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Quantifying preference erosion for sub-Saharan African countries in the United States

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Quantifying preference erosion for sub-Saharan African countries in the United States

by

Taisuke Ito

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ABSTRACT

The WTO Hong Kong Ministerial Declaration in 2005 has set the international target of providing duty-free and quota-free treatment for LDC exports for at least 97 per cent of tariff lines. This target is yet to be met in the United States. Extending duty-free and quota-free market access conditions for LDCs in the United States will induce asymmetric trade effects among LDCs and sub-Saharan African countries. It will benefit competitive apparel-exporting Asian LDCs that have been exporting apparel products under normal MFN tariffs, but give rise to adjustment challenge for LDCs and non-LDCs among sub-Saharan AGOA apparel exporters, as their existing AGOA preferences would be eroded. The scope for further improving AGOA preferences to mitigate the effect is likely to be limited because AGOA beneficiaries already enjoy commercially significant preferential duty-free market access, which they actually use, particularly, on apparel products. Depending on the way the reform of trade preference programmes is designed, non-LDC AGOA beneficiaries might see their trade preferences eliminated in a move from AGOA to a normal GSP scheme. It will therefore be important to adequately address such distributional impacts when implementing DFQF market access for LDCs.

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ABBREVIATIONS

ACP	African, Caribbean, and Pacific Group of States (ACP Group)
AGOA	African Growth and Opportunity Act
AV	Ad valorem
AVEs	Ad valorem equivalents
CAFTA-DR	United States-Central American Free Trade Area
CBI	Caribbean Basin Initiative
CBTPA	U.S.-Caribbean Basin Trade Partnership Act
CBERA	Caribbean Basin Economic Recovery Act
DFQF	Duty-free and quota-free
EU	European Union
EPA	Economic partnership agreement
FTA	Free trade area
GATT	General Agreement on Tariffs and Trade (WTO)
GSP	Generalized System of Preferences
HOPE	Haiti Hemispheric Opportunity Partnership Encouragement Act
LDCs	Least developed countries
MDGs	Millennium Development Goals
MFN	Most favoured nation
NAMA	Non-agricultural market access
RoO	Rules of origin
RTA	Regional trade agreement
TRQ	Tariff rate quota
UNCTAD	United Nations Conference on Trade and Development
WTO	World Trade Organization

INTRODUCTION

The Decision taken at the Hong Kong WTO Ministerial Conference in 2005 to grant duty-free and quota-free (DFQF) market access for least developed country (LDC) exports stands out as a unique achievement of the otherwise inconclusive Doha Round negotiations, and represents significant opportunities for LDC export expansion. Since then, significant progress has been made in major developed countries in implementing the Decision while concrete modalities to do so have been subject to continued discussion in the Doha Round negotiations, in the context of both agriculture and non-agricultural market access (NAMA). Various unilateral preferential schemes were already being improved since 2000, as DFQF market access for LDCs was recognized as an important international development goal under the Millennium Development Goals (MDGs), and subsequently by the Third United Nations Conference for Least Developed Countries in 2001. It was in that context that the United States instituted the African Growth and Opportunity Act (AGOA) in 2000, and the European Union (EU) an Everything-But-Arms (EBA) initiative in 2001.

The Hong Kong Ministerial Decision set the target of providing DFQF treatment for LDC exports for at least 97 per cent of tariff lines by 2008 or "no later than the start of the implementation period" of the Doha Round's results. This intermediate target, with the ultimate objective of extending coverage to 100 per cent of tariff lines, has been met in all developed countries but the United States. Despite its long-standing generous preferences for sub-Saharan Africa under AGOA, the US import regimes for LDCs still impose positive duties on a number of products. This is because its GSP scheme for LDCs applicable to all eligible LDCs provides product coverage that is narrower than AGOA, excluding notably apparel products, affecting apparel-exporting Asian LDCs disproportionately. Furthermore, AGOA itself – a programme that offers the best non-reciprocal preferences – falls short of meeting the 97 per cent target.

A. Objectives

Achieving the Hong Kong target of 97 per cent product coverage for DFQF treatment and progressing towards 100 per cent coverage will necessarily require a reforming of US preference programmes. However, the multiplicity of preferential schemes, and the different product coverage across them, imply that extending product coverage for DFQF treatment will have different effects on different LDCs and other preference beneficiaries. It is expected to induce an erosion of AGOA preferences, particularly for those AGOA beneficiaries benefiting from deeper preference on apparel products, and benefit Asian apparel-exporting LDCs that have so far been excluded from DFQF treatment for their apparel exports under GSP-LDCs. Such a distributional effect has been a major factor affecting US implementation of the Hong Kong Ministerial Decision on DFQF market access for LDCs, as it would require a balancing act addressing asymmetric effects on affected countries (and domestic industries) through appropriate designs of its preference programmes.

The US GSP scheme, including special preferences for LDCs, is subject to periodic renewal.[1] In this policy debate, the US international commitment to meet DFQF market access for LDCs consistent with the Hong Kong Decision remains an important factor that will determine the design of future US preference programmes. Furthermore, the current AGOA will expire in 2015, and discussion has begun on redefining and updating the post-2015 trade regime applicable to sub-Saharan Africa.

In this context, recent reform proposals and the policy debate have shed light on the possible directions and options for the reform of US preference programmes, including expanding DFQF market access for LDCs. Notably, one particular legislative reform proposal (the New Partnership for Trade Development Act of 2009),[2] although never adopted by Congress, put forward various reform options to harmonize different US trade preference programmes by extending DFQF benefits to all products from all LDCs. Concrete modifications to the various US preference schemes suggested by the proposal included the following:

- Extending DFQF market access under AGOA to 100 per cent of products;
- Extending DFQF market access under GSP-LDCs to 100 per cent of products;
- Eliminating all existing quotas;
- Simplifying rules of origin;
- Limiting eligibility for DFQF treatment to LDCs only, in the long term.

Basing itself on the practical policy options being considered in reality, the paper aims to quantify the potential trade effect of possible trade policy changes required to implement DFQF market access for LDCs in the United States in order to draw policy implications and practical lessons.

It should be stressed that the above-mentioned proposal was not formally adopted and may represent only one school of thought among many in relation to the reform of the US preference programmes. Care should therefore be taken to avoid overstating its merit or prejudging possible future US reform options. Nevertheless, the proposal usefully encapsulates essential trade policy changes likely to be needed or implied in implementing its DFQF market access commitment, and as such, provides a useful basis for assessing possible trade effects and policy implications of the implementation of DFQF market access for LDCs in the United States.

B. Caveats

The objective of the paper is to assess the economic effects, especially the distributional ones, of implementing DFQF market access for LDCs in the United States, taking as a given the coexistence of multiple US preferential schemes applicable to different subsets of developing countries and LDCs. The paper is thus not intended to address the legal standing of individual schemes, or the desirability or otherwise of the particular design of the US preferential schemes. It suffices to recall that the different US unilateral preferential schemes are on different legal footings. Generalized trade preferences applicable to all (eligible) LDCs under the US GSP scheme are legally covered on a permanent basis by the 1979 Enabling Clause of GATT (that allows preference-granting developed countries to deviate from the MFN principle of GATT Article I to the extent that trade preferences are provided in accordance with the GSP)[3] whereas “non-generalized” AGOA preferences, limited to sub-Saharan African countries only and not justified by the Enabling Clause, have required a time-bound WTO waiver.[4] From this legal standpoint, therefore, AGOA preferences remain exceptional under WTO law and are set to expire within a given time period.[5]

Such legal considerations, however, do not diminish the significance of immediate policy challenges facing the preference-receiving countries concerned in assessing the economic implications of possible changes in the US preferences programmes associated with the implementation of DFQF market access for LDCs. The paper seeks to assess such economic implications. Using disaggregated preferential trade and tariff data, the paper aims to quantify the scope for improving existing market access conditions for different subsets of LDCs and sub-Saharan African countries, and their effect on the notional “value” of trade preferences, including preference erosion. It thereby seeks to shed light on possible gains and adjustment challenges that would arise from policies implementing DFQF market access for LDCs.

The paper seeks to be original in its use of preferential trade data, which differentiate US preferential imports receiving and not receiving preferential duty-free treatment, in the computation of notional “preference value (tariff rent)” to estimate the magnitude of existing and potential preference values for different subsets of LDCs and sub-Saharan African countries.

It complements existing literature by examining the possible distributional effect of DFQF market access for LDCs, which is essential in the formulation of any practical and implementable policy. Surprisingly little attention has been paid in the existing literature to the distributional effects of the initiative in the form of preference erosion, although such effects have been a key policy consideration in the domestic and international policy debate. Rather, existing studies have focused on the model-based assessment of the welfare effect of the DFQF market access initiatives or the commercial implications of product coverage for LDCs exports, such as the implications of the three per cent product exclusion implied by the intermediate target of 97 per cent product coverage.

C. Findings

The paper’s main findings are as follows.

- The United States applies different duty-free treatment to different subsets of LDCs under different preferential programmes. Duty-free coverage for tariff lines in 2007 is 91 per cent for AGOA with apparel benefits, 86 per cent for AGOA without apparel benefits, and 84 per cent under the GSP-LDC scheme. Some 1050 products that do not benefit from any non-reciprocal preferential schemes fall under textiles (cotton) and textile products, dairy, sugar, cocoa and food preparations.

- The high preference coverage and utilization rates for major exporters for major export products – mineral fuels and apparels – under AGOA indicate limited scope for improving their market access by expanding product coverage to 100 per cent or by relaxing rules of origin. For AGOA beneficiaries as a whole, preference value would only increase by $90 million (or 0.2 per cent of dutiable imports), from $400 million to $491 million.
- By contrast, the scope for increasing preference value is significant for Asian LDCs that currently do not benefit from the GSP-LDC scheme. Full product coverage and utilization would increase the value of preferences for Bangladesh from $1.4 million to $555 million (or 0 per cent to 16 per cent of dutiable imports), and from $0.2 million to $443 million (from 0 per cent to 17 per cent) for Cambodia. For all Asian LDCs as a whole, extended DFQF market access would increase preference value 350 times, from just $2.8 million to $1.0 billion (from 0 per cent to 16 per cent).
- In terms of trade volume, a simulation exercise using the SMART model finds that Bangladesh would see its total exports increase by $847 million and Cambodia by $555 million, or 23 per cent and 28 per cent of their respective pre-shock exports. Sub-Saharan African countries, conversely, would experience a decline in exports. Lesotho, Madagascar, Kenya, Mauritius and Swaziland would lose $3–6 million in export revenue, or equivalent to 1.6–1.9 per cent of their pre-shock export values.
- If extending DFQF treatment entails a termination of AGOA preferences for non-LDCs, this would have a particularly significant effect. Non-LDC sub-Saharan countries are expected to see all or nearly all of their exports lose AGOA preferences following a shift to the normal GSP scheme, as their major export items – mineral fuels and apparel – are not covered by the US GSP scheme. In particular, major apparel exporters, such as Botswana, Swaziland, Kenya, Mauritius and Namibia, would see a loss in preference value of as much as 13–20 per cent of dutiable imports.

D. Organization

The paper is organized as follows. Section I describes and discusses in some details proposed changes to the US preference schemes to implement DFQF market access for LDCs, so as to gauge the practical policy issues arising from these particular trade policy changes. Section II provides an assessment of the trade effects of the various proposed policy changes to the US preferential schemes. Finally, the concluding section summarizes main findings and briefly discusses policy implications.

I. POLICY OPTIONS FOR IMPLEMENTING DFQF MARKET ACCESS FOR LDCs

A major thrust of the aforementioned legislative reform proposal of the US preference programmes was to immediately put in place DFQF market access conditions for all products for all 50 United Nations-defined LDCs provided that they meet GSP eligibility criteria. Product coverage was also to be extended to 100 per cent for all AGOA beneficiary countries under AGOA, while it foresaw the termination of AGOA benefits for non-LDC AGOA beneficiaries in the long run (the proposed date for this was 2020). DFQF benefits would therefore be limited eventually to United Nations-defined LDCs only as from that date. Asian LDCs, whose apparel products to date have been excluded from preferential treatment, would enjoy an immediate extension of preferential duty-free treatment for all their products, even if according to the proposal, they would be subjected to some transitory quantitative restrictions for a limited duration.

The major elements of the proposal were as follows:

- Extend DFQF market access conditions immediately for all products for all AGOA beneficiaries until 2015 or 2019, as the case may be, depending on the Doha Round;
- Extend DFQF market access conditions immediately for all products for non-AGOA beneficiary LDCs (i.e. Asian LDCs) under GSP-LDCs until 2015 or 2019, as the case may be, depending on the Doha Round. For certain apparel products, competitive Asian LDC exporters such as Bangladesh and Cambodia would be subjected to quantitative restrictions, with DFQF treatment applying only to 50 per cent of their exports in quantity terms;
- Immediately simplify and harmonize rules of origin based on a single general rule based on a 35 per cent value-added method (as is the case under existing US preference programmes) and allow global full cumulation (unlike the current US rules based on partial regional cumulation). The major innovation lies in extending the general 35 per cent value-added rules to apparel products, as well as instituting global cumulation. During the period up to 2015, AGOA apparel exporters would have the option of choosing the new rules or existing AGOA rules of origin; and
- Provide DFQF treatment for all products for all LDCs so defined by the United Nations only as of 2020, thereby excluding non-LDC AGOA beneficiary from the scheme.

1. Changes to AGOA

A major thrust of the proposed changes was to extend DFQF treatment immediately for all products for all AGOA beneficiary countries. While the current AGOA expires at the end of 2015, the proposal sought to extend AGOA benefits (including new quota elimination) to the end of 2019, provided that there is a successful conclusion of the WTO Doha Round before the end of 2015. As from 1 January 2020, DFQF treatment would be renewed every five years but only for countries that are defined as LDCs by the United Nations Economic and Social Council (ECOSOC). This implies that current non-LDC AGOA beneficiaries[6] would be excluded from AGOA's DFQF benefits as of that date.

The existing apparel provisions under AGOA, which currently permit the so-called "lesser developed countries" (defined as those countries whose per capita GNP is less than $1,500 in 1998, as measured by the World Bank) to export apparel products made from third country fabrics, would be extended by three years from 2012 (the current expiry date) to the end of 2015, to bring it into line with the current expiration date for other AGOA provisions.[7] AGOA's apparel provision would be repealed as of 1 October 2015, so that after that date, the single uniform rules of origin would be applicable to apparel products. In order to harmonize and simplify US trade preference programmes, the proposal sought to establish a single rule of origin for the GSP programmes and for AGOA, based on the standard 35 per cent local content rule applicable to all products, including apparel. The new origin rule may be seen as more liberal than the existing rules in that the value of inputs from other GSP beneficiaries could be counted towards the 35 per cent threshold ("global cumulation").

For textiles and apparel products, the new rules of origin may be seen as more flexible, as the full value of any material, if it is both cut and sewn in one beneficiary country, could be counted for the 35 per cent threshold regardless of the origin of the material.

