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# The Africa Growth and Opportunity Act and its Rules of Origin

## Generosity Undermined?

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## Abstract

This paper describes the United States' recently enacted Africa Growth and Opportunity Act (AGOA) and assesses its quantitative impact on African exports. The AGOA expands the scope of preferential access of Africa's exports to the United States in key areas such as clothing. However, its medium-term benefits—estimated at about US\$100–\$140 million, an 8–11 percent

addition to current nonoil exports—would have been nearly five times greater (\$540 million) if no restrictive conditions had been imposed on the terms of market access. The most important of these conditions are the rules of origin with which African exporters of clothing must comply to benefit from duty-free access.

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This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to assess the implications of preferential access for developing countries. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Flewitt, room MC3-333, telephone 202-473-2724, fax 202-522-1159, email address [pflewitt@worldbank.org](mailto:pflewitt@worldbank.org). Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at [amatoo@worldbank.org](mailto:amatoo@worldbank.org), [roy@econ.bsos.umd.edu](mailto:roy@econ.bsos.umd.edu), or [asubramanian@imf.org](mailto:asubramanian@imf.org). October 2002. (35 pages)

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# The Africa Growth and Opportunity Act and Its Rules of Origin: Generosity Undermined?

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## **Non-Technical Summary**

The African Growth and Opportunity Act (AGOA), signed into American law on May 18, 2000, is a major plank of U.S. initiatives toward the African continent. The Act aims broadly at improving economic policy-making in Africa, enabling countries to embrace globalization, and securing durable political and economic stability. As an incentive for Africa to adopt the necessary policy reform, AGOA offers increased preferential access for African exports to the United States.

This paper describes the provisions of AGOA and assesses its quantitative impact on African exports, particularly in the apparel sector. Its main conclusions are:

- AGOA will provide real opportunities to Africa. Even on conservative estimates about Africa's supply response, Africa's non-oil exports could be increased by about 8–11 percent.
- However, the medium-term gains could have been much greater if AGOA had not imposed certain conditions and not excluded certain items from its coverage. The most important condition is the stringent rule-of-origin, i.e., the requirement that exporters source certain inputs from within Africa or the United States. Our estimates suggest that the absence of these conditions would have magnified the impact nearly five-fold, resulting in an overall increase in non-oil exports of US\$0.54 billion compared with the US\$100-US\$140 million increase that is expected in the presence of these restrictions.
- These restrictions, particularly on apparel, will come at a particularly inopportune time, as Africa will be exposed to competition from other developing countries when the quotas maintained on the latter's exports under the Multi-Fiber Arrangement (MFA) are eliminated. Africa's apparel exports will be lower by over 30 percent with the dismantling of the MFA; if, on the other hand, AGOA had provided unrestricted access, the negative impact of the dismantling could be nearly fully offset.



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## I. INTRODUCTION

The recently concluded Monterrey Conference on “Financing for Development” is part of the wider and ongoing effort of the international community to help improve the growth prospects of developing countries, particularly those in Africa.<sup>1</sup> While the enthusiasm for aid as a remedy exhibits strong cyclical movements, with this particular upturn having happened pro bono, the importance of enhancing trading opportunities for developing countries survives the vicissitudes of ideology, research, and pop music.<sup>2</sup>

The African Growth and Opportunity Act (hereafter “AGOA”), signed into U.S. law as Title 1 of the U.S. Trade and Development Act on May 18, 2000, is a major plank of U.S. initiatives toward the African continent. The Act aims at broadly improving economic policymaking in Africa, enabling countries to embrace globalization, and securing durable political and economic stability. As an incentive for Africa to adopt these policy changes, AGOA offers increased preferential access for African exports to the United States. It envisages the possible conversion of AGOA—which is essentially a one-way preferential arrangement—into reciprocal free trade areas (FTAs) where feasible with interested African countries.

The paper assesses the impact of AGOA. Its main conclusions are the following:

- First, AGOA will provide real opportunities to Africa. Even on conservative estimates about Africa’s supply response, Africa’s non-oil exports could be raised by 8–11 percent.
- However, the gains from 2005 onward could have been much greater if AGOA (i) had imposed the multifiber agreement (MFA) rule of origin rather than the more stringent “yarn-forward” rule;<sup>3</sup> and (ii) not excluded certain items from its coverage. Our estimates suggest that the absence of these restrictions would have magnified the impact nearly five fold, resulting in an overall increase in non-oil exports of US\$0.54 billion compared with the US\$100-\$140 million increase that is expected in the presence of these restrictions.

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<sup>1</sup> Throughout this paper “Africa” will refer to sub-Saharan Africa.

<sup>2</sup> While various slogans are touted—such as “trade not aid,” and “trade and aid,” “aid for trade”—the combination “aid not trade” is never among them.

<sup>3</sup> Throughout this paper, the benchmark of “unrestricted access” for apparel exports will refer to an absence of quota and tariff barriers and to a rule of origin that requires only assembly in the beneficiary countries - as under the MFA.

- Third, these restrictions, particularly on apparel, will come at a particularly inopportune time, as Africa will be exposed to competition from other developing countries when the quotas maintained on the latter's exports under the MFA are eliminated in 2005. On the one hand, Africa's apparel exports will be lower by over 30 percent with the dismantling of the MFA; if, on the other hand, AGOA had provided unrestricted access, the negative impact of the dismantling could be nearly fully offset.

This paper adds to the recent work on the benefits to sub-Saharan Africa of preferential access granted by industrial countries (see Ianchovicina and others 2001 and Hoekman and others 2001). The main conclusion of these papers is that Africa stands to gain, but the bulk of the gains come from preferential access to the Japanese and European agricultural markets. These papers, however, do not explore fully the gains from apparel exports and how these are affected by rules of origin.

This paper is organized as follows. Section II describes the characteristics of Africa's exports. Section III elaborates on the provisions of AGOA, highlighting the key provisions on rules of origin. Section IV analyzes the impact of AGOA on the apparel sector and includes a description of the underlying theoretical model and the data and methodology used. Section V presents the available data on actual performance under AGOA for 2001 and allows for a broad cross-check on the predictions in the previous section. Section VI undertakes an overall assessment and offers some concluding remarks.

## II. BACKGROUND: AFRICA'S EXPORTS

Tables 1–4 present data on sub-Saharan African countries' total exports and their exports to the United States during the period 1990–99. A number of features stand out.

First, at about US\$27 billion in 1999, the absolute level of non-oil exports is very low (Table 1), reflecting a slow rate of growth during the 1990s. Non-oil exports from the continent grew at a glacial 0.6 percent per annum, consistent with notion of Africa's marginalization from global trade (Subramanian and Tamirisa, 2001).

Second, while Europe remains the biggest market for SSA's non-oil exports, absorbing about 55 percent, developing countries have seen their share of SSA's exports rise from 25.6 percent in 1990 to over 30 percent in 1999. Interestingly, while the United States accounts for a sizable share (23 percent) of total exports, it is actually a much smaller market (7.4 percent) for non-oil exports. In other words, the bulk of SSA's exports to the United States comprise oil and related products.

Third, SSA's exports remain predominantly agriculture and natural resource-based. Oil accounts for close to 50 percent of exports, agriculture and other commodities for about 36 percent, and manufacturing for a meager 12 percent. This composition has not substantially changed during the 1990s. Clothing, a key sector under AGOA, has been one of

the most dynamic, growing at an annual rate of close to 7 percent and has become one of the largest export items.

Fourth, in terms of exports of textiles and clothing, there are interesting differences in the composition and vibrancy of SSA's exports to the three major markets—European Union, United States, and developing countries. Developing countries are the largest market for exports of cotton and textile fibers from SSA, with the EU being the largest market for fabric and yarns and clothing but particularly so for the former category. Exports of clothing have grown most rapidly in the U.S. market, at about 10 percent per annum, from US\$187 million in 1990 to US\$620 million in 1999, compared with 6.5 percent for the EU (Table 3).

Finally, exports of clothing to the United States remain very concentrated: in 1999 a few countries—those in the South Africa Customs Union (SACU) and Mauritius—accounted for 80 percent and another three countries for a further 17 percent, of SSA's exports (Table 4).

### III. AGOA'S MAIN PROVISIONS

Prior to AGOA, 48 sub-Saharan African countries were granted preferential access to the U.S. market—essentially paying a zero tariff subject to certain conditions—for a range of exports under the Generalized System of Preferences (GSP). In 2000, the GSP covered about US\$4 billion out of Africa's total exports of US\$23 billion. The margin of preference—the advantage faced by African exporters compared with other most-favored nation (MFN) suppliers—was about 5 percent (the average MFN tariff rate). AGOA represents two advances over the GSP scheme:

- First, the existing preferential access enjoyed by SSA countries under the GSP scheme has been extended in time;<sup>4</sup> and
- Second, it increases the range of products for which preferential access is granted to include:
  - petroleum products;
  - apparel products, previously subject to quotas under the MFA and tariffs;<sup>5</sup>

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<sup>4</sup> The GSP scheme would probably have been extended even without the AGOA initiative. Nevertheless, the early assurance of its continuation under AGOA provides real benefits because it helps create a more predictable environment for traders and investors.

<sup>5</sup> However, in 2000, only 2 countries in SSA were formally subject to quotas: Mauritius and Kenya. And only Mauritius faced quotas (on about 25 percent of its exports) that could be considered binding.

- a range of other agricultural and industrial products.

