United Nations
CDP
Committee for
Development Policy

October 2016

CDP Policy Review Series

Trade Preferences for Least Developed Countries. Are they Effective? Preliminary Econometric Evidence

by Stephan Klasen, Inmaculada Martínez-Zarzoso,
Felicitas Nowak-Lehmann & Matthias Bruckner

Trade Preferences for Least Developed Countries. Are they Effective? Preliminary Econometric Evidence*

Stephan Klasen, Inmaculada Martínez-Zarzoso, Felicitas Nowak-Lehmann & Matthias Bruckner

Introduction

Trade preferences for developing countries have been granted by most industrialized countries (ICs) since the early 1970s. They have been covered by international trade law and have been described in the enabling clause of the General Agreement on Tariffs and Trade (GATT) in 1979, as part of the Tokyo Round of the GATT. These unilateral trade preferences have become known as the Generalized System of Preferences (GSP). GSP allows developed countries (ICs) to apply different tariffs between different categories of trading partners (e.g. developing (DCs) and least developed countries (LDCs)) without violating Article I of the GATT which requires non-discriminatory and equal (most favoured nations (MFN)) treatment of trading partners.

Trade preferences (TP) under the GSP programme are granted not only by the so-called QUAD countries, namely the European Union (EU), the US, Japan and Canada but also by Australia, New Zealand, Norway, among others.[1] Whereas general GSP preferences are open to most developing countries, these schemes typically have more generous sub-schemes exclusively for LDCs. These LDC schemes have been introduced since the early 2000s as a response to the call on developed countries to provide duty and quota free access to LDCs. In addition to general GSP preferences and LDC preferences, many developed countries also provide preferences to other groups of developing countries, either within the GSP or as separate schemes.

* This paper was used as background material for the discussion on the theme Expanding productive capacity for achieving the sustainable development goals during the Plenary of the Committee for Development Policy, in March 2016.

[1] For a complete list see http://ptadb.wto.org/ptaList.aspx.

For example, whereas the *EU* offers the "Everything but Arms" (EBA) initiative with 'zero' tariff for LDCs covering all products except for arms and ammunition, It also offers the slightly less preferential GSP+ tariff for vulnerable countries, which respect human rights and other international conventions. The United States (USA) system also works through different schemes in addition to the general GSP scheme and its LDC sub-scheme: The African Growth and Opportunity Act (AGOA), the Caribbean Basin Trade Partnership Act (CBTPA) and the Andean Trade Preferences Act, which includes Bolivia, Colombia, Ecuador and Peru. Duty-free access is excluded for oil, certain textiles and apparel and some leather products under the overall USA-GSP including the LDC sub-scheme. Under AGOA, footwear, luggage, handbags, watches and flatware can be exported duty-free to the US since December 2000 subject to specific certification on rules of origins. Textiles can be exported duty-free but not quota free to the United States. Apart from the Generalized Preferential Tariff (GPT), Canada offers two further non-reciprocal regimes: the Commonwealth Caribbean Countries tariff (CCCT) and the Least Developed Country Tariff (LDCT). The Japanese GSP system comprises a positive list of agricultural items that are eligible for GSP, and a negative list of industrial goods that are ineligible. All the textile and clothing products from LDCs are duty free and quota free (DFQF) since 2001 in Japan. It is noteworthy that Japan has adopted a graduation policy, whereby a particular country can lose its GSP benefits for a specific product when the beneficiary is considered as internationally competitive and have in fact withdrawn benefits as countries have graduated from LDC status[2]. Hence, GSP preferences can be withdrawn, suspended or limited vis-à-vis countries and products. The Japanese system provides for duty-free as well as reduced-duty access under GSP.

In recent years trade preferences to LDCs given by emerging countries, such as China, Chile, Brazil, India, Republic of Korea, Thailand and Turkey have received more attention as

[2] Other developed countries also apply some graduation rules. For instance, the EU standard GSP and GSP+ are subject to income and product graduation (Stevens et al, 2011).