This is expected to operate in a manner similar to "single transformation" rules. In the transformation of fabrics into an apparel article, all the material used, even if third country fabrics from such countries as China are used, could be counted towards the 35 per cent threshold. Furthermore, fabrics produced in the United States could account for up to 15 per cent of the appraised value of the product.

2. Changes to the GSP-LDC scheme

The legislative proposal sought to ensure that preferential DFQF treatment for all products would immediately be extended to non-African LDCs (such as Bangladesh and Cambodia), which currently do not qualify for AGOA and have been exporting under GSP-LDC preferences that do not cover apparel products. Accordingly, countries that as of 31 March 2009 are classified as LDCs under the United Nations classification scheme would qualify for DFQF treatment. The provision is expected to particularly beneficial for non-AGOA beneficiary Asian LDCs.[8] As was the case with the proposed changes to AGOA, the preferential treatment would be terminated by 2015, or 2019 if the Doha Round concludes by 2015. As from 2020, DFQF treatment is proposed to be renewed every five years. The applicable rules of origin would be the general single 35 per cent value-added requirement, as noted above.

The extension of DFQF benefits to Asian LDCs would inevitably entail adjustment challenges for less competitive sub-Saharan African AGOA beneficiaries, which rely heavily on AGOA preferences, particularly for apparel products and current flexible "third country fabric rules". The proposal made some attempts to take into account the concerns raised by sub-Saharan African countries with regard to possible erosion of AGOA preferences in several respects. This may be seen as reflected in the proposed use of the transitional mechanism (10 years up to 2020), and the change in rules of origin (relaxing requirements for apparel in particular).

In addition, there was a proposal to institute a safeguard mechanism – an "adjustment rule" – for a transition period (up to 2015 or 2019, as the case may be) applicable to some Asian LDC beneficiaries that are competitive in exporting certain apparel products, by setting quantitative limits for apparel imports from competitive Asian LDCs during the transitional period. This transitory provision applies to beneficiary LDCs that are deemed "significant apparel suppliers", defined as those LDCs whose market share in quantity terms exceeds two per cent of total US imports of the products concerned, possibly including Bangladesh and Cambodia. Exports of these countries in certain garment categories would be limited to 50 per cent of the square meter equivalent of the country's total garment exports during the previous year. This limits the extent to which competitive non-AGOA LDC apparel exporters are able to expand their annual garment exports in certain sensitive product categories.[9]

3. Systemic reform of the US GSP scheme

The proposed US bill also envisaged systemic reform of some aspects of the US GSP scheme that had historically limited its usefulness for its beneficiaries, such as statutory restrictions on granting GSP preferences to certain products under the US GSP statute. Such products include textiles and apparel articles, watches, import-sensitive electronic articles, import-sensitive steel articles, footwear, handbags, luggage, flat goods, work gloves and other leather wearing apparel, import-sensitive glass products, and out-of quota quantities of agriculture products. Another proposed systemic change addressed the short longevity of the US GSP scheme, seeking to extend it for a period of 10 years (e.g. until 2019), to enhance predictability and stability.

In addition, the proposal has placed a stronger focus on trade capacity-building efforts in LDCs and African countries by proposing to establish, for instance, an "Office of Trade and Competitiveness for Least Developed and African Countries". This could potentially provide an important linkage with trade preference programmes and broader Aid For Trade initiatives, so as to build productive capacities in LDCs and sub-Saharan Africa.

II. QUANTIFYING THE POSSIBLE EFFECT OF POLICY CHANGES TO IMPLEMENT DFQF MARKET ACCESS FOR LDCs

The proposal to introduce DFQF treatment for all LDCs' products may be seen as an ambitious one, going beyond the WTO Hong Kong Ministerial Decision's target of 97 per cent coverage. The benefits would subsequently be limited to United Nations-defined LDCs. The major likely beneficiaries of the proposed policy changes would be apparel-exporting Asian LDCs, namely Bangladesh and Cambodia, as they have been exporting apparel products to the United States under normal MFN regimes where tariffs remain high in the range of 10–30 per cent.

By contrast, sub-Saharan AGOA apparel exporters are expected to experience significant adjustment costs. While the reform proposal has sought to extend product coverage to 100 per cent and significantly ease rules of origin under AGOA, the extent of benefits arising from such a reform (i.e. fuller product coverage and fuller utilization of existing preferences) are

Table 1. Beneficiaries of US preferential schemes as of 2010

	AGOA beneficiaries				Non-AGOA LDCs covered by GSP-LDC only
	With apparel benefits		Without apparel benefits		
	LDCs	Non-LDCs	LDCs	Non-LDCs	
1	Benin	Botswana	Angola	Congo	Afghanistan
2	Burkina Faso	Cameroon	Burundi	Gabon	Bangladesh
3	Cape Verde	Ghana	Comoros	Seychelles	Bhutan
4	Chad	Kenya	Dem. Republic of the Congo		Cambodia
5	Ethiopia	Mauritius	Djibouti		Kiribati
6	Gambia	Namibia	Guinea		Nepal
7	Lesotho	Nigeria	Guinea-Bissau		Samoa
8	Malawi	South Africa	Liberia		Solomon Islands
9	Mali	Swaziland	Mauritania		Timor-Leste
10	Mozambique		Niger		Tuvalu
11	Rwanda		Sao Tome and Principe		Vanuatu
12	Senegal		Togo		Yemen
13	Sierra Leone				
14	United Republic of Tanzania				
15	Uganda				
16	Zambia				
Total	16	9	12	3	12

Notes:

(i) Cape Verde and Maldives graduated from LDC status in December 2007 and January 2011 respectively.

(ii) 44 LDCs are eligible for GSP-LDC scheme. Eritrea, Lao People's Democratic Republic, Myanmar, Maldives and Sudan are not US GSP beneficiaries. Senegal is not eligible for GSP-LDCs but eligible for US GSP.

(iii) Central African Republic, Côte d'Ivoire, Equatorial Guinea, Eritrea, Somalia and Zimbabwe among sub-Saharan African countries are not AGOA beneficiaries.

(iv) South Africa (as well as Gabon and Seychelles which currently do not qualify for apparel benefits) is not eligible for special rules of origin for apparel products ("lesser-developed country" rules) that allow for the use of third country fabric to qualify for AGOA apparel benefits under quota. Botswana and Namibia continue to qualify for these rules under AGOA IV (2006).

expected to be minimal for them. This is because the amount of exports in additional products is estimated to be modest, and a number of AGOA countries are already making full use of existing preferences. Accordingly, they are expected to incur direct and indirect preference erosion through relative loss of competitiveness and elimination of tariff preferences for some, depending on the specific design of reform.

The following subsections assess the effect of proposed policy changes.

1. Extension of DFQF product coverage to 100 per cent

Extending product coverage for DFQF treatment to 100 per cent of products would have different effects on different groups of LDCs and sub-Saharan African countries, due to asymmetry in country and product coverage of GSP-LDCs and AGOA.

The US GSP scheme provides duty-free treatment for 131 developing countries and territories for selected products, and 44 beneficiary LDCs are granted more advantageous preferences in terms of product coverage. In parallel, 40 sub-Saharan African countries were eligible for AGOA preferences providing DFQF market access for broader product categories in 2009, and 25 are eligible for duty-free market access for apparel products that have been particularly beneficial (table 1).[10]

In terms of eligible products, AGOA beneficiaries that are eligible for apparel provisions enjoy the broadest product coverage for duty-free treatment. Together with those tariff lines that are duty-free on an MFN basis or under the general GSP scheme, 91 per cent of total US national tariff lines are duty-free for AGOA beneficiaries with apparel benefits (table 2). Duty-free tariff line coverage for AGOA beneficiaries

Table 2. US tariff treatment by regime (2007)

Tariff regimes	Number of TL	%
Total national tariff lines (2007)	11 341	100.0
- Non Ad valorem duties	1 097	9.7
MFN duty-free	4 814	42.4
GSP duty-free	3 408	30.1
- MFN/GSP DF overlap	0	0.0
Total GSP duty-free	**8 222**	**72.5**
LDC duty-free	1 315	11.6
- GSP/LDC DF overlap	0	0.0
Total LDC duty-free	**9 537**	**84.1**
Dutiable for LDCs	1 804	15.9
AGOA (incl LDC DF)	2 098	18.5
AGOA (incl LDC DF, excl GSP DF)	2 069	18.2
- AGOA (excl LDC DF, excl GSP DF)	745	6.6
- GSP/AGOA DF overlap	29	0.3
- Covered by LDCs but not by AGOA	9	0.1
AGOA apparels (HS61 & 62)	614	5.4
- of which GSP DF overlap	15	0.1
- of which LDC DF overlap	0	0.0
Total AGOA duty-free with apparel	**10 291**	**90.7**
Total AGOA duty-free without apparel	**9 692**	**85.5**
Dutiable for AGOA with apparel benefits	1 050	9.3
Dutiable for AGOA without apparel benefits	1 649	14.5

Source: TRAINS/WITS

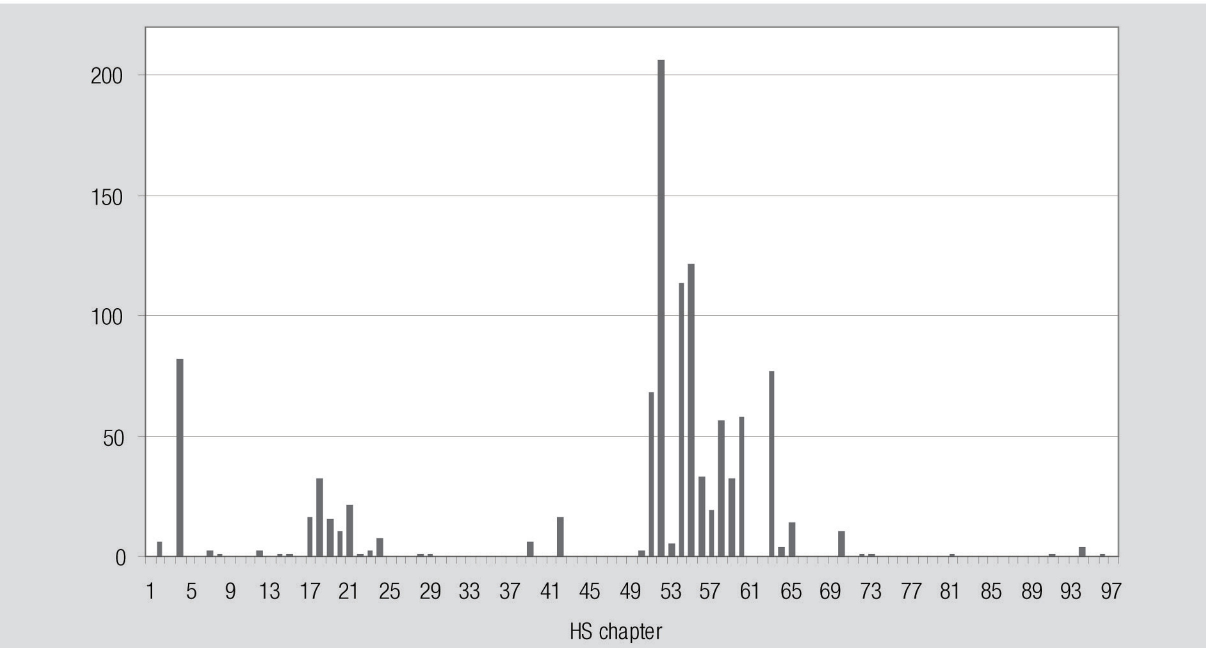
without apparel benefits are lower at 86 per cent, as 599 apparel products (5.3 per cent) are not eligible for duty-free treatment for them. Coverage under the GSP-LDC scheme, which is most relevant for non-AGOA eligible Asian LDCs, is lower at 84.1 per cent, as the scheme excludes apparel products. It may be noted that even the product coverage under AGOA with apparel provisions is lower than the Hong Kong Ministerial Decision's intermediate target of 97 per cent coverage.

Such different product coverage across country groups implies different scope for improvement by extending DFQF treatment to 100 per cent of tariff lines. The scope for improvement could be greater for non-AGOA eligible Asian LDCs, given that 16 per cent of tariff lines could be liberalized, most notably commercially significant apparel products. By contrast, since AGOA beneficiaries with apparel benefits already enjoy duty-free treatment for 91 per cent of their products, possible market access improvement concerns only the remaining nine per cent of tariff lines that may or may not be of their export interest.

For AGOA with apparel benefits that offers the broadest product coverage, some 1,050 products (9.3 per cent of total tariff lines) remain dutiable, i.e. not benefiting from any non-reciprocal preferential scheme. They fall mostly under textiles (cotton) and textile products, dairy, sugar, cocoa and processed food products (figure 1). The largest proportion of excluded products fall under "cotton" (HS chapter 52) (206 tariff lines, or 19.6 per cent), followed by "man-made staple fibres" (HS chapter 55) (121, 11.5 per cent), "man-made filaments" (HS chapter 54) (113, 10.8 per cent), "dairy produce" (HS chapter 4) (82, 7.8 per cent), "other made-up textile articles" (HS chapter 63) (77, 7.3 per cent) and "wool" (HS chapter 51) (68, 6.5 per cent). Also facing residual tariffs are "sugar" (HS chapter 17), (16, 1.5 per cent), "cocoa" (HS chapter 18) (32, 3.0 per cent), "preparations of cereals" (HS chapter 19) (15, 1.4 per cent), "preparations of vegetables, fruits" (HS chapter 20) (10, 1.0 per cent) and "miscellaneous edible preparations" (HS chapter 21) (21, 2.0 per cent).

These are import-sensitive products often excluded from other US preferential arrangements. Liberalization of these products by extended DFQF treatment, such as cotton, sugar, cocoa and food preparations, could potentially be beneficial for agriculture exporters among AGOA beneficiaries, although existing trade volume is small.