Table 5 below describes the coverage of the existing and future regimes for Africa and allows a disaggregated assessment of benefits.<sup>6</sup> In terms of import coverage, whereas GSP covered about 17 percent of SSA's exports in 2000 (first unshaded panel in Table), AGOA would increase this fourfold to 72 percent.

In evaluating the benefits accruing under AGOA, however, it is important to consider not just the import coverage but the magnitude of current trade restrictions. For example, a large portion of the increased coverage under AGOA is accounted for by petroleum products, which faced average tariffs of only 1.5 percent prior to AGOA. The elimination of these tariffs, which will increase the price received by African suppliers (mainly Nigeria, Angola, and Gabon) by about 1 percent, will not yield significant benefits.

The really important incremental benefits provided by AGOA relate to the two non-petroleum categories in the lightly shaded panel in Table 5. The first comprises exports of apparel products and the second a whole range of non-apparel products, including footwear, agricultural products, watches etc. A number of items in the latter category, are, however, subject to tariff rate quotas, with out-of-quota tariffs (average and peak) being exceptionally high in many cases (Table 7a). These items are of special export interest for Africa and include tobacco (350 percent), peanuts (164 percent), Brazilian nuts (132 percent), beef (26 percent) etc. It is difficult to estimate how binding the quotas are, but in the analysis below, it will be assumed that they are not binding, rendering an upward bias to our estimates of the benefits of AGOA.

In both these categories, although current exports are low, potential benefits are large because average protection is high: while the table shows that tariffs on apparel are 13 percent, actual protection is considerably higher because of the quotas on exporters under the MFA. If this protection were eliminated, exports could increase substantially. However, a key determinant of these benefits will be the rule of origin that African exporters will have to meet to qualify for the duty free treatment. In the next sections, we examine in greater detail, how the rules of origin will affect the benefits flowing to African countries in the key apparel sector and how they qualify the generosity of AGOA.

However, the Table indicates that AGOA's coverage has been less comprehensive than it might have been: the last two rows show that there remain 1067 tariff lines for which preferences were not granted. Of these, 174 lines face an average tariff of 2.5 percent, while the remaining 893 lines face average tariffs of about 11 percent. Although small in terms of current export values, some of these items—mainly textiles and footwear—are of potential export interest for Africa and face, in some cases, exceptionally high tariffs (Table 7b).

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<sup>6</sup> Table 6 provides a more elaborate description of the GSP scheme and AGOA.

In sum, the conclusions that can be drawn from the above are:

- First, while AGOA has increased the scope for preferential access for African exports, this increase is important only for categories of products which have significant protection. These currently account for 5 percent of total exports and 23 percent of non-oil exports.
- Second, even for these categories, the real medium-term benefits will depend upon the impact of the rules of origin requirements (see below);
- Third, AGOA's generosity was not all encompassing for Africa: for about 1,067 tariff lines (1 percent of non-oil exports), preferential access was not extended. For 893 of these lines preferential access could have been meaningful because of the high level of MFN tariffs.

#### **A. AGOA's Provisions on Rules of Origin**

As described above, the benefits of the incremental coverage under AGOA—the extension of access to apparel and other products—will hinge crucially on the rules of origin that African exporters will have to meet. These rules vary across these two categories of exports.

##### **Rules of origin for non-apparel exports**

Under the GSP scheme duty-free treatment is to be applied to any designated article that meets the requirements of the basic GSP origin and related rules. The GSP rules of origin are described in Table 6. The key is a requirement of 35 percent value addition within the customs territory claiming preference. However, for non-apparel products eligible for duty-free access under AGOA, the 35 percent value added content can be met also by counting production or materials from other beneficiary countries or the United States. The rules of origin clauses are supplemented with implementation requirements. For example, an importer claiming duty-free treatment must make and maintain (for a period of five years from the date of entry) the records validating facts like proof of production, value addition, shipping papers etc.

##### **Rules of origin for apparel exports**

AGOA's provisions on rules of origin relating to apparel are different and are summarized in Table 8. They require essentially that apparel be assembled in eligible sub-Saharan African countries and that the yarn and fabric be made either in the United States or in African countries (as explained below this does not apply to the least developed countries in Africa until 2004). However, apparel imports made with regional (African)

fabric and yarn are subject to a cap of 1.5 percent of overall U.S. imports, growing to 3.5 percent of overall imports over an 8-year period.<sup>7</sup>

In addition a number of customs requirements need to be satisfied. To receive the apparel and textile benefits of AGOA, a USTR-chaired inter-agency committee must determine, inter alia, that countries have an effective visa system and enforcement procedures to prevent unlawful transshipment and the use of counterfeit documents.

There is an interesting difference between the rules of origin under the Cotonou Agreement, which governs preferential access to the European Union, and AGOA. The Cotonou rule of origin is based on the concept of "double transformation" i.e., if two of the processing stages (yarn into fabric—weaving; and fabric into apparel—assembly) are done in the beneficiary country, duty free entry into the EU can be enjoyed. Under Cotonou, therefore, yarn can be sourced from anywhere in the world, whereas under AGOA the yarn must come from a beneficiary SSA country or from the United States.

#### **IV. ECONOMIC IMPACT OF AGOA'S APPAREL PROVISIONS**

##### **A. AGOA's Apparel Provisions and Their Timing**

In order to quantify the economic impact of AGOA, it is necessary to understand the provisions and their timing, which are summarized in Table 9. In the apparel sector, AGOA distinguishes two categories of SSA countries.

Lesser Developed Beneficiary Countries (LDBC), namely those with per capita GNP under \$1500 in 1998 (based on the World Bank Atlas method), and other SSA countries will see their quotas on apparel exports eliminated beginning 2001.<sup>8</sup> Both sets of countries will

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<sup>7</sup> Based on the growth trend of U.S. apparel imports in recent years, the cap on apparel imports from sub-Saharan Africa under AGOA could conceivably expand to \$4.2 billion in eight years, from the current level of \$584 million. It is unlikely that the cap will be binding for two reasons. First, the utilization rate, though growing, was around 40 percent in the first nine months of 2002, and is projected to reach a little over 50 percent for the whole year. Second, the recent passage of the Trade Promotion Authority bill by the U.S. Congress has doubled the size of the cap on imports of apparel made from regional fabric - which will now reach 7 percent of overall imports in 2008.

<sup>8</sup> Forty-two countries in sub-Saharan Africa fall below the specified GNP level and hence qualify as an LDBC under AGOA; another two countries—Botswana and Namibia—have recently been designated as LDBCs despite their high GNP levels. Thus, only the following four do not qualify: Gabon, Mauritius, Seychelles, and South Africa. As of end-2001, 12 countries—Mauritius and Kenya (January), South Africa and Madagascar (March), Lesotho (April), Swaziland (July), Ethiopia, Malawi, and Botswana (August), Uganda (October), and

also be granted duty-free access as of 2001. Such access will be subject to the tighter rules of origin for the latter group of (i.e. richer) countries from 2001. For the LDBC's, the tighter rules of origin described above will only apply as of 2004; until then they will qualify for duty-free access as long as apparel products are merely assembled in the beneficiary country.

In discussing the empirical findings, an important complication needs to be borne in mind. The changes unleashed by AGOA will be accompanied by other important changes to the external trading environment, most notably the dismantling of the MFA under the Uruguay Round, scheduled for 2004 (shown in italics in the table above). In reality, the impact on African countries will be a combination of these two sets of changes. In the following analysis we shall attempt to isolate the different effects so that the marginal contribution of AGOA can be established. In other words, we shall analyze (i) the marginal impact of AGOA, holding other factors constant and (ii) the total impact of AGOA in conjunction with the dismantling of the MFA.

## B. Theoretical considerations

### Pre-AGOA equilibrium

The economic impact can be analyzed using a simple (partial-equilibrium) model of the economic effects of preferential arrangements under the conditions spelt out above. The model is illustrated in the figure below. Consider the case of a small African country (say Mauritius) with an export supply curve represented by the upward sloping schedule X. This schedule reflects the optimal unconstrained choice of inputs made by exporters. The U.S. import demand for apparel products is represented in the demand curve DD. In the absence of tariffs and other restrictions, Mauritius, being small, faces an infinitely elastic demand curve at the going world price  $P_w$ . If the United States levies a tariff of  $t$  on all imports, the domestic price in the United States shifts to  $P_{w+t}$ . Mauritius's export supply curve also shifts by an equivalent amount to  $X(t)$ .

