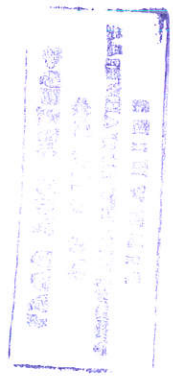
ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES

ASSESSING THE IMPACT OF NON-RECIPROCAL TRADE PREFERENCES: THE CASE OF AFRICAN GROWTH AND OPPORTUNITY ACT (AGOA) AND SUB-SAHARAN AFRICA'S AGRICULTURAL EXPORTS TO THE UNITED STATES OF AMERICA

By

KOKEB GEBREGIORGIS GEBREGZIABHER



A Master's Project Submitted to Graduate Studies of Addis Ababa University in partial fulfillment of the requirements for the Degree of Master of Arts in Economics
(Applied Trade Policy Analysis)

June, 2008
Addis Ababa

Addis Ababa University

School of Graduate Studies

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ACKNOWLEDGEMENTS

This research has been accomplished with the help of many people to whom I am indebted. My special appreciation first goes to my advisor, Dr. Girma Estiphanos for his valuable comments and suggestions throughout the work of this paper. I owe special thanks to Kofi Nouva and Kurt Shaefer who provided me guide from the beginning to the end of the paper.

Abyssinia G.Giorgis and Rahwa G.Giorgis, who are my younger sisters, deserves special thanks without their help it would not have been realized.

Last but not least I want to thank my father, mother and Nega Worku for their support in my career.

Blessed Be God for Making It Happen

Kokeb G.Giorgis G.Her

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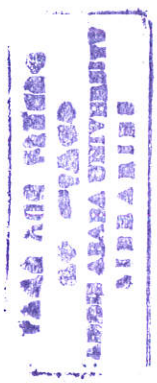

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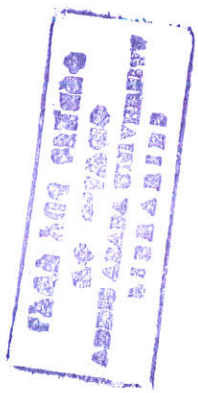

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Abbreviations and Acronyms

AGOA----------African Growth and Opportunity Act

FAO ----------Food and Agricultural Organization

EBA ----------Everything But Arms

EU ---------- European Union

FAOSTAT ----------Statistical Data base of the Food and Agricultural Organization of United Nations

GATT----------General Agreement on Tariff and Trade

GSP---------- Generalized Systems of Preferences

IMF ----------International Monetary Fund

MFN----------Most Favor Nation

OECD----------Organization for Economic Cooperation and Development

SSA----------Sub-Saharan Africa

TRQ----------Tariff Rate Quotas

UNCTAD----------United Nations Conference on Trade and Development

USDOC----------United States Department Of Commerce

USITC----------United States International Trade Commission

WB----------World Bank

WEO----------World Economic Outlook

WTO----------World Trade Organization

ABSTRACT

The purpose of the paper is to discuss and analyze the impact of Non Reciprocal Trade Preferences the case of African Growth and Opportunity (AGOA) on the agricultural exports of Sub Saharan Africa. That is its aim is to show whether the AGOA has increased agricultural exports from SSA to the United States of America.

The researcher employs both descriptive and empirical analysis approaches. Pre and Post AGOA agricultural export performance of Sub Saharan are among descriptively analyzed issues. For empirical analysis part, we employ the fixed effect gravity model of international trade. We take three samples the first is a sample of 46 SSA countries, Secondly a sample of 30 countries whose average yearly agricultural exports is >= 500,000 US dollars and finally a sample of 9 major agricultural exporters in SSA countries. The period of time covered under the study is from 1996-2007 which is 5 years before the enactment of AGOA and the rest 7 years post AGOA period.

Our descriptive evidence shows that the AGOA has had insignificant impact on the agricultural exports of Sub-Saharan Africa.

Similarly the empirical estimates shows for the first sample with 46 SSA countries AGOA has led to a decline in average exports of SSA by 19%, for the second sample with 30 SSA countries whose yearly average agricultural exports is >= $ 500,000 AGOA has led to an increase in agricultural exports approximately by 35% on average, while for the third sample, major agricultural exporters, averagely AGOA has led to increase in agricultural exports approximately by 18%, but in all the three samples considered the AGOA dummy was not statistically different from zero. Therefore, one may conclude that AGOA has induced neither an increase nor a decline in SSA agricultural exports to the US.

Chapter One

1 Introduction

1.1 Background of the Study

Preferential trade programs are efforts by high-income developed countries to provide tariff concessions for low-income developing countries, with the goal of increasing export earnings, promoting industrialization, and stimulating economic growth in the less developed countries. This is done by giving selected developing countries a tariff rate below those given to all countries. Today, the United States (US) and the European Union (EU) are the main preference-granting donors.

Nonreciprocal trade preference programs began with the post colonization movement of the 1950s and 1960s. In their infancy, trade preference programs of developed countries were aimed at assisting former colonies to become successful independent states. As early as 1955, amendments to the General Agreement on Tariffs and Trade (GATT) recognized the need for special provisions for developing countries to facilitate economic development. In 1964, a "trade and development" provision was added to the GATT that formally recognized the need for rapid and sustained expansion of export earnings of less developed countries to help foster economic growth. While this provision acknowledged the need for development and a general commitment by

developed countries, it did not provide specific measures (Jhon Wainio, Shahla Shapouri, Micheal Trueblood and Paul Gibson, 2004).

In 1964, Secretary-General Raul Prebisch of the first United Nations Conference on Trade and Development (UNCTAD I) proposed the creation of a nonreciprocal system of tariff preferences in favor of the developing countries. But it was not until 1968, during UNCTAD II, that there was unanimous agreement to establish a mutually acceptable system of widespread, nonreciprocal, and on discriminatory preferences in order to assist economic development in developing countries, generally referred to as the Generalized System of Preferences (GSP). In order to put the GSP into effect, however, it was necessary to exempt developed countries from the GATT's nondiscriminatory MFN obligation to extend a tariff reduction given to one contracting party to all contracting parties. In 1971, GATT members agreed to grant a 10-year MFN waiver for the GSP, and later that year the EU became the first to put a GSP program into place. The MFN waiver was later made permanent with the adoption of the GATT Enabling Clause in 1979 (Laid, R and Turrinr, 2001). By 2007, 12 countries (counting the EU as one country) had GSP schemes in operation.

Trade preferences in sub-Saharan African countries have been characterized by weak export growth, declining trade shares in the global market, and low foreign investment levels. The United States has made an attempt to assist in

reversing these trends by passing the African Growth and opportunity Act (AGOA), which was signed into law in May 2000 as part of the Trade and Development Act of 2000. AGOA provides preferential access to US market for eligible products from designated countries of sub-Saharan Africa as well as improved access to U.S credit and technical expertise (Shahla Shapouri et al, 2003).

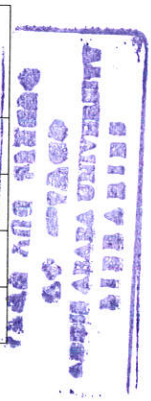
In general, AGOA is similar to other preferential market access programs and may create a policy-induced "comparative advantage" for SSA exports. The success of the program in promoting export growth in the region depends on how compatible the commodities are under AGOA with the export profile of countries in the region and how responsive countries are in taking advantage of the opportunities. This intern depends on the AGOA program incentives and the flexibility in the economic structures in different countries to transmit the incentives to producers of exported commodities.

To understand the usefulness of the AGOA provisions, it is important to understand the structure of exports of the region as well as U.S imports prior to its enactment. Before the enactment of AGOA in 2000 manufacturing had emerged as the largest export category for the SSA region at 36% (Table -1). This is followed by fuels, which has consistently stayed at 26-28% declined substantially in recent decades, from about 46% in 1970 to about 21% in 2000.

Ores and metals have declined from about 16% of exports in 1970 to 8% in 2000 (Ibid).

Table 1- Sub-Saharan Africa Export Composition (Percent)

Year	Agricultural raw materials	Food	Manufacturing	Ores and materials	Fuels
1970	12.9	34.5	18.8	15.6	15.6
1980	6.1	22.0	12.4	8.6	26.6
1991	3.3	13.4	20.2	7.5	27.9
2000	4.4	16.6	36.1	7.7	28.4



Source: World Bank (2003): 1990 data not available

The EU as a whole is the largest trading partner for sub-Saharan Africa, with a share of about 42% of total exports in 2001 (IMF 2002). The United States is the largest single country export market for total SSA exports, holding a 23% share in 2000. The region's trade with other developing countries has grown from 17% only a decade ago to 25% in 2000 (Ibid).

As the key sector in the typical African economy, agriculture carries a great deal of the economic burden of these countries, and many of their problems can be linked directly or indirectly to the performance of the agricultural sector. The sector's dominant position in African economies is indicated by its substantial contribution to the GDP, foreign exchange earnings and employment. As the main source of income and employment in many African countries, agriculture

has an important and potentially pivotal role in enhancing overall economic growth and improving welfare. Hence the importance of AGOA for SSA countries depends on how it creates market access for agricultural export of these countries and hence the whole objective of the paper is to assess weather AGOA increases agricultural exports from SSA to the US.

1.2 Statement of the Problem and Motivation

Sub-Saharan African countries are characterized by poor trade performance and, low level of development and are marginalized in international trade. To reverse this situation trade preferences for developing countries continue to be a major part of the world trading system. Under the Generalized System of Preferences (GSP) Sub Saharan Africa countries have access to most OECD markets, and historical ties have been recognized in schemes such as the EU's Lome and Cotonon agreements. Recent years have seen several major extensions of preference schemes. The EU's Everything But Arms scheme, initiated in 2001, gave duty free access to least developed countries in (almost) all products. The U.S introduced the African Growth and Opportunity Act (AGOA) in 2000, improving market access for eligible sub-Saharan African countries.

This research is, therefore, to investigate with contemporary situation regarding trade preferences specifically AGOA and its implications for sub-Saharan Africa

agricultural exports. It critically reviews the evidence on the effectiveness of the program in promoting agricultural exports to the US.

1.3. Objectives of the Study

The purpose of the paper is both to descriptively and empirically analyze the impact of AGOA on the agricultural export of sub-Saharan Africa.

The specific objectives include:

- To highlight the Economic and Trade overview of SSA with US
- To assess the overall export performance of SSA countries
- To overview the impact of AGOA on non-Oil exports of SSA such as Textile and Apparel exports.

1.4. Methodology of the Study

To address the problem of the research and accomplish the objectives as well, both descriptive and empirical analysis will be under taken. For descriptive analysis, the investigator used both the data and empirical research outputs of various scholars. For the empirical analysis, the study employee gravity model of international trade.

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1.5. Data Collection and Sources

Secondary data is used for the analysis. The major sources of the data are: World Bank (WB), International Monetary Fund (IMF), US International Trade commission (USITC) data base, Bureau of Economic Analysis of the US Department of Commerce (USDOC) and World Economic outlook (WEO) database.

1.6. Significance of the Study

Given that 7 years have been elapsed since AGOA was enacted into the U.S. laws, only very few studies have attempted to empirically assess the impact of the act and none of them tries to see the impact specifically on agricultural exports of SSA. Hence the significance of the research is to fill this gap.

1.7. Scope and Limitation of the Study

The current study covers the period between 1996 and 2007 for 46 Sub Saharan African countries. The period and countries are chosen on the basis of availability of reliable data and the researcher is restricted to analysis of agricultural exports rather than total exports of SSA under AGOA.

This study however is only limited to see on 46 SSA countries rather than all SSA due to lack of proper data on agricultural exports for some countries in the region and this can be taken as a limitation of the study.

1.8 Organization of the Study

The paper will be organized as follows. The second chapter concerned with economic and trade overview of Sub Saharan Africa which deals with the economic performance of SSA and their trade partners. The third chapter deals with review of related literature. The fourth chapter will focus on the descriptive evidence weather the AGOA increased agricultural exports from SSA to the US. The fifth chapter will focus on data, model specification and econometrics methods reliable for the current study. Following this, the estimation of the model and the analysis of the empirical results are addressed in chapter six. In the last chapter, conclusion and policy implications are discussed based on the findings.

Chapter Two

2. Economic and Trade Overview of Sub Saharan Africa

2.1 Economic Growth and Africa's Global Trade

According to the report prepared by the Office of the United States Trade Representative in May 2007, the sub-Saharan African (SSA) economies grew by an estimated 5.3 percent in 2006 which was above average world Growth and lower than average developing country growth. The World Bank report also shows that SSA has experienced growth in excess of five percent for three consecutive years. Since the beginning of this decade, real GDP growth in sub-Saharan Africa has averaged over 4.5 percent. Growth within sub-Saharan Africa was broad-based with one third of the countries experiencing growth over five percent in 2006. Policies to enhance macroeconomic stability, debt relief, increased capital inflows, and higher commodity prices supported growth in sub-Saharan Africa (World Bank, 2006).

If we look on the economic performance of the Oil exporting countries they achieve 7 percent growth in 2005 but slightly decline to 6.9 percent in 2006 which indicates that they had relatively better economic performance within the region relative to other oil importing countries. While if we look on the oil importing SSA countries due to the large relative size of the South African economy, economic growth in South Africa drove growth among oil importing countries and sub-Saharan Africa as a whole. But if we exclude South Africa,

growth among oil importers in SSA remained steady at 4.7 percent in 2006 (Global Economic prospects, 2006).

Total merchandise imports of SSA continued to increase in 2005 growing by 20 percent to $173.4 billion, compared to somewhat higher growth of 32.6 percent in 2004.Out of the total imports in 2005 in SSA South Africa and Nigeria accounted for almost half of Sub-Saharan Africa's total imports with a 45.4 percent share. In 2005, South Africa's imports increased by 15 percent to $54.2 billion, and Nigeria's imports increased by 19.7 percent to $24.4 billion. Based on a review of some of the major suppliers to Sub-Saharan Africa, no single sector appears to account for the majority of the growth in Sub-Saharan African imports. Instead, the imports appear to be spread over a range of sectors, including a variety of electrical and other machinery, refined Oil, telecommunications equipment, vehicles, aircraft, iron and steel products, pharmaceutical products, medical equipment, apparel and footwear, ocean tankers, and wheat (Trade statistics year book, 2006).

While Sub-Saharan Africa's total merchandise exports were $177.3 billion in 2005, a 27 percent increase, almost identical to the 27.2 percent increase in 2004. In 2005, South Africa and Nigeria accounted for 53.6 percent of Sub-Saharan Africa's total exports. South Africa's exports grew by 13.2 percent to $51.6 billion and Nigeria's exports grew by 30.5 percent to $43.5 billion (Ibid).