DCs' and LDCs' trade with emerging countries is quite substantial.[3] These preferences are a response to the call on developing countries in the position to do so to also grant duty and quota free access to LDCs. In addition, some developing countries accord preferences to LDCs within regional trade agreements. Moreover, a group of developing countries signed in 1988 the Global System of Trade Preferences (GSTP) and 42 of the 77 signatory countries have been exchanging concessions since its entry into force in 1989[4].

Looking at the possibility of further tariff cuts granted by emerging economies and the potential trade increase between them and the LDCs, it could be expected that LDCs would benefit a great deal from emerging countries' tariff concessions.

In this research we aim at examining the impact of *developed countries' trade preferences* on developing countries' exports focusing on the effectiveness of the trade preference schemes of EU, US, Canada, Japan, Australia, New Zealand, Norway, the Russian Federation and Turkey. We also analyse whether it is worthwhile for a developing country to have the official LDC status or whether being "off-list" does not have any impact for their exports. Clearly, the group of LDCs is very heterogeneous, including countries who mainly export goods that are already duty free at the MFN-level, and others that could benefit from trade preferences by joining schemes such as GSP+. Further research will be devoted to studying the impact of *emerging countries' trade preferences* on developing countries' exports.

Literature

Econometric evidence on the role of trade preferences for developing countries' export trade is still scarce and the findings so far are mixed. Studies examining the impact of trade preference schemes on DCs' aggregate exports use in many cases trade preference indicators (TPs), i. e. dummies that indicate whether a trade preference system is at work or

[3] For a complete list see http://ptadb.wto.org/ptaList.aspx.
[4] A list of tariff concessions by country can be found in: http://unctad.org/en/Docs/ditcmisc57_en.pdf.

not. As preferential tariffs vary widely among products, it would be hard to come up with a reliable measure of the average preferential tariff. The papers of Herz & Wagner (2011) and Gil-Pareja et al. (2014) belong to this category: they examine a number of trade preference schemes and use the trade preference dummies as target variables.

Herz and Wagner (2011) analyze 184 countries over the period 1953-2006 with annual data. As to the estimation method they mainly[5] use Pseudo Poisson Maximum Likelihood (PPML) estimation with time dummies (year-fixed effects) and country-pair (dyadic) dummies. The overall results obtained by estimating a gravity model of trade point to an export hampering effect of trade preferences. More specifically, the authors claim that trade preferences (GSP scheme) are associated with 4% lower DCs exports on average. As to the dynamics of trade preferences, the impact of trade preferences on DCs' exports is positive and significant only if the scheme exists for less than 10 years, but is negative and significant for trade relations lasting up to two decades (medium to long run). Herz and Wagner claim that the preference granting countries benefit in the short run since GSP receiving countries import intermediate inputs mainly from the GSP granting country, supposedly due to recipient country's goodwill or improved relations. They also emphasize that trade preferences seem to have distortive effects in DCs in the long run when strict or complicated rules of origin lead DCs to export under most favoured nation (MFN) tariffs rather than under GSP preferences.

In contrast to these findings, Gil-Pareja et al. (2014) provide evidence of an export promoting effect of trade preferences for DCs. They use a sample of 177 countries and a time period spanning from 1960 to 2008. They usually include country-year-fixed effects for exporters and importers (in the LS version) and country-pair (dyadic) effects (in all versions). In order to reduce the amount of dummy variables they use data every 4 years. Utilizing LS,

[5] They also show robustness checks with fixed effects OLS (country-pair fixed effects) and year dummies.

they compute positive and significant average effects of trade preferences, ranging from a cumulative impact of 26% after 4 years to 88% after 8 years. They find an impact of 91% when running a regression covering the short run (a regression in first differences (FD-regression)). Using a Heckman approach they compute an impact of trade preferences of 39% and using PPML they find an impact of trade preferences on DCs' export of 27%.