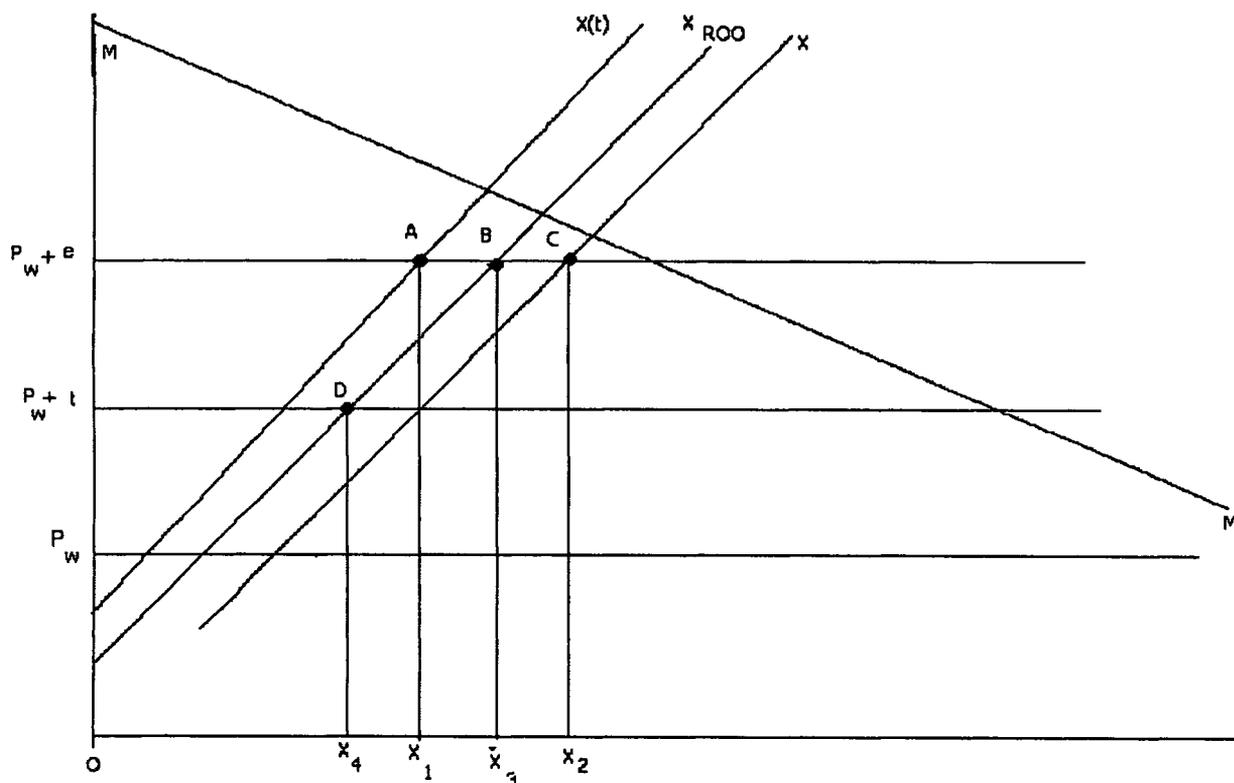
The situation pre-AGOA is one where Mauritius's competitors face export quotas. This has the effect of raising the price in the United States above the tariff-inclusive price to  $P_{w+e}$ , where  $e$  is the domestic tariff equivalent (in the United States) of the quotas faced by other (large) suppliers to the United States. In this case, Mauritian exporters receive a price equal to the domestic price  $P_{w+e}$  minus the tariff that has to be paid. The pre-AGOA equilibrium is denoted by the point A in the figure.<sup>9</sup>

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Namibia and Zambia (December)—qualified for the apparel benefits under AGOA. Five more countries—Tanzania (February), Mozambique (February), Cameroon (March), Ghana (March) and Senegal (April)—have qualified for the apparel benefits in 2002.

<sup>9</sup> We are assuming that pre-AGOA Mauritius is not quota-constrained, as the equilibrium is on its supply curve. Because Mauritius and most African countries are small, restrictions on

Figure 1. Partial Equilibrium Model of Preference under AGOA



**Post-AGOA equilibrium (2001–2004)**

With the enactment of AGOA, Mauritius receives preferential access into the U.S. market. The effective supply curve of Mauritian exporters shifts down, while prices in the importing country remain at  $P_{w+e}$  (in other words, Mauritian exporters receive the domestic price because they do not have to pay the tariff). How much the export supply curve shifts down will depend, of course, on the rule of origin. For a least developed beneficiary country,

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their export supply are not likely to affect domestic U.S. prices. In other words, as long as Mauritius' competitors are quota-constrained, Mauritian exporters receive a net price of  $P_{w+e-t}$ , regardless of whether they themselves are quota-constrained—assuming they receive the full domestic price. As indicated above, virtually all SSA countries, with the sole exception of Mauritius (for 2 products), do not face quotas or are not constrained by them. Hence the assumption throughout the paper is to treat SSA countries as not being quota-constrained themselves prior to AGOA.

which faces no rule of origin until 2004, the export supply curve will be  $X$  as it can continue to choose inputs without constraints) and the resulting equilibrium will be at the point  $C$ , with the increase in exports represented by the horizontal distance  $X_1X_2$ . For a country such as Mauritius, however, the rule of origin will increase the cost of exports and the new export supply curve (reflecting the exporters' new constrained choice of inputs) will be  $X_{roo}$ , with the vertical distance between  $X$  and  $X_{roo}$  representing the additional cost imposed by the rule of origin. The new equilibrium will be at point  $B$  in the diagram, with the increase in exports denoted by the distance  $X_1X_3$ . The distance  $X_2X_3$  can be thought of as the cost in foregone exports due to the rule of origin.

### **Post-AGOA equilibrium (2005–2008)**

From 2005 onwards, the same rule of origin will apply to both sets of African countries so that the export supply curve will be represented by  $X_{roo}$ . However, due to the elimination of the quota on competitors under the Uruguay Round commitments, the price in the U.S. market will decline to  $P_{w+t}$ , which will also be the net price received by Mauritian exporters. The new equilibrium will be at point  $D$ , where the rule-of-origin-inclusive export supply curve intersects the tariff-inclusive curve  $P_{w+t}$ .

Table 9 summarizes the impact on exporters in African beneficiary countries of the various changes in the apparel market. The first row applies to the least developed countries while the second row applies to other sub-Saharan African countries. Prices received by least developed country textile exporters will increase substantially between 2001 and 2004 but decline sharply after 2004 because of the abolition of the MFA quotas. For non-LLDC suppliers, the initial benefit of the price rise will be more muted but so will the subsequent decline as MFA quotas are abolished.

### **C. Methodology and Data**

The analysis above helps in identifying the data requirements for carrying out the empirical examination. Data are needed on the following for each of the apparel products whose export is affected by AGOA:

- The tariff equivalent ( $e$ ) of the export quotas on textile exporting countries under the MFA
- Tariffs on imports of apparel products ( $t$ ) into the United States; and
- The cost of complying ( $c$ ) with the rule of origin, represented as the upward shift of the export supply function. In turn, this depends on three factors:

- The incremental cost of *switching purchases of inputs* (yarn/fabric) away from the cheapest source (when the rule of origin does not apply) to the AGOA-designated source (Africa or the United States.);
  - The incremental *transport* (which could be positive or negative) cost of switching purchases of inputs (yarn/fabric) away from the cheapest source (when the rule of origin does not apply) to the AGOA-designated source (Africa or the United States);
  - The cost function which translates these input and transport cost differentials into aggregate cost shifts.
- Finally, to translate all these cost and price effects into quantity effects, assumptions are made in the paper about the elasticity of export supply.

In the analysis, we calculated the impact under two different assumptions about the cheapest source for importing inputs in order to meet the rule of origin. In the first, the cheapest source was assumed to be South Africa because the ex post data indicated that this was the overwhelming choice by Mauritian and South African exporters facing rules of origin. We also did the calculations on the assumption that the United States was the cheapest source. For this assumption, however, the incremental transport costs of sourcing from the United States had to be calculated which we describe below. Overall, however, results were broadly similar under the two scenarios because the relative efficiency of the United States in producing inputs was offset by the larger transport costs of sourcing from the United States relative to South Africa.

#### **Tariff equivalent of export quotas (e)**

These are derived from the estimates for India provided by Kathuria and Bharadwaj (2000). The implicit assumption made is that domestic prices in the United States will be higher than the world price by the amount of the export tax equivalents in the exporting countries. SSA exporters would then receive this higher domestic price if they have tariff and quota-free access and the domestic price less the tariff if they do not have such access.<sup>10</sup>

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<sup>10</sup> The assumption that the exporter receives the full domestic price in the importing country might not be appropriate because importing country intermediaries may appropriate some of the benefits of protection. Our assumption has the effect of exaggerating the benefits of preferential access as well as the losses from the elimination of protection vis-à-vis the rest of the world under the Uruguay Round agreement on textiles and clothing.

### **Incremental costs of inputs**

In principle, detailed firm-level data would be required on costs of producing yarn and fabric in the most efficient country (say China) and in the United States and Africa (AGOA-designated sources of inputs). Given the difficulty of this exercise, we use a theoretical insight due to Krueger (1993) that allows us to use as a proxy for the incremental costs, the tariff on inputs levied in the AGOA-designated source country (Africa or the United States). This implies that the costs of sourcing inputs from such a country (because of the rule of origin requirement) would be greater than from the most efficient source by an amount equal to the protection accorded to them. Thus, rules of origin are essentially a way for a country to export its protection on inputs.

### **Incremental transport costs**

Data for Mauritius and Madagascar indicated that the cheapest source of yarn and fabric was China. We obtained data from shipping companies on the costs of shipping from China to Mauritius; China to the United States; and from the United States to Mauritius.<sup>11</sup> This allowed us to compute the extra transport cost imposed by the rule of origin.

### **Cost function**

For the purposes of our analysis, we assumed a simple Leontief technology, implying limited substitution between intermediates and primary factors of production. The assumed coefficient of yarn for use in the production of apparel was 0.38, which is consistent with the assumptions for Africa in the Global Trade Analysis Project (GTAP) model used by the World Bank in its general equilibrium computations on the effect of trade liberalization.<sup>12</sup>

### **Export supply elasticities**

We assumed a range of values for the export supply elasticities, from 1 to 5. Countries such as Mauritius and South Africa that have higher wage costs and are running into capacity constraints are expected to fall at the lower end of the range of export supply elasticities. In contrast, Lesotho and Madagascar, which are witnessing large investments as firms try to exploit the lower wage costs, are likely to be able to expand output and exports more easily, suggesting that high export elasticities would be applicable to them.<sup>13</sup>

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<sup>11</sup> These data are available from the authors on request.