2.2 Shares of Sub Saharan Africa's Import and Export Markets

As can be seen from Table 2 below Europe as a bloc continues to dominate Africa's global trade, however America's share of Africa's trade has significantly increased. Sub-Saharan Africa accounts for slightly more than one percent of U.S. merchandise exports, and slightly more than three percent of U.S. merchandise imports, of which about 80 percent are petroleum products. Similarly, as can be seen from table 2 Sub-Saharan Africa accounts for a little more than one percent of both EU merchandise exports and imports. The United States is Africa's largest single country market, purchasing 29.6 percent of the region's exports in 2005. China came in a distant second at 10.9 percent, and the United Kingdom was third at 7.1 percent. The EU purchased 34.4 percent of Sub-Saharan Africa's exports, down from 36.2 percent in 2004 (IMF Direction of Trade statistics year book, 2006 & 2007)

Table 2: Sub Saharan Africa's Principal Trading partners ($ Billions and Market share)

Sub Saharan Imports	**2004**	**% share**	**2005**	**% share**
China	9.9	6.9%	13.4	7.7%
Germany	10.7	7.4%	11.7%	6.7%
France	9.8	6.8%	10.8%	6.2%
United States	8.5	5.9%	10.3%	5.9%
United Kingdom	7.4	5.1%	8.1%	4.7%
Japan	5.7%	4%	6.3%	3.6%
Italy	4%	2.8%	4.8%	2.8%
Spain	2%	1.4%	2.4%	1.4%
Total European Union	47.7%	33%	54.3%	31.3%
Sub Saharan Africa's Exports	**2004**	**% share**	**2005**	**% share**
United States	37.8	27.1%	52.4	29.6%
China	14.5	10.4%	19.3	10.9%
United Kingdom	11.3	8.1%	12.6	7.1%
Japan	8.3	5.9%	9.4	5.3%
Spain	7	5%	9.1	5.2%
France	7	5%	8.6	4.8%
Germany	6.3%	4.5%	7.1	4%
Italy	5.4%	3.9%	6.3	3.6%
Total European Union	50.6	36.2%	61.3	34.4%

Source: Derived from IMF Direction of Trade statistics year book, 2006
As cited by J.Diemond (Market access and compliance Office of Africa March 2007

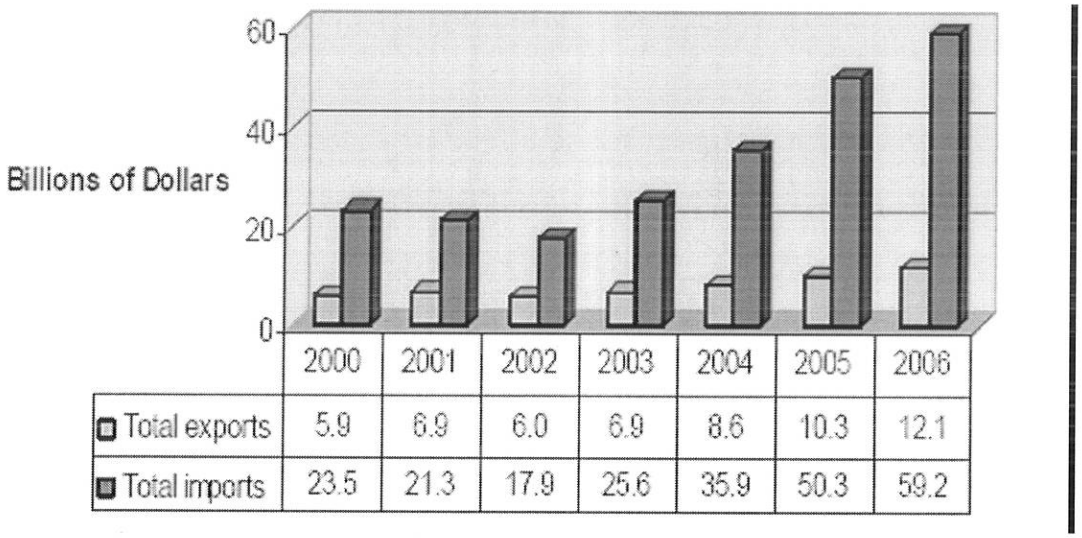
As can easily be understand from table 2, the U.S. market share in Sub-Saharan Africa remained constant in 2005 at 5.9 percent, with $10.3 billion in exports to the region. For the same year for the first time, China became the largest individual country exporter to Sub-Saharan Africa with a market share

of 7.7 percent and $13.4 billion in exports to the region. China's exports to the region grew by 35.2 percent from 2004.

2.3 Sub-Saharan Africa's Trade with The United States

According to Figure 1 given below total trade between United States and Sub Saharan Africa has been increased from 1999 to 2006 except for the year 2002 where both exports and imports were declined.

Figure 1: US Trade with the Sub Saharan Africa ($ Millions)



	2000	2001	2002	2003	2004	2005	2006
Total exports	5.9	6.9	6.0	6.9	8.6	10.3	12.1
Total imports	23.5	21.3	17.9	25.6	35.9	50.3	59.2

Compiled by the author

Source :G.Feldman, Office of Africa , March 2003 and :J.Diemond, Office of Africa, March 2007

The figure also shows that U.S. total trade with Sub-Saharan Africa (exports plus imports) increased 17 percent in 2006, as both exports and imports grew. U.S exports increased by 17 percent to $12.1 billion, driven mainly by increases

in machinery (including parts for oil field equipment and gas turbines), aircraft, vehicles and parts, electrical machinery (including Telecommunications equipment), and non-crude oil. U.S. imports rose 17 percent from 2005 to $59.2 billion. A 20 percent increase in crude oil imports caused most of the overall growth, as well as smaller increases in imports of platinum, diamonds, and iron and steel. Trade between the United States and Sub-Saharan Africa is highly concentrated, with a small number of African countries accounting for an overwhelming share of the total for both imports and exports.

As can be seen from Pie chart 1 (see annex 5) U.S. exports to Sub-Saharan Africa are highly concentrated among a small number of countries. The top three markets – South Africa, Nigeria, and Angola – remained the same from 2005 and accounted for 68.0 percent of U.S. sales in 2006, with South Africa claiming 36.8 percent, Nigeria 18.4 percent, and Angola 12.8 percent. South Africa's share declined slightly from 2005. Nigeria's share of U.S. exports grew due to an increase in U.S. exports of gas turbines and parts for oil field equipment, and Angola's increased, driven by a large increase in aircraft sales to the country. Equatorial Guinea's share rose due to an increase in the export of oil field equipment and parts to the country (US Department of Commerce, Bureau of Census March 2007).

Based on Pie Chart 2 (see annex 6) U.S. imports from Africa remained highly concentrated among a small number of suppliers. Four countries – Nigeria,

Angola, South Africa, and Republic of Congo –accounted for 84.9 percent of U.S. purchases in 2006. The share of imports from both Angola and South Africa increased, while Nigeria's share decreased slightly. Oil imports from Angola and platinum, diamond, iron and steel, and vehicle imports from South Africa accelerated faster than oil imports from Nigeria. The Republic of Congo's share of U.S. imports also increased with a large increase in oil imports from the country, while Gabon's share declined as oil imports from the country declined (Ibid).

Chapter Three

3. Theoretical and Empirical Review of Literature

3.1 Economic Rationale for Trade Preferences

Proponents of non reciprocal trade preferences such as Everything but Arms (EBA), African Growth and Opportunity Act (AGOA) cite two direct ways in which nonreciprocal trade preference programs provide advantages to recipient countries. First, they increase the value of exports from recipient countries by granting exporters a price premium that is roughly equal to the size of the tariff preference minus any additional costs for exporters to meet eligibility requirements. Second, this tariff advantage stimulates export growth of the recipient countries because of the discriminatory aspect of preferences (imports from recipient countries facing lower tariffs than those from non recipients), preference-granting countries may switch from importing the now higher priced products from non recipients to importing more of the lower priced products from recipients (a trade diversion effect). Non beneficiary exporters stand to lose, as their exports are "crowded out" by the exports benefiting from the preferences (Joho Wainio et al, 2004).

The economic rationale for offering developing countries preferential access, according to Raul Prebisch which is cited in John Wainio, Shahla Shapouri, Micheal Trueblood, and Paul Gibson is that: "[P]referential treatment for exports of developing countries ... would help the industries of [these] countries

to overcome the difficulties that they encounter in export markets because of high costs" (Prebisch, 1964). As countries increased the volume of output for exports, they would be in a position to better exploit economies of scale and reduce those high costs. Most studies conclude that while preferences have increased exports from some developing countries, they can raise them significantly only for products that enjoy large "margins of preference"—the difference between the MFN tariff and the preferential tariff—and in countries with sufficient productive and export capacity to take advantage of the added economic incentives. The extent to which recipient countries will be able to respond to these tariff incentives will depend upon their supply response (the elasticity of supply). The higher the elasticity, the larger the response, and the larger the trade diversion effect will be. Depending on the share of exports of the program recipients in the donor preference-granting country, the scheme could lower the internal prices in the donor country. Trade creation would occur in addition to trade diversion, benefiting consumers in the donor country as domestic prices drop and consumption increases.

Increased export earnings are one of several dynamic, long-term effects that preference programs can have on the internal market of recipient countries. Preference programs generally change the relative price relationships or terms of trade in recipient countries. Prices for exports increase relative to their import prices, creating an incentive to invest in the export sector. If this leads to an overall increase in investment, then the recipient country's economy

should grow as well. It was the potential that these programs held for promoting industrialization and accelerating rates of economic growth in developing countries that led early proponents to view them as another form of development aid. The slogan "trade rather than aid" became associated with these programs because of the financial transfer made to recipients through the higher price received for their exports and the belief that these increased exports would ultimately lead to more rapid development (John Wainio, Shahla Shapour, Micheal Trueblood and Paul Gibson, 2004).

In practice, the economic implications of preferential market access programs on recipients are complex and depend on a variety of factors. The possible benefits of preferences to developing countries that depend on increased export volumes, increased production, more jobs, and greater economic growth may face considerable constraints because of the internal economic situation of the program recipients. If resources in recipient countries are limited and/or are not mobile among sectors and products, countries might not be able to take advantage of market access preferences. Also, if the preferences result in a country moving scarce resources into financing high-cost production of goods in which it has no indigenous comparative advantage in producing, it could hamper long-term growth in other sectors of the economy.

Donors' program design also influences the outcome. In most preferential programs, the tariff advantages are granted to selected commodities. The less

important these products are in the export profile of the recipient countries, the smaller the export expansion and revenue gains are. Even when the preferences are on products of interest to recipients, the margins of preference may be too low to provide an economic incentive.

Changes in the global trading system and/or policies of the preference granting country also will influence the impact of the programs on recipients. For example, any decreases in MFN tariff rates of preference-granting countries as a result of regional or global trade liberalization erode the margins of preference measured as the extent to which referential tariffs are below the MFN tariff granted under preferential trade programs and reduce the export incentives for the recipient countries. The deeper the cuts in these rates, the more diluted these programs become.

Other non program costs, such as compliance with a donor country's import regulations, also can impede recipients from benefiting from preferences. As a result of these restrictions, some supporters believe that donor countries should incorporate financial aid and technical assistance into nonreciprocal preferential trade programs to help build recipient countries' economic capacity to take advantage of preferences (Ibid).

3.2 Overview of the Quad preferential market Access Schemes for Sub-Saharan Africa

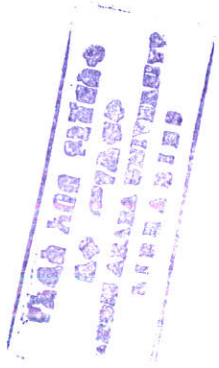
USA Preferences: The African Growth and Opportunity Act (AGOA) came in to force in 2000 under Clinton Administration as USA initiative to offer preferential market access for selected SSA countries till 2008, extended recently by the Bush administration till 2015.

AGOA is an extension of the Generalized System of Preferences (GSP) that offered duty free, quota free access to the US market from SSA countries. The total product tariff line coverage eligible for GSP and AGOA is approximately 7,000 including 36 energy related product categories, 622 apparel and footwear related products and 1800 non-energy, non apparel products. The top beneficiaries of AGOA include; Angola, Nigeria and Gabon with oil related exports contributing close to 75% of USA-SSA imports. This is no surprise as Africa contributes almost 15% of US energy needs. The major exporters of apparel under AGOA are Lesotho, Kenya, Madagascar, Mauritius, South Africa and Swaziland. US`s generalized system of preferences until enactment of AGOA has been largely criticized in literature for its limited beneficiary country coverage, exclusion of sensitive products, stringent rules of origin and being politically sensitive (Dick Nuwamanya, October 2007).

In the next section (3.3) the researcher will discuss AGOA in detail and its implication for Sub-Saharan African countries.

European Union (EU) Preferences: The European Union offers a series of competing nonreciprocal preferences to Least Developing Countries in general SSA inclusive. These include; the Generalized System of Preferences (GSP initiated in 1971), the Cotonou Partnership Agreement a successor to the four successive Lome conventions (1975-2000) an arrangement to negotiate regional economic partnership agreements (REPAs) with the African Caribbean & Pacific (ACP) countries and Everything but Arms (EBA) for LDCs which came into force in march 2001. EBA offers duty free, quota free market access to all Least Developing Countries export products except arms and munitions and with transitional arrangements for sensitive products like sugar, bananas and rice. Throughout their long life, EU preferences have been subjected to numerous criticisms for instance; failure of GSP and the four Lome conventions to increase market shares of the beneficiary countries in the European market and lack of export diversification away from a few primary products to manufacturing and processing (Cline, William, 2004).

Japan GSP: Japan established its Generalized System of Preferences scheme in 1971. It's revised every decade and includes a general preferential regime in which preferential tariffs are applied to imports of designated GSP beneficiaries and a "special preferential regime" which grants designated products from least



developing countries duty free market access. The most interesting of Japan's GSP is in the agricultural and fisheries sector where it maintains a "positive list" of products for which it invokes safeguard measures to suspend preferential treatment for products on the positive list under certain conditions (Dick Nuwamanya, 2007).

Canada GSP: Generalized System of Preferences came into force in 1974, and expanded its product coverage by adding an extra 570 tariff lines to the list of duty free items originating from the Least developing countries (LDCs). In January 2003 Canada extended duty free and quota free market access to imports from 48 LDCs, including textile and agricultural processed products with new rules of origin for LDCs` products (see http://www.unctad.org/eng/does/itcdbmisc66 en.pdf, www.ccra-adrc.gc.ca)

3.3 Trade preferences Under the African Growth and Opportunity Act (AGOA)

Trade preferences targeted at developing countries have been a feature of developed countries' commercial policies for the past forty years. Several developed countries, especially the Quad countries have extended varying forms of preferential trade arrangements to several developing countries. These preferential trade arrangements are typically non-reciprocal and based on the "trade not aid " paradigm ,which has even more recently gained prominence in policies pertaining to economic relations between developed countries and

developing countries. There is a lack of consensus that trade preferences have the potential to help developing countries foster sustained economic development.