Thelle et al. (2015) look exclusively at the *EU* trade preference scheme using 176 countries (of which 133 DCs and 43 either OECD or high income oil-exporting countries) and 3,408 products over a period of 18 years (1995-2012). They use three different trade preference (TP) measures: (i) tariff margins (t^{MFN}- t^{TP}), (ii) preference ratios ($1-t^{TP}/t^{MFN}$), and (iii) existence of trade preferences (a dummy variable that takes the value one if a trade preference scheme exists). In line with the Gil-Pareja results, Thelle et al. (2015) find that on average trade preferences granted by EU countries significantly boost developing countries' exports. In particular, they find that enjoying trade preferences boosts DCs' exports by about 6 % cumulative over the period (impact of the preference dummy), that a 100% elimination of tariffs (the preferential tariff becomes 0%) would also increase exports of all products by 6 % on average and that a 1% increase in the tariff margin would increase DCs' exports by about 0.3%.

Frazer and van Biesebroeck (2010) examine the *AGOA scheme*, the US trade preference scheme for African countries, using data for 1998-2006 on 207 countries and 5,120 products (6-digit). They find a strong positive and significant impact of AGOA on US imports from AGOA countries. Receiving AGOA treatment increases US imports on average by 13% cumulative. Imports of apparel, agricultural goods, minerals, petroleum and manufacturing products increase by 42%, 8%, 16.6%, 73.5% and 14.6% respectively. Finally, Ito (2013) evaluates the impact on LDCs of duty free quota free (DFQF) access granted by Japan. Japan began granting LDCs DFQF access in 2000, and accelerated the policy after

2005. Ito finds that in general the LDCs did not benefit from DFQF access to the Japanese market. The tariff lines which were granted zero tariffs and substantial preference margins over non-LDC countries were not imported into Japan, although total imports from the LDCs to Japan were increasing. Ito interprets these negative results as suggestive that tariff barriers are small obstacles for trade relative to the challenges posed by infrastructure, non-tariff barriers, distance, or cultural differences.[6]

Measuring the impact of trade preferences

The investigation we present here evaluates the *impact of developed countries' trade preferences on DCs' aggregated exports to developed and developing countries*.

In a first step we will look more closely at developing countries in general and LDCs in particular and at the impact of GSP preferences on DCs' and LDCs' exports.

In a second step, the impact of trade preferences will be evaluated for different DC country groups: LDCs (official LDCs), African, Caribbean and Pacific (ACP) countries (they have some overlap with the LDCs due to the African sub-group), EBA (LDC) countries, GSP+ countries, AGOA countries (they have some overlap with the LDCs and the ACP countries) and Caribbean Basin Initiative (CBI) countries; and Andean Pact (AP) countries. The impact is also differentiated according to destination countries (industrialized countries such as the EU, US, Canada, Japan, Australia, New Zealand, Norway, Russian Federation and Turkey.

In a third step the official LDCs will be compared to a control group of developing countries that share very similar characteristics with LDCs. Comparing LDCs to similar countries should allow for better estimates for the impact of trade preferences on exports than comparing LDCs to all other developing countries, some of which are already quite advanced in their development. Countries are included in the LDC list if they are below thresholds

[6] As cited in Harrison (2014).

related to three criteria: per capita income, human assets, and economic vulnerability. For inclusion, all three criteria have to be met. For graduation, countries have to surpass criteria thresholds that are higher than those used for inclusion. Moreover, they have to surpass the thresholds in two criteria, though one criterion is sufficient if the per capita income is more than twice the regular threshold. The asymmetry between inclusion and graduation rules is intended to ensure that countries do not fall back into the LDC list after graduation. However, the asymmetry implies that LDC status is history dependent, as it depends not only on the current development situation but in some cases also on whether a country met the criteria in the past. Countries may have very similar development characteristics as measured by the LDC criteria, but some countries are LDCs (because they were included in the past and, while not anymore eligible for inclusion, not yet qualify for graduation) and others are not (because they did not meet inclusion criteria in the past or refused to join the list This feature of the LDC category allows to identify our control group. In the following, we will only include such off-list countries that would, if they were on the list today, not be eligible for graduation, making them a perfect comparator group. With this distinction, at this stage we will run a diff-in-diff analysis to see whether the official LDC status benefits the LDCs in terms of larger exports.

