

Uncertainty in Preferential Trade Agreements

Impact of AGOA Suspensions on Exports

Habtamu Edjigu
Shushanik Hakobyan
Woubet Kassa



WORLD BANK GROUP

Africa Region

Office of the Chief Economist

April 2023

Abstract

This study examines the impact of the abrupt suspension of African Growth and Opportunity Act benefits on exports from eligible African countries. The study uses a triple difference-in-differences estimation that controls for both country- and product-level export changes. The results suggest that the suspension of the African Growth and Opportunity Act has had a considerable negative impact on the level of exports to the United States. The impact appears to be bigger for countries with a high African Growth and Opportunity Act utilization rate. The suspension is associated with a 39 percent decline in exports to the United States. At the product level, the suspension hurt

apparel and textile exports, leading to a decline of their exports by about 88 percent. Understanding the impact of withdrawing access to a nonreciprocal trade agreement is particularly important now, as the European Union began negotiating Economic Partnership Agreements with African countries, as a sign of a shift to reciprocity; the United States is considering a similar path of negotiating free trade agreements with individual African countries. These developments underscore the need to prepare for a post-African Growth and Opportunity Act period with more reciprocity, as trade uncertainty is becoming rampant.

This paper is a product of the Office of the Chief Economist, Africa Region. It is part of a larger effort by the World Bank to provide open access to its research and make a contribution to development policy discussions around the world. Policy Research Working Papers are also posted on the Web at <http://www.worldbank.org/prwp>. The authors may be contacted at wkassa1@worldbank.org.

The Policy Research Working Paper Series disseminates the findings of work in progress to encourage the exchange of ideas about development issues. An objective of the series is to get the findings out quickly, even if the presentations are less than fully polished. The papers carry the names of the authors and should be cited accordingly. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the views of the International Bank for Reconstruction and Development/World Bank and its affiliated organizations, or those of the Executive Directors of the World Bank or the governments they represent.

Uncertainty in Preferential Trade Agreements: Impact of AGOA Suspensions on Exports

Habtamu Edjigu[†] Shushanik Hakobyan[‡] Woubet Kassa[§]

JEL codes: F13, F14, F68, O2, O55

Keywords: Preferential trade agreements, Africa, AGOA, Exports, Uncertainty

[†] Habtamu Edjigu. Email: hejigu@worldbank.org

[‡] Shushanik Hakobyan. Email: shakobyan@imf.org

[§] Corresponding Author: Woubet Kassa. Email: wkassa1@worldbank.org

1. Introduction

The economic success stories of the recent past suggest that countries that effectively engage in international trade register large gains in economic growth and poverty reduction (Frankel, Romer, 1999, Irwin and Terviö, 2002 Bhagwati, Srinivasan and Kleemann, Abdulai, 2013). Encouraged by this evidence, a number of preferential trade schemes that provide developing countries greater market access to advanced economies have emerged. The African Growth and Opportunity Act (AGOA) offered by the US is one of the most notable preferential trade agreements that grants duty and quota free access to eligible African countries for a select group of product categories. AGOA has been considered central in expanding trade and promoting economic transformation in Sub-Saharan Africa (SSA). However, as a unilateral agreement, the US reserves the right to suspend benefits to any country that fails to meet certain criteria.¹ Hence, the suspension of AGOA or the threat of suspension introduces uncertainty about the viability of the program and could discourage investment in industries engaged in exports of AGOA eligible products.

In its most recent extension in 2015, additional conditions were put in place that could adversely affect the certainty and continuity of the AGOA program. In addition to the annual monitoring and review of eligibility of each beneficiary country, the AGOA Extension and Enhancement Act of 2015 states that *'any interested person, at any time'* can file a petition suggesting a failure of country *'compliance'* (US Congress, 2015). This *'out-of-cycle'* review poses further risks for eligible countries with the potential for

¹ For example, Ethiopia, Guinea, and Mali lost their preferential access to the US market under the AGOA on January 1, 2022.

termination from the program.² In addition, *'at any time'*, the president may initiate an *'out-of-cycle'* review of a continual progress of an eligible country in meeting the requirements of AGOA eligibility. If the President determines that a country does not meet the requirements, the president shall *'terminate the designation of the country as a beneficiary sub-Saharan African country or withdraw, suspend, or limit the application of duty-free treatment'*. The possibility of unilateral removal of preferences by the granting country creates uncertainty for firms using these schemes (Postigo, 2013), leading to reduced utilization of preferences, despite their existence.

Taking advantage of the abrupt termination of AGOA eligibility for 14 African countries over the period 2001-2020, this paper examines the impact of AGOA suspension on exports from SSA countries to the US. The suspension resulted in revocation of tariff exemptions on exports of AGOA eligible products. To estimate the effect of AGOA suspension on exports, we use a triple difference-in-differences specification that controls for both country and product-level export changes.