The African growth and Opportunity Act launched in 2000, is a generous unilateral scheme that builds on its General System of preferences Scheme. The goal of AGOA initiative, according to the US Trade Commission is to facilitate market access for Sub Saharan Africa countries and to encourage them to undertake economic reforms, with the goal of reversing the decline economic trend that characterizes SSA, while strengthening its competitiveness and enhancing the effectiveness of the United States foreign policy.

When the Act was first implemented on October 2, 2000, it applied to 34 countries in SSA. By January 2, 2007, eight more countries had been added to the list ,and four countries had been removed . The newer countries, such as Sierra Leon, have generally been admitted after government stability was achieved. Four countries, the Central African Republic, Eritrea, Coted'ivoire , and Mauritania, have been removed from AGOA as a result of failures regarding political or democratic freedoms*[1].

*[1] The Central African Republic (Jan 1, 2004) and Mauritania (Jan 1, 2004) were both removed after coups Eriteria (Jan1, 2004) was removed after failing to implement elections and democratic reforms. Cote d'ivore (Jan 1,2005) was removed afterfailing to implement a peace plan.

3.3.1 AGOA Summary, Country Eligibility and Product Coverage

This section provides a summary of AGOA, country eligibility criteria and also discusses the products covered under this trade preference. Information is available on line at www.agoa.gov only some key features of the agreement is highlighted in this section.

AGOA Offers eligible countries in sub-Saharan Africa duty-free U.S. market access for substantially all products; AGOA:

a) Provides additional security for investors and traders in African countries by extending GSP benefits for AGOA beneficiaries through 2015;
b) Provides incentives for African countries to achieve political and economic reform and growth;
c) Institutionalizes a process for strengthening U.S. trade relations with African countries;
d) Establishes the U.S.-Sub-Saharan Africa Trade and Economic Cooperation Forum to facilitate regular ministerial-level trade and investment policy discussions; and
e) Promotes the use of technical assistance to strengthen economic reforms and development, including assistance to strengthen relations between U.S. firms and firms in sub-Saharan Africa.

AGOA requires US the President to determine annually whether sub-Saharan African Countries are to remain eligible for benefits based on their progress in meeting criteria set out in the Act or not.

To be eligible for AGOA benefits, countries must commit themselves to (or make continual progress towards) establishing institutional environments that are conducive to the US African trade. The conditions include:

a) Commitment to a market based economy
b) Practice of rule of law and political pluralism
c) Elimination of barriers to US trade and investment
d) Protection of Intellectual Property
e) Making efforts to combat corruption
f) Adopting policies to reduce poverty; increasing availability of health care and educational opportunities
g) Protection of human rights and worker's rights
h) And elimination of certain forms of Child labor

Although it is not expected that beneficiary countries will fully satisfy all these conditions, eligible countries must be committed to, and continue to make progress in regards to these reforms.

Essentially all products of AGOA beneficiary countries may enter the United States duty free, either under AGOA, GSP, or under a non-preference (normal trade-relations) zero rate of duty.

In 2006, over 98 percent of U.S. imports from AGOA beneficiary countries entered duty free. In the few cases where U.S. tariff rate quotas (TRQs) exist for sugar, tobacco, peanuts, beef, and some dairy products – goods of AGOA beneficiary countries enter duty-free within the quota, but remain subject to any over-quota duties for shipments above the applicable quantitative limit (Comprehensive report on US Trade and Investment policy towards SSA May 2007).

Products are eligible for preferential access to the U.S. market under AGOA in three ways:

First, AGOA extends the GSP program (which covers 4,650 products) for beneficiary countries through September 30, 2015. For regional exporters, this provides stable, longer-term access to the U.S market than they enjoyed under the existing GSP program.

Secondly, AGOA granted President Bush authority to provide duty-free treatment for certain goods not covered under the existing GSP program. Using his authority to expand GSP, on December 21, 2000, the President proclaimed

duty-free treatment for an additional 1,835 items. Certain unwrought manganese was added to the list in January 2003 (Ibid).

Third, Separate AGOA provisions grant duty-free treatment to qualifying apparel articles of beneficiary sub-Saharan African countries and to textile or apparel articles that are determined to be hand loomed, handmade or folklore items, or ethnic printed fabrics. AGOA also makes certain textile articles from lesser developed AGOA beneficiary countries eligible for duty-free treatment. The full list of products that may enter the U.S. duty-free under AGOA may be found at: http://www.ustr.gov/assets/Trade_Development/Preference_Programs/AGOA/AGOA_Implementation_Guide/asset_upload_file146_6512.pdf.

3.3.2 Evolution of the African Growth and Opportunity Act: (AGOA I to AGOA IV)

AGOA has undergone a series of modifications since its enactment in 2000. The current AGOA legislation, in its fourth iteration adds 1,800 tariff lines items to the 4,600 items eligible for duty free treatment under the US GSP. AGOA builds on existing US trade programs by expanding the (duty free) benefits previously available only under the GSP. AGOA offers duty free status for a broader range of product, including product categories that have been historically classified as 'import sensitive" by the United States government. The commodities covered by AGOA include agricultural commodities (in particular, food items, with more

than 600 tariff lines), petroleum products (20 tariff lines), minerals and manufacturing (more than 700 tariff lines), and apparel and footwear (more than 500 lines). Agricultural commodities that are new compared with the earlier provisions for LDCs include fresh-cut roses, citrus products (fresh or juice), and vegetables (tomatoes, celery, cucumbers, and dried onions) (Shahla Shapouri and Micheal Trueblood June 2003). Non-agricultural products that qualify are apparel, footwear, handbags, gloves, luggage and trunks, and watches. These were goods that have historically been considered "sensitive" by the United States. However, it is important to note that while AGOA removes import duties on eligible African imports preferential market access is granted only upon compliance with the relevant Rules of Origin. The Act originally covered the 8-year period from October 2000 to September 2008 ('AGOA legislation' available from www.agoa.gov).

The unique feature of AGOA is its provision of duty-free and quota-free access to the U.S. market without limits for apparel made in eligible Sub-Saharan African countries from U.S. fabric, yarn, and thread. It also provides for substantial growth of duty-free and quota-free apparel imports made from fabric produced in beneficiary countries in Sub-Saharan Africa. Under AGOA I, apparel imports made with regional (African) fabric and yarn are subject to a

cap[2] of 1.5% of overall U.S. apparel imports, growing to 3.5% of overall imports over an 8-year period.

In the latter part of 2002, U.S. president George Bush signed into law a number of amendments to the original terms of the African Growth and Opportunity Act. These amendments are collectively known as AGOA II. AGOA II was written to amend some of the limitations of the Act and to improve SSA countries utilization of the AGOA program. AGOA II clarifies and narrowly expands the trade opportunities for SSA countries and encourages more investment in the region. These amendments pertained mainly to textiles and apparel (Ibid).

Despite the AGOA II amendments, utilization of AGOA remained fairly low especially with non-oil and gas product exports as did the nature of investments into the region. Several investors cited the temporary nature of the act as a major disincentive. After intense lobbying from various stakeholder groups, including the Presidents of various African countries, AGOA III was finally passed by both the US House of Representatives and the Senate (AGOA Legislation AGOA III available from http://www.agoa.gov).

AGOA III extends the Act's original date of expiry from 2008 to 2015 with the hope of creating a positive impact on trade and investment in Africa. Other additional provisions in AGOA III relate to technical assistance for Africa, and

[2] Refers the maximum volume of a given product (from a specific country or region) that is allowed to enter US market under preferential terms

are aimed at assisting African producers especially with issues relating to compliance with US agricultural standards. With AGOA III, trade in agriculture product was elevated to the forefront of the agreement. There is an additional emphasis on trade in agricultural products, and recognition that AGOA has not lived up to its potential for the agricultural sector. During 2002, only a quarter of the US$ 867 million worth of agricultural products exported to the US from AGOA-beneficiary countries was AGOA-eligible, of which half would have qualified under the GSP anyway. The AGOA III bill commits itself to several mechanisms for enhancing agricultural trade. These include:

1. Measures to help identify the potential for enhanced competitive agricultural products and exports to the US;
2. Identification of constraints to US-African agricultural trade;
3. Formation of partnerships with the private and public sectors in Africa for the removal of agriculture-related constraints to trade;
4. Access to vital market information, price data, product quality, and aggregate demand, quality of inputs and associated costs as well as customs rules and regulations relating to agriculture. "AGOA Acceleration Act of 2004" (Accessed January 17, 2006) Available from. http://agoa.gov/agoa_legislation/AGOAIII_text.pdf

On December 20, 2006, President Bush signed the Africa Investment Incentive Act (AGOA IV). The legislation enhances AGOA trade benefits for eligible sub-

Saharan African countries and strengthens economic engagement between the United States and sub-Saharan Africa. And also it modifies certain textile and apparel provisions (Comprehensive Report on US Trade and investment policy towards SSA, May 2007)

If we critically look on the amendments of AGOA most of them are related with the reform on Textile and Apparel while ignoring the agricultural sector .And hence we can say that practically the amendments cannot boost market access for SSA for agricultural exports.

3.4 Theoretical and Empirical Review of Literature

The researcher will try to review the previous theoretical and empirical literature on non-reciprocal preferences. It focuses on two strands; (i) studies that previously investigated the impact on trade volumes and welfare effects of these preferences to the beneficiary countries (ii) recent studies that have attempted to evaluate the impact of AGOA on Sub Saharan African countries.

It is commonly argued that trade preferences have failed to act as the catalyst for economic development and structural diversification to the extent that many had hoped for (Cline, 2003). Although there are many complaints regarding operational aspects of the preference schemes (e.g. excessively strict rules of origin, or a highly discretionary application of the preferences), it is true that

African countries value these schemes positively, and are very much opposed to see their elimination or scaling-down (Andy Mold, Nov 2004)

Despite the apparent popularity of preference schemes, an intense controversy has recently taken place amongst development economists as to their benefits/costs (Rose, 2003) most liberal economists continue to oppose preferences granted to poorer developing countries, on the grounds that it undermines the system of multilateral liberalization. The World Bank (2000), for instance, has argued that "*nonreciprocal preferences like the GSP are a "Faustian bargain*". The basic criticism is that the GSP is anti-trade and that, on balance, the system actually delays a poor country's efforts to liberalize. Under traditional static analysis, it is argued that trade diversion effects may be larger than the benefits from trade creation between the two bilateral partners involved in the preferential agreement, especially if the rules of origin are excessively strict. It is also argued that preferences may engender deterioration in the quality of the trade between two countries, artificially shifting economic activity towards sectors where trade preferences exist, but out of line with the country's long-term comparative advantage. In addition, once benefits are lifted, or eroded by tariff reduction with competing countries, the costs of adjustment are inevitably high (Andy Mold 2004).

As we shall see in a moment, taken in isolation, some of these propositions have empirical validity. However, from the African perspective, preferential

agreements are fundamentally better for Africa than free trade agreements or unilateral liberalization if there is agreement on one simple principle that African countries are generally not sufficiently capacitated to trade on a "level playing" field with the industrialized countries, and that some form of residual protectionism is required to protect domestic industries and agriculture. At the same time, African countries have become increasingly skeptical regarding the willingness of the industrialized countries to dismantle, or even reduce, their elaborate systems of agricultural support. In such circumstance, greater emphasis can be expected to be placed by African trade negotiators on preferential access. Enhanced market access through preferential agreements is also valued highly because of the way in which it can potentially increase the rents from exporting to Quad country markets and encourage diversification into other sectors (Cline, 2004).

In criticism of this view, it is sometimes argued that preferences might actually reduce the incentives to diversify. By increasing the potential income from traditional exports, in theory preferences could contribute to "locking in" developing countries into existing productive structures. The example of countries like Mauritius, which benefited enormously from both the sugar protocol and the MFA, shows that this is not at all inevitable, and suggests that countries can effectively use the additional income created by preferential schemes to help diversify the economic base of the economy. But it should be noted that this outcome is by no means inevitable (Ibid).

Until now we can understand that the impact of trade preferences on developing countries as a whole is mixed in literature review. Some believe that trade preferences are helpful for SSA because SSA can not be compute with advanced countries in plain ground and hence there is a need for trade preferences while others believe that trade preferences do not help.

According to Hammouda, Karingi and Perez (2005) conducted a CGE simulation for unrestricted market access for SSA exports to the Quad and noted that SSA exports would increase by US $ 1.1billion to Japan and US$ 3.3 billion to EU and a significant improvement of terms of trade (4.5%), large value added, and GDP of US$ 12billion, which growth would reduce significantly unemployment on the continent and improve welfare.

According to Ianchovichina *et al.* (2001) with a GTAP model assess the gains and costs of "unrestricted market access" for 37 sub-Saharan African countries in the Quad, and report a welfare gain of 1.8 billion for the region, an upsurge of exports to 2.5 billion US dollars and almost negligible costs of this unrestricted market access to the rest of the world and this access would generate a 1.5 percent increase in productivity for the region.

Although AGOA was designed with the standard economic benefits of trade policies (creation of employment and specialization which leads to productivity improvements and per capita income growth) in mind, the realization of the

potential benefits of the act in improving Africa's exports to the U.S. has been a subject of series of debates. The available critics vary from those who assert that the removal of trade barriers on textiles and apparels originating from Africa would result only in a massive loss of U.S. jobs (Cooper, 2002) to those who question the potential benefits of the Act for most of SSA countries (Raghavan, 2000, and Nouve and Staatz, 2003) by arguing that SSA countries' exports to U.S. are dominated by petroleum products and are concentrated in a few countries (such as Nigeria and South Africa). Rodrik (1998), Wang and Winters (1998), attribute the causes of poor African export performance to low per capita income, small country size, geography, lack of infrastructure, and domestic trade policies rather than high tariff. Direct observations and inferences from these studies make the impact of unilateral trade policy initiatives such as AGOA, an open empirical question.

The literature on SSA trade in general and the U.S.-SSA countries' trade in particular is limited. Using information on pre-AGOA tariffs and assumptions on supply response and assuming the rules of origin on yarn, Mattoo et al. (2003) predict that African textile exports to the U.S. will rise by 5 percent. Ianchovichina et al. (2001) speculate that African exports to increase roughly by 14 percent if granted a preferential market access to the European Union, Japan, the U.S., and Canada. Employing the triple difference-in-difference method of controlling for the "endogeneity of policy" Frazer and Van Biesebroeck (2007) conduct an in-depth study of important policy implication

with greater data coverage. The authors find that AGOA has had large and robust impact on U.S. apparel imports from SSA countries. Citing positive achievements under AGOA, Collier and Venables (2007) also indicate that trade preferences such as AGOA serve as a catalyst for trade in manufactured goods, leading to rapid growth in exports and employment.