The augmented gravity model of trade and the trade preference-export link

We study the trade preference-export relationship within the framework of the gravity model of trade, which theoretical foundations have been developed in the past three decades by Anderson (1979), Bergstrand (1985, 1989 and 1990), Helpman (1987), Deardorff (1998), Feenstra et al. (2001), Anderson and van Wincoop 2003, Feenstra (2004), Haveman and Hummels (2004) and Redding and Venables (2004).

Using the gravity model of trade we are able to evaluate and quantify the impact of trade preferences on bilateral exports controlling for a variety of factors related to the business cycle, the level of development, the country size etc. Anderson and van Wincoop (AvW) (2003) contributed to this literature by deriving trade costs from the gravity model and by suggesting how to model not only bilateral trade costs but also trade costs from third countries which clearly influence bilateral trade costs. These costs are called "multilateral resistance terms" (MRTs) and are very important determinants of exports and imports. The AvW model with "multilateral resistance terms" has been extended to applications explicitly involving developed and less developed countries by Nelson and Juhasz Silva (2012).

In our analysis we use the usual control variables of the gravity model and augment the model with variables that indicate whether a specific country is a "LDC" or "similar to a LDC but not on the official LDC list". We also include controls that signal whether a country enjoys a *particular GSP status.*

The most important difference in regard to previous studies is our endeavour to include the LDC status specifically in the analysis and to study the link between trade preferences and bilateral trade more rigorously, by accounting for time-varying and time-invariant country characteristics, country-pair heterogeneity and the omitted variable problem. And we are particularly careful in comparing LDCs to comparable non-LDCs based on the procedure described above. We account for unobservable characteristics by utilising (i) country-time-specific effects (exporter-time and importer-time dummies) and (ii) country-pair fixed effects (dyadic effects). The dyadic effects contain not only the information inherent in the country-specific characteristics (and are therefore redundant with the time-invariant exporter and importer dummies that are sometimes used to proxy for MRT), but also include information with respect to the importance of bilateral ties between exporters and importers that do not change over time.

Given that trade preferences vary over time, with our estimation strategy we are able to identify the effect of the within variation of trade preferences on trade over time for each pair of countries. Hence, our first and main contribution is to assure that changes in recipients' bilateral exports can in fact be traced back to changes in trade preferences. This is achieved by accounting for the role played by unobservable/unquantifiable characteristics that affect exporters, importers or exporter-importer relations (bilateral relations). These bilateral relations can be more or less visible and form the foundation of or become the catalyst for trade. Trade preferences can enhance bilateral trade not only through reduced tariffs and a removal of non-tariff trade barriers, but also through the creation of better customer relations and they can also be accompanied by stricter rules of origin. We account for the omitted variable problem by utilizing country-year-fixed effects with robust standard errors.

Variables and main results

According to the underlying theory of the gravity model, trade between two countries is explained by nominal incomes and the populations of the trading countries, by the distance between the economic centres of the exporter and importer and by a number of trade impediment and facilitation variables. Dummy variables such as distance, common border, former colony, common language, free trade agreements, common currency and the like are generally used as proxies for these factors. In order to study the impact of trade preferences on exports, we do include trade preferences (TP) as well and concentrate on their developmental effectiveness analyzing in particular their impact on least developed countries' exports.

The model is estimated for data on about 192 countries (for 184 of them data on GSP schemes are available) over the period from 1973 to 2009. In a first and second step we estimate the model for the whole sample of countries and for given GSP granting countries.

The first step estimations show that the fact that an exporting country belongs to the LDC group (the control group are non-LDCs developing countries) has a positive and significant impact of 0.26 on its exports, increasing exports by about 30% [(exp(0.26)-1)*100%]. This effect measures mainly the before-and-after impact of the LDC status versus the non-LDC status and is basically a cumulative effect. In the second step estimations look more closely at specific trade preference regimes. In particular, different granters of trade preferences are considered: Canada, USA, Australia, New Zealand, Japan, the EU, Russia, Norway and Turkey. We find that only Canada's, Australia's and EU's trade preference systems have a positive and significant impact on LDCs' exports. Their corresponding GSPs increase exports to Canada by 75% [(exp(0.56)-1)*100%], to Australia by 38% [(exp(0.32)-1)*100%] and to the EU by 14% [(exp(0.13)-1)*100%]. In contrast, the trade preferences granted by all other above-mentioned preference-granters (US, New Zealand, Japan, Russia, Norway and Turkey) do not show a significant impact on trade preference receiving countries' exports.