Figure 1: Distribution of tariff lines not included in any non-reciprocal preferential programme in the United States by HS chapter (i.e., excluded from AGOA with apparel benefits) (2007)



Source: TRAINS/WITS

Table 3. AGOA preferential imports (coverage and utilization) by country (US$ thousands, 2007)

	Total imports (1)	Dutiable imports (2)	Covered imports (3)	Received imports (4)	As % of total	Coverage rate % = (3)/(2)	Utilization rate % = (4)/(3)	Utility rate % = (4)/(2)
Nigeria	33 478 522	32 286 591	32 282 116	30 970 090	71.1	100	96	96
Angola	12 617 678	12 424 936	12 424 697	4 949 049	11.4	100	40	40
Gabon	2 207 900	2 147 515	2 146 579	1 719 404	3.9	100	80	80
Congo	3 211 939	3181 358	3 179 839	1 660 275	3.8	100	52	52
Chad	2 333 961	2 310 966	2 304 754	1 557 006	3.6	100	68	67
South Africa	9 348 503	2 567 317	1 169 124	1 111 651	2.6	46	95	43
Lesotho	461 802	409 419	402 309	398 283	0.9	98	99	97
Madagascar	357 520	312 049	307 116	298 367	0.7	98	97	96
Kenya	343 133	277 130	265 117	260 126	0.6	96	98	94
Cameroon	324 801	246 008	237 407	178 499	0.4	97	75	73
Swaziland	156 918	152 616	143 600	142 794	0.3	94	99	94
Mauritius	195 856	150 651	139 767	119 036	0.3	93	85	79
Ghana	212 113	107 393	91 531	58 836	0.1	85	64	55
Democratic Rep. of the Congo	208 449	45 554	42 486	40 206	0.1	93	95	88
Botswana	188 841	33 814	32 924	32 565	0.1	97	99	96
Namibia	222 834	37 892	30 775	30 748	0.1	81	100	81
Malawi	73 885	68 611	63 357	28 427	0.1	92	45	41
Ethiopia	93 331	10 707	5 947	5 167	0.0	56	87	48
United Republic of Tanzania	47 738	6 570	3 447	2 936	0.0	52	85	45
Uganda	28 076	2 111	1 353	1 265	0.0	64	93	60
Mozambique	5 667	1 125	310	222	0.0	28	72	20
Zambia	49 145	642	194	93	0.0	30	48	14
Guinea	135 768	806	90	30	0.0	11	33	4
Niger	9 187	1 232	227	29	0.0	18	13	2
Senegal	21 249	7 409	4 907	20	0.0	66	0	0
Mali	9 927	2 377	136	9	0.0	6	7	0
Benin	5 120	12	1	0	0.0	8	0	0
Burkina Faso	1 515	193	2	0	0.0	1	0	0
Burundi	1 180	16	0	0	0.0	0	---	0

Table 3. AGOA preferential imports (coverage and utilization) by country (US$ thousands, 2007) (Cont'd)

	Total imports (1)	Dutiable imports (2)	Covered imports (3)	Received imports (4)	As % of total	Coverage rate % = (3)/(2)	Utilization rate % = (4)/(3)	Utility rate % = (4)/(2)
Cape Verde	2 285	524	230	0	0.0	44	0	0
Djibouti	4 587	143	0	0	0.0	0	---	0
Gambia	161	63	41	0	0.0	65	0	0
Guinea-Bissau	41	0	0	0	0.0	---	---	---
Liberia	118 429	55	23	0	0.0	42	0	0
Mauritania	739	33	0	0	0.0	0	---	0
Rwanda	13 170	4 528	29	0	0.0	1	0	0
Sao Tome and Principe	416	265	41	0	0.0	15	0	0
Seychelles	10 469	1 183	0	0	0.0	0	---	0
Sierra Leone	60 212	2 128	360	0	0.0	17	0	0
Total	66 563 067	56 801 942	55 280 836	435 65 133	100.0	97	79	77

Note: Beneficiaries without apparel benefits appear in italics.
Source: UNCTAD GSP database.

2. Extension of DFQF product coverage to 100 per cent and relaxation of rules of origin for AGOA beneficiaries

2.1. Import values

The effects of extending product coverage for duty-free treatment to 100 per cent of tariff lines depend on the extent to which an individual country's export products effectively fall under those products subject to preferential treatment. If the entirety of a country's exports are concentrated on those products already benefiting from duty-free treatment, extending duty-free treatment for other products would have no effect. By contrast, if a county's export products are concentrated on those products that are currently excluded from preferential treatment, extending duty-free treatment to those products actually exported by the country would effectively improve market access conditions.

Another factor determining potential benefits of duty-free treatment relates to the extent to which a country's exports actually utilize existing preferences. Even if a product is eligible for preferential duty-free treatment, this means little if the preferences are not used. Rules of origin are a major factor determining the extent to which preferences are actually used by preference-beneficiaries. With a risk of oversimplification, it can be assumed that the relaxation of rules of origin would increase the utilization of preferences, ideally up to 100 per cent.

Accordingly, the effect of (1) extending product coverage for duty-free treatment to 100 per cent of products; and (2) relaxing rules of origin (which is assumed to increase the ability of beneficiary countries to utilize existing preferences) can be assessed by examining the level of coverage and utilization of existing preferences.

Table 3 reports the value of US imports from AGOA beneficiaries in 2007 where total imports (in column (1)) are broken into "dutiable" (2), "covered" (3) and "received" (4). "Dutiable" imports are those imports subject to non-zero MFN duties. "Covered" imports are those imports eligible for preferential duty-free treatment and "received" are imports actually utilizing existing preferences.

Nigeria is the largest exporter under AGOA preferences, in terms of both total imports and preferential (i.e. "received") imports. Nigeria alone accounts for three-fourths of total AGOA preferential exports, followed by Angola, Gabon, Congo and Chad. The five countries account for 94 per cent of total AGOA preferential exports. They all enjoy a high level of preference coverage and utilization rates. The high coverage is attributable to a high concentration of exports on petroleum, which is covered by AGOA preferences, and these countries actually use the preferences, resulting in high utilization rates.[11] Mineral fuels account for 95 per cent of total AGOA preferential exports, and indeed enjoy a coverage rate of 100 per cent and a utilization rate of 78 per cent. (Table 4).

Table 3 also shows that another group of countries – Lesotho, Madagascar, Kenya, Cameroon, Swaziland, Mauritius, Botswana and Namibia – also enjoy relatively high coverage and utilization rates, resulting in high "utility" of preference for their exports. These countries, all eligible for AGOA's apparel provisions and "lesser-developed country" rules ("third county fabric rule"), are indeed among the major apparel exporters under AGOA. The coverage under AGOA of apparel products, combined with generous rules of origin, has proved to be particularly beneficial to these economies. In particular, for Lesotho, Madagascar and Swaziland, preferential exports, mostly consisting of apparel, account for over 80 per cent of their total exports, indicating the significance of apparel preferences for these economies. Apparels indeed enjoy a coverage rate of 100 per cent and a utilization rate of 98 per cent, as reported in table 4.

The high coverage and utilization rates for major exporters for major export products - mineral fuels and apparels – indicates limited scope for improving their market access conditions by expanding product coverage to 100 per cent. If at all, improvements would arise from some agricultural products currently excluded from AGOA, such as cotton and tobacco, which would be relevant to some AGOA beneficiaries dependent on agricultural exports and not benefiting from existing AGOA preferences.

2.2. Preference value

Preferential imports – and preference coverage and utilization rates – discussed above are one measurement of the significance of preferences. However, they say little about how effective tariff

Table 4. Major AGOA imports, coverage and utilization by HS chapter (US$ thousands, 2007)

HS	Description	Total imports (1)	Dutiable imports (2)	Covered imports (3)	Received imports (4)	As % of total	Coverage rate % = (3)/(2)	Utilization rate % = (4)/(3)	Utility rate % = (4)/(2)
27	Mineral fuels	54 259 263	52 950 850	52 948 235	41 371 032	95.0	100	78	78
61	Apparel, knitted or crocheted	697 196	697 196	697 044	683 005	1.6	100	98	98
62	Apparel, not knitted or crocheted	664 091	664 056	663 984	651 171	1.5	100	98	98
87	Vehicles	590 981	578 745	481 273	473 252	1.1	83	98	82
72	Iron and steel	797 203	582 738	157 171	156 837	0.4	27	100	27
08	Edible fruit and nuts	97 716	8 2464	65 988	64 532	0.1	80	98	78
22	Beverages	77 008	74 314	65 008	60 509	0.1	87	93	81
38	Miscellaneous chemical	63 871	61 785	52 970	52 041	0.1	86	98	84
20	Preparations of vegetables, fruit	21 542	19 805	16 070	15 382	0.0	81	96	78
24	Tobacco	48 785	47 220	47 220	12 124	0.0	100	26	26

Source: UNCTAD GSP database.

Table 5. AGOA preferential imports - Value of existing and potential preferences (US$ thousands, 2007)

	Pref value: full coverage (1)	Pref value: full utilization (2)	Pref value: actual (3)	Pref value: full coverage (% of dutiable)	Pref value: full utilization (% of dutiable)	Pref value: actual (% of dutiable)	Utilization rate % = (4)/(3)	Utility rate % = (4)/(2)
Nigeria	103 108	103 056	98 918	0.3	0.3	0.3	96	96
Angola	38 540	38 536	15 369	0.3	0.3	0.1	40	40
Gabon	6 865	6859.5	5 465	0.3	0.3	0.3	80	80
Congo	9 889	9 881	5 258	0.3	0.3	0.2	52	52
Chad	4 351	4 350	2 954	0.2	0.2	0.1	68	67
South Africa	69 419	23 843	22 875	2.7	0.9	0.9	95	43
Lesotho	74 113	74 102	73 374	18.1	18.1	17.9	99	97
Madagascar	56 443	56 192	54 560	18.1	18.0	17.5	97	96
Kenya	49 773	49 387	48 766	18.0	17.8	17.6	98	94
Cameroon	973	772	366	0.4	0.3	0.1	75	73
Swaziland	30 016	29 729	29 591	19.7	19.5	19.4	99	94
Mauritius	23 741	23 269	21 899	15.8	15.4	14.5	85	79
Ghana	2 516	1 638	1 514	2.3	1.5	1.4	64	55
Democratic Republic of the Congo	180	136	129	0.4	0.3	0.3	95	88
Botswana	6 827	6 811	6 780	20.2	20.1	20.1	99	96
Namibia	5 191	5 061	5 059	13.7	13.4	13.4	100	81
Malawi	6 289	6 220	4 762	9.2	9.1	6.9	45	41
Ethiopia	1 521	1 178	1 169	14.2	11.0	10.9	87	48
United Republic of Tanzania	650	543	541	9.9	8.3	8.2	85	45
Uganda	251	217	215	11.9	10.3	10.2	93	60
Mozambique	60	51	51	5.3	4.5	4.5	72	20
Zambia	28	9	6	4.3	1.4	1.0	48	14
Guinea	28	8	4	3.5	1.0	0.5	33	4
Niger	34	6	2	2.8	0.5	0.2	13	2
Senegal	34	20	2	0.5	0.3	0.0	0	0
Mali	74	5	1	3.1	0.2	0.0	7	0
Benin	0	---	---	2.0	0.0	0.0	0	0
Burkina Faso	7	0	0	3.6	0.1	0.0	0	0
Burundi	0	---	---	1.3	0.0	0.0	---	0

Table 5. AGOA preferential imports - Value of existing and potential preferences (US$ thousands, 2007) (Cont'd)

	Pref value: full coverage (1)	Pref value: full utilization (2)	Pref value: actual (3)	Pref value: full coverage (% of dutiable)	Pref value: full utilization (% of dutiable)	Pref value: actual (% of dutiable)	Utilization rate % = (4)/(3)	Utility rate % = (4)/(2)
Cape Verde	30	29	0	5.7	4.5	0.0	0	0
Djibouti	8	0	0	5.9	0.0	0.0		0
Gambia	7	5	0	11.8	7.5	0.0	0	0
Guinea-Bissau	0	---	---	---	---	---	---	---
Liberia	1	0	0	1.8	0.1	0.0	0	0
Mauritania	3	0	0	7.8	0.0	0.0	---	0
Rwanda	221	2	0	4.9	0.0	0.0	0	0
Sao Tome and Principe	6	1	0	2.2	0.3	0.0	0	0
Seychelles	27	0.	0	2.3	0.0	0.0	---	0
Sierra Leone	94	52	0	4.4	2.4	0.0	0	0
Total	491 317	441 956	399 630	0.9	0.8	0.7	79	77

Note: Beneficiaries without apparel benefits appear in italics.
Source: TRAINS/WITS and UNCTAD GSP database.

preferences are in facilitating trade, as the extent of preferences, i.e., preference margin, is not captured. For instance, a large preferential import volume may simply indicate competitiveness of a given exporter in relation to a given product, for which trade preferences play only a secondary role at best. A better measurement in this regard is the "value of preference" (also referred to as "preference rent" or "tariff rent transfer"), computed by applying the difference between the most-favoured nation (MFN) and preferential rates (i.e. preference margin) to preferential import value. The value is indicative of the notional amount of tariffs otherwise due but saved thanks to preferences. It therefore represents the amount of income transfer from the importing government to exporters.

A few caveats are needed. First, the preference value is a static concept, and thus does not capture possible changes in import value resulting from higher or lower preferences. Second, tariff rent does not necessarily pass through to exporters, as the extent to which this happens depends on the market power of importers/exporters.[12] Third, MFN rates are used as a benchmark in calculating preference margins. However, major competitors of AGOA exporters in the US market may be other developing countries that also receive some form of trade preferences, such as under general GSP or free trade agreements. So, calculating preference value based on MFN rates could result in an overestimation of the value of preferences. With these caveats in mind, however, the concept is useful in measuring the crude magnitude of preferences, allowing a simple but useful quantitative estimation of trade policy changes.

Table 5 reports the value of preferences for AGOA beneficiaries, ordered according to the value of preferential imports as reported in table 3 above. It differentiates among (i) preference value actually received ("actual" (3)); (ii) potential value that would arise from full utilization of existing preferences ("full utilization" (2)), and; (iii) potential value that would arise from full product coverage ("full coverage" (1)). They are obtained by applying preferential margins at national tariff line level, including ad valorem equivalents for non-ad valorem tariffs, respectively for "received" (preferential) imports, "covered" imports, and "dutiable" imports, as reported in table 3.[13]

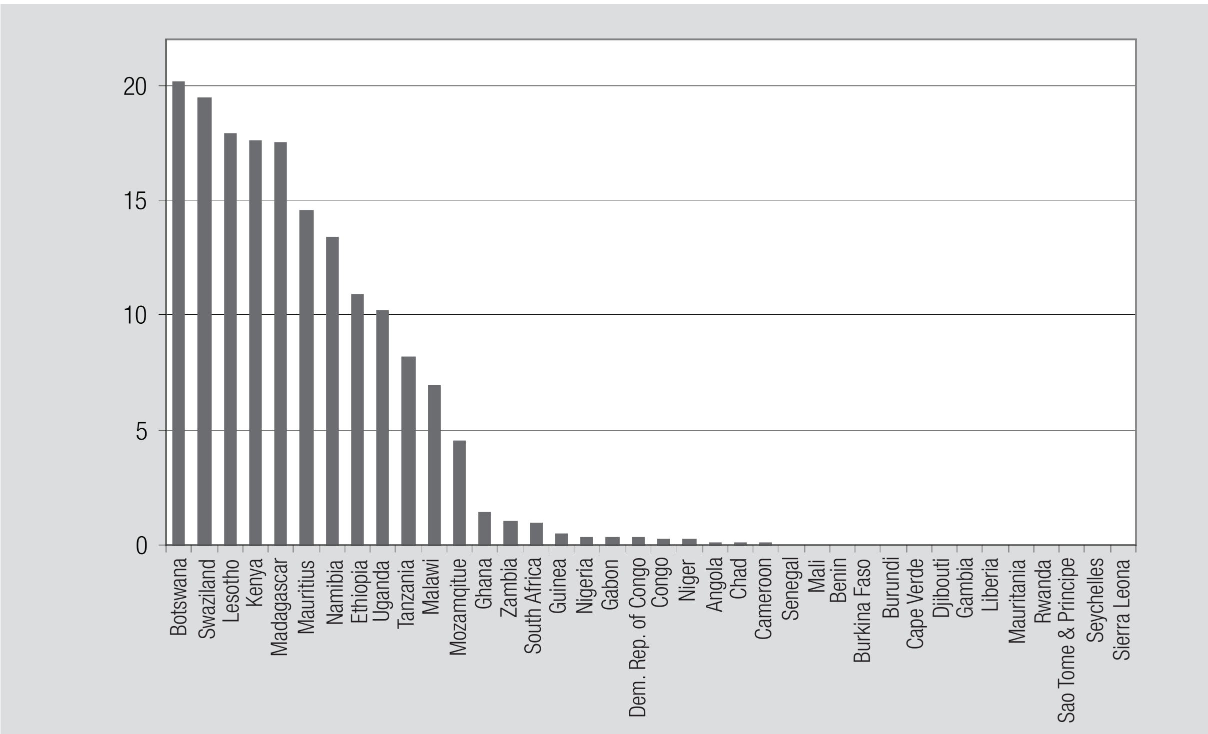
The value of preferences is the largest for Nigeria in absolute terms and amounts to $99 million, followed by $73 million for Lesotho, $55 million for Madagascar and $49 million for Kenya. However, the highest values in relative terms (as a percentage of dutiable exports) are recorded by apparel exporters, including Botswana, Swaziland, Lesotho, Kenya, Madagascar and Mauritius (figure 2). The value of preferences represents 13–20 per cent of dutiable imports for Lesotho and other apparel exporters, as compared to just 0.1–0.3 per cent for oil exporters. This indicates the higher preference margin available under apparel products, and vice versa for petroleum products, hence the importance of trade preferences for apparel exporters.