Given that a few years have elapsed since AGOA was enacted into the U.S. laws, only very few studies have attempted to empirically assess the impact of the Act. Among the available studies, using panel data of U.S. agricultural trade with 46 SSA countries, Nouve and Staatz (2003) find that gains induced by AGOA in increasing agricultural exports were not significantly different from zero, although the response of African exports to the U.S. was positive as stipulated in the legislation.

Chapter Four

4 The African Growth and Opportunity Act and Agricultural Export Performance of Sub-Saharan Africa: Descriptive Evidence

The primary focus here in this research paper is to see weather the African Growth and Opportunity Act increases agricultural exports from Sub Saharan Africa to the US and the rational to focus on agriculture is that as the key sector in the typical African economy, agriculture carries a great deal of the economic burden of these countries, and many of their problems can be linked directly or indirectly to the performance of the agricultural sector. The sector's dominant position in African economies is indicated by its substantial contribution to the GDP, foreign exchange earnings and employment. As the main source of income and employment in many African countries, agriculture has an important and potentially pivotal role in enhancing overall economic growth and improving welfare. And hence what happens on agriculture highly affects the performance of their economy. Hence it is logical to see the impact of AGOA on agricultural exports of SSA (Tonia kandiero and John Randa, 2004).

Therefore to understand the impact first let us review the export trend of SSA prior to the enactment of the program and then will see the post performance. Hence the following section will deal with it.

4.1 Pre-AGOA Agricultural Export Performance Of Sub Saharan Africa

Let us see the agricultural export performance of sub-Saharan Africa to the rest of the world prior to the enactment of AGOA. This will help us to compare and contrast the importance of AGOA in increasing agricultural exports to the US after the enactment of the program.

The importance of agriculture in SSA cannot be stressed enough given that it is central to economic growth and most of economic activities in the region depend on it. Agricultural sector remains the primary source for employment for sub-Saharan Africa, accounting for approximately 70 percent of the total employment in the late 1990s (Delgado, 1995). In the year 2000, agricultural value added as a share of GDP was 17 percent, service sector 53 percent, and the manufacturing sector 14 percent. Agricultural export performance in sub-Saharan Africa has declined significantly in the last two decades. The region's share of global agricultural trade value has dwindled from 8.4 percent in 1965 to 2 percent in 2001 (T.Ademola Oyejide, 2004)

Table 3 shows that in 1997, agriculture contributed about a 28 percent share of GDP of sub-Saharan Africa. Agricultural exports share of merchandise exports was about one-third, which is equivalent to 5 percent of GDP. The importance of agricultural output and exports in this region lies in the fact that its main activities are based in the rural areas where the majority of the poor people live

and as such its benefits are bound to trickle down to a majority of the population.

Table 3: Share of Agriculture in Sub-Saharan Africa exports and GDP (Median values)

Agriculture as share of GDP (%)				Manufactures exports (% of merchandise exports)			Agricultural exports (% ratio of merchandise exports)			Agricultural exports (% ratio of GDP)		
	1980	1990	1997	1980	1990	1997	1980	1990	1997	1980	1990	1997
Low	39	40	40	12	5	6	64	50	49	7	6	6
Lower Middle income	35	35	36	6	14	13	75	66	49	12	5	6
Upper middle	27	25	24	12	16	28	61	38	28	7	4	4
High	12	15	10	10	24	56	27	16	11	10	7	5
All SSA	28	28	28	10	17	23	56	42	34	9	6	5

Source: Tonia Kandiero and John Randa (2004)[3]

[3] *Notes:* Low income countries include: Ethiopia, Eritrea, Burundi, Democratic Republic of the Congo, Mozambique, Sierra Leone, Malawi, Tanzania, Niger, Guinea-Bissau, Burkina Faso, Chad.Lower middle income countries: Rwanda, Madagascar, Uganda, Mali, Nigeria, Kenya, Gambia,Togo, Central African Republic, Sudan, Benin, Sao Tome and Principe.

Upper middle-income countries: Zambia, Ghana, Lesotho, Mauritania, Comoros, Guinea, Senegal, Zimbabwe, Angola, Cameroon.

High income: Cote d'Ivoire, Djibouti, Equatorial Guinea, Republic of the Congo, Cape Verde, Swaziland, Namibia, Botswana, Mauritius, South Africa, Gabon, Seychelles.

Source: World Bank Database, 2002.

Similarly table 3 also shows the importance of agriculture in SSA countries is not homogenous but varies with the relative wealth of countries. Whereas overall the share of agriculture in GDP has remained unchanged in the last two decades, dividing the countries by income groups paints a different picture. In poor African countries the share of agriculture as a percentage of GDP has remained relatively the same. In the middle income and high-income African countries, the share of agriculture to GDP has reduced by two to three percentage points in the last two decades.

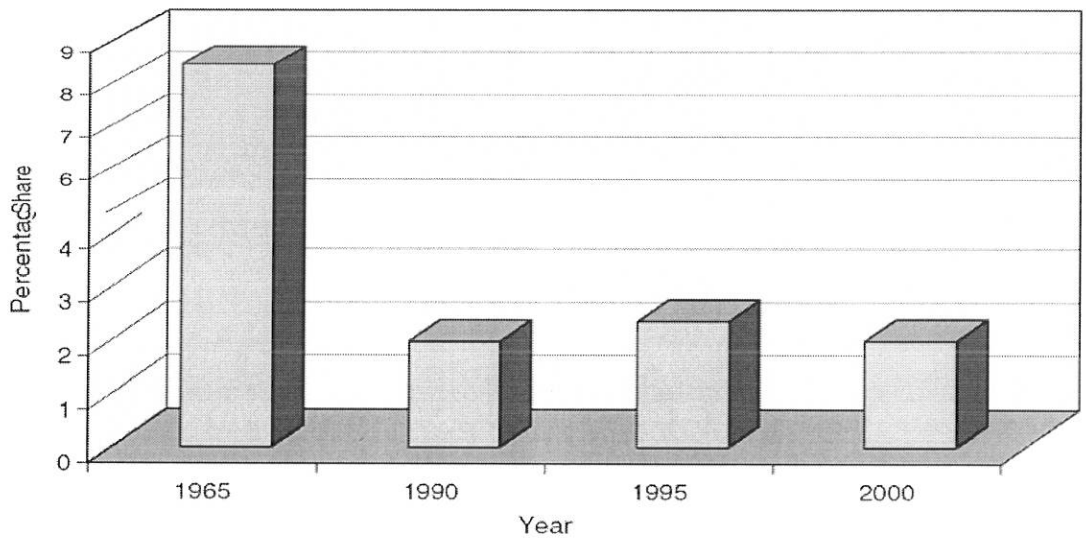
Turning to agricultural exports the story is more worrying. Agricultural exports as a share of GDP has reduced by about 50 percent in the last two decades for median sub-Saharan African countries. The share of agricultural export for lower-income African countries fell by only 14 percent in two decades while it fell by 50 percent for richer African countries. Looking at agricultural exports as a share of merchandise exports, the ratio has fallen from 56 percent in 1980 to 34 percent in 20 years for a median African country (a drop of about 39 percent). The share of agricultural exports has fallen by 59 percent for African rich countries and 23 percent for poor countries. Comparing this with the performance of manufactured exports as a share of merchandise exports we observe that overall the share has increased by 130 percent in the two decades. The irony is that the share of manufactured exports to merchandise exports has increased by 460 percent for rich African countries but fallen by 50 percent for poor countries. The cause of poor performance in the agricultural sector has

been attributed to poor domestic policies as well as restrictive policies in developed countries. Hoekman *et al.* (2001) point to restrictive market access policies in developed countries as a source of Africa's marginalization.

Despite the marginalization of exports, it is clear that the agricultural sector in sub-Saharan Africa still plays a vital role in the region's economy in terms of employment, output, and exports revenue.

The following figure shows that the share of agricultural exports of SSA was dramatically declined from 1965 to 2000 which implies Africa is getting marginalized.

Figure 2: Sub-Saharan Africa's share in world agricultural exports, 1965-2000

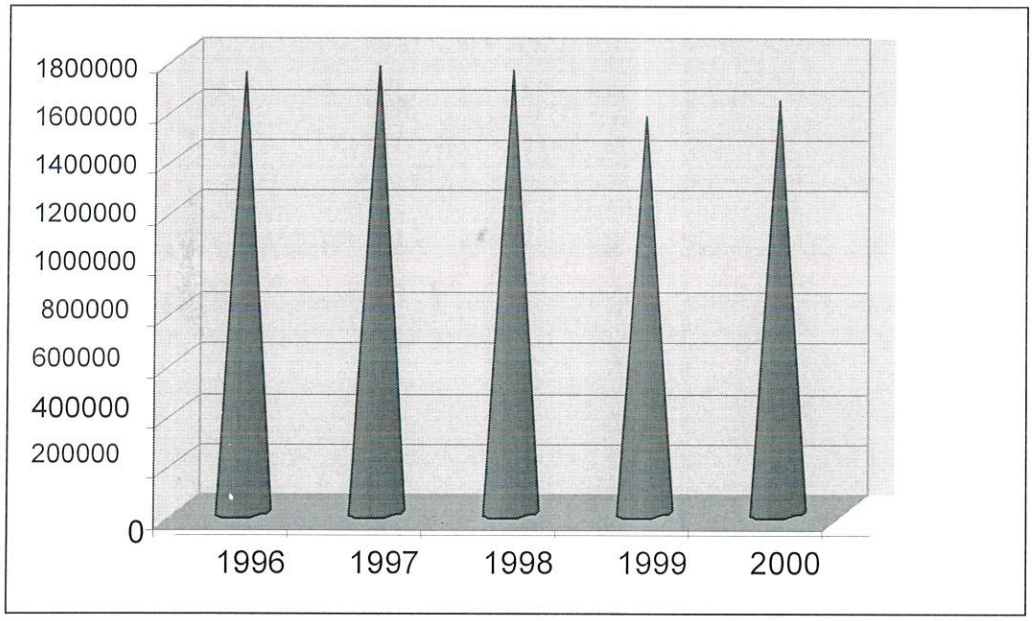


Source: Agricultural Exports: Important Issues for Sub-Saharan Africa Tonia Kandiero and John Randa (2004)

Up to know the researcher was trying to summarize the general trend of Agricultural exports and but know let us briefly discuss the trend on agricultural export of SSA to the US.

The graph below shows the total agricultural exports of SSA to the US from 1996-2000 and which implies growth in agricultural exports remained to be stagnated until 1998 and started to decline slightly .

Figure 3: Sub Saharan Africa's (46) Agricultural exports (000`) to the US from 1996-2000 Prior to the enactment of AGOA



Source: Own computation Using data from USITC trade data base,

Figure 3 shows the average agricultural exports of SSA countries to the US prior to the enactment of AGOA. For three consecutive years it was stagnated but since 1999 it was slightly declining.

Hence it is straight for ward to conclude that the performance of SSA agricultural exports was stagnated since 1980s until the enactment of the African Growth and Opportunity Act. The development of AGOA in May 2000 by creating market access for AGOA eligible countries is considered to be a remedy for the stagnated exports and marginalization of SSA. The next sections will assess using both descriptive and empirical analysis weather the act reverses the situation.

4.2 The Impact of AGOA on Agricultural Exports Of Sub Saharan Africa

In the previous section the researcher tried to review the agricultural performance of SSA prior to the enactment of AGOA. Now let us see the impact of AGOA on increasing agricultural exports of SSA countries to the US. To see this let us first see the extent of agricultural trade liberalization under AGOA this will help us to understand the extent of market access provided.

4.2.1 The Extent of Agricultural Trade Liberalization under AGOA

Here the investigator tried to provide a detailed look at the impact of AGOA in terms of the number of agricultural tariff lines liberalized by the act. It is important to remember that AGOA follows on from an existing scheme of preferences for developing countries under the GSP that was enhanced for the Least developed countries (LDCS) in 1997. As I shall show below this means

that AGOA currently provides for very little additional agricultural liberalization for a number of countries.

Table 4 below summarizes the effect of AGOA on agricultural products. At present the economies and the exports of most of the AGOA countries are dominated by the agricultural sector. Hence, what happens in agriculture is of crucial importance for Sub-Saharan Africa countries.

Table 4: Liberalization of Agricultural products under AGOA
the number of tariff lines Liberalized

	Non-LDCs	**LDCs**
Total Tariff	1723	1723
Total GSP	519	1038
GSP	519 (38)	547 (158)
GSP LDC	- - - -	491
AGOA	541 (120)	26
Duty free lines	440	440
Lines Excluded from AGOA	223	219
Main sectors containing Products excluded from preferences	* Meat, Diary products, Sugar, Chocolate, Prepared food products Tobacco, Groundnuts	

N.B The numbers in brackets show the number of product lines relating to in-quota duty rates for products subject to TRQs.

Source: Paul Brenton and member hopp, 2004

It also shows for the LDCs, AGOA liberalizes only an additional 26 agricultural tariff lines, equivalent in number to less than 2 percent of the total number of agricultural lines and just under 12 percent of the remaining dutiable lines. Mainly the products liberalized under AGOA are those that have already been liberalized for LDCs under the provisions of the GSP. For non-LDCs, AGOA adds 541 products to the 519 products already eligible for duty-free preferences for developing countries under the GSP. Hence, the potential impact on the non-LDCs is much greater.

The table also shows that there are over 200 agricultural tariff lines with no preference under AGOA, amounting to 17 percent of the total number of dutiable agricultural tariff lines in the US schedule. Of these lines more than 150 relate to the over quota rates for products subject to tariff rate quotas. Often these quotas are very small and many are allocated on a global basis. Hence, once total US imports exceed these quantitative limits exports from AGOA countries are subject to the normal MFN duty, which is often very high, together with any additional safeguard duties.

So, in terms of the number of tariff lines liberalized the principal impact of AGOA falls on the non-LDC Sub-Saharan African countries. This reflects that, with the exception of Apparel (Clothing), most of the products liberalized under AGOA had already been liberalized under GSP for the LDCs. For the LDCs what

matters is weather they are able to access the preferences on Clothing products.

Table 5 below provides a simple look at the average MFN duties that apply to agricultural products. The numbers presented are simple unweighted averages of duties applied in 2003. This provides a crude view of the margins of preference available in the US. It also shows that AGOA covers products with higher duties than those covered by the GSP. For example, the average duty on agricultural products covered by the GSP for non-LDCs is 3.5 percent whilst the average duty on the additional products for which preferences are available for LDCs under the GSP is 6.8 percent, which is similar to the average duty on products liberalized under AGOA. These margins of preference can be compared with the overall average duty for agricultural products of around 12 percent.

