal preferences and reciprocal preferences in the form of free trade agreements (FTAs). The main non-reciprocal scheme for developing countries is the Generalized System of Preferences, which was first introduced by the European Community in 1971. In July 2008, the EU adopted the GSP scheme which is currently in force, though a new scheme has been adopted and will enter into force on 1 January 2014.[5] The current GSP contains three different sub-arrangements, the general or standard scheme, GSP+, which entered into force in 2005 and the EBA initiative, which was introduced in 2001. Rules of origin do not form an integral part of the GSP; they are governed by a separate legal framework.[6]

The standard GSP scheme covers 176 developing countries and approximately 10000 products at the 10-digit level. Non-sensitive products (slightly less than half of the products covered) enjoy duty-free access, while sensitive products (mainly agricultural products, but also textile, clothing and apparel, carpets and footwear) benefit from a tariff reduction of 3.5 percentage points of ad valorem duties compared to the applied MFN tariff and a 30% reduction of specific duties (with a few exceptions). For textiles and clothing, the reduction is 20% of the ad valorem MFN duty rate.

The GSP+ scheme is the successor of several special incentive sub-schemes, where countries enjoyed additional preferences if they complied with certain

[4] Parts of this section draw on Nilsson (2011).

[5] The main features of the new scheme are as follows: the product coverage and preference margins remain unchanged, but high-income and upper-middle income countries, according to the World Bank's classification, will be removed as beneficiaries of the scheme as will countries which have other forms of preferential access to the EU which are as good as or better than the GSP. The incentives to respect core human and labour rights, environmental and good governance standards through the GSP+ scheme will be strengthened and the new system will be more predictable, transparent and stable since it will become open-ended and no longer subject to review every three years.

6 GSP rules of origin are contained in Articles 66 to 97w and Annexes 13a to d, 16 to 18 and 21 Reg. 2454/93 (as amended by Regulation (EU) No. 1063/2010). The list rules are contained in Annex 13a (as amended by Regulation No. 1063/2010).

criteria, such as labour regulations or active participation in anti-drugs enforcement ("GSP Drugs"). It currently covers 15 vulnerable countries with specific development needs. These countries have to meet certain criteria, such as complying with international human and labour rights conventions, good governance and sustainable development. For these countries, the GSP tariffs of the standard scheme have been set at zero for most products and coverage has been extended with approximately 100 products.

Finally, the most far-reaching non-reciprocal preferences are given out under the EBA for LDCs. All countries with LDC status, with the exception of Burma/Myanmar for which preferences were withdrawn in 1997 due to serious and systematic violations of core human and labour rights can benefit from duty-free access to the EU markets without any restrictions for all products, except for arms and ammunition.

The purpose of the Economic Partnership Agreements (EPAs) is to promote sustainable development in the ACP, including regional integration within the ACP (based on existing initiatives) as well as poverty reduction. The agreements will be consistent with WTO rules and in some respects go beyond.7 The EU liberalisation of trade under the EPAs provides free access to the EU market for the EPA signatories and improved rules of origin in areas of interest to the partner countries. It is more far-reaching and more rapid compared to the liberalisation undertaken by the ACP.

To date some 20 African countries have initialled or signed interim EPAs.8 In Eastern and Southern Africa (ESA), an interim EPA has been agreed with six ESA states and signed by four of them. The agreement is provisionally applied since May 2012. With the Central African region, Cameroon has signed an interim EPA. In West Africa, interim EPAs have been signed with Ivory Coast and initialled with Ghana. The five East African Community (EAC) countries have initialled an interim EPA and among the SADC, an interim EPA has been concluded with Botswana, Lesotho, Namibia, Swaziland and Mozambique and signed by all but Namibia.

Table 1: Coverage of the EU GSP scheme(s)

Regime	Number of tariffs lines (10-digit level)
GSP (for all 176 countries/territories)	9920
Additional coverage by GSP+ (15 countries)	98
Additional coverage by Everything But Arms (EBA) and EPAs	1040
MFN duty-free	3152
MFN positive (excl. goods eligible for GSP schemes)	49
Total tariff lines (sum of above)	**14259**

Source: CARIS (2010).

[7] The predecessor, the Cotonou Agreement was under the cover of a WTO waiver, which expired on 31 December 2007.

[8] One comprehensive EPA, the Caribbean Forum of African, Caribbean and Pacific States (CARIFORUM) EPA has been signed and is applied. In the Pacific, Fiji and Papua New Guinea have signed an interim EPA.

The US GSP, AGOA and other preferential trading schemes

Developing countries can benefit from various preferential schemes for exporting to the US. The scheme with the widest country coverage is the US GSP which covers 133 countries. Furthermore, the US has put regional preferential schemes into place, such as the AGOA, the Caribbean Basin Initiative and the Andean Trade Preference Act. The latter two cover mainly non-LDCs.