We find that AGOA suspension has a considerable negative impact on the level of exports to the US. On average, AGOA suspension is associated with a 39 percent decline in exports to the US following the suspension. Compared to other studies that examine the impact of withdrawal of preferences such as the Generalized System of Preferences (GSP)

² In June 2017, the Office of the U.S. Trade Representative (USTR) announced the initiation of an *'out-of-cycle review'* of the eligibility of Rwanda, Tanzania, and Uganda to receive benefits under AGOA in response to a petition filed by the US Secondary Materials and Recycled Textiles Association (SMART), which asserted that Rwanda, Tanzania, and Uganda have phased in a ban on imports of used clothing and footwear with subsequent *'significant economic hardship on the U.S. used clothing industry'*.

(Hakobyan, 2020), the difference is striking—the impact of AGOA suspension on exports is 10-fold larger than that of GSP expiration. This could be partly explained by the longer duration of AGOA suspensions on average, and a larger set of goods eligible for AGOA that Sub-Saharan African countries have comparative advantage in, such as textiles and apparel. At the extensive margin, we find that the probability of exporting AGOA eligible product to the US decreased by 2.1 percentage points. The impact of AGOA suspension was the largest in textiles and apparel products. We find that exports of textiles and clothing products and the probability of exporting these products declined by 88 and 9.4 percentage points, respectively. Furthermore, we find that AGOA suspension had a disproportionate impact on countries with a high pre-suspension utilization rate. The withdrawal of AGOA benefits induces a 65 percent drop in exports with pre-suspension utilization rate above 30 percent (statistically significant at the 5 percent level).

This study is closely related to the existing literature on the impact of termination of preferential trade agreements. Using Congress’s failure to renew the GSP in 2011, Hakobyan (2020) shows that the revocation of the GSP tariff exemptions resulted in a considerable drop in exports, by about 3 percent on average, with exports of textiles and apparel dropping by about 9 percent. This drop in exports is increasing in the MFN tariff rates and decreasing in the size of exports, with smaller countries experiencing the biggest export declines. Since the 2011 GSP suspension was short in duration (only 10 months), the paper utilizes only three years of data, so it is not clear whether the loss of preferential treatment resulted in a permanent drop in exports. Hakobyan (2017) provides a systematic analysis of the effect of the Competitive Needs Limit (CNL)—suspension of

GSP tariff exemptions when imports of a particular product from a given country or its share in total US imports exceed a specific threshold, known as CNL—on exports of developing countries to the US. Moreover, the author provides evidence of dynamic adjustment to the shock of the rise in tariffs introduced by the CNL exclusion. Gnutzmann et al. (2022) show that the removal of the European Union’s Generalized Scheme of Preferences (EU GSP) resulted in a significant decline in exports of affected developing countries.

Our paper contributes to the existing literature in two ways. First, to the best of our knowledge, this paper is the first to empirically quantify the impact of AGOA suspension on exports. Given the high prevalence of poverty in Sub-Saharan Africa, any unilateral action of terminating AGOA may have significant implications on global poverty. Second, this paper provides estimates for both short-term and long-term impacts of withdrawal on exports, as the period of suspension for many countries is longer, ranging from three to seven years. The paper also contributes to the broader literature that examines the role of uncertainty in trade and trade agreements.

The remainder of this paper is structured as follows: Section 2 provides a brief background on AGOA. Section 3 discusses empirical methodology used in the analysis. Section 4 presents the results, and Section 5 concludes.

2. The African Growth and Opportunity Act: Background

The African Growth and Opportunity Act (AGOA), enacted towards the end of 2000, provides duty-free, quota-free access to the US market for a select group of products from eligible Sub-Saharan African countries. The key principle of AGOA was to “promote stable and sustainable economic growth and development in sub-Saharan Africa” through trade. It initially provided eligibility to 34 SSA countries, which later was expanded to 39. There are two key provisions under AGOA. The first provision provides duty-free and quota-free access to eligible countries for about 1,800 products at the HS 8-digit level. This greatly expands the list of products with preferential access under the GSP—to about 5,000 products. In addition, AGOA countries are exempt from caps on exports due to the ‘competitive need limitations.’ Despite the broader product coverage, there are still important exclusions, particularly in agricultural products.

The second provision, the ‘apparel provision,’ provides duty-free and quota-free access for eligible textile and apparel articles made in qualifying AGOA eligible countries, subject to a cap. This eliminates the average MFN tariff of about 11.5 percent on textiles and apparel exports to the US. These include products that are not eligible either under the GSP or the first provision of AGOA, such as apparel made of SSA yarns and fabrics, textiles and textile articles produced entirely in SSA, certain cashmere and merino sweaters and eligible hand-loomed, handmade and printed fabrics. With a few exceptions, such as leather products, headgear, glass and glassware, the Inclusion of textiles and apparel in AGOA represents a significant change compared to GSP. As of 2022, 23 countries are eligible for the apparel provision. Under the “Special Rule for

Apparel” for lesser-developed beneficiary countries (with per capita gross national product below US\$1,500 in 1998), these 23 countries enjoy less restrictive rules of origin requirements—duty-free and quota-free preferential treatment extends to apparel made from fabric originating anywhere in the world.