In a third step the sample is reduced to official LDCs and comparably "less-developed" countries that for different reasons are not on the list, and we focus on the differential impact of trade preferences on LDCs and "off-list" countries. Table 1 shows the list of official LDCs and the "off-list" countries (our control group).

Table 1. List of LDCs and control group list

LDC Country	Incl.	Grad.	LDC Country	Inc.	Grad.	Off-list
Afghanistan	1971		**Madagascar**	1991		Cameroon
Angola	1994		Malawi	1971		Congo
Bangladesh	1975		Maldives	1971	2011	Côte d'Ivoire
Benin	1971		Mali	1971		Ghana
Botswana	1971	1994	Mauritania	1986		Guyana
Bhutan	1971		**Mozambique**	1988		India
Burkina Faso	1971		**Myanmar**	1987		Iraq
Burundi	1971		**Nepal**	1971		Kenya
Cambodia	1991		Niger	1971		Mongolia
Cape Verde	1975	2008	Rwanda	1971		Nicaragua
Central African R.	1975		Samoa	1971		Nigeria
Chad	1971		Sao Tome and Principe	1982		Pakistan
Comoros	1975		**Senegal**	2000		Papua N. Guin.
Dem. Rep. Congo*	1991		Sierra Leone	1982		Swaziland
Djibouti	1982		Somalia	1971		Viet Nam
Eritrea	1994		**Sudan**	1971		Zimbabwe
Ethiopia	1971		Timor-Leste	2003		
Gambia	1975		**Togo**	1982		
Guinea	1971		Tuvalu*	1986		
Guinea-Bissau	1975		**Uganda**	1971		
Haiti	1971		**Tanzania**	1971		
Kiribati	1986		Vanuatu	1985		
Lao P. Dem. Rep.	1971		Yemen	1975		
Lesotho	1971		Zambia	1991		
Liberia	1990					

Note: *no export data available. Source: UNDP. In **Bold** big exporters and countries that have diversified their exports; underlined are small islands. Source: UNDP.

The results of the third and most interesting step are shown in Table 2. We compare the export success of official LDC countries with the export success of off-list countries which are countries with a low level of income, a low level of human development and a high level of economic vulnerability but which for some reasons have not obtained the LDC status along with the various advantages it implies (lack of uncertainty, more stability and certainty associated to the preference schemes).

According to column 1 of Table 2, comparing LDCs with "off-list" countries, the former export 79% more [(exp(0.58)-1)*100%] and also the impact of belonging to a regional

trade agreement (RTA) makes a big difference: it increases exports by 166% [(exp(0.98)-1)*100%]. In column 2 we can observe an export increase of 127% [(exp(0.82)-1)*100%] due to the LDC status and an additional positive export effect of 35% of receiving trade preferences from the importers. The impact of belonging to the same regional trade agreement has a positive impact of 156% [(exp(0.94)-1)*100%].

Table 2. LDCs and comparable non-LDCs as exporters, all importers

	(1)	(2)
VARIABLES	**Total trade**	**Total trade**
LDC_exporter	**0.579*** **	**0.822*** **
	[0.222]	[0.228]
GSP_importer		**0.297** **
		[0.144]
Ln GDP exporter	0.603***	0.585***
	[0.0963]	[0.0988]
Ln GDP importer	0.414***	0.421***
	[0.0829]	[0.0864]
Ln population exporter	-0.518	-0.533
	[0.476]	[0.502]
Ln population importer	0.0541	0.179
	[0.576]	[0.607]
Exporter is GATT member	0.629**	0.488*
	[0.260]	[0.269]
Exporter is GATT member	0.187	0.150
	[0.211]	[0.224]
Common currency	0.421	0.531
	[0.438]	[0.328]
Both are WTO members	-0.0208	0.0988
	[0.225]	[0.235]
RTA membersiph	0.980***	**0.935*** **
	[0.130]	[0.134]
Observations	33,028	30,361
R-squared	0.179	0.184
Number of bilateral trade flows	4,296	3,511