The US GSP has been in operation since 1976 and was renewed in 2011, validating it through 2013. Duty-free access is provided for 3150 products (at the 8-digit level) and LDCs can benefit from duty-free access for an additional 1400 products, see Table 2. Eligibility covers selected (semi-manufactures) and selected agricultural, fishery and primary industrial products. Excluded goods include textiles, watches, footwear, handbags, luggage and work gloves. With the exception of LDCs, ceilings on GSP benefits are imposed for each country and product ("competitive-need limitations").

Of the regional preferential schemes, AGOA, introduced in 2000 and valid until 2015, has the widest country coverage. This scheme focuses on the countries of sub-Saharan Africa and besides 27 LDCs it also includes 12 other developing countries. The countries eligible for AGOA are determined annually by the US government based on progress in meeting criteria such as establishment of a market-based economy, rule of law, elimination of barriers to US trade and investment and protection of workers' rights.

There are three different types of AGOA preferences. (i) The "Regular AGOA" scheme applies to all 39 countries, (ii) "AGOA clothing" is available for 27 of the beneficiaries and (iii) "AGOA clothing, including the Special Apparel Rule (SAR)", which includes a relaxation of the AGOA rules of origin and allows countries to export clothing made of third-country yarns and fabric duty-free, applies to 26 countries (the countries eligible for "AGOA clothing", except for South Africa).

Except for eight tariff lines[9], all tariff lines that are covered by the GSP for LDCs are also covered by Regular AGOA. In addition, AGOA beneficiaries have additional duty-free access under the Regular AGOA scheme in 233 tariff lines. The countries eligible for the AGOA Clothing have duty-free preferential access to another 607 tariff lines in HS 61-63.[10]

[9] The products excluded from AGOA preferential treatment, while included in the GSP for LDCs, are some processed fruit products, apricots, peaches, silicon, ferrovanadium (an alloy of iron), manganese (a metal) and watch straps made out of textiles. Of the AGOA countries, only South Africa and Swaziland are exporting these products, with a total trade value of 16.3 million dollar (of which 14.1 million dollar are South African exports of manganese). There are no LDCs exporting products covered by these eight tariff lines.

[10] Note that AGOA includes import quota for preferential treatment of clothing. See http://www.agoa.gov/eligibility/apparel_eligibility.html

Table 2: Coverage of selected US import regimes (2010), excl. chapters 98 and 99*

Regime	Number of tariffs lines (8-digit level)
GSP (for all 133 countries/territories)	3150
GSP with country specific exemptions [a)]	299
Additional coverage by GSP for LDCs (43 countries)	1431
Sub-total	4880
AGOA "Regular"	*5105*
AGOA "Clothing"	*5712*
MFN duty-free	3738
MFN positive duty (excl. goods eligible for GSP)	1831
Total tariff lines (sum of above)	**10449**

Source: USITC tariff table. Note: a) For example, cigarette lighters are eligible for duty-free treatment in all GSP beneficiary countries, except for Brazil. b) There is a considerable overlap between the coverage of AGOA and the coverage of the GSP for LDCs: 1423 tariff lines are covered both by AGOA and the GSP for LDCs. For LDCs, AGOA extends the number of tariff lines eligible for preferences by (only) 243. * The tariff lines in chapters 98 and 99 of the US Harmonized Tariff Schedule contain special classification provisions, temporary legislation and additional (agricultural) import restrictions.

COMPARISON OF EU AND US IMPORTS FROM THE LDCS AND THE AGOA BENEFICIARIES

Regardless of preferential trade policy, a product may be imported duty-free into a customs territory if it is subject to a zero duty MFN rate. A product may also be imported duty-free if it is eligible for duty-free treatment through a preferential trading scheme *and* if this treatment is actually applied to the imports. The preference utilisation rate defines the extent to which preferences are being used by exporters and equals the ratio of the value of preferential imports to the value of preference eligible imports.

Note that a product cannot be eligible for preferential treatment if the MFN rate is zero, because tariff preferences cannot be extended to goods that are already eligible for duty-free and quota-free MFN treatment. The amount of imports eligible for zero duty MFN tariff rates differs significantly between the EU and the US.

For this analysis we have relied on EU import and tariffs data from Eurostat and US import and tariffs data from the US International Trade Commission (USITC). The Eurostat source data shows the amount of trade eligible for preferential treatment as well as the amount of trade that is actually using preferences.11 For US imports, the USITC trade data only contains trade values and no tariff data. Trade eligibility has been constructed for the US on the basis of the tariff table provided separately by USITC, which contains information on

[11] This used to be requested use of trade preferences, but was changed with the entry into force of Commission Regulation (EU) 113/2010.

which tariff lines are eligible for a certain preferential scheme.

Comparison with respect to the LDCs

All LDCs are eligible for the EBA on the EU market, while the US has several schemes in place for the LDCs, with the main two ones being the GSP for all LDCs and the AGOA for certain African LDCs. A comparison of EU and US import figures from these countries leads to the following four main conclusions (see Table 3):

A larger share of EU imports from LDCs benefits from duty-free MFN tariffs compared to the US: 48.5% of the goods imported from LDCs are duty free under the standard MFN rate of the EU, against only 5.8% of imports in case of the US.