The “AGOA Extension and Enhancement Act of 2015” calls for greater reciprocity in the elimination of barriers to trade and investment in SSA. It puts forward an out-of-cycle review mechanism, that *at any time* the Office of the U.S. Trade Representative (USTR) ‘may initiate an out-of-cycle review of whether a beneficiary country is making continual progress in meeting the requirements’ for eligibility. This allows entities from the private sector or any interested person to file a petition with respect to the failure of compliance of a country ‘with eligibility requirement.’ The existence of such reviews may adversely affect future exports by raising uncertainty about country eligibility.

Countries are required to meet eligibility criteria that are quite broad in nature. For example, countries should demonstrate that they have established or are making continual progress towards establishing market-based economies, the rule of law and political pluralism; elimination of barriers to US trade and investment; protection of intellectual property rights; policies to reduce poverty and combat corruption and non-engagement in activities that may affect the US national security interests. The Act authorizes the President to designate countries as eligible to receive the benefits of AGOA if they satisfy the eligibility requirements or revoke their eligibility otherwise. For example, in July 2017 USTR announced an initiation of an out-of-cycle review of Rwanda,

Tanzania, and Uganda in response to a petition filed by a trade group that represents secondhand clothing exporters—Secondary Materials and Recycled Textiles Association. Following the petition and out-of-cycle review process, Rwanda was found not to be in compliance with the AGOA eligibility requirements, resulting in the suspension of duty-free treatment for all AGOA eligible apparel products originating from Rwanda. In contrast, after reversing their planned restriction of used clothing imports from the US, Tanzania and Uganda continued to be eligible for AGOA apparel provision.

Over the years, 17 countries have lost AGOA eligibility (Table 1), of which one (Seychelles) has graduated due to the country gaining developed country status. Of the remaining 16 countries, eight countries have regained the AGOA eligibility status, three countries have been suspended multiple times and are currently ineligible, so are the remaining five countries. Four episodes of suspension that have occurred since 2021 are not part of the analysis which spans 2001-2020.

The US suspends AGOA eligible countries for various reasons. In 2003, the Central African Republic and Eritrea were removed from the eligibility list because they did not meet eligibility requirements in promoting market-based economy and embracing democratic principles. In 2005, Côte d'Ivoire lost its eligibility due to undemocratic changes in government (later restored in 2011). Following a coup, Mauritania became ineligible in January 2006, regaining eligibility soon thereafter in June 2007. Similarly, in 2010, Guinea and Madagascar lost eligibility after a coup and Niger due to concerns with the rule of law. While Guinea and Niger regained their eligibility in 2011, Madagascar

remained ineligible for almost five years until mid-2014 before it was reinstated. The Democratic Republic of Congo lost its eligibility after the claims of human rights abuses in 2011 and remains ineligible to this date. In 2016, Burundi was excluded from AGOA due to failure in meeting the requirements in the rule of law, human rights, and political pluralism, and remains ineligible to this date. Most recently, Ethiopia, Guinea and Mali lost eligibility in 2022, and Burkina Faso in 2023. Ethiopia's suspension came at the heels of the ongoing internal conflict, while the latter three were suspended following military coups.