Note: Robust standard errors in brackets, *** p<0.01, ** p<0.05, * p<0.1. Country-pair fixed effects and multilateral resistance terms (specified as country-time fixed effects) are included in both columns.

Summarizing, the results of Table 2 provide evidence indicating that the system of trade preferences has worked for countries belonging to the LDC scheme and hence trade preferences can be considered effective for this country group.

REFERENCES

Anderson, J. E. (1979). A Theoretical Foundation for the Gravity Equation. *American Economic Review*, 69, 106-116.

Anderson, J.E. and Van Wincoop, E. (2003). Gravity with Gravitas: A Solution to the Border Puzzle. *American Economic Review*, 93, 170-192.

Bergstrand, J.H. (1985). The Gravity Equation in International Trade: Some Microeconomic Foundations and Empirical Evidence. *The Review of Economics and Statistics*, 67, 474-481.

Bergstrand, J.H. (1989). The Generalized Gravity Equation, Monopolistic Competition, and the Factor-Proportions Theory in International Trade. *The Review of Economics and Statistics*, 71(1), 143-153.

Bergstrand, J.H. (1990). The Heckscher-Ohlin-Samuelson Model, the Linder Hypothesis and the Determinants of Bilateral Intra-industry Trade. *The Economic Journal*, 100, 1216-1229.

Brenton, P. and Ikezuki, T. (2004). The Initial and Potential Impact of Preferential Access to the U.S. Market under the African Growth and Opportunity Act," World Bank Policy Research Working Paper no. 3262 (2004).

Calí, M. and Te Velde, D.W. (2011). Does Aid for Trade Really Improve Trade Performance? *World Development*, 39(5), 725-740.

Candau, F. and Jean; S. (2009). What Are European Union Trade Preferences Worth for Sub-Saharan African and Other Developing Countries?", in *Trade Preference Erosion: Measurement And Policy Response*, in Hoekman, B., Martin, W. and C.A. Primo Braga. (eds.), Palgrave-McMillan and The World Bank, 2009, pp. 65-102.

Carrère, C. (2006). Revisiting the effects of regional trade agreements on trade flows with proper specification of the gravity model, European Economic Review, 50(2), 223-247.

Cheng, I-H. And Wall, H.J. (2005) Controlling for Heterogeneity in Gravity Models of Trade and Integration. *Federal Reserve Bank of St. Louis Review*, 87(1), 49-63.

Cipollina, M. and Salvatici, L. (2008). Trade Impact of EU Preferences"; PUE & PIEC; Working Paper 10/2008; Università della Calabria.

Deardorff, A.V. (1998). *Determinants of Bilateral Trade: Does Gravity Work in a Neoclassical World?*, in: Jeffrey A. Frenkel, ed. , The Regionalization of the World Economy. Chicago: University of Chicago Press.

Feenstra, R. (2004). *Advanced International Trade: Theory and Evidence.* Princeton: Princeton University Press.

Feenstra, R., Markusen, J. and Rose, A. (2001). Using the Gravity Equation to Differentiate among Alternative Theories of Trade. *Canadian Journal of Economics*, 34(2), 430-447.

Frazer, G. and van Biesebroeck, J. (2010). Trade Growth under the African Growth and Opportunity Act. *Review of Economics and Statistics*, 92(1), 128-144.

Gibbon, P. (2003). The African Growth and Opportunity Act and the Global Commodity Chain for Clothing. *World Development* 31:1 (2003), 1809–1827.

Gil-Pareja, S., Llorca-Vivero, R. And Martínez-Serrano, J.A. (2014). Do Nonreciprocal Preferential Trade Agreements Increase Beneficiaries' Exports? *Journal of Development Economics*, 107, 291-304.