Of the goods with positive MFN tariffs, the preferential coverage of the EU is larger: the EU offers preferences on all almost imports while the US extends preferences to 74.4%.

Preference schemes of the EU are better utilized than preference schemes of the US: the preference utilisation rate of EU imports is 85.0% against 41.5% of US imports.

The EU is importing more goods duty free from LDCs than the US. In total, 92.3% of the goods imported by the EU came in duty free, while only 34.3% of the goods from the US came in duty free. This is an effect of the wider coverage of duty free MFN zero tariffs, the larger coverage of preferential schemes and the higher preferences utilisation rate.

The top LDC exporter to the EU is Bangladesh (€6.6 billion or 31.6% of total imports from LDCs), followed by Angola and Equatorial Guinea. The top LDC exporter to the US is Angola (€9.4 billion or 46.8% of total imports), followed by Bangladesh and Cambodia. For these countries the main exported goods are either mineral fuels (Angola and Equatorial Guinea) or clothing (Bangladesh and Cambodia).

More than 64% (or €12.6 billion) of US imports are mineral fuels (HS chapter 27), against 32% (or €6.7 billion) of EU imports. Practically all EU imports of mineral fuels face zero MFN tariffs, while this is only the case for 1.7% of US imports. When mineral fuels are excluded from the analysis, preference utilisation rates of the EU and the US are on the same level (around 85%). However, because the US has a lower percentage of imports eligible for duty-free treatment, actual duty-free imports in the EU are more than three times as high in percentage points (85.3% for the EU, against 24.0% for the US).

The overall share of duty-free clothing imports is more than 80% in the EU, while less than 10% in the US. This large difference is explained mainly by the difference in preferential treatment of the two largest clothing producers, Bangladesh and Cambodia. While the EU offers duty-free access to all clothing goods for these countries, the US does not.

Table 3: EU and US trade indicators for imports from LDCs (2010 figures)

All LDCs	Total trade value (€ bn.)		MFN-zero (% / € bn.)		Eligible for duty-free treatment (% / € bn.)		Preference utilisation rate (%)		Actual duty-free trade (% / € bn.)	
	EU	US	EU	US	EU	US	EU	US	EU	US
All products	-	-	48.5%	5.8%	100.0%	74.4%	85.0%	41.5%	92.3%	34.3%
	20.8	19.2	10.1	1.1	20.8	14.3	-	-	19.2	6.9
Angola	-	-	98.5%	1.1%	100.0%	100.0%	73.5%	45.7%	99.6%	46.3%
	3.8	9.4	3.8	0.1	3.8	9.4	-	-	3.8	4.3
Bangladesh	-	-	0.9%	3.9%	100.0%	4.8%	82.1%	70.7%	82.2%	4.5%
	6.6	3.4	0.1	0.1	6.6	0.2	-	-	5.4	0.2
Cambodia	-	-	0.2%	0.8%	100.0%	1.8%	77.6%	61.1%	77.7%	1.4%
	0.9	1.8	0.0	0.0	0.9	0.0	-	-	0.7	0.0
Eq. Guinea	-	-	99.2%	6.5%	100.0%	100.0%	57.6%	45.4%	99.6%	49.0%
	2.3	1.7	2.3	0.1	2.3	1.7	-	-	2.3	0.9
All products, excl. min. fuels.	-	-	24.7%	13.6%	100.0%	25.8%	85.3%	85.5%	89.0%	24.0%
	14.1	6.6	3.5	0.9	14.1	1.7	-	-	12.5	1.6
Mineral fuels	-	-	98.8%	1.7%	100.0%	100.0%	41.7%	38.6%	99.3%	39.7%
	6.7	12.6	6.6	0.2	6.7	12.6	-	-	6.6	5.0
Textiles	-	-	57.7%	91.9%	100.0%	95.6%	89.4%	76.6%	95.6%	94.7%
	0.14	0.04	0.08	0.04	0.14	0.04	-	-	0.13	0.04
Clothing	-	-	0.0%	0.3%	100.0%	11.2%	81.2%	84.5%	81.2%	9.5%
	6.9	5.4	0.0	0.0	6.9	0.6	-	-	5.6	0.5

Source: Own calculations, based on Eurostat and USITC figures. *Note:* The colour shading and border thickness indicates the percentage point difference between EU-US (black background: >15%, thick border: >5%).

Comparison with respect to the AGOA beneficiaries

The group of AGOA countries has a considerable overlap with the group of countries eligible for the EBA. However, apart from 27 LDCs, also 12 non-LDCs are eligible for AGOA preferences. For the EU most of these non-LDCs are covered by either the standard GSP scheme, EPAs or in the case of South African a free trade agreement. The three main AGOA trading partners for both the EU and the US are Angola, Nigeria and South Africa.

Table 4 shows that EU preference eligibility is on the same level as US preference eligibility (when correcting for MFN duty-free goods). Most countries are eligible for duty free imports for all goods. South Africa is the main exception to this, but still 97.9% of its exports are eligible for preferential treatment. In addition, even though Nigeria does not have an EPA in place, almost all its exports are eligible for duty-free treatment.