Table 6 reporting preference value by HS chapter confirms that preferences are by far the most important in apparel products, as well as preparations of vegetables and fruits.

Table 5 above also allows quantifying the effects of (1) extending product coverage to 100 per cent and (2) relaxing rules of origin to improve the utilization of preferences. For all AGOA countries, the scope for increasing the value of preferences through either broadening product coverage or easing rules of origin (i.e. increasing utilization rate) is highly limited. This is because AGOA already provides comprehensive product coverage for products of export interest to AGOA beneficiaries, and they are indeed making intensive use of existing preferences.[14]

For instance, for Nigeria, increasing the utilization rate to 100 per cent would increase the value of preferences only slightly, from $98.9 million to $103.0 million, and extending the coverage rate to 100 per cent would raise the value only to $103.1 million. For Lesotho, full utilization of preferences would increase the value from $73.3 million (17.9% of dutiable imports) to $74.1 million (18.1 per cent), and full coverage would barely raise the figure. In either case, there is little increase in prefeence value by increasing either utilization or coverage. For AGOA beneficiaries as a group, actual preference value stood at $400 million (or 0.7 per cent of total dutiable imports), which could be increased to $442 million (0.8 per cent) by full preference utilization and to $491 million (0.9 per cent) by full product coverage and utilization. They represent an increase of merely 0.1 percent of dutiable AGOA imports, respectively.

Figure 2. "Received" preference value of AGOA preferences by country (% of dutiable imports, 2007)



Source: TRAINS/WITS and UNCTAD GSP database.

Table 6. Major AGOA imports - Value of preferences by HS chapter (US$ thousands, 2007)

HS	Description	Pref value: full coverage	Pref value: full utilization	Pref value: actual	Pref value: full cover. (% of dutiable)	Pref value: full utilization (% of dutiable)	Pref value: actual (% of dutiable)
27	Mineral fuels	164 618	164 322	129 375	0.3	0.3	0.2
61	Apparel, knitted or crocheted	137 164	137 138	134 479	19.7	19.7	19.3
62	Apparel, not knitted or crocheted	119 279	119 270	116 999	18.0	18.0	17.6
87	Vehicles	7 446	6 038	5 918	1.3	1.0	1.0
72	Iron and steel	14 167	2 358	2 353	2.4	0.4	0.4
08	Edible fruit and nuts	1 666	1 480	1 457	2.0	1.8	1.8
22	Beverages	1 790	1 443	1 373	2.4	1.9	1.8
38	Miscellaneous chemical	1816	1 286	1 255	2.9	2.1	2.0
20	Preparations of vegetables, fruit	4 310	3 854	3 803	21.8	19.5	19.2
24	Tobacco	2 005	2 005	541	4.2	4.2	1.1
Total		491 317	441 956	399 630	0.9	0.8	0.7

Source: TRAINS/WITS and UNCTAD GSP database.

Table 7. AGOA apparel imports by rules of origin category (US$ millions, 2008–2009)

AGOA		2008	2009	Av 2008-9	%
Imports under trade preference programmes (Total of items below)		1 137	914	1025	100.0
9819.11.03	Apparel assembled from U.S. cut fabric and yarn, further process	0	0	0	0.0
9819.11.06	Apparel cut and assembled from U.S. fabric, yarn and thread (809	0	0	0	0.0
9819.11.09	Apparel from regional fabric from U.S. or African yarn	58	45	51	5.0
9819.11.12	Apparel from foreign fabric made in a lesser developed country	985	818	901	87.9
9819.11.15	Cashmere sweaters, knit-to-shape	4	2	3	0.3
9819.11.18	Merino wool sweaters, knit-to-shape	1	0	0	0.1
9819.11.21	Apparel from fabric or yarn N/A in commercial qty (401/NAFTA)	35	30	33	3.2
9819.11.24	Apparel from fabric or yarn N/A in commercial qty (CITA)	27	19	23	2.2
9819.11.27	Handloomed, handmade and folklore articles	0	0	0	0.0
9819.11.33	Textile articles wholly formed in one or more LDCs	0	0	0	0.0
9819.15.10	Apparel from fabric deemed to be in abundant supply (denim)	26	0	13	1.3

Source: U.S. Department of Commerce, Office of Textiles and Apparel.

Table 8. Apparel quota fill rates under AGOA

2008-2009	LEVEL	IMPORTS	FILL RATE (%)
Total Preference level	1,711,900,006 SME	268,179,214	15.67
9819.11.09 Regional fabric			
	TOTAL	7,743,033	0.45
	Ghana	30,015	0.00
	Lesotho	1,597,942	0.09
	Mauritius	3,824,933	0.22
	South Africa	2,017,949	0.12
	United Republic of Tanzania	259,444	0.02
	Uganda	12,750	0.00
9819.11.12 Lesser developed			
Sublevel	855,950,003 SME		
	TOTAL	260,436,182	30.43
	Botswana	2,689,032	0.31
	Ethiopia	3,711,463	0.43
	Ghana	13,673	0.00
	Kenya	69,527,542	8.12
	Lesotho	74,906,732	8.75
	Madagascar	69,935,538	8.17
	Malawi	4,376,013	0.51
	Swaziland	33,124,061	3.87
	United Republic of Tanzania	252,885	0.03
	Uganda	11,871	0.00
	Mauritius	1,887,371	0.22

Source: U.S. Department of Commerce, Office of Textiles and Apparel, accessible at: http://otexa.ita.doc.gov/agoa-cbtpa/agoa-cbtpa_2009.htm

This is also confirmed by table 6 in terms of product categories. Preference value relative to dutiable imports are highest for "apparel products, knitted or crocheted" (HS chapter 61), "apparel products, not knitted or crocheted" (HS62), as well as "preparations of vegetables and fruits" (HS chapter 20), and all categories demonstrate limited scope for improvement by either full utilization or full coverage.[15]

3. Effects of eliminating quotas for AGOA countries

An element often neglected in policy debate relating to DFQF market access for LDCs is "quota-free" aspect of market access conditions for LDCs. The proposal envisaged eliminating all quotas for AGOA and GSP-LDCs to realize "quota-free" treatment in addition to "duty-free" treatment for LDCs. While various agricultural products are subject to tariff rate quotas (TRQs) in the United States, the most relevant to AGOA beneficiaries are those applicable to apparel exports, as AGOA apparel rules of origin set quantitative limits for imports using regional fabric or third country fabric under the "lesser-developed country rule".

The relevance of these quotas for AGOA beneficiary countries can be seen from table 7. On average, between 2008 and 2009, close to 90 per cent (87.9 per cent) of total AGOA apparel exports entered the US market under the "lesser-developed country" rule that allows for the use of third country fabric within quantitative limitations. The level of export concentration indicates very high importance of this particular rule of origin in enabling AGOA apparel exports in the first place, without which AGOA apparel exports would have been very limited.

Despite the concentration of AGOA apparel exports under lesser-developed country rules that are subject to quantitative limits, such limitations do not seem to have introduced effective constraints limiting AGOA exports. Table 8 shows that quota fill rates were only 30 per cent for third country fabric rules under lesser-developed country rules (and only 0.45 per cent for regional fabric rules), meaning that the quota is not binding so as to effectively limit AGOA apparel exports. The table also shows that Lesotho, Madagascar and Kenya, as well as Swaziland, were the largest users of the third country fabric rule in 2008-2009. This implies that eliminating quantitative limits would have limited effect in increasing apparel exports under respective rules.

4. Extension of DFQF product coverage to 100 per cent and relaxation of rules of origin for Asian LDCs under the GSP-LDC scheme

4.1. Import values

The preferential trade picture is sharply contrasting for Asian LDCs not covered by AGOA and eligible only for the GSP-LDC scheme, which does not cover apparel products (but does cover crude petroleum). Table 9 reports the value of imports under GSP-LDCs for Asian LDCs with the same breakdown with tables 3 and 4 above on AGOA imports. By far the largest preferential exports are recorded by Yemen, for which preferential exports accounted for 97.5 per cent of total exports. With its exports concentrated on mineral fuels, its coverage and utilization were 100 per cent. It is notable that Bangladesh, Cambodia, and to a lesser extent Nepal are not benefiting from preferential treatment despite their large total export values. Preferential exports covered by the scheme represent a mere one per cent for Bangladesh, zero per cent for Cambodia and 14 per cent for Nepal. This translates into a very low (five per cent) utility (relevance) of the GSP-LDC scheme for Asian LDCs as a whole.

Such extremely low coverage is due to the exclusion of apparel products from the GSP-LDC scheme and these economies' high export concentration in the sector. Since applicable MFN duties are relatively high in the sector in the range of 10–30 per cent, such product-coverage mismatches have resulted in Asian LDCs facing significantly high import duties in the US market, especially as compared with sub-Saharan African countries (figure 3).

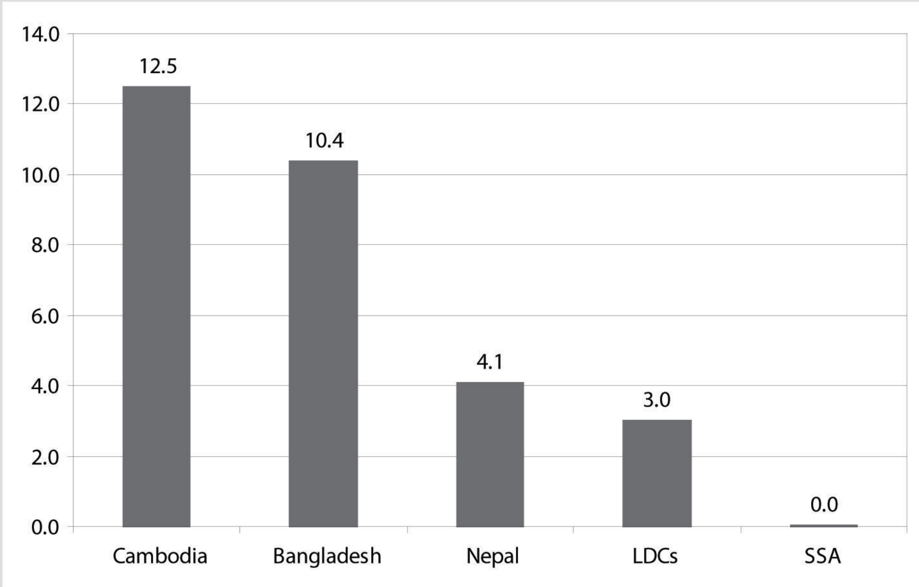
Table 10 reporting preferential imports under the GSP-LDC scheme for all eligible LDCs (including AGOA-eligible African LDCs) confirms that the coverage rates for apparel products (HS chapters 61 and 62) are indeed 0 per cent. The exclusion of apparels has resulted in preferential imports under the GSP-LDC scheme being concentrated almost exclusively in mineral fuels.

Table 9. Preferential imports (coverage and utilization) under GSP-LDCs by country (non-AGOA eligible Asian LDCs) ($ thousands, 2007)

Country	Total imports (1)	Dutiable imports (2)	Covered imports (3)	Received imports (4)	Received as a % of total = (4)/(1)	Coverage rate % = (3)/(2)	Utilization rate % = (4)/(3)	Utility rate % = (4)/(2)
Yemen	313 074	306 111	305 230	305 120	97.5	100	100	100
Bangladesh	3 630 341	3 418 246	38 070	25 631	0.7	1	67	1
Nepal	97 472	45 329	6 259	4 976	5.1	14	80	11
Cambodia	2 600 049	2 584 987	10 762	3 625	0.1	0	34	0
Samoa	6 152	4 219	2 280	348	5.7	54	15	8
Vanuatu	1 070	243	236	228	21.3	97	97	94
Bhutan	841	633	271	6	0.7	43	2	1
Afghanistan	76 813	944	469	0	0.0	50	0	0
Kiribati	1 451	109	0	0	0.0	0	---	0
Tuvalu	32	10	10	0	0.0	100	0	0
Total	6 727 295	6 360 831	363 587	339 934	5.1	6	93	5

Source: UNCTAD GSP database.

Figure 3. Trade weighted average tariffs faced by selected exporters in the United States (2007)



Source: TRAINS/WITS

Table 10. Major preferential imports under GSP-LDCs by HS chapter (US$ thousands, 2007)

HS2	Description	Total imports (1)	Dutiable imports (2)	Covered imports (3)	Received imports (4)	% of total	Coverage rate % = (3)/(2)	Utilization rate % = (4)/(3)	Utility rate % = (4)/(2)
27	Mineral fuels	16 733 069	16 377 110	16 377 110	9 286 278	97.7	100	57	57
29	Organic chemicals	283 292	129 525	129 525	129 499	1.4	100	100	100
24	Tobacco	47 036	46 407	46 407	33 427	0.4	100	72	72
39	Plastics	26 936	26 708	26 708	8 055	0.1	100	30	30
95	Toys and sports	11 213	8 531	8 531	7 771	0.1	100	91	91
71	precious stones	281 291	8 218	8 218	7 271	0.1	100	88	88
26	Ores	151 881	4 401	4 401	4 401	0.0	100	100	100
69	Ceramic products	5 190	5 121	5 096	4 052	0.0	100	80	79
06	Live trees	4 033	3 378	3 160	3 140	0.0	94	99	93
17	Sugars	3 552	3 552	3	3 009	0.0	98	86	85
				Memo					
62	Apparel, not knitted or crocheted	3 588 905	3 588 614	797	430	0.0	0	54	0
61	Apparel, knitted or crocheted	3 368 196	3 368 182	216	161	0.0	0	75	0
Total		25 642 236	23 882 460	16 656 583	9 505 123	100.0	70	57	40

Note: Imports from all eligible LDCs, thus including sub-Saharan African LDCs.
Source: UNCTAD GSP database.