<sup>12</sup> The assumed coefficient is also broadly consistent with the figure obtained from input-output data for South Africa.

<sup>13</sup> Faini (1994), one of the few studies on developing countries, reports an estimate of 3.4 for an aggregate export supply elasticity for Turkey. Thus a sectoral elasticity of 5 for small African countries need not be unrealistic. To a large extent, investment in the apparel

## **D. Results**

The results are illustrated in Table 12. For a country such as Mauritius, the impact can be summarized as follows<sup>14</sup>:

### **2001–2004**

The impact of AGOA during the period 2001 and 2004 will be to raise exports relative to the pre-AGOA situation by about 5 percent.<sup>15</sup>

- Had there been no rule of origin requirement on Mauritius, the increase in exports due to the tariff preferences accorded by AGOA would have been 36 percent, substantially higher than with rules of origin.

### **2005–2008**

- In 2005, when the MFA quotas on Mauritius' competitors are eliminated, its exports will be about 26 percent lower than they otherwise would have been. But if AGOA is modified to eliminate the rules of origin requirement, the decline in exports would be 18 percent.

For a least developed country such as Madagascar, the results are more dramatic both on the up side and down.

### **2001–2004**

- The impact of AGOA during the period 2002 and 2004 will be to increase exports relative to the pre-AGOA situation by about 92 percent.<sup>16</sup>

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industry is determined by unskilled labor costs, which as Table 11 shows continues to remain low in much of SSA, except for Mauritius and South Africa.

<sup>14</sup> The following assumes that Mauritius, prior to AGOA, was not quota constrained and will only benefit from the tariff preference effect. This is supported by data for 1999 and 2000 which show that quota utilization by Mauritius was less than 50–60 percent for all categories except two. These two categories accounted for about 25 percent of total exports by value.

<sup>15</sup> This is for the most plausible scenario characterized by an export supply elasticity of 1.

<sup>16</sup> This is for the most plausible scenario characterized by an export supply elasticity of 5.

## 2005–2008

- In 2005, when the MFA quotas on Madagascar's competitors are eliminated, its exports will be lower by about 19 percent compared with the pre-AGOA situation. But if AGOA is modified to eliminate the rules of origin requirement, exports in 2004 could actually be higher than they are currently despite the elimination of the MFA.

## V. REVEALED APPAREL TRADE UNDER AGOA

AGOA has not been in place for a long time but it is worth examining post-AGOA trade to see if any inferences can be drawn about its impact. Based on the notification of eligibility, AGOA provisions are now up to twelve months old for some sub-Saharan African countries. Knowledge about the implementation of AGOA has been publicly available since the beginning of 2000. The early trends could provide some indication of the changes in sub-Saharan Africa-U.S. trade owing to AGOA. Table 13 provides data on the apparel sector, which contains a few striking features.

Apparel exports have recorded a substantial increase following AGOA: both in terms of values and quantities, exports in 2001 were about 27 percent higher than in 2000. It is striking that the most impressive gains have been recorded by the least developed beneficiary countries: as the table shows, Madagascar, Kenya, Swaziland, and Lesotho have recorded gains varying from 47 percent to 83 percent. In contrast, South Africa and especially Mauritius, have posted more modest growth. These results are consistent with the ex ante predictions made in the previous section.

This differential performance could be due to a variety of factors. It is plausible that South Africa and especially Mauritius are running run up against capacity constraints especially with rising wage levels, whereas the least developed countries are exploiting their cheap labor costs and attracting large amounts of new investment. A second reason could be that AGOA, for the period 2001–2004, changed the relative attractiveness of sourcing supply in the least developed countries compared with Mauritius and South Africa by imposing rules of origin requirements on the latter. Thus, AGOA could have led to some trade diversion away from Mauritius and South Africa toward the least developed beneficiary countries.

A striking feature of the data is that a very small portion of total exports (9-14 percent) from South Africa and Mauritius have benefited from the tariff preference, whereas for the least developed countries not subject to the rule of origin requirement the corresponding share is close to 50 percent, highlighting the restrictive impact of the rules of

origin.<sup>17</sup> In other words, close to 90 percent of the exports of South Africa and Mauritius did not meet the rules of origin requirement.

Given the fact that the LBDCs will be subject to the same rules of origin in 2004, the above serves as a cautionary reminder about the likely effects for the poorer countries after 2004; in other words, export growth may be considerably muted for the LBDCs after 2004 as the rules of origin kick in.

Finally, it is interesting to compare the performance of SSA countries with those in the Caribbean which have received preferential access similar to AGOA. Data for 2001 indicates that about 55 percent of the apparel exports of Caribbean countries benefited from preferential access compared with 9–14 percent for Mauritius and South Africa. One reason that Caribbean countries found it profitable to import yarn from the United States and avail themselves of the preferential access, a course that Mauritius and South Africa evidently found not to be profitable, appears to be the lower transport costs.

## VI. OVERALL ASSESSMENT AND CONCLUSIONS

AGOA's impact can be evaluated against two possible benchmarks. The first is current trade and the other is "what might have been"—that is, trade that would have resulted had all restrictions on SSA's exports been eliminated. Our estimate of what AGOA will entail for aggregate sub-Saharan African exports is presented in Table 14 below.

The fourth column of Table 14 presents our estimates of projected trade under AGOA. We would note two important caveats here. First, our estimates are sensitive to the supply capacity of SSA, which we capture in our assumption about the supply elasticity. For the apparel sector, we assume an average export supply elasticity of 1 for South African and Mauritius and 5 for the other countries. For the non-apparel sector we assume an average export supply elasticity of 2 for the region as a whole.<sup>18</sup> Second, we do not have enough information to estimate precisely the impact of the rules of origin requirements in the non-energy non-apparel sector. Therefore, we present two estimates, reflecting two different

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<sup>17</sup> Of course, this share should be close to 100 percent but may not be for three reasons. First, it is possible that certain exporter-specific certification requirements prevented full exploitation of the tariff preferences for the least developed beneficiaries. Second, Lesotho and Madagascar obtained their certification in March/April so that exports prior to that period could not benefit from AGOA. Third, knit-to-wear items (which are important for Madagascar) were not accorded the preferential access until August 2002.

<sup>18</sup> It should be noted that in general equilibrium, the export response will be more muted and hence aggregating the effects based on large sectoral export elasticities may overstate the overall benefits.

assumptions about the restrictiveness of the rules of origin: (i) the restrictiveness in the non-apparel sector is comparable to that in the apparel sector; and (ii) rules of origin have no restrictive impact in the non-apparel sector.

AGOA will raise the level of non-oil exports by between 8 percent and 11 percent, depending on the restrictiveness of rules of origin in the non-apparel sector.<sup>19</sup> Most of this increase is accounted for by the apparel sector, which is expected to see higher exports of about 8.3 percent.

We can, however, be a little less circumspect when we compare AGOA against the second benchmark, of fully unrestricted access, which is the level that Africa's trade would have attained had the United States (i) not excluded any product from the scope of AGOA<sup>20</sup> and (ii) not imposed stringent rules of origin requirements to qualify for the benefits under it. The sixth column of the table shows that non-oil exports would have been higher by about 43 percent if unrestricted access had been provided. This means that AGOA as it is now stands will yield only 19-26 percent of the benefits that could have been provided if access had been unconditional. Nearly 80 percent of this shortfall is accounted for by the rules of origin requirements in the apparel sector which will significantly reduce exports below SSA's full potential. The magnitude of the shortfall is invariant with respect to the supply elasticity—which affects both our estimate of projected trade under AGOA and trade under unrestricted access proportionally.

Finally, there is the broader question of whether the magnitude of gains suggested by our estimates is significant. The increase in exports represents a small fraction of these countries' GDP, but this is a direct consequence of the fact that SSA is marginalized from global trade in the first place. However, even though in aggregate the gains are small, the experience of individual countries such as Mauritius and Madagascar show that the trading opportunities provided by preferential access can be harnessed in a way that promotes long-run growth (see Subramanian and Roy, 2001).

A number of limitations to our analysis need to be pointed out. First, some of the numbers that we have presented on apparel exports are sensitive to the assumed supply response. Not only are current elasticities of export supply difficult to estimate precisely,

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<sup>19</sup> It bears repetition that these numbers represent how much exports will be higher than what they would otherwise be; for example, if exports even without AGOA grow at a certain trend rate because of changes in demand and supply, our estimates show how much AGOA raises this trend path of exports.

<sup>20</sup> The recent passage of the Trade Promotion Authority bill by the U.S. Congress will expand AGOA benefits somewhat. These include extending duty-free treatment to knit-to-shape apparel, doubling the size of the cap on imports of apparel made from regional fabric, and extending LDBC benefits to Namibia and Botswana.

they are also likely to vary over time as countries undertake reforms and improve the climate for investment in the apparel sector as demonstrated for two decades by Mauritius and most recently by Madagascar and Lesotho.