Preference utilization of EU preferences is higher than of US preferences for the AGOA countries (91.2% against 31.9%). As a result of this, the EU imports more than twice as much duty-free from the AGOA countries than does the US. This conclusion also holds when excluding South Africa.

Mineral fuels (HS chapter 27) counts for a large part of both EU and US imports (43% for the EU and 82% for the US). When excluding mineral fuels, the EU and the US are more or less on the same level when it comes to the share of duty-free imports. However, the EU imports goods duty-free to a value which is more than three times higher than does the US: the value of duty-free imports by the EU is 26.5 billion euro while it is close to 8.0 billion euro for the US.

For the EU, preferences have only a small role in to play concerning imports of mineral fuels because practically all mineral fuels imported by the EU are subject to zero MFN tariffs. For the US, preferences do matter in this category and even though these are extended to all imports, the preference utilisation rate is low at 28%.

The differences in trade values make clear that the EU imports are more diversified than US imports. This becomes even clearer when excluding both imports of mineral fuels and imports from South Africa: US import value is only 2.2 billion euro, while the corresponding figure of the EU is about six times higher at 13.2 billion euro.

The share of textiles and clothing imports in total EU and US imports from the AGOA beneficiaries is small at about half a billion euro in 2010 (around 1%-2% of total imports from this group of countries). The EU imports most clothing from Mauritius, Madagascar and South Africa. Of these countries, South Africa and Madagascar are not eligible for the SAR of the AGOA scheme, which, as mentioned earlier, is a relaxation of the AGOA rules of origin and allow countries duty-free exports of clothing made of third-country yarns and fabric.

The SAR comes with strings attached. For example, if the yarn and fabrics used for producing the apparel do not originate in Africa or the US, US imports of such goods are subject to a quota of 3.5% of total US apparel imports (set to rise to 7%). This quota has hitherto never been exhausted, but it may limit future expansion possibilities of the textile industry of the AGOA beneficiaries.

The US imports clothing mainly from countries eligible for this rule: 91% of US clothing imports from AGOA countries are from SAR eligible countries and 95% of the imports are from four countries (Lesotho, Kenya, Mauritius and Swaziland). The preference utilisation rate of these exports is high, almost 100%. Corresponding figure for the EU is similar.

Figures on these indicators for a larger set of LDC and AGOA beneficiary exporters are provided in Annex Table 6.

Table 4: Main indicators for AGOA beneficiary countries (2010 figures)

Prods.	AGOA countries	Total trade value (€ bn.)		MFN-zero (% / € bn.)		Eligible for duty-free treatment (% / € bn.)		Preference utilisation rate (%)		Actual duty-free trade (% / € bn.)	
		EU	US	EU	US	EU*	US	EU	US	EU	US
All prods.	All	-	-	72.7%	11.1%	99.3%	99.9%	91.2%	31.9%	94.8%	39.4%
		50.5	46.3	36.7	5.1	50.1	46.2	-	-	47.9	18.2
	All, excl. S. Africa	-	-	80.5%	3.5%	100.0%	100.0%	93.9%	29.0%	98.5%	31.4%
		33.6	40.1	27.1	1.4	33.6	40.1	-	-	33.1	12.6
	Angola	-	-	98.5%	1.1%	100.0%	100.0%	73.5%	45.7%	99.6%	46.3%
		3.8	9.4	3.8	0.1	3.8	9.4	-	-	3.8	4.3
	Nigeria	-	-	95.7%	0.9%	99.9%	100.0%	84.4%	25.4%	98.8%	26.1%
		14.5	24.0	13.9	0.2	14.5	24.0	-	-	14.3	6.2
	South Africa	-	-	57.0%	60.4%	97.9%	99.6%	88.8%	79.2%	87.4%	91.4%
		16.9	6.4	9.6	3.9	16.5	6.4	-	-	14.7	5.9
All, excl. min. fuels	All	-	-	54.4%	60.7%	98.7%	99.6%	91.9%	83.1%	91.4%	93.0%
		29.0	8.2	15.8	5.0	28.6	8.1	-	-	26.5	7.6
	All, excl. S. Africa	-	-	54.5%	62.3%	100.0%	99.6%	95.3%	95.5%	97.0%	97.9%
		13.2	2.0	7.2	1.2	13.2	2.0	-	-	12.8	2.0
Min. fuels	All	-	-	97.3%	0.5%	100.0%	100.0%	76.6%	27.6%	99.4%	28.0%
		21.5	38.1	20.9	0.2	21.5	38.1	-	-	21.4	10.7
Textile	All	-	-	54.5%	26.5%	100.0%	47.2%	93.3%	98.9%	91.6%	46.9%
		0.19	0.01	0.10	0.00	0.19	0.01	-	-	0.17	0.01
Cloth.	All	-	-	0.1%	0.2%	100.0%	99.5%	95.6%	99.1%	95.3%	98.6%
		0.36	0.56	0.00	0.00	0.36	0.55	-	-	0.35	0.55
	SAR	-	-	0.1%	0.1%	100.0%	100.0%	96.4%	99.3%	96.2%	98.9%
		0.34	0.55	0.00	0.00	0.34	0.55	-	-	0.33	0.55

Source: Own calculations, based on Eurostat and USITC figures. *Note:* The colour shading and border thickness indicates the percentage point difference between EU-US (black background: >15%, thick border: >5%). * The figures in this column include imports eligible for positive-duty preferences, which mean that these numbers are (slightly) upward biased. For most countries, there is only little positive-duty preferential trade (less than 1% of total preferential trade value). South Africa is the main exception to this, 6.3% of preferential trade is subject to a positive preferential tariff. Textiles refer to HS chapters 50-63 and clothing to HS 61-63.