The effect of relaxing rules of origin is difficult to gauge, as apparel products, key products for which rules of origin matter for preference utilization, are excluded from the scheme. This means that existing preferential imports are minimal, ruling out meaningful observation. For other product categories for which preferential imports exist and where the existing 35 per cent value added rules apply, utilization is relatively high (with the possible exception of tobacco and plastics).[16] Thus, the effect of relaxed rules of origin can be considered limited for Asian LDCs. Or at least, any such improvement would be outweighed by the benefits (i.e., increased preference value) accruing from the improved product coverage for apparel products.

4.2. Preference value

The non-coverage of the bulk of exports of the three Asian LDCs implies little preference value actually received by these countries. Conversely, this also signifies ample scope for improving market access conditions for them by extending DFQF coverage. Table 11 shows that for Yemen, which fully utilizes existing preferences, preference value is low at only 0.3 per cent of dutiable imports. This again reflects relatively insignificant preference margins available for mineral fuels.

For Bangladesh, Cambodia and Nepal, the scope for increasing preference value is significant. Full product coverage (assuming full utilization) would increase the value of preferences for Bangladesh from $1.4 million to $555 million (or 0 per cent to 16.2 per cent of dutiable imports). The value would increase from $0.2 million to $443 million (from 0.0 per cent to 17.1 per cent of dutiable imports) for Cambodia, and $0.3 million to $5.7 million (0.6 per cent to 12.6 per cent) for Nepal. For all Asian LDCs, extended DFQF market access would increase the value of preferences 350 times, from just $2.8 million to $1.0 billion (from 0.0 per cent to 15.8 per cent of dutiable imports). Such a large increase in preference values compares with a small increase of just 20 per cent for AGOA beneficiaries as a group from $399 million to $491 million (from 0.7 per cent to 0.9 per cent), as reported in table 5.

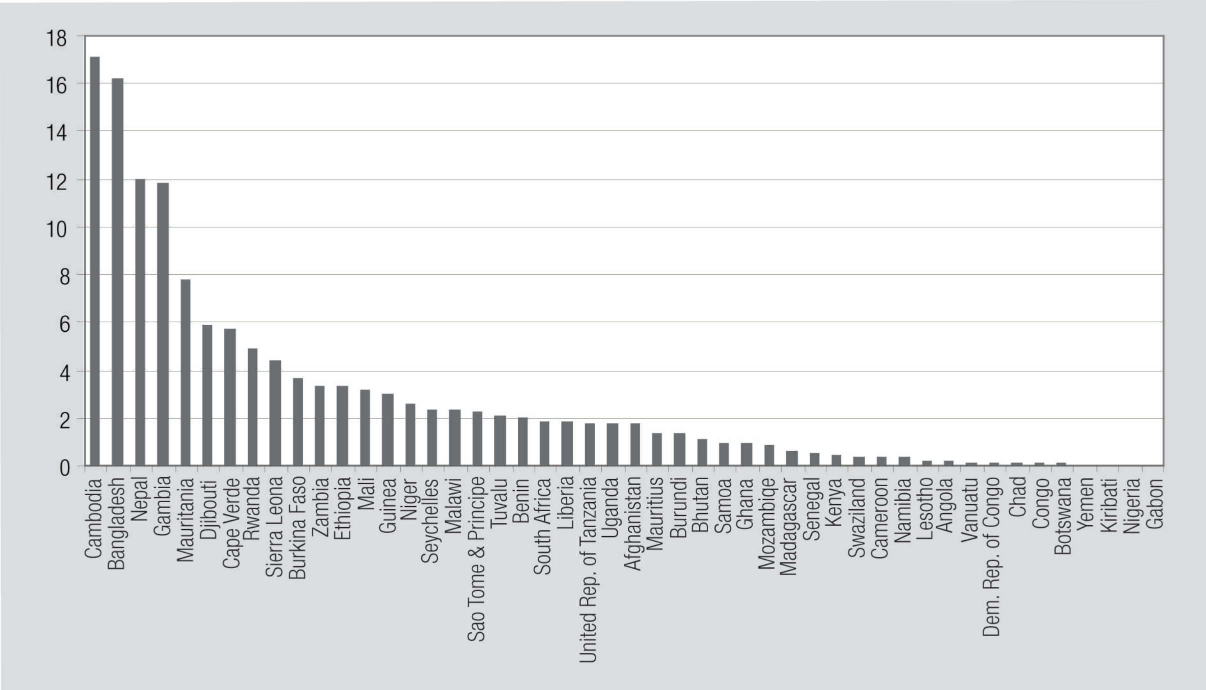
As reported in figure 4, the increase in the value of preferences resulting from extension of DFQF market access coverage would be highly asymmetric in favour of Asian LDCs, which would boost indirect preference erosion for AGOA beneficiaries to the extent that their export products compete with Asian LDCs, which is the case for apparel products. Table 12 confirms that such an improvement arises essentially from apparel products.

Table 11. Major imports under GSP-LDCs - Value of preferences (US$ thousands, 2007)

Country	Pref value: full cover	Pref value: full utilization	Pref value: actual	Pref value: full coverage (% of dutiable)	Pref value: full utilization (% of dutiable)	Pref value: actual (% of dutiable)
Yemen	951	950	946	0.3	0.3	0.3
Bangladesh	555 246	1 953	1 430	16.2	0.1	0.0
Nepal	5 690	306	262	12.6	0.7	0.6
Cambodia	442 907	375	151	17.1	0.0	0.0
Samoa	49	47	11	1.2	1.1	0.3
Vanuatu	11	11	11	4.7	4.7	4.6
Bhutan	7	7	0	1.1	1.1	0.0
Afghanistan	20	12	4	2.2	1.2	0.5
Kiribati	0	0	0	0.0	0.0	0.0
Tuvalu	0	0	0	2.1	2.1	0.0
Total	1 004 883	3 661	2 814	15.8	0.1	0.0

Source: TRAINS/WITS and UNCTAD GSP database.

Figure 4. Change in the value of preferences from extending DFQF market access to 100 per cent of products for AGOA and GSP-LDC beneficiaries (% of dutiable imports, 2007)



Source: TRAINS/WITS and UNCTAD GSP database.

Table 12. Major imports under GSP-LDCs - Value of preferences by HS chapter (US$ thousands, 2007)

HS2	Description	Pref value: full coverage	Pref value: full utilization	Pref value: actual	Pref value: full coverage (% of dutiable)	Pref value: full utilization (% of dutiable)	Pref value: actual (% of dutiable)
27	Mineral fuels	48 129	48 129	28 238	0.3	0.3	0.2
29	Organic chemicals	7 123	7 123	7 122	5.5	5.5	5.5
24	Tobacco	1 819	1 819	1 245	3.9	3.9	2.7
39	Plastics	837	837	246	3.1	3.1	0.9
95	Toys and sports	437	437	383	5.1	5.1	4.5
71	Precious stones	484	484	434	5.9	5.9	5.3
26	Ores	214	214	214	4.9	4.9	4.9
69	Ceramic products	729	720	560	14.1	14.1	10.9
06	Live trees	206	191	190	6.1	5.7	5.6
17	Sugars	38	1	1	1.1	0.0	0.0
				Memo			
62	Apparel, not knitted or crocheted	599 919	18	10	16.7	0.0	0.0
61	Apparel, knitted or crocheted	613 174	28	20	18.2	0.0	0.0
Total		1 293 800	61 684	39 387	5.4	0.3	0.2

Note: Imports from all eligible LDCs, thus including sub-Saharan LDCs.
Source: TRAINS/WITS and UNCTAD GSP database.

5. Preference erosion for AGOA beneficiaries

Extending duty-free treatment to 100 per cent of products, thereby liberalizing tariffs for thus-far excluded products, would change the pattern of trade depending on existing tariff structures faced by individual exporters. The analysis so far based on preferential imports and preference value does not capture such a "dynamic" effect, as import value was kept constant irrespective of whether preferences are fully used or extended to all products. In practice, when tariff-inclusive import prices are reduced by tariff elimination, import value increases depending on price elasticity of demand.

In order to estimate such a "dynamic" effect, SMART simulation[17] was carried out with the scenario of a 100 per cent tariff cut for all products applicable to all LDCs and all sub-Saharan African countries only. The results are reported in table 13.[18]

The simulation results corroborate the relative change in preference value reported in figure 5. Reflecting the increased competitive price margins, Bangladesh and Cambodia would emerge as the largest winners from the extended DFQF treatment in value terms, owing to tariff cuts in apparel products. Bangladesh would see its total exports increase by $847 million and Cambodia by $555 million, or 23 per cent and 28 per cent of their respective pre-shock exports. Bangladesh would also gain from tariff elimination on certain agricultural products such as tobacco. Malawi would emerge as a net winner, as the gains arising from tariff cuts on tobacco would outweigh possible losses in apparel products. Lao People's Democratic Republic, Côte d'Ivoire, Zimbabwe, Maldives and

Table 13. Simulated changes in US import values from 100 per cent tariff cuts for LDCs and AGOA beneficiaries (US$ thousands)

Exporter	Before ($ '000)	After ($ '000)	Change in revenue ($ '000)	As % of before
Major "winners"				
Bangladesh	3 735 951	4 582 762	846 811	22.7
Cambodia	1 986 548	2 541 795	555 246	28.0
Haiti	519 553	636 334	116 781	22.5
Malawi	45 871	109 709	63 838	139.2
South Africa	270 029	280 095	10 066	3.7
Lao People's Democratic Republic	42 109	47 982	5 872	13.9
Nepal	45 526	49 743	4 217	9.3
Côte d'Ivoire	5 0941	55 048	4 107	8.1
Zimbabwe	2 440	4 036	1 596	65.4
Cameroon	133 563	134 349	785	0.6
Major "losers"				
Lesotho	290 192	284 538	-5 654	-1.90
Madagascar	225 605	221 990	-3 615	-1.60
Kenya	213 360	210 041	-3 319	-1.60
Mauritius	134 553	132 379	-2 174	-1.60
Swaziland	99 469	97 805	-1 663	-1.70
Botswana	13 213	13 034	-179	-1.40
Ethiopia	7 593	7 520	-73	-1.00
Angola	286 986	286 974	-12	0.00
Chad	128 563	128 558	-6	0.00
Congo	117 579	117 576	-3	0.00

Note: Estimates using SMART model in WITS.
Source: TRAINS/WITS

Liberia would also gain, as they are non-beneficiaries of GSP or AGOA. AGOA oil exporters would generally experience no or only slightly negative effects, as there is no change in duty-free treatment for mineral fuels while there could be new market openings for their non-fuel exports (see tables 3-5 in annex).

Among the main losing beneficiaries from preference erosions are, as expected from their shrinking relative preference margins vis-à-vis Asian LDCs, Lesotho, Madagascar, Kenya, Mauritius and Swaziland. They would lose $3–6 million in export revenue, or equivalent to 1.6–1.9 per cent of their pre-shock export values. The number of AGOA beneficiaries experiencing reduced exports (preference erosion) may be relatively small (7), and the volume of lost export value may be relatively small. This is because "preference erosion" takes place only indirectly through a loss of relative competitiveness vis-à-vis Asian LDCs with their absolute preference margin remaining unchanged (i.e. AGOA apparel exporters continue to benefit from duty-free access). For others, losses in apparels and others might be offset in part or in full by new market access opportunities such as in agriculture.

Nonetheless, heavy reliance on the apparel sector for income and employment in some sub-Saharan apparel exporters, such as Lesotho, could lead to an adverse longer-term effect disproportionate to the pure trade impact. This kind of eventuality points to the need to devise some kind of transitory mechanism to mitigate specific adverse effects, such as adjustments to liberalization schedules for most relevant products, a transitory safeguard mechanism, as well as greater support to enhance industries' competitiveness and adjustment.

6. Withdrawal of DFQF benefits for non-LDC AGOA countries

Given practical policy contexts, there is a possibility that extending DFQF market access to all LDCs would entail the termination of trade preferences for non-LDCs.[19] A key element of the reform proposal indeed concerned a withdrawal of AGOA benefits from non-LDC sub-Saharan African countries so as to eventually limit DFQF market access to United Nations-defined LDCs only. This would require non-LDC AGOA beneficiaries to export under the normal GSP scheme applicable for all beneficiary developing countries, instead of under AGOA, entailing a loss of preferences.

In terms of tariff line coverage, this would imply that duty-free product coverage would be reduced to 72.5 per cent from 90.7 per cent for nine non-LDC

Table 14. Comparison of AGOA and GSP imports for non-LDC sub-Saharan Africa (US$ thousands, 2007)

Ctry name	Total	Dutiable	AGOA covered	GSP covered	AGOA coverage rate %	GSP coverage rate %	Difference in coverage	As % of AGOA coverage
Congo	3 211 939	3 181 358	3 179 839	418	100	0	-3 179 421	-100
Gabon	2 207 900	2 147 515	2 146 579	276	100	0	-2 146 303	-100
Nigeria	33 478 522	32 286 591	32 282 116	1 350	100	0	-32 280 766	-100
Botswana	188 841	33 814	32 924	396	97	1	-32 528	-99
Cameroon	324 801	246 008	237 407	8 093	97	3	-229 314	-97
Kenya	343 133	277 130	265 117	11 090	96	4	-254 027	-96
Swaziland	156 918	152 616	143 600	7 884	94	5	-135 716	-95
Mauritius	195 856	150 651	139 767	9 920	93	7	-129 847	-93
Namibia	222 834	37 892	30 775	3 626	81	10	-27 149	-88
Ghana	212 113	107 393	91 531	15 377	85	14	-76 154	-83
South Africa	9 348 503	2 567 317	1 169 124	1 367 707	46	53	198 583	17
Côte d'Ivoire	623 038	130 758	---	30 106	0	23	30 106	---
Zimbabwe	74 846	39 386	---	37 583	0	95	37 583	---
Total	50 589 244	41 358 429	39 718 779	1 493 826	96	4	-38 224 953	-96

Source: UNCTAD GSP database.

Table 15. Comparison of preference value under AGOA and GSP for non-LDC SSA (US$ thousands, 2007)

Country name	GSP-AGOA Pref value: under full cover	GSP Pref value: covered	GSP Pref value: used	AGOA Pref value: covered	AGOA Pref value: used	Lost pref value (AGOA-GSP actual)	As % of dutiable	As % of AGOA coverage
Botswana	6 826	15	14	6 811	6 780	-6 765	-20.0	-100
Swaziland	30 016	21	3	29 722	29 591	-29 588	-19.4	-100
Kenya	49 773	301	208	49 387	48 766	-48 558	-17.5	-100
Mauritius	23 741	363	267	23 269	21 899	-21 632	-14.4	-99
Namibia	5 191	129	127	5 061	5 059	-4 932	-13.0	-97
Ghana	2 516	866	855	1 638	1 514	-659	-0.6	-96
Gabon	6 865	5	1	6 859	5 465	-5 464	-0.3	-95
Nigeria	103 108	52	48	103 055	98 918	-98 871	-0.3	-93
Congo	9 889	8	3	9 881	5 258	-5 255	-0.2	-88
Cameroon	973	171	40	772	366	-326	-0.1	-83
Côte d'Ivoire	586	234	158	---	---	158	0.1	17
South Africa	69 419	42 198	39 978	23 843	22 875	17 103	0.7	---
Zimbabwe	877	687	677	---	---	677	1.7	---
Total	6 341 016	907 177	716 082	44 1956	399 630	-316 452	-0.2	-96

Source: TRAINS/WITS and UNCTAD GSP database.