Second, while we have computed the impact of AGOA on SSA countries' exports to the United States, we have not estimated how much of this increase is a result of a diversion of SSA exports from other markets such as the EU and how much is a net increase. In principle, there could be some diversion because AGOA has altered the relative incentives of selling in the two markets, which depend on differences in levels of protection and in the rules of origin. For example, the U.S. rule of origin, which has the effect of exporting U.S. levels of protection of yarn to beneficiary countries, is different from the EU variant, which has the effect of exporting EU levels of protection in the weaving process.

Third, it is much more difficult to estimate the effects of rules-of-origin in the non-apparel sector because the data requirements are very demanding. In principle, the analysis carried out above for apparel would have to be repeated for the nearly 2000 lines covered by AGOA. This task is complicated by the difficulty in estimating to what extent the "35 percent of value-added" rule of origin is binding.

Further, it should be mentioned that the gains for Africa from AGOA will represent losses for other suppliers due to trade diversion, although the magnitudes involved suggest that the losses will be small relative to the total exports of these suppliers.

Although rules of origin have restrictive effects, mention should be made of their possible favorable consequences. If there were literally no rule of origin, Africa could become a staging post for transshipping goods made abroad with African countries effectively collecting the rent implicit in this process. In this case, there would be no value addition in, or economic engagement on the part of, the African beneficiaries. On the other hand, a rule of origin that requires "too much" value addition in Africa could nullify completely the benefit of AGOA by making any such value addition unprofitable.

If Africa has a potential comparative advantage in the earlier stages of production, which it is unable to exploit because of some market failure, then a currently onerous rule-of-origin may have dynamic benefits, such as those from learning-by-doing. However, the questions arise as to whether there is market failure and whether restrictive rules-of-origin are the most appropriate remedy.

Second, the design of AGOA, with less onerous conditions for the least developed countries for a transitional period, also highlights an equity objective that the rule of origin aims to achieve. The design—tilting the incentives in favor of the poorer countries—seeks to ensure that within Africa the benefits of preferential access are not appropriated entirely by Mauritius and South Africa.

Table 1. Growth in Sub-Saharan African Exports, 1990–99 1/

(in US\$ billion)

	Value		Rate of growth	Share	
	1990	1999	1990-99 (in percent)	1990	1999
Total exports of which	48.6	49.6	0.2	100	100
Europe	23.1	18.3	-2.5	47.5	37.0
United States	11.7	11.3	-0.3	24.0	22.9
Other OECD	3.5	2.5	-3.7	7.2	5.0
Africa	0.4	0.4	2.4	0.7	0.9
Developing	10.0	17.0	6.1	20.5	34.2
Non-oil exports of which					
Europe	14.2	14.5	0.3	55.8	54.3
United States	1.7	2.0	2.1	6.5	7.4
Other OECD	2.8	1.7	-5.4	10.9	6.2
Africa	0.3	0.4	4.0	1.2	1.7
Developing	6.5	8.1	2.5	25.6	30.4

Source: World Bank

Note: OECD denotes the organization for Economic Cooperation and Development.

1/ Excludes countries in the South Africa Customs Union

2/ Annual average.

Table 2. Sub-Saharan Africa, Top 20 Exports 1/

SITC code	Description	Value, 1999 (in US\$ bn.)	Share (percent)	Growth Rate (1990-99)	SITC code	Description	Value, 1990 (in US\$ bn.)	Share (percent)
<b>All Markets</b>								
33	Petroleum and products	22.80	48.0	(0.2)	33	Petroleum and products	23.19	47.7
7	Coffee, tea, cocoa, spices	5.97	12.1	4.6	7	Coffee, tea, cocoa, spices	3.98	8.2
66	Nonmetal mineral manuf nes	2.59	5.2	4.0	68	Nonferrous metals	3.28	6.7
24	Cork and wood	2.20	4.4	0.8	24	Cork and wood	2.04	4.2
3	Fish and preparations	1.96	4.0	3.7	66	Nonmetal mineral manuf nes	1.81	3.7
84	Clothing and accessories	1.78	3.6	7.3	28	Metallic ferrous ores, scrap	1.78	3.7
5	Vegetable and fruit	1.72	3.5	6.6	79	Other transport equipment	1.42	2.9
26	Textile fibers	1.41	2.8	0.7	3	Fish and preparations	1.41	2.9
28	Metallic ferrous ores, scrap	1.28	2.6	(3.5)	26	Textile fibers	1.33	2.7
12	Tobacco and manufactures	1.15	2.3	7.5	5	Vegetables and fruit	0.97	2.0
68	Nonferrous metals	1.01	2.0	(12.2)	84	Clothing and accessories	0.95	1.9
6	Sugar and preserves, honey	0.50	1.0	(5.9)	6	Sugar and preserves, honey	0.86	1.8
29	Crude animal and vegetable material	0.46	0.9	5.7	52	Inorganic/petroleum chemicals	0.61	1.3
79	Other transport equipment	0.43	0.9	(12.3)	12	Tobacco and manufactures	0.60	1.2
52	Inorganic/petroleum chemicals	0.37	0.8	(5.3)	27	Crude fertilizer and minerals	0.42	0.9
34	Gas natural and manufactured	0.34	0.7	28.6	97	Gold, nonmonetary nes	0.41	0.8
63	Wood cork manufactured nes	0.32	0.7	3.7	67	Iron and steel	0.40	0.8
22	Oil seeds, nuts and kernels	0.31	0.6	7.0	23	Rubber crude synthetic	0.35	0.7
23	Rubber crude synthetic	0.24	0.5	(4.3)	42	Fixed vegetable oil and fat	0.31	0.6
89	Miscellaneous manufactured goods	0.23	0.5	9.1	29	Crude animal and vegetable material	0.28	0.6
<b>United States</b>								
33	Petroleum and products	9.35	82.5	(0.7)	33	Petroleum and products	10.00	85.8
7	Coffee, tea, cocoa, spices	0.48	4.2	2.9	7	Coffee, tea, cocoa, spices	0.37	3.2
84	Clothing and accessories	0.37	3.2	9.9	66	Nonmetal mineral manufactured nes	0.24	2.1
66	Nonmetal mineral manufactured nes	0.24	2.2	0.1	28	Metallic ferrous ores, scrap	0.24	2.1
28	Metallic ferrous ores, scrap	0.16	1.4	(4.6)	84	Clothing and accessories	0.16	1.3
68	Nonferrous metals	0.10	0.8	(1.9)	68	Nonferrous metals	0.11	1.0
12	Tobacco and manufactures	0.09	0.8	3.7	93	Special transaction	0.08	0.7
79	Other transport equipment	0.06	0.5	82.3	6	Sugar and preserves, honey	0.08	0.7
89	Miscellaneous manufactured goods	0.06	0.5	16.1	12	Tobacco and manufactures	0.06	0.5
34	Gas, natural and manufactured	0.04	0.4		23	Rubber crude synthetic	0.05	0.4
67	Iron and steel	0.04	0.4	(1.3)	67	Iron and steel	0.05	0.4
23	Rubber crude synthetic	0.04	0.4	(1.5)	27	Crude fertilizer and minerals	0.04	0.3
63	Wood cork manufactured nes	0.04	0.3	22.0	29	Crude animal and vegetable material	0.04	0.3
93	Special transaction	0.04	0.3	(7.7)	3	Fish and preparations	0.03	0.3
29	Crude animal and vegetable material	0.03	0.3	(2.3)	5	Vegetables and fruit	0.02	0.2
22	Oilseeds, nuts and kernels	0.02	0.2	55.1	89	Miscellaneous manufactured goods	0.02	0.1
24	Cork and wood	0.02	0.2	13.4	65	Textile yarn, fabrics, etc.	0.01	0.1
6	Sugar and preserves, honey	0.02	0.2	(13.2)	24	Cork and wood	0.01	0.1
5	Vegetables and fruit	0.02	0.2	(2.6)	63	Wood cork manufactured nes	0.01	0.1
3	Fish and preparations	0.02	0.1	(7.8)	21	Hides, skins, furs undressed nes	0.01	0.1

Source: World Bank

Note: nes=not elsewhere specified.

1/ Excludes countries in the South Africa Customs Union

Table 3. Sub-Saharan African Exports of Textiles and Clothing 1/

	Value (in US\$ million)		Growth (annual average) 1990-99	EEC15		United States		Developing 2/	
	1990	1999		1990	1999	1990	1999	1990	1999
	Textile fibres	1328	1413	0.7	36.8	24.8	0.0	0.7	49.8
Textile yarn, fabrics etc	228	206	-1.2	57.7	64.4	16.6	3.5	24.5	29.1
Clothing and accessories	947	1780	7.3	70.3	54.1	6.1	20.6	19.8	23.6
<b>Total</b>	<b>2503</b>	<b>3398</b>	<b>3.5</b>	<b>47.8</b>	<b>42.6</b>	<b>6.8</b>	<b>11.3</b>	<b>37.5</b>	<b>42.1</b>

Source: World Bank

1/ Excludes countries in the South Africa Customs union

2/ Excludes countries in Africa

Table 4. Top Sub-Saharan Exporters of Apparel to the United States, 1990 and 1999

Country	1990		Country	1999		Growth (annual average)
	Value (in US\$ million)	Share		Value (in US\$ million)	Share	
Mauritius	131.3	70.2	South Africa 1/	253.7	40.9	26.6
South Africa 1/	30.3	16.2	Mauritius	246.0	39.7	7.2
Zimbabwe	7.7	4.1	Madagascar	49.1	7.9	68.6
Mozambique	6.0	3.2	Kenya	42.1	6.8	33.0
Malawi	5.3	2.8	Zimbabwe	18.6	3.0	10.3
Kenya	3.2	1.7	Ghana	3.8	0.6	52.6
Tanzania	0.9	0.5	Tanzania	2.9	0.5	14.2
Cote d'Ivoire	0.5	0.3	Malawi	1.5	0.2	-13.2
Madagascar	0.4	0.2	Seychelles	1.0	0.2	n.a.
Burundi	0.2	0.1	Cote d'Ivoire	0.6	0.1	0.9
Comoros	0.2	0.1	Comoros	0.4	0.1	9.2
Mauritania	0.2	0.1	Mali	0.1	0.0	-1.2
Mali	0.2	0.1	Nigeria	0.1	0.0	2.2
Sierra Leone	0.1	0.1	Sierra Leone	0.1	0.0	-1.4
<b>Total</b>	<b>187.2</b>	<b>100.0</b>	<b>Total</b>	<b>620.3</b>	<b>100.0</b>	<b>14.2</b>

Source: World Bank.