ESTIMATING THE EFFECTS OF EU VS. US TRADE POLICY ON DEVELOPING COUNTRY EXPORTS

Above, we have examined several descriptive indicators relating to EU and US imports from the LDCs and the AGOA beneficiaries in some broad product categories. The purpose of this section is to use econometric evidence from a gravity model to compare the effects of EU and US preferential trade policy. The analyses are carried out firstly using total EU and US imports and secondly using EU and US duty-free imports as dependent variables.

The Gravity Model

The gravity model is the "classic" model used to assess what factors determine trade. The idea is simple: two countries are more likely to trade with each other if they have a larger economic mass and if they are closer to each other.

Anderson and van Wincoop (2003) show that the gravity equation can be derived from a setting where all goods are differentiated by place of origin and that preferences are identical and homothetic, approximated by a CES utility function. When trade costs are present, the gravity equation becomes

$$x_{ij} = \frac{y_i y_j}{y^W} \left(\frac{t_{ij}}{P_i P_j} \right)^{1-\sigma} . \quad (1)$$

In this equation x_{ij} is trade from country i to country j, y_i is GDP of country i, y_j is GDP of country j, y^W is world GDP, t_{ij} is the (iceberg) cost of trading and P_i and P_j are price indices in countries i and j, defined by

$$P_i^{1-\sigma} = \sum_j P_j^{\sigma-1} \frac{y_j}{y^W} t_{ij}^{\;1-\sigma} . \quad (2)$$

Anderson and van Wincoop (2003) refer to these price indices as *multilateral resistance variables*, because these variables also depend on trade costs related to trade with other partners. Multilateral resistance variables represent the effect of a country's average trading costs on its trade. For a given pair of countries, when the trade barriers between the importer and all other countries but the exporter country increase, while the trade barrier with the exporter country remains constant, trade with the exporter country will increase. This explains for example why trade between Australia and New Zealand is significantly larger than between Spain and Poland, even though distances are comparable: Australia and New Zealand face higher average trade costs and therefore a higher multilateral resistance than do Spain and Poland (Eicher and Henn 2009).

Application of the Gravity Model

The gravity equation has been applied to a sample including all exports from developing countries to the EU and the US from 2007 to 2010. Our sample include all low and middle income countries, who are classified as such by the World Bank, excluding countries facing prohibitive US sanctions, middle income EU member states, the candidate and potential candidate countries of the EU and four other countries and territories for which there was insufficient data.[12] Furthermore, Equatorial Guinea has been included, because this country has status as an LDC, despite being classified by the World Bank as a high income country.

In this paper an importer-specific dummy variable and region-specific exporter country dummy variables are used to capture most of the multilateral resistance effects. The justification for using region-specific exporter dummy variables is that exporting countries within a region face similar average trade barriers when exporting (distance and often cultural factors are similar). This means that values of t_{ij} in equation (2) will be similar for every exporting country i within a region. A simple calculation shows that this implies that the price index P_i will be similar as well.13

The advantage of using region-specific exporter dummies compared to having exporter fixed effects is that it allows taking the effect of exporter country characteristics into account, such as having the LDC status or belonging to a certain income category, while exporter country fixed effects would preclude the use of such variables, because of perfect

[12] These four countries and territories are Timor-Leste, West Bank and Gaza, American Samoa and Mayotte. The candidate and potential candidate countries are Albania, Bosnia-Herzegovina, Croatia, FYR Macedonia, Iceland, Kosovo, Montenegro, Serbia and Turkey. The countries facing prohibitive US import sanctions are North Korea and Burma/Myanmar.

[13] Suppose we have two exporting countries in a region, indexed by $i = 1, 2$. Similar trading barriers mean that $t_{1j} \approx t_{2j}$ for all importing countries j (e.g. the US or the EU). Inspection of equation (2) shows that every term in the summation must then be similar as well, and that therefore $P_1 \approx P_2$.

collinearity.