Table 5: Un weighted Average MFN Tariffs for agricultural Tariff lines covered by AGOA and GSP, and for those excluded from preferences in 2003

Total GSP	**Non-LDCs**	**LDCs**
	3.5 %	5.2 %
GSP	3.5 %	3.5%
GSP LDC	. .. . .	6.8 %
Total AGOA	6.7 %	7.7 %
Dutiable lines Products excluded from AGOA	30.7 %	31 %

Data source : USITC data web as compiled by Paul Brenton and Mombert Hoppe (AGOA, Exports and Development in Sub-saharan Africa, 2004)

The table also shows that the products excluded from preferences are high-duty products. For agriculture the average duty on excluded products is over 30 percent, these include the out of quota duty rates for products affected by tariff rate quotas. This, at least in part, might explain why there may be so few exports of these products from Sub-Saharan African countries to the US. So, AGOA excludes many sensitive agricultural products and offers preferences on relatively low duty products and therefore does little to reduce the tariff escalation and tariff peaks facing African exporters.

How important are these remaining trade barriers? It is sometimes argued that since imports from Africa in many of these product categories are zero, suggesting little supply capacity, then the barriers cannot be important. Of course, if this is the case then there is no need to maintain these tariffs against Africa. In practice, the continuation of these barriers may well be stifling investment and preventing expansion of products in which African countries may have export potential. These supply potentials cannot be observed. Nevertheless, for certain products that are still subject to tariff restrictions under AGOA we do observe exports from Africa to the EU (see table 6). Trade with the EU is most extensive in sugar and cotton, both of which are subject to very high duties in the US, although the US subsidy regime for cotton is also a key element restricting market access to the US and undermining export returns for African producers. There are also excluded products for which preferences could give a substantial incentive to exports from Africa. For

example, peanuts from AGOA beneficiaries are subject to a duty of 163.8% and in addition further safeguard duties can be levied which are targeted against low priced imported peanuts, precisely those that can be exported from Africa.

Table 6 Examples of Products Excluded from AGOA preferences

Product	Duty in US	EU imports	US imports
Fresh or Chilled meat of bovine Animals (boneless)	26.40 %	78718	0
Frozen meat of bovine animals	26.4 %	17891	0
Peanuts (in Shell)	163.8 %	1429	0
Peanuts (Shelled)	131.80 %	16852	0
Raw Sugar	33.87C/kg	628432	39306
Chocolate (in blocks)	37.2 C/kg +8.5%	18169	2
Peanut Butter	131.80 %	1283	0
Cotton	31.4 C/kg	232940	73
Printed bed linen of manmade fibers	4.5-14.9%	2965	5
Footwear uppers of Cotton	11.2 %	4690	101

Source: Paul Breton and Mombert Hoppe .AGOA ,Exports and Development in Sub-Saharan Africa,2004

Table 6 shows significantly; products like cotton and sugar which are excluded from preferences are of crucial importance to the region. That these products dominate the region's trade with the EU is an indication that their inclusion in AGOA would be beneficial for some SSA countries.

Now it is straight for ward to see that the agricultural trade liberalization under AGOA benefits much to the Non LDCs but remained less important for the majority LDCs of SSA. Therefore the overall significance of AGOA in creating market access for agricultural products in SSA is low.

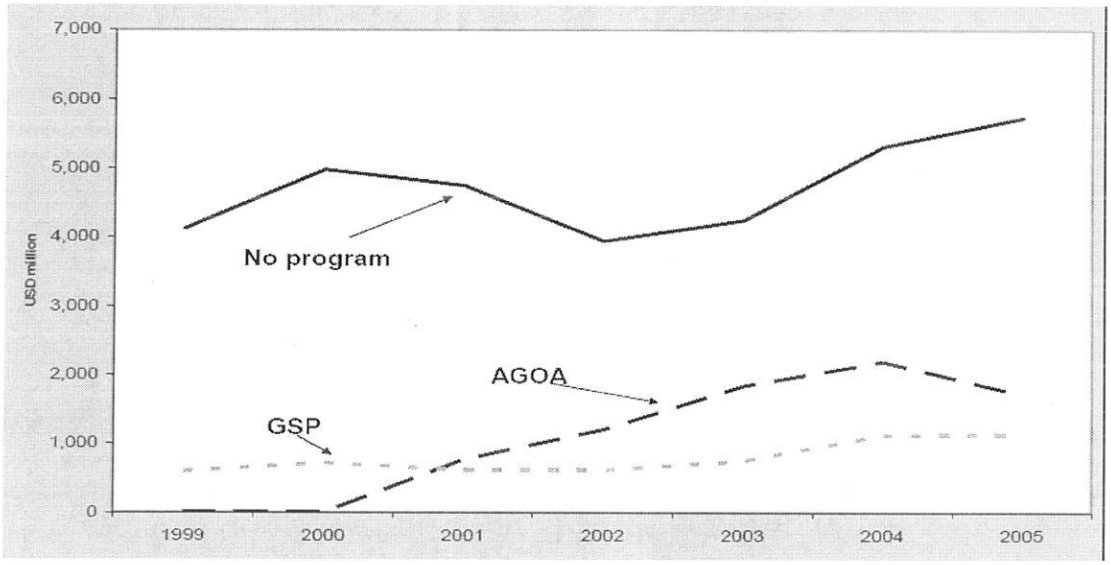
After looking at the agricultural trade liberalization under AGOA we can proceed to analyze descriptively weather the act has got a significant impact on agricultural exports of Sub Saharan African countries.

4.2.2 Changes in Sub-Saharan Africa's Agricultural Exports to the US under AGOA

Exports of AGOA countries to the US have increased substantially since 2001, but looking behind the numbers indicates that only a small share of the increment is directly attributable to AGOA. The change in total US imports under AGOA is a rather misleading indicator of the impact of AGOA. This is because there is a small preference on imports of crude oil from African countries, which means that these imports are recorded under AGOA. Oil imports accounted for 90 percent of all imports recorded under AGOA in 2004. These oil imports have not been stimulated by AGOA and would have occurred in the absence of AGOA. US imports under AGOA increased nearly three-fold between 2001 and 2004, but 89 per cent of this increase is due to imports of crude oil. Since 2001 the US is the major importer of Oil from SSA .The recent

increase in oil prices exacerbates the problem, since about half of the increase in the value of oil imports reflects increased quantities and the other half reflects higher prices (Paul Brenton and Mombert Hoppe, 2006). Hence, a meaningful analysis of the impact of AGOA needs to be based upon non-oil exports.

Figure 4: Non-oil exports from AGOA beneficiaries to the US



Source: Own computation Using data from USITC trade data base

Figure 4 shows that exports to the US under AGOA have grown strongly since 2000 reaching $2 billion in 2004. Exports entering under the GSP have also increased since 2001 and their dollar value in 2004 was almost double that of 1999. The majority of exports from AGOA beneficiaries to the US continue to enter under no program, although most are subject to a zero duty. Exports

entering under no program have also increased strongly in recent years and were 50% higher in 2004 than in 1999. Some of the decline in no program exports in 2001 and 2002 reflects the shift into the use of AGOA preferences. Trade under AGOA is not evenly distributed across countries, a small group of countries account for the vast majority of AGOA exports. Exports under AGOA are also highly concentrated on a particular product, apparel, while the growth of agricultural exports is insignificant.

If we disentangle the growth of non oil-AGOA in to major product categories such as Textile & Apparel, and agricultural exports and others it is easy to see that the growth in Textile and Apparel exports are significantly increasing because the most significant addition in terms of market access is the inclusion of 557 textiles and apparel provisions, which removes significant tariff peaks in manufacturing.

Indeed, it is exports of apparel that have been at the forefront of the expansion of Africa's non-oil exports to the US under AGOA as can be seen from figure 5 below. Exports of apparel to the US from AGOA beneficiaries have increased by 140 percent since 2000. Exports of apparel have grown much faster than exports of other non-oil products leading to a substantial diversification of overall exports. The share of apparel in these countries exports to the US has increased from 13 per cent to 20 per cent. All of the increase in apparel exports has taken place under AGOA, which offers substantial preferences for African

countries since tariffs on many apparel products exceed 15%. This expansion took place while major exporters of apparel in Asia faced quantitative restrictions on their exports to the US under the Agreement of Textiles and Apparel (ATC).

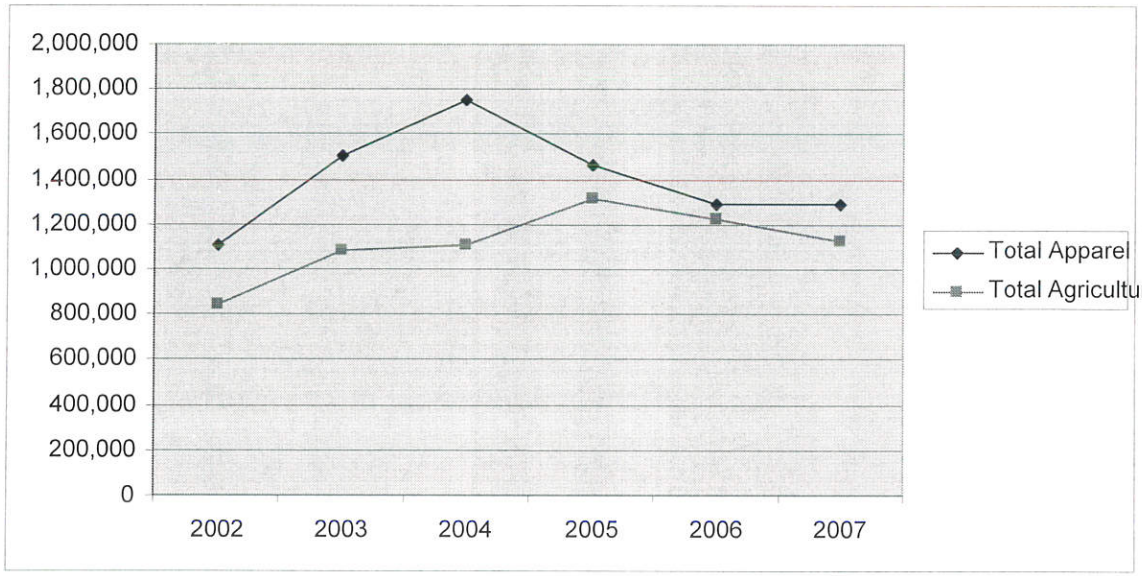
Exports of apparel are concentrated on a small number of countries with 96 per cent of US imports of apparel under AGOA in 2004 coming from just 7 countries and 75% from just 4 beneficiaries (Kenya, Lesotho, Madagascar, and Swaziland). Nevertheless, other countries are emerging as apparel exporters. Tanzania, Uganda, Cape Verde, and Ethiopia have all substantially increased exports of apparel in 2005.

Despite AGOA and improvements to it, the scope and diversity of the products exported to the U.S. remains limited. The export benefits of AGOA have made apparel investment one of the fastest growing sectors. Unfortunately, the advantage that countries have acquired in apparel production by becoming AGOA eligible is largely disappearing with the January 1, 2005 expiration of the Multi fiber Agreement (MFA).

The MFA (also known as the Agreement on Textiles and Clothing), which governs textiles and apparel imports to the United States and the European Union through a system of quotas, limited imports to countries where domestic textile and apparel industries were facing serious damage from rapidly growing foreign imports. With the expiration of the MFA, apparel producing states now

face stronger competition from large-scale apparel exporting states such as China and India. At the same time, cheap Chinese exports to Africa are also damaging local apparel production. As can be seen from Figure 5 below since 2005 apparel exports from SSA is sharply declining which is an implication of the expiry of the MFN (multi fiber arrangement).

Figure 5: Total Apparel & Textile and Agricultural Exports of SSA to US



Source: Own computation data from www.agoa.com

The data is available in annex: 3

Similarly the impact of AGOA on agricultural exports of SSA using the above figure 5 reveals a sluggish growth with no definite pattern. In the beginning of two consecutive years the growth was stagnated and started to slowly increase up to 2005 in nominal terms. But it then starts to decline. And if we account for the rate of inflation in the region effectively we can conclude that in real terms the growth rate of Agricultural exports stagnates or is insignificant.

Hence the whole descriptive analysis of this research paper indicates that AGOA has had an insignificant impact on the agricultural exports of SSA. The possible reasons can be stated as follows:

a) Some Agricultural products of critical importance to SSA are excluded from trade preferences such as Cotton, Sugar etc...
b) Preference margins are low, and
c) There are significant tariff peaks on the products excluded from the trade preferences.

In addition; global average tariffs has been fallen under GATT/WTO trade negotiation over the decades accompanied by a proliferation of stringent custom procedures and punishing sanitary and phyto-sanitary standards as well as rising levels of domestic support for producers in advanced countries are also reasons for low performance of SSA agricultural export to the US. Therefore, preferential arrangements that narrowly focus on the removal of tariffs without addressing non-tariff barriers (NTBs) do not adequately address market access constraints.

The last but not the least domestic factors like the structural constraints to production such as weak distribution networks & communication and transportation infrastructure are also reasons. In general market access (such

as AGOA) not accompanied by measures to address supply-side constraints in SSA countries is unlikely to result in expansion of exports.

How has AGOA fared after seven years? A lot has been made of the achievement of AGOA by US policy makers after the first seven years. According to US Congressman Jim McDermott, "AGOA is helping to support nearly US $2 billion a month in US-Sub-Saharan Africa trade... Those dollars created jobs, literally tens of thousands of jobs, across the entire sub-Saharan Africa region. People are better-off today because of AGOA" (Bahadur, 2004). Statements like these are informed by figures showing growth of SSA exports to the US. Exports under AGOA have grown nearly three-fold since 2001. By the end of 2006, more than half of all exports of SSA countries to the US were admitted under the duty-and-quota-free provisions of AGOA. However, these figures mask the true impact of AGOA because these exports are dominated by crude oil which would have occurred without AGOA given the rising prices of oil Secondly, increasingly fewer SSA countries, understandably petroleum exporters, account for the bulk of SSA export to the US. Nearly a third of eligible countries have not recorded any exports under AGOA since 2004.

Having dealt with the descriptive evidence in the next chapter the researcher will look at the empirical evidence weather AGOA increases agricultural exports from SSA to the US using the fixed effect gravity model.

Chapter Five

5 Data, Model Specification and Estimation Techniques

5.1 Alternative Modeling Approaches

There are various modeling approaches that could be used for quantitative analysis of the impact of AGOA on the agricultural exports of SSA. Model structure range from simplified partial equilibrium representations of a single industry through large scale General Equilibrium representation of the global economy. Important characteristics of all quantitative models require assumptions imposed by the structure of the model. Model structure must be transparent so that the results are easy to interpret.