Note: n.a. indicates that data are not available.

1/ Includes all countries in the South Africa Customs Union.

Table 5: Coverage of GSP and AGOA

Category/Import program	Number of tariff lines (8-digit HTS)	Average MFN ad-valorem rate <sup>21</sup>	SSA Exports in 2000 (million US \$)	Main Products
<b>Current GSP: Extended Under AGOA</b>				
Energy	10	1.5%	3149	Energy and related products
Non-Energy	2,458 =A 1,071 = A* 1,630 = A+ Total = 5,159 <sup>22</sup>	5.0%	776	Agricultural products, machine tools, minerals, metals, yarns and fabric, and chemicals.
<i>Subtotal GSP</i>	<i>6,159 (48%)</i>		<i>3,925 (17%)</i>	
<b>Already duty-free items</b>				
Duty-Free	3,404	0%	2,386	Fish, cocoa, fruits, juices, liquor products, tobacco, minerals (uranium, aluminum, zinc), oils, rubber, wood, wool, stones and machine parts
<b>AGOA: Incremental Coverage</b>				
Energy	36	1.5%	15,569	Energy and related products
Apparel	622	12.8% <sup>23</sup>	816	Apparel products
Non-Energy Non-Apparel	1978	9.4%	424	Agricultural products, minerals, plastics and metal products, articles of wood, watches and accessories, paper products, footwear
<i>Subtotal AGOA</i>	<i>2632 (21%)</i>		<i>16809 (73%)</i>	
<b>Exclusions from AGOA</b>				
Duty Between 0 and 5 percent	174	2.5%	14.5	Yarns, fabrics, agricultural products, textile footwear components, and glass fibers
Duty Greater than 5 percent	893	10.9%	25.4	Fibers, yarns, and other textile products
<i>Subtotal exclusions</i>	<i>1,067 (8%)</i>		<i>40 (0.2%)</i>	
<b>Total</b>	<b>12,750</b>		<b>23,160</b>	

Source: Authors' calculations.

<sup>1</sup>/ Includes ad valorem tariffs or the ad valorem equivalent of specific tariffs wherever applicable.

<sup>2</sup>/ "A" refers to GSP for all developing countries and "A+" for least developed countries; "A\*" refers to GSP for all countries except those designated as ineligible under that product category.

<sup>3</sup>/ This understates the true measure of protection because of the quotas on textile exporters under the MFA.

Table 6. Summary of Trade-Related Preferences for Africa

<i>Trade Preference</i>	<i>Countries Included</i>	<i>Provisions</i>
<b>GSP</b>	Côte d'Ivoire	<p><b>1. Eligibility</b></p> <p>Not be a Communist country, unless receives "Normal Trade Relations" treatment, is a member of the GATT and IMF, and is not dominated by international communism.</p> <p>Not a party to an arrangement of countries that causes disruption of world economy through withholding of supplies of vital commodities or raising their prices.</p> <p>Not afford preferential treatment to products of a developed country that has, or is likely to adversely affect United States commerce.</p> <p>Not infringed on U.S. property without compensation or agreement to mutually agreed arbitration.</p> <p>Has taken or is taking steps to afford internationally recognized worker rights.</p> <p>Not aid or abet international terrorism.</p> <p><b>of origin:</b> The GSP rules of origin require that a product be the "growth, product or manufacture" of a beneficiary sub-Saharan African country and that:</p> <p>The article must be imported directly from the beneficiary into the United States; and</p> <p>The sum of the cost or value of materials produced in the beneficiary country plus the direct processing costs must equal at least 35 percent of the appraised value of the product at the time of entry into the United States. Imported materials may be counted toward the 35 percent but only if the materials are "substantially transformed" into new and different constituent materials of which the eligible article is composed.</p> <p>For an imported article produced in part in several countries of an association of countries in regional economic integration duty-free would be accorded if the value of their collective production of the article accounts for at least 35 percent of the appraised value of the article.</p> <p><b>3. Exceptions:</b></p> <p>These are articles that were not eligible for GSP on January 1, 1995, and include most textiles, watches, footwear, handbags, luggage, flat goods, work gloves, other leather wearing apparel, and a number of agricultural products.</p> <ul style="list-style-type: none"> <li>• <b>Import-sensitive articles</b> like steel, glass, and electronics.</li> <li>• <b>Competitive Need Limitations.</b> Loss of preferential treatment to imports if, in the preceding calendar year: (1) they exceeded in value an absolute dollar limit (adjusted annually) (\$80 mn. (1997) and \$85 mn. (1998) or (2) they accounted for 50 percent or more of the value of U.S. imports in that category).</li> </ul>
<b>LDBC under GSP<sup>24</sup></b>	Angola, Burkina Faso, Burundi, Comoros, Congo (DROC), Equatorial Guinea, Gâmbia, Somália, Togo	<p><b>1. Eligibility</b>—Same as GSP with the additional requirement that they have per capita income (1996) which the World Bank has estimated to be below \$786.</p> <p><b>2. Rules of origin.</b> Same as GSP.</p> <p><b>3. Exceptions:</b> All competitive need limitations are waived for the LDBCs.</p>

<sup>24</sup> Least Developed Beneficiary Country under the GSP program.

Table 6 continued. Summary of Trade-Related Preferences for Africa		
<i>Trade Preference</i>	<i>Countries Included</i>	<i>Provisions</i>
AGOA	<p><b>Countries excluded:</b> Reasons for ineligibility vary across countries but broadly rule of law, human rights violations and the worker's rights clause have been most instrumental</p> <p>Comoros, Somalia, and Sudan, for example, have never requested AGOA benefits. Other excluded countries are Togo, Angola, Burkina Faso, Burundi, Comoros, Congo (DRC), Côte d'Ivoire, Equatorial Guinea, Somalia, and Zimbabwe.</p>	<p>1. <b>Eligibility</b> – Existing criteria under the GSP program as well as <i>new AGOA criteria and a new GSP criterion</i>.</p> <p>These new criteria include:</p> <p>Whether country has established or is making continual progress towards establishing, a market-based economy, the rule of law, the elimination of barriers to U.S. trade and investment, economic policies to reduce poverty, the protection of internationally recognized worker rights, and a system to combat corruption.</p> <p>Not engage in activities that undermine U.S. national security or foreign policy.</p> <p>Not provide support for acts of international terrorism.</p> <p>Must have implemented the commitments to eliminate the worst forms of child labor— African countries, which have ratified the ILO convention 182, are Botswana, Central African Republic, Chad, Ghana, Malawi, Mali Mauritius, Namibia, Niger, Rwanda, Senegal, Seychelles, South Africa, and Togo.</p> <p><b>Scope and Timing:</b> - Two types of coverage – (AGOA has the <i>possibility</i> of extending into reciprocal FTAs.</p> <ul style="list-style-type: none"> <li>• GSP Provisions (non-apparel): <ul style="list-style-type: none"> <li>▶ It extends the <b>duty-free</b> treatment under the GSP program till <b>September 30, 2008</b>.</li> <li>▶ Expands the product coverage of the GSP program for products of SSA, if the IT determines that they are not in competition with U.S. industries producing the same goods. Additional tariff line items reviewed were items such as <b>petroleum and related products, footwear, luggage, handbags, watches and flatware</b>.</li> <li>▶ Eliminates the GSP competitive need limitation for African countries.</li> </ul> </li> </ul>
AGOA apparel	<p><b>Countries eligible for AGOA's apparel provisions:</b> Botswana, Cameroon, Ethiopia, Ghana, Lesotho, Kenya, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Senegal, South Africa, Swaziland, Tanzania, Uganda, and Zambia</p>	<ul style="list-style-type: none"> <li>• <i>Textile and Apparel Provisions (subject to the visa requirements being met):</i> <ul style="list-style-type: none"> <li>▶ AGOA lifts all existing <b>quotas</b> on textiles and apparel products from sub-Saharan Africa.</li> <li>▶ Five types of textile and apparel products imported from eligible sub-Saharan African countries can enter the U.S. duty free and quota free. The types are distinguished by rules of origin for apparel outlined in Table 8.</li> </ul> </li> </ul> <p>◊ Apparel Articles made in one or more beneficiary SSA countries from U.S. yarn and fabric-<b>Duty free/Quota free</b> for 8-year period.</p>