Harrison, A. (2014). Accountability: Trade. Unpublished Manuscript.

Haveman, J. and Hummels, D. (2004). Alternative Hypotheses and the Volume of Trade: The Gravity Equation and the Extent of Specialization. *Canadian Journal of Economics*, 37(1), 199-218.

Helble, M., Mann, C. And Wilson, J. S. (2012). Aid for Trade Facilitation. *Review of World Economics*/*Weltwirtschaftliches Archiv*, 148 (2), 357-376.

Helpman, E. (1987). Imperfect Competition and International Trade: Evidence from Fourteen Industrial Countries. *Journal of the Japanese and International Economies*, 1(1), 62-81.

Helpman, E., Melitz, M. and Rubinstein, Y. (2008). Estimating Trade Flows: Trading Partners and Trading Volumes. *Quarterly Journal of Economics*, 123(2), 441-487.

Herz, B. and Wagner, M. (2011). The Dark Side of the Generalized System of Preferences. *Review of International Economics*, 19, 763-775.

Ito, T. (2013). Did the LDC countries benefit from Duty-free Quota-free access to the Japanese market?" Working Paper, 2013.

Ivanic, M., Mann, C. and Wilson, J. (2006). Aid for Trade Facilitation. OECD. Unpublished Manuscript.

Johansson, L.M. and Pettersson, J. (2009). Tied Aid, Trade-Facilitating Aid or Trade-Diverting Aid? Working Paper 2009:5, Department of Economics, Uppsala University.

Mattoo, A., Roy, D. and Subramanian; A. (2003). The Africa Growth and Opportunity Act and Its Rules of Origin: Generosity Undermined? *World Economy* 26:6 (2003), 829–851.

Mátyás, L. (1997). Proper Econometric Specification of the Gravity Model. *The World Economy*, 20(3), 363-368.

Munemo, J., Bandyopaghyay, S. and Basistha, A. (2007). Foreign Aid and Export Performance: A Panel Data Analysis of Developing Countries. Chapter 21, in: Ed. S. Lahiri, Theory and Practice of Foreign aid, Vol.1, 421-433, Elsevier, Amsterdam, Oxford.

Nilsson, L. and Matsson, N. (2009). Truths and Myths about the Openness of EU Trade Policy and the Use of EU Trade Preferences", Document by European Commission, Directorate General for Trade; Brussels.

Nissanke, M. and Thorbecke, E. (2010). Comparative Analysis of the Globalization-Poverty Nexus in Asia, Latin America, and Africa. In M. Nissanke & E. Thorbecke (Eds.). *The Poor under Globalization in Asia, Latin America and Africa*. Oxford University Press.

OECD (2008). Development Co-Operation Report 2007. OECD Journal on Development, OECD, Paris.

Özden, C. and Reinhardt, E. (2003). The Perversity of Preferences: GSP and Developing Countries Trade Policies, 1976-2000. Policy Research Working Paper 2955, WPS 2955, World Bank.

Portugal-Perez, A. and Wilson, J. (2009). Why Trade Facilitation Matters to Africa. *World Trade Review*, 8(3), 379-416.

Redding, S. and Venables, A. (2004). Economic Geography and International Inequality. *Journal of International Economics*, 62(1), 53-82.

Thelle, M., Jeppesen, T., Gjodesen-Lund, C. and van Biesebroeck, J. (2015). Assessment of Economic Benefits Generated by the EU Trade Regimes towards Developing Countries.

European Commission. Directorate General for International Cooperation and Development, EU Development Policy and International Cooperation, Policy Coherence, Economic Analysis Team. Vol. I, June 2015.

Wagner, D. (2003). Aid and Trade: An Empirical Study. *Journal of the Japanese and International Economies*, 17, 153-173.

Wooldridge, J. (2009) *Introductory Econometrics: A Modern Approach*, 4th Edition (Mason,

Ohio: South-Western).

World Bank (2015). World Development Indicators 2015, Washington, DC.