The other key issues include data availability and how the model defines each variable. For policy makers the value of estimation results often depends on how key variable are treated in the model. That is, each variable must be defined as either endogenous or exogenous to the system. Endogenous variables are determined by the model and exogenous variables are imposed on the estimation at predetermined fixed values.

There are three commonly used models to estimate the impact of different trade Preferences such as AGOA, EBA. etc... on the Sub Saharan Africa. These are Econometrics models, CGE models and Gravity models. Therefore; in the following section these modeling approaches will be described in brief:

5.1.1 Econometric Model

It is the objective that guides the development of an econometrics model. It should be suitable for both forecasting and policy simulation. It should also be able to run simulations of policy and other scenarios under a variety of assumptions about how households, firms and financial markets form expectations including the extent of available information. The other is conceptual design. Expectations should be explicit. Structural equations for households, firms and financial markets should be based on economic theory of optimizing behavior (Jeffrey D.Sachs and Andrew M..Warner, 1998). Unlike other models, it concentrates on specific sectors or industry.

Estimation of equations in the model should be based on modern econometric estimation techniques. Therefore, based on macro economic theory one can choose the left hand side and right hand side variables for stochastic equations in the model. Hence based on the objective of the research, the assumptions made may differ.

5.1.2 Computable General Equilibrium (CGE) Models

The main reason to use a CGE model is to provide a quantitative evaluation of the effects of government policies. A CGE model is basically a large set of demand and supply functions that cover every market, both for commodities and factors of production in the economy (Whally and Wooten, 1995)

The advantages of Computable General Equilibrium models for policy analysis compared to traditional macro-economic models are now widely admitted. The General Equilibrium Models allows for consistent comparative analysis of policy scenarios by standardizing their out come around the concept of an equilibrium point fulfilling the same consistency criteria. In addition the computable general equilibrium models incorporate micro economic mechanisms and institutional features within a consistent macro-economic framework and avoid the representation of behavior in reduced form. This allows analysis of structural change under variety assumptions.

However, CGE models have two drawbacks: they are simulated rather than estimated and they are almost always based on a very large block box consisting of dozens to hundreds of equations. The first characteristics make it difficult to know how reliable is the simulation model while the second characteristics make it difficult to evaluate what drives the findings (Ibid).

5.1.3 The Gravity Model

Newton formulated his law of gravity in 17th century stating that the attraction between two bodies is directly proportional to the product of the masses and inversely proportional to the square distance between those bodies. Much later the same idea was employed in social sciences in general and particularly in economics. Especially successful was the use of gravity model in explaining patterns of international trade (Tinmbergen 1962).

The Gravity trade model was developed in the 1960s. It has been used in pioneering works by Tinbergen (1962) and Poynohen (1963). The model, which is widely known for its empirical robustness the empirical robustness is often taken, according to Wang (1999) to mean high R-squared, is based on a simple and intuitive rational. It postulates that the volume of trade between two countries is proportional to their economic sizes (capacity to supply exports and to absorb imports) and inversely proportional to costs of trading. The distance between the two trading units has traditionally served as a proxy for trading costs (Lairds and Yeats, 1990).

Besides their empirical robustness, gravity trade models also have strong theoretical foundations both in traditional and in the new trade theories (wall, 1999), Cheng & wall, 1999, Rose 2002, Evenett & Keller 2002. The lack of rigorous theoretical underpinning has traditionally been the major criticism against gravity trade models. However; Wall, 1999 indicates that such criticism has been weakened since Deardorf (1998) established a consistency between gravity models and variants of traditional trade theories, Such as the Ricardian and Heckscher-Ohlin models. Wall (1999) also points to "earlier works by Anderson (1979) and Bergstrand (1985) who derived gravity equations from trade models with product differentiation and increasing returns to scale." (Wall,1999.p35), suggesting that gravity models may also be consistent with the new trade theories pioneered by, among others, Paul Krugman, Elhanan Helpman and Gene Grossman.

5.2 Model Specification

In this study the researcher employed gravity model because it is relatively simple and the required data are available. More than all, empirical literatures proved that it is robust to explain trade flows.

This paper uses a gravity trade model to characterize the marginal impact of AGOA on African agricultural exports to the US. The analysis is restricted to one-way bilateral trade from African countries to the US, which is enough to answer the question regarding whether AGOA has increased agricultural exports from SSA to the US.

Gravity models begin with Newton's Law for the gravitational force ($\mathbf{GF_{ij}}$) between two objects ***i*** and ***j***. In equation form, this is expressed as:

$$GF_{ji} = [M_i . M_j] / D_{ij}, \quad i \# j \qquad \text{---------- (1)}$$

In this equation, the gravitational force is directly proportional to the masses of the objects ($\mathbf{M_i}$ and $\mathbf{M_j}$) and indirectly proportional to the distance between them ($\mathbf{D_{ij}}$).

Gravity models are estimated in terms of natural logarithms, denoted "***ln***" In this form, what is multiplied in Equation 1 becomes added, and what is divided becomes subtracted, translating Equation 1 into a linear equation:

$$ln\ GF_{ij} = lnM_i + lnM_j - lnD_{ij} \quad \text{----------} \quad (2)$$

Gravity models of international trade implement Equation 2 by using trade flows or exports from county ***i*** to country ***j***, (X_{ijt}) in place of gravitational force, with arbitrarily small numbers sometimes being used in place of any zero values. Distance is often measured using "great circle" calculations. The handling of mass in Equation 2 takes different alternatives. In the *first alternative* with the most solid theoretical foundations, mass in Equation 2 is associated with the gross domestic product (**GDP**) of the countries. In this case, Equation 2 becomes:

$$lnX_{ijt} = \beta + \beta_1 ln\ GDP_i + \beta_2 ln\ GDP_j + \beta_3 ln\ Dij \quad \text{----------} \quad (3)$$

In general, the expected signs here are β_1, $\beta_2 > 0$. However, the economics of Equation 3 can lead to the interpretation of ***GDP*** as income, and when applied to agricultural goods, Engels' Law allows for *GDP* in the destination country to have a negative influence on demand for imports. Hence it is also possible that $\beta_2 < 0$.

In the second alternative, mass in Equation 2 is associated with *both* ***GDP*** *and* population (***POP***). In this case, Equation 2 becomes:

$$lnX_{ij} = \alpha + \gamma_1 ln\ GDP_i + \gamma_2 ln\ POPi + \gamma_3 ln\ GDPj + \gamma_4 lnPOPj + \gamma_5 ln\ D_{ij} \text{ --------}$$

---------- *(4)*

With regard to the expected signs on the population variables, these are typically interpreted in terms of market size and are therefore positive ***(γ_2, γ_4)***. That said, however, there is the possibility of import substitution effects as well as market size effects. If the import substitutions effects dominate, the expected sign is $\gamma_4 < 0$.

Since they involve the same variables, the parameters of Equations 3 and 4 are transformation on one or the other: $\beta = \alpha$, $\beta 1 = \gamma 1$, $\beta 2 = \gamma 3$, $\beta 3 = \gamma 5$.

Gravity equations do a pretty good job at explaining trade with just the size of the economies and their distances as can be seen in equation (**4**). However, there is a huge amount of variation in trade they cannot explain. Hence let us augment the standard gravity equation as follows:

Although theoretical foundations have been established, the empirical application of the gravity model may lead to weak results in the presence of heterogeneities. Cheng and Wall (1999) show that with such heterogeneities,

gravity models tend to underestimate the regression coefficients between high-volume traders, while overestimating them between low-volume traders. The SSA-US trade relationship is a potential candidate of these heterogeneity biases, as the composition, volume, as well as unobservable institutional or geopolitical components of these exchanges vary widely from one African country to the other. One way to control for countries' heterogeneity is to impose a fixed-effects structure on the unobserved country-specific effects (Wall, 1999). Thus, the methodological framework used in this study is based on a modified version of what Cheng and Wall (1999) called a fixed-effects gravity trade equation which can be stated as follows:

$$ln\, X_{ijt} = \alpha_0 + \alpha_t + \alpha_{ij} + \beta_1 ln\, GDP_{it} + \beta_2\, ln\, GDP_{jt} + \beta_3 ln\, N_{it} + \beta_4 ln\, N_{jt} + \beta_5 lnD_{ij} + \varepsilon_{it} \quad i = 1, 2, \ldots, N \text{ and } t = 1, 2, \ldots, T \quad \text{---------- (5)}$$

Where $\mathbf{lnX_{ijt}}$ represents agricultural exports from SSA country i to the US in period. There are three intercept terms: (i) α_0 is common to all countries and all periods; (ii) α_t is common to all countries, but specific to each period; and (iii) α_{ij}, which captures countries' heterogeneity, is common to all periods, but specific to each country. Finally, ε_{it} represents the idiosyncratic errors that are assumed, as discussed in Wooldridge (2002, Chapter 10), to be serially uncorrelated with zero mean and constant variance across time.

The distance between SSA countries and US is another standard variable in gravity equations, but it is irrelevant in our model, which is based on a fixed effects treatment of the unobserved effects. Fixed effects treatment calls for time-demeaning of the data and this will drop all time-invariant variables out of the gravity equation, including the unobserved effects **αt** and hence equation 5 can be rewritten as follows:

$$ln\, X_{ijt} = \alpha_0 + \alpha_{ij} + \beta_1 ln\, GDP_{it} + \beta_2 ln\, GDP_{jt} + \beta_3 ln\, N_{it} + \beta_4 ln\, N_{jt} + \varepsilon_{it} \quad i = 1, 2, \ldots, N \text{ and } t = 1, 2, \ldots, T. \quad \text{---------- (6)}$$

Where α_{ij} is the specific "country-pair" effect between the trading partners. The country-pair intercepts include the effects of all omitted variables that are cross-sectionally specific but remain constant overtime, such as distance, contiguity, culture, etc.

Because there is a long-standing problem with determining the appropriate measure of economic distance so as to capture transportation and information costs, an added benefit of the fixed effects of the model is that it eliminates the need to include distance in the regression. The most common method for measuring distance is simply to measure it between the centers (often assumed to be capital cities) of two countries. There are problems with this Such as the implicit assumption that overland transport costs are the same as those over

sea, and that all overland/oversea distances equally costy. To provide just one example, Los Angeles is about 1,300 km farther from Tokyo than is Moscow, but the economic distance between Tokyo and Los Angeles is certainly much lower than that between Tokyo and Moscow. Our FE approach eliminates the need to include a distance variable, as it controls for all variables that do not change over time.

Another difficulty with standard measures of economic distance is the common assumption that the capital city, or any other single point in the country, is a useful proxy for the economic center. While this may be useful for small countries with one major city, it is wide of the mark for countries like Canada and the United States, which have major cities thousands of miles apart on different oceans and which serve as centers for trade with completely different countries. By using Washington, D.C., or Ottawa to measure distance between the United States or Canada and its Pacific trading partners is to overstate distance by the entire breadth of the North American continent. As the United States has the highest GDP and the highest volume of trade, the mis measurement of economic distance can bias the estimation of the coefficients on the other variables in the gravity model.

The objective of the paper is to see weather AGOA has increased agricultural exports from SSA to the US and hence when we modify equation (6) to

incorporate characteristics of the AGOA legislation. The model can be represented as follows:

$$ln\, X_{ijt} = \alpha_0 + \alpha_{ij} + \beta_1\, lnGDP_{it} + \beta_2\, ln\, GDP_{jt} + \beta_3\, ln\, N_{it} + \beta_4\, ln\, N_{jt} +$$

$$\beta_5\, AGOA_{it} + \varepsilon_{it},\ i = 1, 2, \ldots, N \text{ and } t = 1, 2, \ldots, T \quad \text{----------(7)}$$

Hence equation (7) is our augmented fixed effect gravity model which is going to be estimated.

In the above equation the dummy variable: $AGOA_{it}$, captures whether and when a given country was declared AGOA-eligible. This dummy takes a value equal to one if eligibility or qualification for the visa system is granted before the middle of a given year. Otherwise, they are assigned a zero value. They are constructed based on public information available from the web site: www.AGOAinfo.com. (See annex 4 for SSA countries AGOA eligibility from 2000 up to 2007).

5.3 Variables and Data Sources

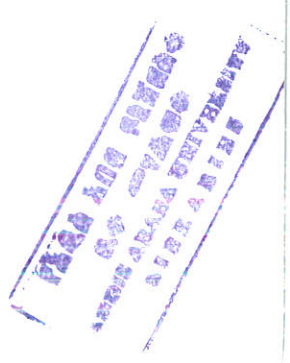
Before directly undertaking the estimation of our model, it is important to high light the type and sources of the data used in the current study. The paper

used secondary type data on agricultural exports of SSA, Gross Domestic Product and Population of US and SSA.

Data are collected in such a way that continuous exports and availability of data on all variables during the period included in the study were the major criterion used to include country into the sample. As more time is considered from the past, availability of data on some variables especially data on agricultural exports on some countries are limited. Therefore, to deduce sound conclusions from the empirical results, choosing appropriate period time to include as many countries as possible into the sample is important. Accordingly, a total of 46 SSA countries with 12 years from 1996-2007 are considered. Where 5 years from 1996-2000 is a period prior to the enactment of AGOA and 7 years post AGOA period from 2001-2007 (see annex 1for average agricultural exports of the SSA countries considered in the Sample).

In this study two countries Liberia and Somali belonging to the region are excluded due to data constraint. The reason to take pre-AGOA period from 1996-2000 is because it is not possible to see the impact of AGOA on agricultural exports of SSA without taking the prior AGOA performance of SSA agricultural exports.

The empirical model is directly based on Equation (**7**), which is estimated in logarithms. The dependent variable $\boldsymbol{X}_{it}$ is denoted as $\boldsymbol{AGX}_{it}$, representing to



yearly agricultural exports from SSA country i to the US in period t. The data on the one-way SSA-US bilateral trade is from the US International Trade Commission (USITC) database. The total exports from SSA to US (or equivalently the US imports for consumption from SSA) are disaggregated into agricultural (AGX_{it}) and non-agricultural exports. Agricultural commodities consist of nonmarine food products, natural fibers, unmanufactured tobacco, and other farm products subject to federal legislation such as section 22 of the Agricultural Adjustment Act. Some processed agricultural commodities are included if the value added by manufacturing accounts for less than 50 percent of the final value of shipments as reported in the latest Census of Manufactures. Examples of processed agricultural commodities include cereal flours, dairy products, canned meats, canned fruits and vegetables, vegetable oils, animal hides, fur pelts, wine, and beer. Textiles, leather products, distilled beverages, forestry, and fishery products are classified as nonagricultural commodities (USITC trade data base).

The US GDP data were obtained from the Bureau of Economic Analysis of the US Department of Commerce (USDOC-BEA, 2008) while the GDP values for SSA were obtained from the World Economic Outlook (WEO) database (January 2008) of the International Monetary Fund (IMF, 2008). The population data were obtained from FAOSTAT, statistical database of the Food and Agriculture Organization of United Nations (FAO, 2008).