Table 6 concluded. Summary of Trade-Related Preferences for Africa

Trade Preference	Countries Included	Provisions
		<p>◇ Sweaters knit to shape from cashmere or certain wool. The Sweaters must be in chief weight of cashmere, or 50 percent or more by weight of merino wool measuring 21.5 microns in diameter. Fiber and yarn can come from any countries including countries outside SSA <b>Duty free/Quota free</b> for 8-year period.</p>
		<p>◇ Apparel cut/knit to shape and assembled in SSA from 3<sup>rd</sup> country yarn or fabric in short supply (as derived from NAFTA) such as silk, linen, fine-count cotton circular knit fabrics for certain apparel, cotton velveteen, fine-wale cotton corduroy, Harris Tweed, batiste fabrics, and 9 types of lightweight high-thread count broad woven fabrics for men's and boy's shirts—<b>Duty free/Quota free</b> for 8-year period subject to NAFTA ROO.</p>
		<p>◇ Apparel Articles made in one or more beneficiary SSA countries from African/regional fabric—<b>Duty free treatment with annual quota</b> for 8-year period. Year -1. percent of the total U.S. apparel imports in the preceding 12 months. In year 8 not to exceed 7 percent of total U.S. imports. Normal MFN duties on imports over the cap.</p>
		<p>◇ Hand loomed, handmade and folklore articles. Products covered to be determined through bilateral consultations and must also be certified by the competent authority of the beneficiary country (or countries) as a hand loomed, handmade, or folklore article—<b>Duty free/Quota free</b> treatment for 8-year period.</p> <p><b>3. Rule of origin:</b> Same as under GSP with the extra flexibility that the 35 percent value added condition can be met by counting production of materials from other beneficiary countries or the U.S. The textiles and apparel ROOs are as described in Table 8.</p> <p><b>Customs Related Requirements (for apparel provisions discussed above:</b> adoption of an effective visa system, and measures to prevent illegal shipment and transshipment, maintenance of documentation to determine origin and cooperation with the U.S. Customs service in reporting and sharing information.</p> <p><b>4. Exceptions to Duty Free Treatment: Mainly agricultural and textiles and apparel.</b> For agricultural commodities subject to tariff rate quotas, duties will continue to apply to the high duty tranche of the quota. Products falling into this category include cotton, groundnuts, rice, sugar and tobacco.</p>
<p><b>LDBC under AGOA</b></p>	<p>In principle, all countries except Gabon, Mauritius, Seychelles, and South Africa.</p>	<p><b>1. Eligibility.</b> Same as AGOA with the requirement that per capita GNP be less than \$1500 a year in 1998 as measured by the World Bank.</p> <p><b>2. Textile and Apparel Preferences:</b> Apparel assembled in sub-Saharan Africa from non-U.S., non-sub-Saharan African fabric ("third country" fabric). Only LDBC SSA countries may export <b>Duty free/Quota free</b> apparel wholly assembled in the countries, regardless of the origin of the fabric, through <b>September 30, 2004</b>.</p> <p><b>3. Rule of origin.</b> In this case the apparel only needs to be totally <i>assembled</i> in the beneficiary country. After September 30, 2004, the rule of origin will be the same as for Other SSA countries.</p>

Table 7a. Items Subject to Tariff Rate Quotas for Which  
In-quota Duties have been Eliminated Under AGOA

Description	Peak Tariff	Average Tariff
Tobacco stemmed stripped etc.	350.0	350.0
Wrapper tabbaco etc.	350.0	350.0
Peanuts	163.8	147.8
Nuts and seeds (Brazil and Cashew Nuts etc.)	131.8	131.8
Bovine carcasses etc	26.4	26.4
Milk, cream, Yogurts etc.	17.0	13.4
Icecream, Ice etc.	17.0	17.0
Flour mixes etc.	14.9	14.9
Non alcoholic beverages	14.9	14.9
Food preparations of Flour	13.6	10.8
Sugar confectionary	12.2	10.8
Ground Cocoa	10.0	10.0
Coffee, tea and extracts	10.0	9.1
Syrups and food preparations sugar based	10.0	9.0
Mixes for Baking	8.5	8.9
Sauces (Soya Sauce, Tomato sauce etc.)	6.4	6.4
Dog or cat food	6.4	6.4
Cane beet Sugar and syrups	6.0	5.4
Cane molasses etc	6.0	5.5
Wool	5.6	4.8
Fabrics	5.0	4.7

Source: Authors' calculations.

Table 7b. Items Excluded from AGOA  
(HS 8-digit categories aggregated at 4-digit)

Description	HS code	Tariff peak	Average tariff
Tapestry and upholstery fabrics	5112	27.6	15.8
Woven fabrics	5408	27.6	13.1
Woven fabrics of polyester staple fibers	5515	27.6	14.4
Woven fabrics of artificial staple fibers	5516	27.6	14.9
Hand woven fabrics of wool etc.	5111	27.2	15.3
Bed linen, knitted or crocheted	6302	21.5	8.9
Woven pile fabrics and chenille fabrics	5801	20.8	12.3
Other woven fabrics of cotton	5212	19.8	12.8
Gauze of different fabrics	5803	19.8	5.7
Trunks, suitcases vanity bags etc.	4202	18.1	10.3
Textile fabrics and felts	6001	17.7	12.3
Woven fabrics of flax	5309	16.6	7.2
Woven fabrics of other vegetable textile fibers	5311	16.6	6.3
Bedspreads of cotton, knitted or crocheted	6304	15.8	9.6
Unbleached plain weave fabrics of cotton	5210	15.5	11.0
Woven fabric of poly staple fiber	5513	15.3	14.9
Plain weave fabrics of poly staple fiber	5514	15.3	12.9
Woven fabrics of metal thread & woven fabrics of metallized yarn	5809	15.3	15.3
Uppers & pts. thereof for footwear	6406	15.3	7.7
Terry toweling and similar woven terry fabrics	5802	15.1	11.6
Woven cotton fabric	5208	14.7	9.7
Made-up fishing nets, of man-made textile materials	5608	14.5	10.1
Embroidery in the piece	5810	14.5	14.1
Warp knit open-worked fabrics	6003	14.5	11.0
Woven fabrics containing	5512	14.3	13.6
Yarn (other than sewing thread)	5509	13.6	11.1
Yarn (other than sewing thread)	5510	13.6	10.6
Metal coated or metal laminated man-made monofilament	5605	13.6	11.3
Tulles and other net fabrics	5804	13.6	8.4
Quilted textile products	5811	13.6	7.7
Pillows, cushions and similar furnishings	9404	13.1	7.9
Laminated and impregnated fabrics needleloom felt	5602	12.8	8.3
Knitted or crocheted fabrics	6004	12.6	10.3
Single and multiple cotton yarn	5205	12.0	12.0
Knitted or crocheted fabrics	6002	11.8	8.9
Warp knit fabrics	6005	11.8	10.9
Sewing thread of synthetic filaments	5401	11.7	11.7
Sewing thread of synthetic staple fibers	5508	11.7	11.5
Blankets	6301	11.7	8.3
Needlecraft sets for making up into rugs	6308	11.7	11.7
Binder or baler twine	5607	11.6	6.6
Curtains (including drapes), interior blinds and valances	6303	11.6	10.8
Knitted or crocheted fabrics of wool or fine animal hair	6006	10.8	10.3
Hat forms, hat bodies and hoods	6501	10.4	10.4
Single and multiple yarn of viscose rayon	5403	10.0	9.2

Source: Authors' calculations.

Table 8. Summary of Apparel Rules of Origin Under AGOA

<i>Description of the rules of origin requirements</i>	<i>Conditions of Access</i>
Apparel assembled from U.S. formed and cut fabric from U.S. yarn	Unrestricted
Apparel assembled and further processed from U.S. formed and cut fabric from U.S. yarn	Unrestricted
Apparel cut and assembled from U.S. fabric from U.S. yarn and thread	Unrestricted
Apparel assembled from regional fabric from U.S. or African yarn	Tariff rate quota that grows from a cap of 1.5 to 3.5 percent of total U.S. apparel imports (these caps have recently been doubled)
Apparel assembled in a Lesser Developed Country using foreign fabric or yarn	Unrestricted for four years, but exports counted against the 1.5 to 3.5 percent caps specified above
Cashmere sweaters, knit to shape	Unrestricted
Merino wool sweaters, knit to shape, with fibers 18.5 microns or finer	Unrestricted

Table 9. AGOA's Apparel Provisions  
(Changes in the external trading environment in italics)

<b>Beneficiary</b>	<b>Pre-AGOA</b>	<b>AGOA: 2001-2004 <sup>25</sup></b>	<b>AGOA: 2005-2008</b>
Lesser Developed Countries (per capita GNP <US\$1500 in 1998)	<p>"Quotas" under MFA and subject to MFN tariffs <sup>26</sup></p> <p><i>Quotas on Africa's competitors under MFA in place</i></p>	<p>Quotas eliminated. Tariffs eliminated with rule of origin as under MFA</p> <p><i>Quotas on Africa's competitors under MFA in place</i></p>	<p>Quotas eliminated. Tariffs eliminated but subject to satisfying more stringent "yarn-forward" rule of origin</p> <p><i>Quotas on Africa's competitors under MFA eliminated</i></p>
Other African countries	<p>"Quota" under MFA and subject to MFN tariffs</p> <p><i>Quotas on Africa's competitors under MFA in place</i></p>	<p>Quotas eliminated. Tariffs eliminated but subject to satisfying more stringent "yarn-forward" rule of origin</p> <p><i>Quotas on Africa's competitors under MFA in place</i></p>	<p>Quotas eliminated. Tariffs eliminated but subject to satisfying more stringent "yarn-forward" rule of origin</p> <p><i>Quotas on Africa's competitors under MFA eliminated</i></p>

<sup>25</sup> The end of the first stage of AGOA (end-September 2004) and the dismantling of the MFA (end-December 2004) do not exactly coincide. For the purposes of our analysis, however, they are close enough to be treated as if they were happening at the same time.