Table 1: Countries' AGOA eligibility dates and years of suspension

Country	Date declared AGOA eligible	Suspensions
Burkina Faso	Dec-04	Jan 2023 – Present
<i>Burundi</i>	<i>Jan-06</i>	<i>Jan 2016 – Present</i>
<i>Cameroon</i>	<i>Oct-00</i>	<i>Jan-2020 – Present</i>
<i>Central African Republic</i>	<i>Oct-00</i>	<i>Dec 2003 – Dec 2016</i>
<i>Congo, Dem. Rep.</i>	<i>Dec-02</i>	<i>Jan 2011 – Jan 2021</i>
<i>Côte d'Ivoire</i>	<i>Oct-11</i>	<i>Jan 2005 – Oct 2011</i>
<i>Eswatini</i>	<i>Oct-00</i>	<i>Jan 2015 – Jan 2018</i>
<i>Gambia, The</i>	<i>Dec-02</i>	<i>Jan 2015 – Dec 2017</i>
<i>Guinea</i>	<i>Oct-00</i>	<i>Dec 2009 – Jun 2014, 2022 – Present</i>
<i>Guinea-Bissau</i>	<i>Oct-00</i>	<i>Jan 2013 – Dec 2014</i>
<i>Madagascar</i>	<i>Oct-00</i>	<i>Jan 2010 – Jun 2014</i>
<i>Mali</i>	<i>Oct-00</i>	<i>Jan 2013 – Dec 2013, Jan 2022 – Present</i>
<i>Mauritania</i>	<i>Oct-00</i>	<i>Jan 2006 – July 2007, Jan 2009 – Jan 2010, Jan 2019 – Present</i>
<i>Niger</i>	<i>Aug-06</i>	<i>Dec 2009 – Oct 2011</i>
Seychelles (graduated)	Oct-00	Jan 2017 – Present
<i>South Sudan</i>	<i>Dec-12</i>	<i>Jan 2015 – Present</i>
Angola	Dec-03	
Benin	Oct-00	
Botswana	Oct-00	
Cabo Verde	Oct-00	
Chad	Oct-00	
Comoros	Jun-08	
Congo, Rep.	Oct-00	
Djibouti	Oct-00	
Gabon	Oct-00	
Ghana	Oct-00	
Kenya	Oct-00	
Lesotho	Oct-00	
Liberia	Dec-06	
Malawi	Oct-00	
Mauritius	Oct-00	
Mozambique	Oct-00	
Namibia	Oct-00	
Nigeria	Oct-00	
Rwanda	Oct-00	
São Tomé and Príncipe	Oct-00	
Senegal	Oct-00	
Sierra Leone	Oct-02	
South Africa	Oct-00	
Tanzania	Oct-00	
Togo	Apr-08	
Uganda	Oct-00	
Zambia	Oct-00	

Source: United States international Trade Administration

Italicized countries are identified in the analysis as suspended countries.

3. Data and Empirical Strategy

3.1 Data

The trade data is drawn from the US International Trade Commission (USITC).³ The USITC database provides exhaustive information on imports of HS 8-digit products from each country to the US in each year from 2001 to 2020, years of AGOA eligibility of countries and the list of AGOA eligible countries and products. The list of countries whose eligibility has been revoked is published by the US State Government and Accountability Office. The list also provides information on the dates they become ineligible and the dates their AGOA eligibility is reinstated.

Our dependent variable is the log export of a particular product from an AGOA eligible country into the US from 2001 to 2020. If nothing is reported, exports are set to zero. For the regressions that look at the extensive margin a dummy variable is created that takes the value of 1 if exports to the US are positive. Table 2 presents the exports before and after the suspension for the countries that were suspended from AGOA between 2001 and 2020 and thus represent the treatment group in our analysis. Three key observations can be gleaned from the table. First, the suspended countries are quite heterogeneous in terms of the size of their exports to the US, ranging from US\$0.1 million (Guinea-Bissau and South Sudan) to US\$706 million (Côte d'Ivoire). Second, only a handful of countries claim AGOA preferences for a significantly large share of their exports (e.g., 83 percent in Madagascar). Third, countries that rely heavily on AGOA for their access to the US

³ Our sample is limited to AGOA eligible countries only, to provide a reasonable control group.

market (with at least 30 percent of exports claiming AGOA preferences) experienced large decline (over 65 percent) in their exports by the second year of suspension.

Table 2: Pre- and post-suspension exports to the US

Country (year of suspension)	Exports in pre-suspension year (Million \$US)		Share of AGOA Exports (Percent)	Exports in the second year of suspension (Million \$US)	Change in total exports (Percent)
	Total	AGOA			
	(1)	(2)	(3)=(2)/(1)	(4)	(5)=(4)/(1)-1
Burundi (2016)	8.4	0	0	9	7
Cameroon (2020)	330	0.4	0	208	40
Central African Republic (2004)	2	0.2	10	5.7	185
Côte d’Ivoire (2005)	706	88	12	701	-2
Congo, Dem. Rep. (2011)	435	147	34	133	-69
Gambia, The (2015)	0.3	0.06	20	0.7	133
Guinea (2010)	67.3	0.21	0.3	80.7	20
Guinea-Bissau (2013)	0.1	0	0	0.1	0
Madagascar (2010)	253	210	83	87	-66
Mali (2013)	3.7	0.2	5	3.7	0
Mauritania (2019)	13	0.02	0.2	6	-54
Niger (2010)	106.3	0.11	0.1	26.5	-75
South Sudan (2014)	0.1	0	0	0.2	100
Eswatini (2015)	82	59	72	17	-79

Source: Authors’ calculations, based on USITC data.