Now let us summarize the data we used to estimate the gravity model

Table 7 Data Summary

(A) For All samples of 46 countries

Variable	*Observations*	*Mean*	*Std. dev*	*Minimum*	*Maximum*
Agexp '000)	552	21294.33	65763.33	0	668089
Gdpi	552	9.882042	28.01514	.041	271.779
Popi	552	14.70554	22.6666	0.076	153.624
Gdpus	552	10557.92	1848.084	7816.9	13770.31
Popus	552	286.5387	10.30631	269.667	302.711

(B) SSA countries whose average Agricultural exporters is >= 500,000

Variables	*Observations*	*Mean*	*Std dev*	*Minimum*	*Maximum*
Agexp ('000)	312	37429.35	84025.61	27	668089
Gdpi	312	14.52025	36.09304	0.202	271.779
Popi	312	21.47379	27.54505	0.512	153.624
Gdpus	312	10557.92	1849.375	7816.9	13770.31
Popus	312	286.5387	10.31351	269.6667	302.711

(C) Major Agricultural export $\geq$ 20,000,000 (top 9, Agricultural exports)

Variables	*Observations*	*Mean*	*Std Dev*	*Minim*	*Maxim*
Agexp '000)	96	106024.1	127468.1	8259	668089
Gdpi	96	29.51744	58.1881	1.717	221.779
Popi	96	27.45387	18.586228	10.143	77.173
Gdpus	96	10557.92	1856.102	7816.9	13770.31
Popus	96	286.5387	10.35102	10.3512	302.711

Source: Own computation using Stata version 9

Table 7 shows a summary of the data for 46 SSA countries which can give as an overview of the data that we are going to use in our regression generally the data at hand has a big standard deviation this is because in our data there are Oil exporting countries such as Angola, Gabon whose average agricultural exports is zero. But as we go from all samples to the major agricultural exporters the standard deviation declines.

5.4. Estimation Techniques

The nature of the data, as described above, is cross sectional time series. Therefore, to estimate the equation, employing appropriate model for panel data analysis is important. Among the various cases of panel data analysis; pooled regression, fixed and random effect models are the most frequently used ones. In the specified model, however, we use the fixed effect to estimate the augmented gravity model outlined in the previous section.

It is to be expected that for such a big sample agricultural exports for some SSA countries such as Angola, Gabon and others mainly Oil exporters have zero agricultural exports to the US. These pairs with zero export flows create a problem for estimation of the gravity model in log linear form and also lead to drop some observation. To counter this problem the variable export flows X_{ij} are replaced by $(X_{ij}+1)$ so that logarithm can be taken even for zero export flows and in this case $ln\ (X_{ij}+1)=0$.

Once the variables have been defined, the estimation strategy is straightforward. The regression will be run over three sub-samples of countries: (i) a full sample of the 46 countries; and (ii) a sample of 30 countries whose average yearly agricultural exports is >= $ 500, 000 and (iii) major agricultural exporters, as indicated in appendix 1, 2 & 3. Results are discussed in the next section.

Chapter Six

6 Analyses of Empirical Results

6.1 Estimation Results

The following table shows the regression results of the fixed effect gravity model for three samples, the first column in the table shows the regression result for the full sample (46) countries. The second column shows the result for countries whose average agricultural exports are >= 500,000 and we have 30 countries. The last column shows major agricultural exporters whose average agricultural exports is >= 20,000,000. The numbers in the bracket shows the P-values.

Table 8 Regression Results (P values in Parentheses)

Dependent variable : ***Log(Xit)*** (Log of Agricultural Exports from SSA country i to US in $ 1,000)	Full sample /46 countries/	Average Agricultural Exports of AGXit >= $ 500,000 (30 courtiers)	Top 9 Agriculture Exporters ≥$20,000,000
Log(GDPi) (millions US dollars)	-0.270 (0.283)	-0.471 (0.132)	0.446 (0.012)
Log(GDPj) (billions US dollars)	5.302 (0.245)	10.467 (0.033)	0.588 (0.862)
Log(Ni) (1,000 inhabitants)	1.342 (0.011)	2.578 (0.165)	1.113 (0.366)
Log(Nj) (1,000 inhabitants)	-27.402 (0.224)	-62.658 (0.010)	-7.50 (0.660)
AGOAi (***elig*** dummy)	-0.191 (0.370)	0.354 (0.127)	0.18 (0.296)
Intercept	110.646 (0.198)	260.506 (0.005)	42.986 (0.512)
N	552	360	108
Group	46	30	9
R- squared	0.027	0.057	0.126
Overall significance (Prob > F)	0.0328	0.0019	0.0244

6.2 Interpretation of Results

Results of the fixed effect Gravity model indicate that the coefficient on the AGOA dummy was negative for all sample sizes (46), the first column in Table 8. The magnitude of the decline attributed to AGOA was -19.1%. This means that on average for SSA beneficiary country AGOA may have contributed to 19.1% decline in average SSA's agricultural exports to US.

When the sample of 30 countries with average agricultural exports exceeding $500,000 in the pre and post-AGOA period is used, the regression suggests an opposite effect: an increase of the exports by nearly 35.5%, when compared to the pre-AGOA export levels. However, for the top 9 agricultural exporters, AGOA may have contributed an increase of 18% in their yearly average agricultural exports to the United States. The estimates have some major weaknesses. First, the specifications have a rather weak explanatory power, with R-squared ranging from about 2.7% to 12.6%. The observed low explanatory power of the model stands in a sharp contradiction with the traditional empirical robustness of the gravity trade equation. The average quality of the data used in this study may, in part, be at the origin of the identified statistical weaknesses. Despite these weaknesses, the regressions have overall significance levels close to conventional ones, as indicated by the probability of rejection (Prob > F) ranging from 0.19% to 3.36%. The AGOA dummy was not statistically different from zero in all the samples considered.

Therefore, one may conclude that AGOA has induced neither an increase nor a decline in SSA agricultural exports to the US.

The non-significance of the AGOA dummy can be attributed to many factors. First, being a relatively young initiative, it may take longer time before its impacts are materialized in terms of increased agricultural exports from SSA to US. This is the standard learning curve argument. Second, the implementation phase of AGOA coincided with an overall economic slowdown both in the US and the world, and this may have mitigated the real impact of AGOA on export performance in SSA. Third, the AGOA package covers commodities, such as textiles, that are not treated as agricultural commodities. Thus, as market access restrictions for non-agricultural commodities are softened under the AGOA legislation, their relative profitability may increase, which will trigger a reallocation of resources from agriculture towards non-agricultural export sectors. Under such conditions, agricultural exports will shrink, rather than expand, as a consequence of AGOA.

The sign of the population coefficient for exporting African countries is positive in all the samples considered which is consistent with our expectations. Even though the theoretical literature is ambiguous regarding the sign of the coefficient, there is a tendency to interpret them following Bergstrand (1989), as indicated in Cheng and Wall 1999. Bergstrand's interpretation suggests that for exporting countries, a positive population coefficient indicates that exports are

labor-intensive, whereas a negative sign suggests that they are capital-intensive. African agricultural exports to US are less likely to be capital-intensive. The sign of N_i in Table 8 seems, therefore, to be more consistent with the characteristics of SSA. Unfortunately, the coefficients were not statistically different from zero.

Consistent to the basic expectation of gravity trade models, the coefficient on the US GDP was positive as expected though statistically not different from zero. The positive sign is justifiable, because the GDP growth in US may translate into increased demand for agricultural imports. But it is also possible that the GDP growth in US may not necessarily translate into increased demand for agricultural imports in US, as changes in the GDP are more likely to induce increases in the consumption of non-agricultural products, which tend to be more income elastic than agricultural products.

The expected signs on the population of the importing country N_j is positive but contrary to this we found negative. Which are typically interpreted in terms of market size. However, there is the possibility of import substitution effects as well as market size effects. If the import substitutions effects dominate, the population sign is negative. Similarly if an exporter is large in terms of population it may either need its production to satisfy domestic demand, so that it exports less, or it may export more than a small country, as it is the case when large firms achieve economies of scale. The same reasoning can be

applied to the case of the importing country: if it is large, it may import less because it is likely that the domestic sector develops and makes the country self-sufficient

Chapter Seven

7 Conclusions and Recommendations

7.1 Conclusions

The central question investigated in this paper was to determine whether the African Growth and Opportunity Act has led to increased agricultural exports from Sub-Saharan African to the United States since the law entered into force in late 2000. The question arises because there is an ongoing debate about whether the legislation has achieved (or is able to achieve) its main goal, which is the promotion of an export-led growth through increase in SSA's trading opportunities with the United States. This export-led growth is most likely to help transform the economic landscape of SSA, if it benefits the agricultural sector, which remains by far one of the most important activities in the largely agrarian African economies.

The researcher was trying to use both descriptive and empirical analysis to investigate weather AGOA boosts agricultural exports from SSA to the US. The descriptive evidence shows us that the act did not led to significant growth in exports rather it is insignificant. Similarly the empirical analysis which is based on panel data regression using a fixed effects gravity trade model generates a rather inconclusive answer regarding the response of SSA's agricultural exports to AGOA's commercial incentives. We found that AGOA-induced increases (or decline in some cases) in agricultural exports are not statistically different from

zero. There is no doubt that AGOA is a relatively young initiative and that a few more years of additional data may be required for a more accurate and complete evaluation of the impact of the legislation. However, until know the assessment carried out in this paper is also necessary for shaping the making of the AGOA process, if the aim is to make it very responsive to the needs of agricultural exports development in SSA. The marginal effect of AGOA on SSA's agricultural exports to the US suggests that efforts are needed in order to reinvigorate the initiative and make it responsive to needs for agricultural export expansion and diversification in Africa.

The results obtained in this study are fairly indicative of future directions in the SSA-US agricultural trade, particularly the possibility for African countries to expand their exports to US. But, because of the average quality of the data used for the investigation, caution should be taken in drawing their implications. A large part of the variations in African agricultural exports to US remain unexplained in our model. Countries' idiosyncrasies certainly account for some of these variations, and so do other factors as well. As more quality data become available, future assessments of AGOA initiative, using either the gravity trade equation or alternative bilateral trade models, will most likely provide a richer characterization of the impacts of the legislation on African agricultural exports.

7.2 Recommendations

Given the strong U.S. policy commitment to reducing poverty in Africa through economic growth, AGOA should – as part of a U.S. trade strategy - help strengthen Africa's agricultural markets and trade capacity building to fulfill the commitment come from. About one-half of Africa's population lives on less than $1 a day. It is this set of people that really needs interventions like AGOA to help lift them out of the poverty trap. Three-quarters of Africans live in rural areas and depend on agriculture for their livelihood. Therefore, the best means of raising their incomes is through promoting agricultural growth and creating market access.

Contrary to the above fact AGOA has had an insignificant impact on agricultural exports of SSA. The reasons can be seen from two angles:

First, Domestic factors includes, low level of infrastructure development, inefficient custom procedure, low level of agricultural productivity, low quality products, absence of good governance, lack of capacity of producers and agro-processors to supply sufficient amounts of quality products for the U.S. market, lack of access to agricultural inputs, financial services, market information and transport facilities, lack of business skills and contacts etc..

Secondly, factors from the preference granting country in this case US include:

Non tariff barriers such as restrictive rules of origin, inability to meet U.S. Sanitary and pytosanitary, etc in addition important agricultural commodities such as Cotton, Sugar etc which are important for some SSA countries are excluded from tariff preference and face high tariff rates.

Therefore for efficient utilization of AGOA and to boost agricultural exports from SSA to the United States of America the following recommendation is worth mentioning:

I. Develop the U.S.-Africa trade relationship rough using support from trade capacity-building programs such as training on pest risk assessment (PRA) and meeting sanitary and phytosanitary standards for export to the U.S.; developing greater efficiency in meeting these standards will be critical to determining market access.

II. Sub-Saharan African countries should press on the removal of agricultural subsidies over the next decade, Africans would need work to win concessions at the WTO

III Focus on improvement of regional trade among SSA countries

a. Integrated regional markets will assist African countries to better exploit AGOA

b. Development of intra-regional trade linkages; AGOA can help African countries trade not only with the U.S. but also with each other. A key example in this area would be more vertical integration of yarn to produce textiles via economic cooperation between African states with comparative advantages in either cotton production or spinning and manufacture

In addition to the above recommendations the following are also important:

- Developing and implementing sound government policies
- Improving customs procedures, enforcement and trade facilitation,
- Improving technical standards and regulations,
- Improving commercial law legislation and enforcement,
- Developing and improving transportation infrastructure,
- Improving agricultural trade support infrastructure,
- Promoting international business linkages,
- Collecting, analyzing, and disseminating market information,
- strengthening scientific capacity to facilitate economic competitiveness in agriculture,
- Meeting global market standards, etc

Bibliography

Anderson, J. E. (1979): ***A Theoretical Foundation for the Gravity Equation*** American Economic Review 106-16.

Andy Mold, (2004): ***Trade preferences and Africa the state of play and issues at stake.***

Bergstrand, J. H. (1985): ***The Gravity Equation in International Trade: Some Microeconomic Foundations and Empirical Evidence***. Review of Economics and Statistics 67: 474-81.

Cheng, I.-H. and H. J. Wall (1999): ***Controlling for Heterogeneity in Gravity Models of Trade***. Federal Reserve Bank of St. Louis Working Paper 1999-010C

Cline, William, (2004): ***Trade policy and Global poverty***, institute of International Economics, Washington D.C.

Collier and Anthony J. Venables, (2007): ***Rethinking Trade Preferences: How Africa Can Diversify its Exports.*** *The World Economy*, Special Issue, 14: 1326-1345.

Cooper, H. (2002): ***Fruit of the Loom: Can African Nations use Duty-Free Deal to Revamp the Economy?*** *Wall Street Journal*, New York,: A1.

Dick Nuwanya Kamaganga (2007): ***Preferential Market access by Quad Countries and SSA Trade Performance, a Gravity Model analysis***,

Evenett, J. S. and W. Keller. (2002): ***On Theories Explaining the Success of the Gravity Equation.*** Journal of Political Economy 110 (2) 281-316

Frazer, Garth and Johannes Van Biesebroeck.(2007) : ***Trade Growth Under the African Growth Opportunity Act.*** NBER Working Paper Series, http:/www.nber.org/papers/w13222.

G.Feldman,(2002): ***Market access and compliance***, Office of Africa

Hammouda, Karingi and Perez (2005): ***Unrestricted Market Access for Sub-Saharan Africa: Important benefits with little costs to the QUAD*** No +1 African Trade policy center.