Year dummy variables have been used to account for the volatility in trade volumes of the period covered in the regressions (2007 to 2010), which was partly due to the turmoil on financial markets and its effect on the global economy. The final specification of the regression model is

$$\begin{aligned}\log(TRADE_{ijt}) = \beta_0 + \beta_1 \log(GDP_{it} \times GDP_{jt}) + \beta_2 \log(DISTANCE_{ij}) + \beta_3 COMMONCOL_{ij} \\ + \beta_4 EUIMP_j + \beta_5 LDCEXP_i + \beta_6 EUIMP_j \times LDCEXP_i \\ + \gamma \cdot YEAR_t + \delta \cdot REGION_i + \varepsilon_{ijt}\end{aligned} \tag{3}$$

The dependent variable is the amount of trade from country *i* to *j*. The independent variables are a constant, the logarithm of the economic mass of both trading partners and the distance between them and indicator variables indicating whether there has been a colonial tie between the trading partners after 1945, whether the EU is the importer, whether the exporter has the LDC status and the interaction of these two variables. Finally, year dummy variables and dummy variables for the region of the exporter have been included.

A second model has been used to assess the effect of trade policy on AGOA beneficiaries. In this regression, the dummy variable indicating whether the exporter has LDC status has been replaced with a dummy variable indicating whether the exporter is an AGOA beneficiary.

Results

Both total trade flows as well as duty-free trade flows have been used as dependent variable in the regressions. Mineral fuels are further separated out due to their specific nature compared to other exports that are based more on production than on resource extraction.

The economic mass, which is the product of the gross domestic products of the importer and the exporter and the distance variables are highly significant and have their usual sign and magnitude across all regressions. Furthermore, the colonial ties dummy variable is strongly significant and positive.

The coefficient of the EU importer dummy variable is significant and positive in case of total trade value, but insignificant in the regression on duty-free imports when mineral fuels are excluded. This indicates that there seems to be some form of positive impact on imports from the sample of countries of being an EU importer compared to being a US importer which is not captured by any of the other variables included in the regression.

To assess how EU and US trade policy affect trade from LDCs and AGOA beneficiary countries, two dummy variables have been included: one dummy variable indicating whether the exporter is a beneficiary of these schemes and one dummy variable of the interaction between being a beneficiary country and the EU being the importer. The first dummy variable measures the effect of being a beneficiary country on its exports, while the second dummy variable measures the effect of EU policy compared to US policy towards these beneficiary countries.

In case of the LDCs which are eligible for the EBA the coefficient of the first of these two dummy variables, indicating whether the exporting country is an LDC, is negative. This means that being an LDC has a negative impact on export performance towards the EU and the US compared to the rest of the exporting developing countries in the sample, reflecting their lower per capita income, greater economic vulnerability to external shocks and lower scores on indices relating to nutrition, health and education.

The second dummy variable which indicates the effect of the EU being an importer rather than the US is positive and significant using total trade as dependent variable when mineral fuels are excluded.

The coefficient of 0.570 implies that the EU trade policy vis-à-vis LDCs leads to 1.8 times more imports than US trade policy vis-à-vis LDCs holding the other factors constant. For duty-free trade the same pattern can be seen: the EU policy vis-à-vis LDCs leads to more duty-free trade than the US trade policy.

In case of the AGOA beneficiary countries, the first dummy variable is not significant, implying that there is no particular influence of being an AGOA beneficiary country on the amount of exports to the EU and the US. Again, the coefficient of the second dummy variable indicating the interaction between EU trade policy and being an AGOA beneficiary country is positive and significant when mineral fuels are excluded. The value of the coefficient, 0.839, implies that EU trade policy vis-à-vis the AGOA beneficiary countries leads to 2.3 times more trade than US trade policy towards the same set of countries.

Table 5: Gravity model regression results of EU and US imports from developing countries, 2007-2010

Dependent variable	Total trade value in euro (natural logarithm)				Duty-free trade value in euro (natural logarithm)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	incl. min. fuels	excl. min. fuels	incl. min. fuels	excl. min. fuels	incl. min. fuels	excl. min. fuels	incl. min. fuels	excl. min. fuels
Economic mass (log)	1.075***	0.956***	1.151***	1.020***	1.084***	0.980***	1.158***	1.046***
	(0.0381)	(0.0370)	(0.0365)	(0.0349)	(0.0398)	(0.0388)	(0.0380)	(0.0367)
Distance (log)	-0.768***	-0.501***	-0.801***	-0.482***	-1.054***	-0.589***	-1.123***	-0.618***
	(0.165)	(0.163)	(0.175)	(0.170)	(0.170)	(0.169)	(0.178)	(0.174)
Colonial ties after 1945	0.323**	0.571***	0.378**	0.559***	0.382**	0.716***	0.490**	0.787***
	(0.163)	(0.167)	(0.168)	(0.169)	(0.183)	(0.186)	(0.191)	(0.192)
EU importer	0.433***	0.350**	0.415***	0.309**	0.596***	0.181	0.612***	0.208
	(0.148)	(0.151)	(0.147)	(0.149)	(0.165)	(0.168)	(0.163)	(0.164)
LDC exporter	-1.292***	-1.245***			-1.224***	-1.361***		
	(0.200)	(0.188)			(0.197)	(0.191)		
Interaction: EU importer × LDC exporter	0.343	0.570***			0.280	0.803***		
	(0.216)	(0.214)			(0.225)	(0.224)		
AGOA beneficiary exporter			0.337	-0.116			0.555	0.0247
			(0.330)	(0.331)			(0.354)	(0.358)
Interaction: EU importer × AGOA exporter			0.303	0.839***			-0.0236	0.691***
			(0.237)	(0.224)			(0.246)	(0.238)
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Exporting region dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.782	0.761	0.769	0.752	0.759	0.736	0.748	0.725
Observations	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072

Note: All variables are in logs. The log value of the binary variables takes on the values 1 and 0, respectively. The *t*-statistics in italics are estimated with robust standard errors. The coefficients for the exporting region-specific binary variables, year dummies and the constant are not reported. ***, ** and * denote statistical significance at the one, five and ten per cent level.