<sup>26</sup> As indicated above, these quotas formally affected only 2 SSA countries.

Table 10. Prices Received by African Exporters

African beneficiary country	Pre-AGOA	AGOA: 2001-2004 (Before MFA elimination)	AGOA: 2005-2008 (After MFA elimination)
Least Developed	$P_w(1+e-t)$	$P_w(1+e)$	$P_w(1+t-c)$
Not Least Developed	$P_w(1+e-t)$	$P_w(1+e-c)$	$P_w(1+t-c)$

Table 11. Costs of Unskilled Labor in Textile Industry

<i>Region/Country</i>	<i>Costs (US\$ per hour)</i>
<b>1. OECD</b>	
Germany	25
United Kingdom	13
United States	14
<b>2. Non-OECD Europe</b>	
Hungary	2.4
Turkey	2
<b>3. Asia</b>	
China	0.55
India	0.65
<b>4. Africa</b>	
Malawi	0.52
Mauritius	0.95
South Africa	2.35
Zambia	0.95
Zimbabwe	0.5

Source: Muradzikwa (2001)

Table 12a.: Impact of AGOA: Inputs Sourced from South Africa  
(Growth in exports relative to 2000, in percent)

<i>Parameter values</i>	<b>Mauritius</b>	
	<i>Growth in exports</i>	
	<i>2001-2004</i>	<i>2005-2008</i>
	<i>With Rule of Origin</i>	
<i>e = 1</i>	4.9	-26.3
<i>e = 2</i>	10.6	-44.7
<i>e = 5</i>	21.4	-64.7
	<i>Without rule of origin</i>	
<i>e = 1</i>	35.5	-18.4
<i>e = 2</i>	53.6	-21.1
<i>e = 5</i>	112.3	18.3
	<b>Madagascar</b>	
<i>Parameter Values</i>	<i>Growth in exports</i>	
	<i>2001-2004</i>	<i>2005-2008</i>
	<i>With Rule of origin</i>	
<i>e = 1</i>	29.5	-19.2
<i>e = 2</i>	44.8	-25.2
<i>e = 5</i>	92.3	-38.8
	<i>Without rule of origin</i>	
<i>e = 1</i>	Same as above	-3.2
<i>e = 2</i>	Same as above	-6.7
<i>e = 5</i>	Same as above	5.6

Source: Authors' calculations.

Table 12b. Impact of AGOA: Inputs Sourced from the United States

<b>Mauritius</b>				
Parameter Values		Growth in Exports (relative to 2000) (in percent)		
		2001-2004	2004-2008	
		<i>With rule of origin</i>		
Lower limit of expected cost push	Total effect	Effect if geography had been neutral	Total effect	Effect if geography had been neutral
$a = 0.38, e = 1$	3.1	4.8	-33.3	-24.4
$a = 0.38, e = 2$	7.8	8.4	-50.4	-39.3
$a = 0.38, e = 5$	17.3	19.1	-69.4	-52.9
		<i>Without rule of origin</i>		
$e = 1$	35.5	n.a.	-18.4	n.a.
$e = 2$	53.6	n.a.	-21.1	n.a.
$e = 5$	112.3	n.a.	+18.3	n.a.

<b>Madagascar</b>			
Growth in Exports relative to 2000, (in percent)			
Parameter values	2001-2004	2005-2008	
		Total effect	Effect had geography been neutral
Lower limit of cost push			
$a = 0.38, e = 1$	29.5	-20.1	-13.1
$a = 0.38, e = 2$	44.8	-25.6	-19.3
$a = 0.38, e = 5$	92.3	-39.1	-26.6
<i>Without rule of origin</i>			
$e = 1$	Same as above	-3.2	n.a.
$e = 2$	Same as above	-6.7	n.a.
$e = 5$	Same as above	+5.6	n.a.

Source: Authors' calculations.

Table 13. Apparel Trade Under AGOA, 2000 and 2001

	<i>Lesser Developed Beneficiary</i>				<i>Other</i>		<i>All Countries</i>
	<i>Swaziland</i>	<i>Lesotho</i>	<i>Madagascar</i>	<i>Kenya</i>	<i>Mauritius</i>	<i>South Africa</i>	
Exports (in US\$ million)							
2000	31.9	140.2	109.6	44	245	163.3	776
2001	48.0	214.8	178	64.5	238.3	194.9	975
Growth (in %)	50	53	62	47	-3	19	26
Of 2001 exports:							
Granted preference	8.2	129.2	92	51.6	38.8	30.4	350.4
(in % of total 2001 exports)	17	60	52	80	16	16	36
of which (in % of total granted preference):							
sourced from regional fabric	0	0	0	0	85	97	18
sourced from U.S. fabric	0	0	0	0	5	1	1
sourced from other foreign fabric	100	84	79	100	0	0	82

Source: OTEXA and authors' calculations

Table 14. AGOA's Overall Impact

<i>Category</i>	<i>Tariffs (in %)</i>	<i>Current Exports (in US\$ mn.)</i>	<i>Exports Under AGOA (in US\$ mn.)</i>	<i>Increase (in %)</i>	<i>Exports under fully unrestricted access (in US\$ mn.)</i>	<i>Increase (in %)</i>
<b>Categories covered under AGOA</b>						
Energy	1.5	15569	16029	3.0	16029	3.0
Apparel	12.8 1/	776	840	8.3	1234	59.0
Non-energy non-apparel						
A. Restrictive rules of origin	9.4	424	459	8.3	497	17.2
B. Liberal rules of origin	9.4	424	497	17.2	497	17.2
Sub-total						
A. Restrictive rules of origin		16769	17328	3.3	17760	5.9
B. Liberal rules of origin		16769	17366	3.6	17760	5.9
<b>Categories excluded under AGOA</b>						
Duty-free	0	2386	2386	0	2386	0.0
Duty less than 5 percent	2.5	14.5	14.5	4.9	15	4.9
Duty greater than 5 percent	10.9	25.4	25.4	21.4	30.836	21.4
Sub-total		2426	2426	0.0	2432	0.3
Total 2/						
A. Restrictive rules of origin		16809	17368	3.3	17806	5.9
B. Liberal rules of origin		16809	17406	3.6	17806	5.9
Total (non-energy) 2/						
A. Restrictive rules of origin		1240	1339	8.0	1777	43.3
B. Liberal rules of origin		1240	1377	11.1	1777	43.3

Source: Authors' calculations

1/ Note that the actual protection is much higher because of the quotas under the MFA

2/ Excluding the duty-free category

## REFERENCES

- Faini, R., 1994, "Exports, Capacity, and Relative Prices." *Journal of Development Economics*, Vol. 45, pp. 81–100.
- Falvey, R., and G. Reed, 1997, "Economic Effects of Rules of Origin," Center for Research in Economic Development and International Trade Research Paper No.97/21, Nottingham, England: University of Nottingham.
- Hoekman, B., F. Ng, and M. Olarreaga, 2001, "Eliminating Excessive Tariffs on Exports of Least Developed Countries," World Bank Policy Research Working Paper No. 2604.
- Ianchovichina, E., A. Mattoo, and M. Olarreaga, 2001, "Unrestricted Market Access for Sub-Saharan Africa: How Much Is It Worth and Who Pays?" World Bank Policy Research Working Paper No 2595 (Washington).
- Kathuria S., and A. Bharadwaj, 1998, "Export Quotas and Policy Constraints in the Indian Textile and Garment Industries," World Bank Policy Research Working Paper No. 2012 (Washington).
- Krishna, K., and A. Krueger, 1993, "Implementing Free Trade Areas: Rules of Origin and Hidden Protection," in *New Directions in Trade Theory*, ed. by A. Deardoff, and R. Stern, Ann Arbor, Michigan: University of Michigan Press,.
- Krueger, A., 1993, "Free Trade Agreements as Protectionist Devices: Rules of Origin," NBER Research Working Paper No. 93/4352 (Cambridge, Massachusetts: National Bureau of Economic Research).
- , 1997, "Free Trade Agreements Versus Customs Unions," *Journal of Development Economics*, Vol. 54, pp. 169–87.
- Muradzikwa, S., 2001, "The South African Regional Clothing and Textile Industry: Case Study of Malawi, Mauritius, and Zimbabwe" (unpublished; Cape Town, South Africa: Development Policy Research Unit, University of Cape Town).
- Subramanian, A., and N. Tamirisa, 2001, "Africa's Trade Revisited," IMF Working Paper 01/33 (Washington: International Monetary Fund).
- Subramanian A., and D. Roy, 2002, "Who Can Explain the Mauritian Miracle: Meade, Romer, Sachs, or Rodrik?" in *Analytical Development Narratives*, ed. by D. Rodrik (Princeton, New Jersey: Princeton University Press).
- United States Government, Africa Growth and Opportunity Act website ([www.goa.gov](http://www.goa.gov)).



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