3.2 Empirical Specification

The empirical approach to identify the impact of the AGOA suspension exploits the variation in country and product eligibility and in the timing of suspension across countries. More specifically, following Frazer and Van Biesebroeck (2010) and Hakobyan (2020), we adopt a triple difference-in-differences regression model to identify the impact of suspension on exports from the suspended countries.

$$\ln Exports_{ijt} = \beta Elig_i \times Elig_j \times Suspended_{it} + \gamma_{ij} + \sigma_{it} + \theta_{jt} + \varepsilon_{ijt}$$

where $\ln Exports_{ijt}$ is the log of exports to the US of product j by country i at time t . $Elig_i$ is a time-invariant dummy that takes the value of 1 if country i is eligible for AGOA, and zero otherwise. $Elig_j$ is a time-invariant dummy that takes the value of 1 if product j is eligible for AGOA, and zero otherwise. $Suspended_{it}$ is a dummy that takes the value of 1 if country i is suspended from AGOA in year t , and zero otherwise. We include a full set of interactive fixed effects—country-product (γ_{ij}); country-year (θ_{jt}) and product-year (σ_{it})—which take into account the heterogeneity of impact across country-product, country-year and product-year pairs. The parameter of interest is the estimated coefficient on the triple interaction term, β , which measures the impact of AGOA suspension relative to the country–product level exports in the years when AGOA is in effect. Robust standard errors are clustered by country and product to allow for a correlation of error terms across products within a country and across countries within a product.

To identify the impact of AGOA suspension, we exploit three sources of variation: (i) variation across countries that are suspended from AGOA and those that remain eligible. While AGOA eligibility may have started at the same time for many countries, the suspensions are assumed to be random across countries providing a source of variation to estimate the impact of suspension; (ii) variation across products. Only a selected group of products are AGOA eligible, hence any changes in exports due to the suspension will be different for products that are eligible and those that are not; (iii) suspension period:

data before and after suspension, as well as differences in the periods of suspension across countries provide another source of variation.

Using triple-differences approach to estimate the impact of AGOA suspension has certain advantages over the standard difference-in-differences approach. If we implement the latter, we could only compare the treatment and control between products (for the same country) or between countries (for the same products). For example, a product-level difference-in-differences would look at the exports of AGOA eligible products (the treatment) and AGOA ineligible products (the control) from suspended countries and compare their trends before and after the AGOA suspension. However, such a comparison may falsely attribute the effects of institutional and political shocks to AGOA eligible products to the suspension if these shocks and the suspension occurred at the same time. Hence, the introduction of non-suspended countries as a control, which makes our approach a triple-differences, is necessary to disentangle the effect of the suspension from the effect of the other confounding factors. Similarly, a country-level difference-in-differences approach would consider the exports of AGOA eligible products from suspended countries (the treatment) and AGOA beneficiary countries (the control) and compare the response of their exports before and after suspension. However, such a comparison may also falsely attribute the response of suspended countries, caused by macroeconomic shocks, to the AGOA suspension. The triple-differences approach addresses these issues by comparing the difference between the exports of AGOA eligible products and AGOA ineligible products of the suspended countries to the difference between the exports of AGOA eligible products and AGOA ineligible products of AGOA

eligible countries. Because the triple differences exploit country-product-year variations in exports, we may employ fixed effects with more complex structures to deal with potential confounders that cannot be achieved with a standard difference-in-differences approach. Particularly, we follow Magee (2008) and Cheong (2017) to include a full set of country-product, country-year and product-time interactive fixed effects into our specification.

4. Results

Table 3 presents the estimation results. Column (1) reports the results from a specification with a full set of country-product, country-year and product-year fixed effects estimated using all AGOA eligible countries exporting all products to the US between 2001 and 2020. The estimated coefficient on the triple interaction term suggests that suspension of AGOA has led to a significant decline in exports to the US. On average, AGOA suspension is associated with a 39 percent decline in exports to the US. Compared to other studies that examine the impact of the withdrawal of GSP benefits (Hakobyan, 2020), the drop in exports due to AGOA suspension is substantial. Hence, suspending access to a non-reciprocal trade agreement such as AGOA could pose significant risk to developing economies.

For comparison, we show standard difference-in-differences estimates in columns (2) and (3). The standard difference-in-differences can be implemented by restricting the sample either to all AGOA suspended countries (product-by-product difference-in-differences) or to AGOA eligible products exported from all countries to the US (country-

by-country difference-in-differences). Column (2) reports the results from restricting the sample to AGOA suspended countries. The treatment group is AGOA eligible products, with AGOA ineligible products representing the control group. The AGOA suspension effect becomes -26 percent and continues to be statistically significant. The estimated impact from product-level difference-in-differences is smaller possibly due to the presence of favorable shocks to AGOA eligible products that coincided with the suspension from AGOA. In column (3), the sample is restricted to AGOA eligible products. This specification identifies the AGOA suspension effect from the relative drop in exports from suspended countries (treatment group) versus non-suspended countries (control group). The AGOA suspension effect is higher at -47 percent. In both standard difference-in-differences specifications, the AGOA expiration effect remains negative and significant. However, product-level difference-in-differences underestimates while country-level difference-in-differences overestimate the effect. Hence, the rest of the paper proceeds with the triple-difference specification employing the full sample of AGOA eligible countries and all products.