SUMMARY AND CONCLUSION

This paper provides a comparative analysis of EU and US trade preferences for the LDCs and the AGOA beneficiaries. It presents product and country coverage of the preferences and a detailed analysis of the structure of EU and US imports from the two groups of beneficiaries.

The analysis shows that (i) a larger share of EU imports benefits from duty-free MFN tariffs compared to the US, (ii) the EU's EBA initiative offers preferences on all imports from the LDCs (except arms and ammunition), while the US extends preferences to three quarters of all imports (with figures on par for the AGOA beneficiaries), (iii) EU preference schemes are better utilized and (iv) the EU imports more goods duty free than does the US.

The econometric analysis further indicates that EU trade policy towards the LDCs and the AGOA beneficiaries, by and large, has generated close to twice as much imports compared to US policy, when imports of mineral fuels are excluded from the analysis.

In light of these findings, the significant tribute paid to the US AGOA by media and scholars is perhaps not wrongful in itself since this paper does not examine the absolute trade creating effects of EU and US trade policy.

However, in a comparative setting it appears as if EU trade policy does better than US trade policy. Hence, if any trade policy ought to be copied by other countries as suggested by The Economist (c.f. the introduction) a close look at EU trade policy seems warranted.

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ANNEX

Table 6: Main preference eligibility and utilisation indicators per country, for main LDC and AGOA beneficiary trading partners (2010 figures).

	EBA	AGOA	Total trade value (€ bn.)		MFN-zero (% / € bn.)		Eligible for duty-free treatment (% / € bn.)		Preference utilisation rate (%)		Actual duty-free trade (% / € bn.)	
			EU	US	EU	US	EU	US	EU	US	EU	US
Afghanistan	X	-	-	-	26.2%	**90.4%**	**100.0%**	91.6%	8.3%	10.5%	32.4%	**90.5%**
			0.038	0.064	0.010	0.058	0.038	0.059	-	-	0.012	0.058
Angola	X	X	-	-	**98.5%**	1.1%	100.0%	100.0%	**73.5%**	45.7%	**99.6%**	46.3%
			3.835	9.012	3.779	0.100	3.835	9.012	-	-	3.820	4.176
Bangladesh	X	-	-	-	0.0%	0.5%	**100.0%**	0.6%	81.1%	**95.5%**	**81.1%**	0.6%
			5.997	3.026	0.002	0.016	5.997	0.017	-	-	4.864	0.017
Botswana	-	X	-	-	94.5%	93.1%	100.0%	100.0%	98.9%	98.8%	99.9%	99.9%
			0.829	0.128	0.784	0.119	0.829	0.128	-	-	0.829	0.128
Cambodia	X	-	-	-	0.0%	0.0%	**100.0%**	0.0%	74.6%	69.6%	**74.6%**	0.0%
			0.563	1.687	0.000	0.000	0.563	0.001	-	-	0.421	0.000
Cameroon	-	X	-	-	**82.5%**	15.6%	100.0%	99.6%	**97.5%**	57.4%	**99.5%**	63.8%
			2.006	0.225	1.654	0.035	2.006	0.224	-	-	1.996	0.144
Chad	X	X	-	-	**99.7%**	0.6%	100.0%	100.0%	0.0%	0.2%	**99.7%**	0.8%
			0.215	1.542	0.215	0.009	0.215	1.542	-	-	0.215	0.012
Congo (DROC)	X	*	-	-	**90.7%**	4.2%	100.0%	100.0%	14.3%	14.2%	**92.0%**	17.8%
			0.441	0.398	0.400	0.017	0.441	0.398	-	-	0.406	0.071
Congo (ROC)	-	X	-	-	**96.4%**	1.0%	100.0%	100.0%	**57.4%**	17.3%	**98.5%**	18.1%
			1.484	2.501	1.430	0.026	1.484	2.501	-	-	1.461	0.453
Eq Guinea	X	-	-	-	**99.2%**	6.5%	100.0%	100.0%	**57.6%**	45.4%	**99.6%**	49.0%
			2.285	1.671	2.266	0.109	2.285	1.671	-	-	2.277	0.819
Ethiopia	X	X	-	-	67.2%	**89.9%**	100.0%	99.7%	**94.1%**	83.8%	98.1%	98.1%
			0.476	0.096	0.320	0.086	0.476	0.096	-	-	0.467	0.094
Gabon	-	X	-	-	**87.0%**	4.0%	100.0%	100.0%	**91.7%**	2.5%	**95.5%**	6.3%
			0.854	1.669	0.743	0.066	0.854	1.668	-	-	0.816	0.106
Ghana	-	X	-	-	60.6%	**73.0%**	100.0%	99.6%	**97.0%**	65.4%	**98.6%**	90.4%
			1.446	0.206	0.876	0.151	1.446	0.205	-	-	1.425	0.186
Guinea	X	X	-	-	99.3%	99.2%	100.0%	99.7%	11.9%	**41.9%**	99.4%	99.4%
			0.471	0.052	0.468	0.051	0.471	0.052	-	-	0.468	0.051
Haiti	X	-	-	-	**5.6%**	0.0%	**100.0%**	91.8%	70.3%	75.0%	71.9%	68.8%
			0.005	0.391	0.000	0.000	0.005	0.358	-	-	0.004	0.269
Kenya	-	X	-	-	**35.1%**	25.6%	100.0%	99.5%	95.1%	98.1%	96.7%	98.1%
			1.078	0.235	0.379	0.060	1.078	0.234	-	-	1.042	0.230
Lesotho	X	X	-	-	**98.4%**	6.0%	100.0%	100.0%	83.4%	**99.8%**	99.7%	99.8%
			0.139	0.225	0.137	0.013	0.139	0.225	-	-	0.139	0.225