AGOA beneficiaries with apparel benefits (Botswana, Cameroon, Ghana, Kenya, Mauritius, Namibia, Nigeria, South Africa and Swaziland), and from 85.5 per cent for non-LDC AGOA beneficiaries without apparel benefits (e.g., Congo and Gabon) (see table 1 on page 6). As non-AGOA beneficiaries, Côte d'Ivoire and Zimbabwe are already trading under the general GSP scheme, and would thus face little change or might even gain if they enjoyed a relative improvement in competitiveness in relation to other non-LDC AGOA exporters.

Table 14 compares the imports eligible for AGOA and GSP preferences for individual countries. The results are striking. All non-LDC AGOA beneficiaries, as well as two non-AGOA beneficiaries, would lose preferential treatment for almost all their exports in the event of a shift from AGOA to GSP.[20] This is essentially because their major export items – mineral fuels and apparels – are not covered by the US GSP scheme, as AGOA product coverage is indeed additional to GSP product coverage. Consequently, this would mean significant preference erosion for them. For instance, Congo, Gabon and Nigeria would lose AGOA preferences for 100 per cent of their preferential exports, and other, mainly apparel-exporting countries would also lose nearly 100 per cent of their AGOA preferences.

This implies significant loss in the value of preferences as shown in Table 15. For instance, Nigeria would lose $99 million worth of preferences, while Kenya would forgo preferences of $49 million. Swaziland and Mauritius would see lost preferences of $30 million and $22 million respectively. It is more telling that in relative terms, for major apparel exporters – Botswana, Swaziland, Kenya, Mauritius and Namibia – the associated loss in preference value could run as high as 13–20 per cent of dutiable imports.

Extending DFQF market access to 100 per cent for all LDCs and withdrawing AGOA preference from non-LDC AGOA countries would hit these countries doubly hard: first, by "relative" preference erosion resulting from a significant increase in export competitiveness of Asian LDCs in apparels products; and second, by "absolute" preference erosion, i.e., elimination of their tariff preferences, resulting from the termination of AGOA benefits for them.

CONCLUSION

The Hong Kong Ministerial Decision has set the target of extending DFQF treatment for at least 97 per cent of products, and further to 100 per cent subsequently, a target that remains to be met in the United States (and several other developed countries as regards the target to cover 100 per cent of tariff lines). Implementing the goal would require major policy changes and adjustments to trade preference programmes. By examining some of the practical policy options and adjustments being considered in a recent policy debate, including in respect of product coverage, rules of origin reform and transitional measures, the paper has found that the resultant trade effect is estimated to be asymmetric across the different LDCs and sub-Saharan African countries concerned, and would lead to significant adjustment challenges for them. The paper's findings are the following:

- The United States applies different duty-free treatment to different subsets of LDCs under different preferential programmes. The duty-free coverage for tariff lines is 91 per cent for AGOA (with apparel benefits), 86 per cent (without apparel benefits), and 84 per cent under the GSP-LDC scheme (2009).
- Some 1,050 products (9.3 per cent of total tariff lines) do not benefit from any preferential duty-free treatment in the United States. They fall mostly in textiles (cotton) and textile products, dairy, sugar, cocoa and food preparations, with the largest category being "cotton" (HS chapter 52) (206 tariff lines).
- Preferential exports under AGOA are concentrated in large oil exporters. The five largest oil exporters (Nigeria, Angola, Gabon, Congo and Chad) account for 94 per cent of preferential exports under AGOA. They generally register high utilization of AGOA preferences, but since the preference margin is small for oil, the value of preferences represents an insignificant 0.1–0.3 per cent of their dutiable exports.
- Apparel exporters (Lesotho, Madagascar, Kenya, Cameroon, Swaziland, Mauritius, Botswana and Namibia) – all eligible for AGOA's apparel provisions and "lesser developed country" rules (the "third country fabric rule") – record high coverage and utilization rates. Their exports rely heavily on preferences, as the value of preferences accounts for 13–20 per cent of their dutiable exports. Some 90 per cent of total AGOA apparel exports come under the "third country fabric rule."
- The high coverage and utilization rates for major exporters for major export products - mineral fuels and apparels – indicates limited scope for improving their market access conditions by expanding product coverage to 100 per cent. For AGOA beneficiaries as a whole, for instance, preference value would increase only by $90 million (or 0.2 per cent of dutiable imports), from $400 million to $491 million. If at all, improvements would arise from some agricultural products currently excluded from AGOA, such as cotton and tobacco.
- Preferences under GSP-LDCs, which exclude apparels, are heavily skewed towards petroleum, with Yemen alone taking up 98 per cent of total preferential exports. The scheme is irrelevant for Bangladesh and Cambodia (and to a lesser extent Nepal), as preference coverage rate is zero for them, with the result that they face average tariffs of 10–12 per cent.
- Their scope for increasing preference value is significant. Full product coverage and utilization would increase the value of preferences for Bangladesh from $1.4 million to $555 million (or 0 per cent to 16 per cent of dutiable imports), and from $0.2 million to $443 million (from 0 per cent to 17 per cent) for Cambodia. For all Asian LDCs, extended DFQF market access would increase preference value 350 times, from just $2.8 million to $1.0 billion (from 0 per cent to 16 per cent).
- In terms of trade volume, a simulation exercise shows that Bangladesh would see its total exports increase by $847 million and Cambodia by $555 million, or 23 per cent and 28 per cent of their respective pre-shock exports. Exports of sub-Saharan African countries are expected to drop. Lesotho, Madagascar, Kenya, Mauritius and Swaziland would lose $3–6 million of export revenue, or the equivalent of 1.6–1.9 per cent of their pre-shock export values.
- If extending DFQF treatment were to entail terminating AGOA preferences for non-LDCs, this would have a particularly significant effect. These countries are expected to see all or nearly all of

their exports lose AGOA preferences in a move to a normal GSP scheme, as their major export items – mineral fuels and apparels – are not covered by the US GSP scheme. In particular, major apparel exporters – Botswana, Swaziland, Kenya, Mauritius and Namibia – would see a loss in preference value of as high as 13–20 per cent of dutiable imports. These economies are expected to be doubly hit by direct and indirect loss of trade competitiveness.

These findings have policy implications. First of all, gains from the initiative remain important and would be beneficial for LDCs as a group and for Asian LDCs in particular. A model-based general equilibrium estimates using GTAP found that implementing full DFQF market access for LDCs would generate welfare gains of $4.8 billion annually if implemented by all developed countries and $7.7 billion if also implemented by Brazil, China, India and South Africa (United Nations, 2011). Overall trade and welfare gains are expected to outweigh possible adjustment costs, pointing to the continued case for working towards full implementation of the DFQF market access commitment. It would, however, result in measurable preference erosion and potentially significant adjustment costs for sub-Saharan LDCs and non-LDCs. Such distributional effects deserve careful consideration and a policy balancing act through appropriate design of preferential programmes and implementation, such as product-specific adjustment in the implementation phase, extended liberalization schedules or continued protection of some specific tariff lines, as appropriate.

In the long run, with preference programmes reaching their limits once DFQF market access for LDCs is fully implemented in the near future, innovative measures to support LDCs and other vulnerable economies will become increasingly important, in addition to enhanced preferential market access. For instance, there may be a need to link trade preferences with positive support programmes and initiatives to enhance productivity, competitiveness and infrastructure, in affected LDCs and sub-Saharan African countries, as well as mitigating adverse effects and smoothing adjustment.

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ENDNOTES

1 The previous US GSP cycle expired at the end of 2009, which was extended without major modification to the end of 2010. The scheme however expired at the end of 2010 without the necessary legislative authorization for extension. In October 2011, after 10 months of suspension, the scheme was further extended until July 2013.

2 H. R. 4101 (111th Congress, 2009-2010) To amend the African Growth and Opportunity Act and the Trade Act of 1974 to provide improved duty-free treatment for certain articles from certain least developed countries, and for other purposes. Accessible at "http://www.gpo.gov/fdsys/pkg/BILLS-111hr4101ih/pdf/BILLS-111hr4101ih.pdf

3 GSP was first introduced in 1968 under UNCTAD based on a fundamental principle of "the generalized, non-reciprocal, non-discriminatory system of preferences in favour of the developing countries". http://www.unctad.org/templates/Page.asp?intItemID=2309&lang=1.

4 The principle of non-discrimination among developing countries has undergone significant change in recent years. While positive discrimination in favour of LDCs was recognized already at the inception of the GSP, differentiation of non-LDC developing countries based on non-trade related criteria – such as sustainable development, labour standards and good governance – has come to be recognized as a means of responding positively to the development, financial and trade needs of developing countries. This was explicitly recognized by a landmark WTO Appellate Body ruling in 2004 on *European Communities – Conditions for the Granting of Tariff Preferences to Developing Countries (WT/DS246/AB/R)*, wherein differentiation of developing countries under GSP scheme was justified if based on objective criteria and administered in a transparent manner. The ruling provides the legal basis for today's EU's GSP+ regime in favour of good governance and sustainable development.

5 Such a legal concern is reflected in the time-bound nature of US legislation implementing AGOA preferences. The current scheme is valid until 2015.

6 Botswana, Cameroon, Congo, Gabon, Ghana, Kenya, Mauritius, Namibia, Nigeria, South Africa, Swaziland, Congo (2010).

7 The third country fabric rule was indeed extended to 2015 by the US Congress in 2012.

8 Haiti, another non-African LDC, already receives AGOA-like comprehensive DFQF treatment under CBI (U.S.-Caribbean Basin Trade Partnership Act (CBTPA) and Caribbean Basin Economic Recovery Act (CBERA), and more recently under Haiti Hemispheric Opportunity Partnership Encouragement Act (HOPE) since 2006.

9 The Bill also provides an incentive for non-AGOA LDCs to utilize local yarns and fabrics: where more than 50 per cent of their garment exports to the US are made of yarns or fabrics originating in any beneficiary country or countries forming a FTA with the United States, the quantitative restriction outlined would be increased by 10 per cent beyond the applicable quota determined for each period.

10 The eligibility of beneficiary countries are subject to annual review thus changes. In 2012, the number of beneficiaries of the US GSP scheme was 128, 46 of which were LDCs (with the addition of Senegal and South Sudan). As regards AGOA, 40 countries were eligible in 2012 (with the addition of Côte d'Ivoire, and the exclusion of Congo) and 26 countries qualified for apparel benefits (with the addition of Liberia in 2011).

11 Relatively low utilization rates for Angola (40 per cent) and Chad (68 per cent) are due to the parallel availability for them of GSP-LDC preferences for petroleum. As preferences are available for the products under both GSP-LDCs and AGOA, their exports can enter the US market through either scheme. If imports under both schemes are taken into account, their utilization rate rises to 97 per cent for Angola and 94 per cent for Chad. See table 1 in Annex.

12 Some estimates show that only one-thirds of the rent under AGOA have accrued to sub-Saharan exporters since importers of textiles, for instance, have much stronger bargaining power and prevent price from increasing up to the tariff inclusive prices in the importing markets. Ozden, C. and Olarreaga, M. (2005) “AGOA and Apparel: Who Captures the Tariff Rent in the Presence of Preferential Market Access?”, *World Economy* 28:63–77.

13 Ad valorem equivalents are taken from TRAINS/WITS, using the “UNCTAD method1”. Missing data were complemented using WTO NAMA methods, particularly for mineral fuels.

14 Some qualifications are in order. If tariff protection applied to products excluded from AGOA coverage is prohibitively high to allow for no or little exports from AGOA countries, the value of preferences calculated on the basis of existing preferential imports would be correspondingly small despite a large preference margin implied by prohibitively high tariffs. However, eliminating tariffs by extending DFQF product coverage would lead to a significant increase in import volume. This type of dynamic effect is not captured by the assessment based on preference value.

15 For “preparations of vegetable and fruits”, there is some scope for increasing preference value by full coverage, of 1.3 per cent of dutiable imports, owing to the exclusion of some products from AGOA preferences.

16 On the relatively low utilization rate for mineral fuels, see footnote 12 above.

17 SMART, available through WITS, is a partial equilibrium trade simulation model allowing for an estimation of trade, welfare and revenue changes resulting from trade policy changes.

18 Haiti is an anomaly, as its tariff preferences are not captured in the simulation.

19 AGOA, by extending trade preferences to a limited number of developing countries in sub-Saharan Africa, does not meet the requirement of the Enabling Clause, which provides a legal basis for GSP or LDC preferences and thus requires a WTO waiver from GATT Article I. The current waiver (WT/L/754, 29 May 2009) is valid until 30 September 2015.

20 The only exception is South Africa, which reports higher covered imports under GSP than under AGOA. This appears to be an anomaly.