To estimate the impact of AGOA suspension on the extensive margin, the dependent variable is replaced with a dummy that takes the value of 1 when the exports are positive and zero otherwise. As reported in column (4), the probability of a suspended country exporting an AGOA eligible product to the US decreases by 2 percentage points after the suspension. The impact of AGOA suspension on the extensive margin is much larger than that reported in Hakobyan (2020) that examines the effect of withdrawal of GSP benefits.

Hakobyan (2020) finds that GSP expiration resulted in a decrease in probability of exporting by 0.3 percentage point.

Next, we examine how the impact of suspension varies across countries with different durations of AGOA suspension. In our sample, Cameroon, Guinea-Bissau, Mali, Mauritania and Niger were suspended from AGOA for less than two years. We consider these countries as *short-term suspensions*. The remaining countries (Burundi, Central African Republic, Democratic Republic of Congo, Côte d’Ivoire, Eswatini, The Gambia, Guinea, Madagascar and South Sudan) have been suspended for more than two years. We consider them as *long-term suspensions*. We then compare the impact of AGOA suspension for counties with long-term and short-term suspensions by further interacting the triple interaction term with short-term and long-term suspension dummies.

Table 3: Benchmark results for AGOA suspension effect

Dependent variable	InExports	InExports	InExports	Export dummy
Sample	Full	Suspended	AGOA eligible	Full
Method	Triple diff	Diff-in-diff	Diff-in-diff	
	(1)	(2)	(3)	(4)
Marginal effect	-39%	-26%	-47%	
Suspended×Country×Product	-0.501*	-0.304***	-0.640***	-0.020*
	(0.292)	(0.100)	(0.113)	(0.01)
Product-year Fes	Yes	No	Yes	Yes
Country-year Fes	Yes	Yes	No	Yes
Country-product Fes	Yes	Yes	Yes	Yes
Number of observations	584,434	179,246	158,399	584,434

The marginal effects throughout this paper are calculated as $\exp(\beta)-1$ if the dependent variable is InExports. Robust standard errors in parentheses are clustered by country and product. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively. Column (1) reports the results from specification with a full sample and a full set of interactive fixed effects: country–product, country–year and product–year. Column (2) restricts the sample to suspended countries and includes country–product and country–year fixed effects. Column (3) restrict the sample to AGOA eligible products and includes country–product and product–year fixed effects.

Table 4: Duration of suspension and dynamic effects

	lnExports		Export Dummy
	Coefficients	Marginal effect	
	(1)	(2)	(3)
Suspended×Country×Product×short	-0.141 (0.239)	-13%	-0.001 (0.012)
Suspended×Country×Product×long	-0.601* (0.358)	-45%	-0.023* (0.014)
Product-year Fes	Yes		Yes
Country-year Fes	Yes		Yes
Country-product Fes	Yes		Yes
Number of observations	584,434		584,434

The marginal effects throughout this paper are calculated as $\exp(\beta)-1$ if the dependent variable is lnExports. Robust standard errors in parentheses are clustered by country and product. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

As shown in columns (1) and (2) of table 4, the suspension appears to have a significantly larger negative impact on exports to the US for countries with *longer-term suspension* of AGOA eligibility, exceeding two years; the AGOA suspension resulted in a statistically significant 45 percent drop in exports and 2.3 percentage points drop in the probability of exporting from AGOA eligible countries. However, the effect on both exports and probability of exporting is insignificant for short-term suspended countries.

In table 5, we consider how the suspension effect varies with pre-suspension utilization rates. Coulibaly, Kassa and Zeufack (2022) document a widespread underutilization of AGOA benefits. Table 2 also confirms that there is a huge disparity in AGOA utilization across countries prior to the suspension. Therefore, the AGOA suspension is more likely to affect those exporters that claimed the benefits prior to the suspension. To gauge how the suspension impact varies with the extent to which AGOA preferences were utilized prior to suspension, we interact the triple interaction term with three dummies: (i) high-

level utilization for country-product pairs with AGOA utilization rate above 30 percent in pre-suspension year; (ii) medium-level utilization for country-product pairs with utilization rate between 0 and 30 percent; and (iii) no utilization for country-product pairs with zero utilization rate. We expect the AGOA suspension effect to be increasing in the pre-suspension utilization rate.

The results reported in table 5 confirm that the AGOA suspension effect is largest for exports with high pre-suspension utilization rate. We find that the withdrawal of AGOA benefits induces a 65 percent drop in exports with pre-suspension utilization rate above 30 percent (statistically significant at the 5 percent level). The results for the probability of exporting in column (3) of table 5 follow the same pattern. The withdrawal of AGOA benefits from exports with high level of utilization is associated with the largest (4 percentage points) decline in the probability of exporting.