ANNEX

Table 6 continued

	EBA	AGOA	Total trade value (€ bn.) EU	Total trade value (€ bn.) US	MFN-zero (% / € bn.) EU	MFN-zero (% / € bn.) US	Eligible for duty-free treatment (% / € bn.) EU	Eligible for duty-free treatment (% / € bn.) US	Preference utilisation rate (%) EU	Preference utilisation rate (%) US	Actual duty-free trade (% / € bn.) EU	Actual duty-free trade (% / € bn.) US
Liberia	X	X	-	-	**98.9%**	85.8%	100.0%	100.0%	**45.5%**	0.0%	**99.4%**	85.8%
			0.220	0.136	0.218	0.117	0.220	0.136	-	-	0.219	0.117
Madagascar	X	**	-	-	20.4%	**46.1%**	**100.0%**	48.7%	**97.4%**	54.7%	**98.0%**	47.6%
			0.468	0.082	0.096	0.038	0.468	0.040	-	-	0.459	0.039
Malawi	X	X	-	-	9.3%	9.7%	100.0%	100.0%	92.8%	95.6%	93.6%	96.0%
			0.229	0.054	0.021	0.005	0.229	0.054	-	-	0.214	0.052
Mauritania	X	-	-	-	**84.7%**	1.1%	100.0%	99.9%	**97.7%**	50.5%	**99.7%**	51.0%
			0.528	0.040	0.448	0.000	0.528	0.040	-	-	0.526	0.020
Mauritius	-	X	-	-	9.5%	**25.8%**	100.0%	98.9%	92.7%	89.8%	93.6%	91.4%
			0.828	0.148	0.079	0.038	0.828	0.147	-	-	0.775	0.135
Mozambique	X	X	-	-	9.3%	**61.1%**	100.0%	99.8%	99.3%	99.8%	99.4%	99.7%
			1.387	0.049	0.129	0.030	1.387	0.049	-	-	1.378	0.049
Namibia	-	X	-	-	50.3%	**98.9%**	100.0%	99.9%	**98.9%**	36.7%	99.3%	99.2%
			0.978	0.147	0.492	0.145	0.978	0.147	-	-	0.972	0.146
Nigeria	-	X	-	-	**95.7%**	0.9%	99.9%	100.0%	**84.4%**	25.4%	**98.8%**	26.1%
			14.492	23.019	13.871	0.217	14.483	23.018	-	-	14.323	6.000
South Africa	-	X	-	-	57.0%	60.4%	n/a	99.6%	**88.8%**	79.2%	87.4%	91.4%
			16.871	6.188	9.612	3.738	n/a	6.161	-	-	14.745	5.657
Tanzania	X	X	-	-	40.1%	**93.1%**	100.0%	99.2%	**97.6%**	81.0%	98.6%	98.0%
			0.349	0.032	0.140	0.030	0.349	0.032	-	-	0.344	0.032
Togo	X	X	-	-	97.6%	97.9%	100.0%	99.3%	**74.9%**	46.6%	99.4%	98.5%
			0.221	0.007	0.216	0.007	0.221	0.007	-	-	0.220	0.007
Uganda	X	X	-	-	58.2%	**93.1%**	100.0%	99.4%	92.2%	91.4%	96.8%	98.9%
			0.386	0.044	0.225	0.041	0.386	0.043	-	-	0.373	0.043

Source: Own calculations, based on Eurostat and USITC figures. *Note:* The colour shading and border thickness indicates the percentage point difference between EU-US (black background: >15%, thick border: >5%). * Eligible for AGOA in 2010, not eligible anymore. * Eligibility for AGOA was suspended from 2010 onwards.