Annex 1. Combined imports under AGOA and GSP-LDCs for SSA LDCs (US$ thousands, 2007)

	Total	Dutiable	Covered	Received	Received as a % of total	Coverage rate %: AGOA+GSP	Utilization rate %: AGOA+GSP	Utility rate %: AGOA+GSP
Angola	12 617 678	12 424 936	12 424 936	12 083 472	95.8	100	97	97
Chad	2 333 961	2 310 966	2 304 784	2 156 967	92.4	100	94	93
Lesotho	461 802	409 419	402 580	398 310	86.3	98	99	97
Madagascar	357 520	312 049	311 689	300 925	84.2	100	97	96
Malawi	73 885	68 611	68 512	62 529	84.6	100	91	91
Democratic Republic of the Congo	208 449	45 554	45 437	45 136	21.7	100	99	99
Ethiopia	93 331	10 707	10 573	9 747	10.4	99	92	91
United Republic of Tanzania	47 738	6 570	5 400	4 716	9.9	82	87	72
Rwanda	13 170	4 528	4 489	4 283	32.5	99	95	95
Uganda	28 076	2 111	2 016	1 828	6.5	95	91	87
Mozambique	5 667	1 125	1 080	339	6.0	96	31	30
Mali	9 927	2 377	687	310	3.1	29	45	13
Zambia	49 145	642	600	264	0.5	93	44	41
Guinea	135 768	806	464	255	0.2	58	55	32
Sierra Leone	60 212	2 128	2 032	228	0.4	95	11	11
Niger	9 187	1 232	906	94	1.0	74	10	8
Djibouti	4 587	143	112	86	1.9	78	77	60
Burkina Faso	1 515	193	143	61	4.0	74	43	32
Gambia	161	63	41	40	24.8	65	98	63
Sao Tome and Principe	416	265	249	36	8.7	94	14	14
Cape Verde	2 285	524	524	29	1.3	100	6	6
Liberia	118 429	55	46	19	0.0	84	41	35
Benin	5 120	12	6	0	0.0	50	0	0
Burundi	1 180	16	11	0	0.0	69	0	0
Guinea-Bissau	41	0	0	0	0.0	---	---	---
Mauritania	739	33	17	0	0.0	52	0	0
Total	16 639 989	15 605 065	15 587 334	15 069 674	90.6	100	97	97

Annex 2. Preference value for combined imports under AGOA and GSP-LDCs for SSA LDCs (US$ thousands, 2007)

	Pref value: full coverage	Pref value: full utilization	Pref value: actual	Pref value: full coverage (% of dutiable)	Pref value: full utilization (% of dutiable)	Pref value: actual (% of dutiable)
Angola	38 540	38 536	37 532	0.3	0.3	0.3
Chad	4 351	4 350	2 954	0.2	0.2	0.1
Lesotho	74 113	74 102	73 374	18.1	18.1	17.9
Madagascar	56 443	56 192	54 560	18.1	18.0	17.5
Malawi	6 289	6 220	4 762	9.2	9.1	6.9
Democratic Republic of the Congo	180	136	129	0.4	0.3	0.3
Ethiopia	1 521	1 178	1 169	14.2	11.0	10.9
United Republic of Tanzania	650	543	541	9.9	8.3	8.2
Rwanda	221	2	0	4.9	0.0	0.0
Uganda	251	217	215	11.9	10.3	10.2
Mozambique	60	51	51	5.3	4.5	4.5
Mali	74	5	1	3.1	0.2	0.0
Zambia	28	9	6	4.3	1.4	1.0
Guinea	28	8	4	3.5	1.0	0.5
Sierra Leone	94	52	0	4.4	2.4	0.0
Niger	34	6	2	2.8	0.5	0.2
Djibouti	8	0	0	5.9	0.0	0.0
Burkina Faso	7	0	0	3.6	0.1	0.0
Gambia	7	5	0	11.8	7.5	0.0
Sao Tome and Principe	6	1	0	2.2	0.3	0.0
Cape Verde	30	24	0	5.7	4.5	0.0
Liberia	1	0	0	1.8	0.1	0.0
Benin	0	0	0	2.0	0.0	0.0
Burundi	0	0	0	1.3	0.0	0.0
Guinea-Bissau	0	0	0	---	---	---
Mauritania	3	0	0	7.8	0.0	0.0
Total	182 939	181 636	175 301	1.2	1.2	1.1

Annex 3. SMART simulation - Preference erosion from 100 tariff cuts for LDCs and SSA – Total products

Exporter	Before ($ '000)	After ($ '000)	Change In Revenue ($ '000)	As % of before
Bangladesh	3 735 951	4 582 762	846 811	22.7
Cambodia	1 986 548	2 541 795	555 246	28.0
Haiti	519 553	636 334	116 781	22.5
Malawi	45 871	109 709	63 838	139.2
South Africa	270 029	280 095	10 066	3.7
Lao People's Democratic Republic	42 109	47 982	5 872	13.9
Nepal	45 526	49 743	4 217	9.3
Côte d'Ivoire	50 941	55 048	4 107	8.1
Zimbabwe	2 440	4 036	1 596	65.4
Cameroon	133 563	134 349	785	0.6
Afghanistan	3 292	3 383	91	2.8
Samoa	549	625	76	13.8
Ghana	4 676	4 748	72	1.5
Maldives	750	804	54	7.2
Liberia	2 411	2 458	48	2.0
wanda	933	977	44	4.7
Mali	146	178	32	22.1
Guinea	74	101	26	35.6
Gambia	22	48	25	111.8
Zambia	319	343	23	7.3
Yemen	19	41	22	113.2
Uganda	401	411	10	2.4
Senegal	100	108	8	8.3
Seychelles	493	501	8	1.6
Eritrea	24	29	6	24.6
United Republic of Tanzania	5 275	5 280	5	0.1
Myanmar	91	96	5	5.1
Congo	419	421	2	0.6
Sudan	6	8	2	32.6
Burkina Faso	70	72	2	2.8
Togo	115	117	2	1.4
Somalia	33	35	2	4.7
Benin	69	70	1	1.9
Vanuatu	58	59	1	2.1
Mauritania	4	5	1	28.7
Niger	53	54	1	1.8
Burundi	3	3	1	31.5
Central African Republic	1	2	0	15.0
Bhutan	6	6	0	3.3
Namibia	939	939	0	0.0
Sierra Leone	381	381	0	0.0
Cape Verde	16	16	0	0.1
Andorra	44	44	0	0.0
Antigua and Barbuda	162	162	0	0.0

Exporter	Before ($ '000)	After ($ '000)	Change In Revenue ($ '000)	As % of before
Solomon Islands	2	2	0	0.0
Comoros	2	2	0	0.0
Mayotte	3	3	0	0.0
Dominica	82	82	0	0.0
Fr. So. Ant. Tr	21	21	0	0.0
Saint Helena	12	12	0	0.0
Sao Tome and Principe	7	7	0	0.0
Tuvalu	88	88	0	0.0
Grenada	142	142	0	0.0
Mozambique	147	147	0	0.0
Gibraltar	0	0	0	-0.3
Saint Lucia	182	182	0	0.0
Nauru	1	1	0	-0.2
Marshall Islands	1 547	1 547	0	0.0
Montserrat	82	82	0	0.0
Belize	229	229	0	0.0
Tonga	24	24	0	0.0
Cocos (Keeling) Islands	40	40	0	0.0
Saint Vincent and the Grenadines	6	6	0	-0.2
Faroes	5	5	0	-0.2
Niue	8	8	0	-0.1
Azerbaijan	302	302	0	0.0
Micronesia	163	163	0	0.0
French Polynesia	333	333	0	0.0
British Indian Ocean Ter.	124	124	0	0.0
Bermuda	29	29	0	-0.1
Turks and Caicos Islands	72	72	0	0.0
Tajikistan	155	155	0	0.0
Saint Kitts and Nevis	14	14	0	-0.3
Palau	1	1	0	-4.2
Cook Islands	22	22	0	-0.2
Cayman Islands	864	864	0	0.0
Papua New Guinea	18 097	18 097	0	0.0
Suriname	95	95	0	-0.1
Nigeria	237 029	237 029	0	0.0
British Virgin Islands	171	171	0	-0.1
Anguilla	29	29	0	-0.4
Luxembourg	6 401	6 400	0	0.0
Qatar	277	277	0	-0.1
Montenegro	18	17	0	-1.6
Barbados	55	55	0	-0.6
Holy See	79	79	0	-0.4
Gabon	15 638	15 637	0	0.0
Christmas Island	532	532	0	-0.1
Iraq	7 165	7 165	0	0.0

Exporter	Before ($ '000)	After ($ '000)	Change In Revenue ($ '000)	As % of before
Iceland	4 085	4 085	-1	0.0
New Caledonia	272	271	-1	-0.3
Lebanon	20 119	20 118	-1	0.0
Malta	1 523	1 522	-1	-0.1
San Marino	78	77	-2	-2.0
Georgia	7 810	7 808	-2	0.0
Armenia	2 227	2 225	-2	-0.1
Fiji	68 816	68 813	-3	0.0
Congo	117 579	117 576	-3	0.0
Kuwait	59 321	59 318	-3	0.0
Kyrgyzstan	469	466	-3	-0.6
Paraguay	15 312	15 307	-5	0.0
Chad	128 563	128 558	-6	0.0
Uzbekistan	310	303	-7	-2.2
Netherlands Antilles	157 444	157 437	-7	0.0
Belarus	117 153	117 145	-8	0.0
Cyprus	926	918	-9	-0.9
Finland	96 894	96 885	-9	0.0
Albania	5 502	5 493	-9	-0.2
Tokelau	1 321	1 311	-10	-0.8
Uruguay	8 544	8 533	-11	-0.1
Angola	286 986	286 974	-12	0.0
Jamaica	10 664	10 651	-13	-0.1
New Zealand	118 759	118 746	-13	0.0
Saudi Arabia	283 589	283 575	-14	0.0
Latvia	8 933	8 918	-15	-0.2
Libya	361 455	361 440	-16	0.0
Oman	28 829	28 810	-19	-0.1
Denmark	105 346	105 328	-19	0.0
Bosnia and Herzegovina	9 999	9 979	-20	-0.2
Bahamas	486 576	486 555	-21	0.0
Ecuador	91 672	91 650	-21	0.0
Kazakhstan	512689	512 667	-23	0.0
Mongolia	1 820	1 791	-29	-1.6
Sweden	189 335	189 303	-32	0.0
Argentina	351 482	351 448	-34	0.0
Trinidad and Tobago	824 775	824 739	-36	0.0
Slovak Republic	48 243	48 199	-44	-0.1
Panama	7 563	7 517	-46	-0.6
Aruba	1 073 828	1 073 781	-47	0.0
Austria	244 614	244 566	-48	0.0
Republic of Moldova	4 914	4 866	-48	-1.0
Estonia	32 653	32 604	-49	-0.2
Czech Republic	73 061	73 012	-49	-0.1
Syrian Arab Republic	282 242	282 190	-51	0.0

Exporter	Before ($ '000)	After ($ '000)	Change In Revenue ($ '000)	As % of before
Bolivarian Republic of Venezuela	1 354 187	1 354 124	-62	0.0
Croatia	40 560	40 497	-62	-0.2
Guyana	5 693	5 630	-63	-1.1
Lithuania	42 048	41 983	-65	-0.2
Islamic Republic of Iran	43 556	43 490	-67	-0.2
Ireland	110 621	110 550	-71	-0.1
Slovenia	22 146	22 075	-71	-0.3
Ethiopia(excludes Eritrea)	7 593	7 520	-73	-1.0
Netherlands	1 092 780	1 092 695	-85	0.0
the former Yugoslav Republic of Macedonia	20 139	20 002	-137	-0.7
Ukraine	95 701	95 602	-99	-0.1
Chile	32 446	32 347	-99	-0.3
Algeria	2 326 866	2 326 766	-101	0.0
Belgium	1 129 837	1 129 725	-111	0.0
Hungary	143 994	143 875	-118	-0.1
Occupied Palestinian Territory	5 536	5 380	-156	-2.8
Plurinational State of Bolivia	130 070	129 910	-160	-0.1
Botswana	13 213	13 034	-179	-1.4
Poland	112 189	112 008	-181	-0.2
Spain	583 387	582 979	-408	-0.1
Germany	2 307 964	2 307 680	-285	0.0
Russian Federation	7 822 592	7 822 253	-339	0.0
Bulgaria	50 607	50 266	-341	-0.7
Switzerland	893 627	893 261	-366	0.0
Norway	436 648	436 264	-384	-0.1
Japan	2 645 053	2 644 621	-433	0.0
Turkmenistan	92 841	92 412	-429	-0.5
United Kingdom	1 337 696	1 337 248	-448	0.0
Greece	88 528	88 050	-477	-0.5
Australia	930 731	930 205	-526	-0.1
United Arab Emirates	62 253	61 632	-621	-1.0
Romania	125 864	125 150	-715	-0.6
Morocco	95 138	94 323	-815	-0.9
France	1 265 025	1 264 183	-842	-0.1
Brunei	40 923	40 031	-892	-2.2
Tunisia	146 141	145 115	-1 026	-0.7
Singapore	167 598	166 571	-1 027	-0.6
Israel	717 870	716 740	-1 130	-0.2
Portugal	284 580	283 421	-1 160	-0.4
Bahrain	173 735	172 413	-1 323	-0.8
Swaziland	99 469	97 805	-1 663	-1.7
Costa Rica	270781	269 077	-1 703	-0.6
Brazil	1989 678	1 987 905	-1 773	-0.1
Mauritius	134 553	132379	-2 174	-1.6
Republic of Korea	2 730 769	2 728 410	-2 359	-0.1

Exporter	Before ($ '000)	After ($ '000)	Change In Revenue ($ '000)	As % of before
Macao SAR	183 502	180 628	-2 874	-1.6
Kenya	213 360	210 041	-3 319	-1.6
Colombia	789 867	786 515	-3 352	-0.4
Madagascar	225 605	221 990	-3 615	-1.6
Turkey	920 897	916 455	-4 442	-0.5
Canada	11 743 719	11 738 741	-4 978	0.0
Hong Kong SAR	835 384	830 404	-4 980	-0.6
Lesotho	290 192	284 538	-5 654	-1.9
Taiwan	2 246 792	2 241 083	-5 708	-0.3
Italy	4 117 712	4 109 972	-7 740	-0.2
Malaysia	722 318	713 604	-8 714	-1.2
Dominican Republic	1 127 586	1 117 863	-9 723	-0.9
Jordan	867 677	856 522	-11 155	-1.3
Peru	878 190	866 807	-11 383	-1.3
Philippines	1 682 718	1 666 898	-15 820	-0.9
Egypt	856 966	841437	-15 529	-1.8
Nicaragua	1 087 863	1 071 417	-16 445	-1.5
Thailand	3 625 418	3 606 855	-18 563	-0.5
Guatemala	1 266 340	1 247 889	-18 451	-1.5
Sri Lanka	1 327 272	1 307 826	-19 446	-1.5
El Salvador	1 342 951	1 321 413	-21 538	-1.6
Pakistan	2 953 502	2 927 039	-26 463	-0.9
Honduras	2 354 316	2 322 306	-32 010	-1.4
India	7 141 318	7 094 180	-47 138	-0.7
Indonesia	5 248 560	5 186 856	-61 704	-1.2
Mexico	15 770 383	15 703 988	-66 395	-0.4
Viet Nam	7 222 502	7 142 670	-79 832	-1.1
China	60 122 435	59 807 327	-315 108	-0.5
Total	182 794 833	183 536 183	741 350	0.4

Note: Estimates using SMART model in WITS

Souce: TRAINS/WITS

Annex. 4. SMART simulation - non-agricultural products

Exporter	Before ($ 000)	After ($ 000)	Change In Revenue ($ 000)	As % of before
Bangladesh	3 730 511	4 569 775	839 264	22.5
Cambodia	1 986 548	2 541 795	555 246	28.0
Haiti	518 817	635 595	116 778	22.5
South Africa	253 387	262 443	9 056	3.6
Lao People s Democratic Republic	42 109	47 982	5 872	13.9
Nepal	45 526	49 743	4 217	9.3
Côte d Ivoire	40 112	42 919	2 806	7.0
Zimbabwe	1 620	1 791	171	10.6
Cameroon	132 444	132 572	128	0.1
Afghanistan	3 292	3 383	91	2.8
Samoa	549	625	76	13.8
Ghana	3 789	3 855	66	1.7
Maldives	750	804	54	7.2
Liberia	2 411	2 458	48	2.0
Rwanda	933	977	44	4.7
Mali	146	178	32	22.1
Guinea	49	75	25	51.6
Gambia	22	48	25	111.8
Yemen	19	41	22	113.2
Uganda	401	411	10	2.4
Senegal	95	104	8	8.7
Seychelles	493	501	8	1.6
Eritrea	24	29	6	24.6
United Republic of Tanzania	5 060	5 065	5	0.1
Myanmar	91	96	5	5.1
Zambia	309	313	4	1.4
Congo	419	421	2	0.6
Sudan	6	8	2	32.6
Burkina Faso	70	72	2	2.8
Togo	106	108	2	1.5
Somalia	33	35	2	4.7
Benin	69	70	1	1.9
Mauritania	4	5	1	28.7
Niger	53	54	1	1.8
Burundi	3	3	1	31.5
Central African Republic	1	2	0	15.0
Bhutan	6	6	0	3.3
Namibia	882	883	0	0.0
Sierra Leone	296	296	0	0.0
Cape Verde	16	16	0	0.1
Andorra	44	44	0	0.0
Antigua and Barbuda	162	162	0	0.0
Solomon Islands	2	2	0	0.0
Comoros	2	2	0	0.0