Table 5: AGOA suspension effect by pre-suspension utilization rate

	ln(Exports)		Export Dummy
	Coefficients	Marginal effect	
	(1)	(2)	(3)
Suspended×Country×Product×			
No utilization	-0.037 (0.227)	-3%	-0.001 (0.013)
Medium utilization	-0.171 (0.277)	-16%	-0.008 (0.015)
High utilization	-1.036** (0.475)	-65%	-0.041** (0.018)
Product-year Fes	Yes	Yes	
Country-year Fes	Yes	Yes	
Country-product Fes	Yes	Yes	
Number of observations	584,434	584,434	

The marginal effects throughout this paper are calculated as $\exp(\beta)-1$ if the dependent variable is lnExports. Robust standard errors in parentheses are clustered by country and product. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

Next, we examine heterogeneity in the impact of AGOA suspension across different product categories: agriculture, fuel and minerals, manufacturing (excluding textiles and clothing), and textiles and clothing. To investigate the heterogeneous effects for these product categories, the triple interaction term is further interacted with a dummy for each category. As reported in table 6, the impact of AGOA suspension is negative and statistically significant for textiles and clothing, but insignificant for the other product categories. The drop in exports of textiles and clothing due to AGOA suspension is substantial at 88 percent. Additionally, the extensive margin of trade in this product subcategories is also adversely affected due to AGOA suspension; the probability of exporting textiles and clothing decreases by 9.4 percentage points.

Table 6: AGOA suspension effect by product categories

	lnExports		Export dummy
	Coefficients	Marginal Effect	
	(1)	(2)	(3)
Suspended×Country×Product×			
Agriculture	0.824 (0.532)	120%	0.051* (0.027)
Fuel and minerals	0.318 (1.566)	37%	0.005 (0.058)
Manufacturing	-0.010 (0.139)	-9%	-0.000 (0.007)
Textiles and clothing	-2.264** (1.048)	-88%	-0.094** (0.037)
Product-year FEs	Yes	Yes	Yes
Country-year FEs	Yes	Yes	Yes
Country-product FEs	Yes	Yes	Yes
Number of observations	584,434	584,434	584,434

The marginal effects throughout this paper are calculated as $\exp(\beta)-1$ if the dependent variable is lnExports. Robust standard errors in parentheses are clustered by country and product. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

4.1 Robustness Checks

Excluding Outliers

Some countries (Central African Republic, Democratic Republic of Congo) have been suspended from AGOA for over 10 years (Table 1). To ensure that the results above are not driven by these outliers, we estimate the main specification after excluding these countries from the sample. Results reported in column 1 of table 7 are qualitatively unchanged; AGOA suspension continues to be associated with a significant drop in exports from suspended countries. Similarly, the probability that an AGOA eligible country exports AGOA eligible products to the US is decreased by 2.6 percentage points on average during the period of suspension.

Excluding Oil Exports

Oil accounts for the bulk of SSA exports to the US under AGOA. We examine the robustness of our results by excluding oil products (HS Chapter 27) from the sample. The estimated impact of AGOA suspension remains qualitatively unchanged (Table 7), albeit slightly larger than the baseline estimate, suggesting that the negative impact on non-oil exports to the US is bigger than on oil exports. Column (3) shows that, similar to the pattern observed in the benchmark results, AGOA suspension decreases the probability that an AGOA eligible country exports AGOA eligible products to the US by 2.1 percentage points.

Table 7: The Effect of AGOA suspension, excluding outliers and oil products

	Excluding outliers		Excluding oil products	
	lnExports	Export dummy	lnExports	Export dummy
	(1)	(2)	(2)	4
Marginal effects	-45%		-40%	
Suspended×Country×Product	-0.611*	-0.026**	-0.514*	-0.021*
	(0.348)	(0.013)	(0.293)	(0.011)
Product-year FEs	Yes	Yes	Yes	Yes
Country year FEs	Yes	Yes	Yes	Yes
Country Product FE	Yes	Yes	Yes	Yes
Number of observations	566,900	566,900	584,112	584,112

The marginal effects throughout this paper are calculated as $\exp(\beta)-1$ if the dependent variable is lnExports. Robust standard errors in parentheses are clustered by country and product. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

5. Conclusion

Understanding the impact of withdrawing access to a non-reciprocal trade preference program is increasingly important amid heightened uncertainty in global trade. Furthermore, AGOA is expected to expire in September 2025, and there has been a marked shift in the US trade policy away from unilateral trade preference programs to more reciprocal bilateral trade arrangements, hence the need to better understand the impact of AGOA suspensions.

This study examines the impact of AGOA suspension on exports from suspended SSA countries to the US. To estimate the effect of AGOA suspension, we use a triple difference-in-differences specification that takes advantage of country-product-year variations. We find that AGOA suspension reduces exports of AGOA-eligible products from SSA countries to the US by 39 percent. Compared to the existing literature that examined the impact of withdrawal of GSP ([Hakobyan, 2020](#)), the impact is much larger. This is partly

due to the relatively wide coverage of AGOA preferences, which include product categories that African countries have a comparative advantage in but are excluded from GSP, such as agricultural products and textiles. Our findings suggest that the impact of AGOA suspension was the largest for exports of textiles and clothing. It may also reflect the longer duration of an average suspension, at around 5 years, whereas GSP expirations were much shorter in duration. Apart from the reduced levels of exports, we find that the suspension of AGOA eligibility has resulted in a limited variety of goods being exported to the United States. In particular, the probability of exporting textiles and clothing products decreases by 1.25 percentage points compared to the average probability of 9.4 percent for AGOA eligible countries exporting these products prior to the suspension. The AGOA suspension had a disproportionate impact on countries with a high pre-suspension utilization rate. We find that the withdrawal of AGOA benefits induces a 65 percent drop in exports with pre-suspension utilization rates above 30 percent (statistically significant at the 5 percent level).

These findings emphasize the importance of uninterrupted preferential market access in maintaining and stimulating exports from African countries and are relevant to the recurring policy debate on the suspension of AGOA. Anecdotal reports from textile manufacturers in SSA, including in Ethiopia and Kenya, have indicated that AGOA preferences play a key role in their choice of location for investment. The implications are even more severe if AGOA suspensions result in reversals of investments deemed for export production and not merely in switching export destinations. Given that attracting FDI to these economies is often a challenge due to the relatively poor investment climate

that may be offset by the preference margins from preferential access, suspending AGOA could have far-reaching economic implications.

The results in this paper confirm that AGOA suspensions have important implications both for African economies and advanced economies including the US and the EU. Advanced economies are signaling an interest in moving away from non-reciprocal to more reciprocal trade agreements in their trade dealings with developing economies. As the EU negotiates Economic Partnership Agreements with African countries, the US is considering a similar path, as evidenced by the recently launched negotiations of a bilateral FTA with Kenya, with a plan to further expand these FTAs with selected African countries. These developments underscore the need to prepare for a post-AGOA, a more reciprocal trading environment.

The policy implications of this paper are clear. AGOA suspensions pose significant challenges for the affected SSA countries as they struggle to maintain the same level of exports after the suspension. In considering a new model of trade engagement with developing economies and bearing in mind the overarching goal of poverty reduction, advanced economies need to adopt requisite strategies for smoothing the transition and avoiding any disruptions in access to these preferences. African countries in turn need to diversify their export markets, including to East Asia and looking inward by strengthening regional trade with their neighbors. In some cases, the selective AGOA suspensions may even discourage the deepening of regional trade and integration.

References

- Abreha, K. G., Kassa, W., Lartey, E. K., Mengistae, T. A., & Zeufack, A. G. (2021). Industrialization in Sub-Saharan Africa: Seizing Opportunities in Global Value Chains. World Bank Publications.
- Cheong, J., D. W. Kwak, and H. Yuan (2017). Trade to aid: EU's temporary tariff waivers for food hit Pakistan. *Journal of Development Economics* 125, 70-88.
- Coulibaly, S., Kassa, W., & Zeufack, A. G. (Eds.). (2022). Africa in the new trade environment: Market access in troubled times. World Bank Publications.
- Fernandes, A. M., Forero, A., Maemir, H., & Mattoo, A. (2023). Are trade preferences a Panacea? The export impact of the African growth and Opportunity Act. *World Development*, 162, 106114.
- Frazer, G. and Van Biesebroeck, J. (2010). Trade growth under the African growth and opportunity act. *The Review of Economics and Statistics*, 92(1):128–144.
- Gnutzmann-Mkrtchyan, A., & Volmer, M. (2022). EU trade policy reform: towards reciprocal concessions with developing countries. Available at SSRN 4104064.
- Hakobyan, S. (2017). Export competitiveness of developing countries and US trade policy. *The World Economy*, 40(7):1405–1429.
- Hakobyan, S. (2019). GSP expiration and declining exports from developing countries. *Canadian Journal of Economics*.
- Kassa, Woubet, and Souleymane Coulibaly (2019). Revisiting the trade impact of the African Growth and Opportunity Act: A synthetic control approach. World Bank Policy Research Working Paper 8993.
- Kassa, W., & Owusu, W. (2019). Rules of Origin as Double-Edged Sword: Evidence from Textile GVC under AGOA. In Centre for the Study of African Economies. Unpublished.
- Kassa, Woubet; Sawadogo, Pegdewende Nestor. (2021). Trade Creation and Trade Diversion in African RECs: Drawing Lessons for AfCFTA. World Bank Policy Research Working Paper No. 9761.
- Magee, C. S. (2008). New measures of trade creation and trade diversion. *Journal of International Economics* 75 (2), 349-362.
- Postigo, A. (2013). Explaining utilization of free trade agreements by sectoral interests and binding of unilateral concessions. *International Development*, 148:1–63.
- United States Government Accountability Office (2015). African Growth and Opportunity Act eligibility process and economic development in sub-Saharan Africa.
- US Congress (2015). Trade Preferences Extension Act of 2015, HR-1295.