Exporter	Before ($ 000)	After ($ 000)	Change In Revenue ($ 000)	As % of before
Mayotte	3	3	0	0.0
Dominica	82	82	0	0.0
Saint Helena	12	12	0	0.0
Sao Tome and Principe	7	7	0	0.0
Tuvalu	88	88	0	0.0
Grenada	3	3	0	0.0
Mozambique	139	139	0	0.0
Gibraltar	0	0	0	-0.3
Saint Lucia	68	68	0	0.0
Nauru	1	1	0	-0.2
Marshall Islands	1 547	1 547	0	0.0
Montserrat	82	82	0	0.0
Belize	229	229	0	0.0
Tonga	24	24	0	0.0
Cocos (Keeling) Islands	40	40	0	0.0
Saint Vincent and the Grenadines	1	1	0	-0.8
Faroes	5	5	0	-0.2
Niue	8	8	0	-0.1
Azerbaijan	302	302	0	0.0
Micronesia	163	163	0	0.0
French Polynesia	333	333	0	0.0
British Indian Ocean Ter.	124	124	0	0.0
Bermuda	29	29	0	-0.1
Turks and Caicos Isl.	72	72	0	0.0
Tajikistan	155	155	0	0.0
Saint Kitts and Nevis	14	14	0	-0.3
Palau	1	1	0	-4.2
Cook Islands	22	22	0	-0.2
Cayman Islands	864	864	0	0.0
Papua New Guinea	18 097	18 097	0	0.0
Suriname	95	95	0	-0.1
British Virgin Islands	171	171	0	-0.1
Anguilla	29	29	0	-0.4
Luxembourg	6 331	6 331	0	0.0
Qatar	277	277	0	-0.1
Montenegro	18	17	0	-1.6
Barbados	55	55	0	-0.6
Holy See	79	79	0	-0.4
Gabon	15 638	15 637	0	0.0
Christmas Island	532	532	0	-0.1
Iraq	7 165	7 165	0	0.0
Iceland	2 426	2 425	-1	0.0
New Caledonia	272	271	-1	-0.3
Paraguay	6 568	6 567	-1	0.0
Lebanon	15 626	15 624	-1	0.0

Exporter	Before ($ 000)	After ($ 000)	Change In Revenue ($ 000)	As % of before
Malta	1 523	1 522	-1	-0.1
San Marino	71	70	-2	-2.2
Georgia	7 810	7 808	-2	0.0
Nigeria	236 884	236 882	-2	0.0
Armenia	2 227	2 225	-2	-0.1
Fiji	68 816	68 813	-3	0.0
Congo	117 579	117 576	-3	0.0
Kuwait	59 303	59 301	-3	0.0
Kyrgyzstan	466	463	-3	-0.6
Chad	128 563	128 558	-6	0.0
Uzbekistan	291	284	-7	-2.4
Netherlands Antilles	157 444	157 437	-7	0.0
Belarus	117 153	117 145	-8	0.0
Cyprus	926	918	-9	-0.9
Finland	96 894	96 885	-9	0.0
Albania	5 502	5 493	-9	-0.2
New Zealand	34 044	34 034	-10	0.0
Tokelau	1 312	1 302	-10	-0.8
Uruguay	6 614	6 603	-11	-0.2
Angola	286 986	286 974	-12	0.0
Jamaica	1 937	1 924	-13	-0.6
Saudi Arabia	283 526	283 512	-14	0.0
Latvia	8 682	8 667	-15	-0.2
Libya	361 455	361 440	-16	0.0
Oman	28 756	28 737	-19	-0.1
Denmark	105 346	105 328	-19	0.0
Bosnia and Herzegovina	9 999	9 979	-20	-0.2
Bahamas	486 576	486 555	-21	0.0
Ecuador	91 672	91 650	-21	0.0
Kazakhstan	512 689	512 667	-23	0.0
Sweden	178 723	178 695	-29	0.0
Mongolia	1 820	1 791	-29	-1.6
Argentina	351 482	351 448	-34	0.0
Trinidad and Tobago	822 025	821 989	-36	0.0
Slovak Republic	48 146	48 102	-44	-0.1
Ireland	73 627	73 583	-44	-0.1
Panama	3 736	3 690	-46	-1.2
Aruba	1 073 828	1 073 781	-47	0.0
Austria	244 614	244 566	-48	0.0
Republic of Moldova	4 781	4 734	-48	-1.0
Estonia	32 653	32 604	-49	-0.2
Czech Republic	73 061	73 012	-49	-0.1
Syrian Arab Republic	281 701	281 650	-51	0.0
Greece	31 630	31 578	-52	-0.2
Bolivarian Republic. of Venezuela	1 351 648	1 351 586	-61	0.0

Exporter	Before ($ 000)	After ($ 000)	Change In Revenue ($ 000)	As % of before
Croatia	40 560	40 497	-62	-0.2
Guyana	5 404	5 341	-63	-1.2
Lithuania	41 878	41 813	-65	-0.2
Islamic Republic of Iran	43 055	42 988	-67	-0.2
Slovenia	21 066	20 995	-71	-0.3
Ethiopia (excludes Eritrea)	7 593	7 520	-73	-1.0
Netherlands	1 016 016	1 015 935	-80	0.0
The former Yugoslav Republic of Macedonia	5 753	5 660	-92	-1.6
Ukraine	94 077	93 978	-99	-0.1
Chile	32 446	32 347	-99	-0.3
Algeria	2 326 866	2 326 766	-101	0.0
Belgium	1 129 837	1 129 725	-111	0.0
Malawi	9 418	9 305	-113	-1.2
Hungary	133 861	133 743	-118	-0.1
Occupied Palestinian Territory	5 536	5 380	-156	-2.8
Plurinational State of Bolivia	130 070	129 910	-160	-0.1
Poland	89 829	89 656	-173	-0.2
Botswana	13 125	12 945	-179	-1.4
Spain	492 429	492 161	-267	-0.1
Germany	2 307 964	2 307 680	-285	0.0
Russian Federation	7 820 541	7 820 202	-339	0.0
Bulgaria	50 607	50 266	-341	-0.7
Switzerland	810 018	809 659	-359	0.0
Norway	427 328	426 945	-383	-0.1
Japan	2 543 352	2 542 924	-428	0.0
Turkmenistan	92 841	92 412	-429	-0.5
United Kingdom	1 266 445	1 265 998	-447	0.0
Australia	930 731	930 205	-526	-0.1
United Arab Emirates	61 010	60 390	-620	-1.0
Romania	125 811	125 097	-715	-0.6
Morocco	87 172	86 357	-815	-0.9
France	1 265 025	1 264 183	-842	-0.1
Brunei	40 923	40 031	-892	-2.2
Singapore	155 937	154 916	-1 021	-0.7
Tunisia	145 764	144 738	-1 026	-0.7
Israel	675 920	674 792	-1 128	-0.2
Portugal	284 116	282 959	-1 157	-0.4
Bahrain	173 735	172 413	-1 323	-0.8
Costa Rica	270 781	269 077	-1 703	-0.6
Swaziland	99 042	97 308	-1 734	-1.8
Brazil	1 989 678	1 987 905	-1 773	-0.1
Mauritius	134 532	132 347	-2 185	-1.6
Republic of Korea	2 671 778	2 669 422	-2 356	-0.1
Macao SAR	183 438	180 564	-2 874	-1.6
Colombia	789 867	786 515	-3 352	-0.4

Exporter	Before ($ 000)	After ($ 000)	Change In Revenue ($ 000)	As % of before
Madagascar	225 547	221 932	-3 615	-1.6
Kenya	206 429	202 719	-3 710	-1.8
Turkey	741 905	737 877	-4 028	-0.5
Canada	11 743 719	11 738 741	-4 978	0.0
Hong Kong SAR	825 950	820 970	-4 980	-0.6
Lesotho	290 192	284 538	-5 654	-1.9
Taiwan Province of China	2 246 792	2 241 083	-5 708	-0.3
Italy	4 019 198	4 011 875	-7 323	-0.2
Malaysia	713 076	704 363	-8 713	-1.2
Dominican Republic	1 127 586	1 117 863	-9 723	-0.9
Jordan	865 579	854 424	-11 155	-1.3
Peru	741 325	729 943	-11 383	-1.5
Philippines	1 596 185	1 580 829	-15 356	-1.0
Egypt	847 387	831 858	-15 529	-1.8
Nicaragua	1 083 162	1 066 745	-16 417	-1.5
Thailand	3 287 054	3 269 421	-17 632	-0.5
Guatemala	1 155 836	1 137 774	-18 061	-1.6
Sri Lanka	1 327 272	1 307 826	-19 446	-1.5
El Salvador	1 342 951	1 321 413	-21 538	-1.6
Pakistan	2 944 407	2 917 944	-26 463	-0.9
Honduras	2 327 383	2 295 454	-31 929	-1.4
India	7 048 035	7 001 371	-46 664	-0.7
Indonesia	5 203 155	5 142 050	-61 105	-1.2
Mexico	14 237 677	14 171 841	-65 836	-0.5
Viet Nam	7 208 336	7 128 505	-79 831	-1.1
China	60 122 435	59 807 327	-315 108	-0.5

Note: Estimates using SMART model in WITS

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Annex. 5. SMART simulation - Agricultural products

Exporter	Before ($ 000)	After ($ 000)	Change In Revenue ($ 000)	As % of before
Malawi	36'453	100'404	63'951.03	175.4
Bangladesh	5'440	12'987	7'546.97	138.7
Zimbabwe	820	2'245	1'424.70	173.7
Côte d'Ivoire	10'829	12'129	1'300.44	12.0
South Africa	16'642	17'652	1'010.29	6.1
Cameroon	1'119	1'777	657.484	58.8
Kenya	6'931	7'322	390.692	5.6
Swaziland	426	498	71.313	16.7
Zambia	11	30	18.968	172.4
Mauritius	21	32	10.799	51.4
Ghana	887	893	6.046	0.7
Haiti	736	739	2.733	0.4
Nigeria	144	146	2.096	1.5
Vanuatu	58	59	1.235	2.1
Guinea	25	26	0.948	3.8
Madagascar	58	58	0.271	0.5
Afghanistan	24	25	0.265	1.1
Senegal	5	5	0.061	1.2
Grenada	139	139	0	0.0
Slovak Republic	97	97	0	0.0
Sierra Leone	85	85	0	0.0
Oman	73	73	0	0.0
Uzbekistan	19	19	0	0.0
Kuwait	17	17	0	0.0
Togo	9	9	0	0.0
Tokelau	9	9	0	0.0
San Marino	7	7	0	0.0
Saint Vincent and the Grenadines	5	5	0	0.0
Tunisia	377	377	-0.001	0.0
Lithuania	170	170	-0.001	0.0
Republic of Moldova	133	133	-0.001	0.0
Saint Lucia	115	115	-0.001	0.0
Botswana	88	88	-0.001	0.0
Macao SAR	64	64	-0.001	0.0
Saudi Arabia	63	63	-0.001	0.0
Romania	53	53	-0.001	0.0
Mozambique	9	9	-0.001	0.0
Latvia	251	251	-0.002	0.0
Panama	3'827	3'827	-0.003	0.0
Luxembourg	69	69	-0.003	0.0
Namibia	57	57	-0.003	0.0
Kyrgyzstan	3	3	-0.004	-0.1
Syrian Arab Republic	540	540	-0.005	0.0
Guyana	289	289	-0.005	0.0

Exporter	Before ($ 000)	After ($ 000)	Change In Revenue ($ 000)	As % of before
Jordan	2'098	2'098	-0.007	0.0
Ukraine	1'624	1'624	-0.009	0.0
Islamic Republic of Iran	501	501	-0.009	0.0
Russian Federation	2'051	2'051	-0.016	0.0
Trinidad and Tobago	2'750	2'750	-0.019	0.0
Slovenia	1'080	1'080	-0.028	0.0
United Republic of Tanzania	214	214	-0.029	0.0
Uruguay	1'930	1'930	-0.043	0.0
Lebanon	4'493	4'493	-0.054	0.0
Iceland	1'659	1'659	-0.056	0.0
Hungary	10'132	10'132	-0.117	0.0
Jamaica	8'727	8'727	-0.134	0.0
Morocco	7'966	7'966	-0.136	0.0
Pakistan	9'095	9'094	-0.234	0.0
Egypt	9'579	9'579	-0.275	0.0
Norway	9'319	9'319	-0.349	0.0
Hong Kong SAR	9'434	9'434	-0.464	0.0
Peru	136'865	136'864	-0.473	0.0
United Arab Emirates	1'243	1'242	-0.706	-0.1
Bolivarian Republic of Venezuela	2'539	2'538	-0.824	0.0
Malaysia	9'242	9'241	-1.087	0.0
United Kingdom	71'251	71'250	-1.092	0.0
Viet Nam	14'167	14'165	-1.557	0.0
Portugal	464	462	-2.132	-0.5
Israel	41'951	41'949	-2.149	0.0
Sweden	10'611	10'609	-2.81	0.0
Republic of Korea	58'991	58'988	-2.943	0.0
New Zealand	84'715	84'712	-3.091	0.0
Netherlands	76'764	76'760	-4.183	0.0
Paraguay	8'744	8'740	-4.199	0.0
Japan	101'701	101'697	-4.463	0.0
Singapore	11'661	11'655	-6.179	-0.1
Switzerland	83'609	83'602	-6.627	0.0
Poland	22'360	22'353	-7.202	0.0
Ireland	36'994	36'967	-26.941	-0.1
Nicaragua	4'701	4'673	-28.051	-0.6
the former Yugoslav Republic of Macedonia	14'386	14'342	-44.237	-0.3
Honduras	26'934	26'852	-81.176	-0.3
Spain	90'958	90'818	-140.304	-0.2
Guatemala	110'504	110'115	-389.446	-0.4
Turkey	178'992	178'577	-414.291	-0.2
Italy	98'514	98'097	-417.207	-0.4
Greece	56'898	56'472	-425.49	-0.7
Philippines	86'533	86'070	-463.156	-0.5
India	93'283	92'810	-473.711	-0.5

Exporter	Before ($ 000)	After ($ 000)	Change In Revenue ($ 000)	As % of before
Mexico	1'532'706	1'532'147	-559.075	0.0%
Indonesia	45'405	44'806	-599.305	-1.3%
Thailand	338'364	337'433	-931.074	-0.3%

Note: Estimates using SMART model in WITS

ouce: TRAINS/WITS