Hoekman, B., F. No, M.Olarraga (2002): ***Eliminating Excessive Tariffs on exports of Least Developed countries***. The World Bank Economic Review. No 1-16, No 1.

Ianchorichina, E.,A. Mattoo, and M.Olarreasa (2001): ***Un restricted Market Access for Sub-Saharan Africa: How much is it worth and who pays?*** Policy research working paper no. 2595, Development Research Group, World Bank, Washington Dc.

International Monetary Fund (2006): ***Direction of Trade statistics year book***, Washington DC

International Monetary Fund (2006): **Regional economic out look "Sub-Saharan Africa"**, Washington, DC

J. Diemond (2000): ***Market access and compliance***, Office of Africa,

John Wainio, Shahla Shapour, Micheal Trueblood and Paul Gibson (2004): ***Agricultural Trade Preferences and the Developing countries***, United States Department of Agricultural Economic Research Report no. 6

Jeffrey D. Sachs and Andrew M. Warner (1995): ***Economic Reform and the process of Global Integration***; Brookings papers on Economic Activity, Vol.t. pp. 1-118

Laid, R. Safadi and A. Turrinr (2001): ***The WTO and Development***: paper prepared for a conference on policy Reform, Tulane University

Mattoo, A. D. Roy, and A. Subramanian (2003): ***The Africa Growth and Opportunity Act and its Rules of Origin: Generosity Undermined?*** *The World Economy*, 26: 829-852.

Nouve, Kofi and John Staatz (2003): ***Has AGOA Increased Agricultural Exports from Sub- Saharan Africa to the United States?*** Paper presented at the International Conference Agricultural Policy Reform and the WTO: Where Are We Heading? Capri, Italy.

Paul Brenton and Mombert Hoppe (2004): ***AGOA exports and development in Sub-Saharan Africa,***

Raghavan, C. 2000. Africa: ***NGOs Start Campaigns against U.S. AGOA***. Third World Network, Online, www.twnside.org.sg/title/agoa.htm

Rodrik, Dani (1998): ***Trade Policy and Economic Performance in Sub-Sahara Africa***. National Bureau of Economic Research Working Paper no. 8708, NBER: Cambridge, MA

Rose, Andrew (2003): ***Do We Really Know That the WTO increases Trade?*** Center for Economic policy Research Discussion paper services, No 3538.

Shahla Shapouuri and Micheal True blood (2003): ***The African Growth and opportunity Act (AGOA): Does it really present Opportunities?*** Paper presented for a Conference sponsored by the International Agricultural Trade Research Consortium, Cepri, Italy, June 24-26, 2003

Tinbergen, J.,(1962): ***Shaping the World Economy: Suggestion for an International Economic policy***, The twentieth century fund: New York, US

United States Trade Representative (2002): ***Comprehensive Report on U.S Trade and Investment policy toward Sub-Saharan Africa and implementation of the African Growth and opportunity Act***

United States Trade Representative (2007): ***Comprehensive Report on U.S Trade and Investment policy toward Sub-Saharan Africa and implementation of the African Growth and opportunity Act***

Wall, J. H. (1999): ***Using the Gravity Model to Estimate the Costs of Protection.*** Review, Federal Reserve Bank of St. Louis, January/February 33-40

Wang, Zhen Kun and Alan L. Winters (1998): ***Africa's Role in Multilateral Trade Negotiations: Past and Future***. Journal of African Economies, 70, 1-33.

World Bank (2007): ***African Development Indicators 2007***

World Bank (2006): ***Global*** **Economic prospects 2006: Managing the next wave of Globalization**, Washington, DC

Appendices and Annexes

Appendix 1: Regression results for all samples of 46 Sub Saharan Africa countries

*** xtreg lagexp elig lpopi lpopus lgdpi lgdpus t, fe**

Nmber of obs = 552 F(6,500) = 2.29

Number of groups = 46 Prob > F = 0.0346

R-sq: within = 0.0267

between = 0.3218

overall = 0.2815

lagexp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
elig	-.1912141	.2130665	-0.90	0.370	-.6098302	.2274019
lpopi	1.34141	.5255327	2.55	0.011	.3088859	2.373935
lpopus	-27.40226	22.51595	-1.22	0.224	-71.63979	16.83528
lgdpi	-.2700831	.2513012	-1.07	0.283	-.7638195	.2236534
lgdpus	5.302479	4.553296	1.16	0.245	-3.643472	14.24843
t	-.0344287	.0178591	-1.93	0.054	-.0695168	.0006595
_cons	110.6465	85.80769	1.29	0.198	-57.94152	279.2346

Appendix 2: Regression results for exporters, whose average agricultural exports are >= 500,000 US dollars a total of 30 Sub Saharan Africa countries

*** xtreg lagexp elig lpopi lpopus lgdpi lgdpus if agexp_500==1, fe**

```
Number of obs      =       360                F(5,325)          =      3.91
Number of groups   =        30                Prob > F          =    0.0019
R-sq:  within  = 0.0567
       between = 0.0711
       overall = 0.0598
------------------------------------------------------------------------------
      lagexp |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        elig |   .3540649   .2311484     1.53   0.127    -.1006711     .808801
       lpopi |   2.578933   1.852638     1.39   0.165    -1.065744    6.223611
      lpopus |  -62.65892   24.20364    -2.59   0.010    -110.2745   -15.04334
       lgdpi |  -.4710959   .3117547    -1.51   0.132    -1.084408    .1422161
      lgdpus |   10.46774   4.893731     2.14   0.033     .8403474    20.09512
       _cons |   260.5062   92.38611     2.82   0.005     78.75588    442.2564
-------------+----------------------------------------------------------------
```

Appendix 3: Regression results major Agricultural exporters, whose average agricultural exports are >= 20.000,000 US dollars a total of 9 Sub Saharan Africa countries

*** xtreg lagexp elig lpopi lpopus lgdpi lgdpus if agexp_20000==1, fe**

Number of obs = 108 F(5,94) = 2.72

Nmber of groups = 9 Prob > F = 0.0244

R-sq: within = 0.1263

between = 0.0097

overall = 0.0046

lagexp	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
elig	.1809558	.172047	1.05	0.296	-.1606474	.5225591
lpopi	1.113078	1.224876	0.91	0.366	-1.318942	3.545098
lpopus	-7.50054	17.02125	-0.44	0.660	-41.29664	26.29556
lgdpi	.4465856	.1752938	2.55	0.012	.0985357	.7946356
lgdpus	.5888201	3.375677	0.17	0.862	-6.113666	7.291306
_cons	42.98617	65.36955	0.66	0.512	-86.8066	172.7789

Annex 1: Average Agricultural and Non agricultural exports for the 46 Sub-Saharan African Countries included in the sample for empirical analysis

	Agricultural Exports (1996-2000)	Agricultural exports (2001-2007)	Non agricultural exports (1996-2000)	Non agricultural exports (2001-2007)
Angola	0	3.857143	14,267,684	48,815,635
Benin	4598.6	131	33,112	9951
Botswana	28.4	71.71429	131,770	761,820
Burkina Faso	1796.2	192.2857	2,857	12938
Burundi	7162.4	2544.857	5,166	3,891
Cameroon	15597.8	22560.29	355,090	1,427,260
Cape Verde	0	38	5,917	19,159
Cen African Rep	1650.2	338	2,163	25,833
Chad	201.8	110.5714	30,013	6,656,139
Comoros	1876.4	5603.286	6,348	1,144
Congo, Republic	3715.6	3080.571	1,173,899	1,178,719
Congo,DR	3631	2595.667	2,085,962	10,081,470
Cote d'Ivoire	322412	449884.7	361,160	1,494,211
Djibouti	123	470.8571	487	10,383
Eq Guinea	2.6	13.71429	391,496	8,481,680
Eriteria	109.2	101.4286	4,187	3,272
Ethiopia	39612.4	44292.43	27,596	75,021
Gabon	927.2	925.1429	9,076,463	14,654,472
Gambia, The	5.4	46.28571	9,002	2,054
Ghana	40228.2	44960.57	731,140	861,543
Guinea	2992.2	1365	649,747	685,917
Guinea-Bissau	21.2	67.57143	2,400	30,402
Kenya	47243.8	47434.86	322,415	1,732,514
Lesotho	0	0	524,084	2,792,688
Madagascar	36500	91946.14	258,965	1,759,743
Malawi	65016.8	60068.43	12,309	148,026
Mali	1075.8	360.8571	26,097	34,901
Mauritania	0.8	8.142857	8,769	65,032
Mauritius	13157.8	6767.429	1,276,457	1,806,012
Mozambique	23240.8	7418.429	8,034	20,003
Namibia	542.4	131.7143	219,314	950,425
Niger	142	313.1429	21,678	233,059
Nigeria	18445.8	28145.57	31,847,619	129,858,351
Rwanda	3371	4750.286	9,634	15,540
Sao Tome&Principe	4.6	7.714286	4,745	1,666
Senegal	308	3483.286	40,542	138,303
Seychelles	154.6	3	20,343	100,763
Sierra Leone	354	466.4286	66,911	137,338
South Africa	124614.2	178042.7	15,299,131	42,099,490
Sudan	2487.8	72.14286	25,456	40,100
Swaziland	12008.8	9753.429	143,661	1,034,863
Tanzania	7239.2	11619.29	119,096	145,984
Togo	1742.8	1648.857	16,380	29,791

Uganda	20741	15389.71	22,371	79,009
Zambia	1019.4	932.7143	220,660	173,622
Zimbabwe	30896.2	19040.71	516,299	502,169

Source: USITC Trade Data Base, accessed in January 2008

Annex 2: The average agricultural exports for the top 9 major agricultural exports

Country	Average Agricultural Exports (1996-2000)	Average Agral exp (2001-2007)	Total Average Agral exports
Ethiopia	39612.4	44292.43	83904.83
Cote d'Ivoire	322412	449884.7	772296.7
Kenya	47243.8	47434.86	94678.66
Madagascar	36500	91946.14	128446.14
Ghana	40228.2	44960.57	85188.77
Malawi	65016.8	60068.43	125085.23
Nigeria	18445.8	28145.57	46591.37
South Africa	124614.2	178042.7	302656.9
Zimbabwe	30896.2	19040.71	49936.91

Source: USITC Trade Data Base, derived from Annex: 1 for major 9 Agricultural exporters of SSA

Annex 3: Total Agricultural and Apparel export from sub-Saharan Africa to US

	2002	2003	2004	2005	2006	2007
Total Apparel Exports	1,108,455	1,504,499	1,751,712	1,460,569	1,288,394	1,291,338
Total Agricultural exports	846715	1081036	1108289	1314646	1223375	1122689

Source: www.agoa.com, accessed in May, 2008

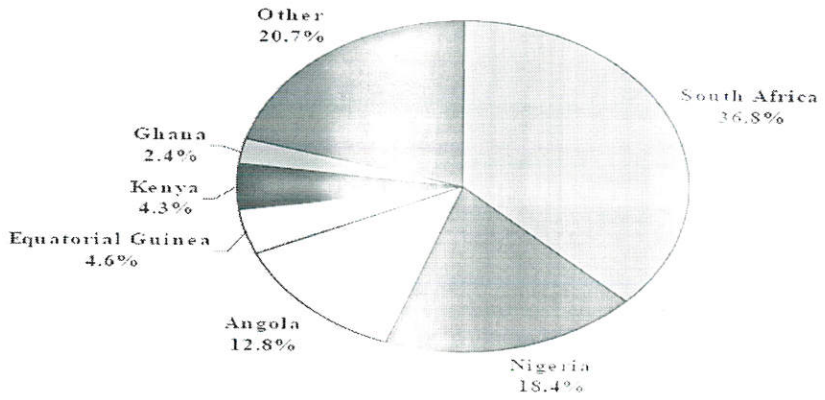
Annex 4: AGOA Eligible countries from 2001 - 2007

2001	2002	2003	2004	2005	2006	2007
Benin	Benin	Benin	Angola	Angola	Angola	Angola
Botswana	Botswana	Botswana	Benin	Benin	Benin	Benin
Cameroon	Cameroon	Cameroon	Botswana	Botswana	Botswana	Botswana
Cape Verde	Cape Verde	Cape Verde	Cameroon	Burkina Faso	Burkina Faso	Burkina Faso
Cen African Rep	Cen African Rep	Cen African Rep	Cape Verde	Cameroon	Burundi	Burundi
Chad	Chad	Chad	Chad	Cape Verde	Cameroon	Cameroon
Congo (ROC)	Congo (ROC)	Congo (DROC)	Congo (DROC)	Chad	Cape Verde	Cape Verde
Djibouti	Cote d`Ivoire	Congo (ROC)	Congo (ROC)	Congo (DROC)	Chad	Chad
Eritrea	Djibouti	Cote d`Ivoire	Cote d`Ivoire	Congo (ROC)	Congo (DROC)	Congo (DROC)
Ethiopia	Eritrea	Djibouti	Djibouti	Djibouti	Congo (ROC)	Congo (ROC)
Gabon	Ethiopia	Eritrea	Ethiopia	Ethiopia	Djibouti	Djibouti
Ghana	Gabon	Ethiopia	Gabon	Gabon	Ethiopia	Ethiopia
Guinea	Ghana	Gabon	Gambia	Gambia	Gabon	Gabon
Guinea-Bissau	Guinea	Gambia	Ghana	Ghana	Gambia	Gambia
Kenya	Guinea-Bissau	Ghana	Guinea	Guinea	Ghana	Ghana
Lesotho	Kenya	Guinea	Guinea-Bissau	Guinea-Bissau	Guinea	Guinea
Madagascar	Lesotho	Guinea-Bissau	Kenya	Kenya	Guinea-Bissau	Guinea-Bissau
Malawi	Madagascar	Kenya	Lesotho	Lesotho	Kenya	Kenya
Mali	Malawi	Lesotho	Madagascar	Madagascar	Lesotho	Lesotho
Mauritania	Mali	Madagascar	Malawi	Malawi	Madagascar	Liberia
Mauritius	Mauritania	Malawi	Mali	Mali	Malawi	Madagascar
Mozambique	Mauritius	Mali	Mauritania	Mauritania	Mali	Malawi
Namibia	Mozambique	Mauritania	Mauritius	Mauritius	Mauritius	Mali
Niger	Namibia	Mauritius	Mozambique	Mozambique	Mozambique	Mauritius
Nigeria	Niger	Mozambique	Namibia	Namibia	Namibia	Mozambique
Rwanda	Nigeria	Namibia	Niger	Niger	Niger	Namibia
Sao Tome & Prin	Rwanda	Niger	Nigeria	Nigeria	Nigeria	Niger
Senegal	Sao Tome & Prin	Nigeria	Rwanda	Rwanda	Rwanda	Nigeria
Seychelles	Senegal	Rwanda	Sao Tome & Prin	Sao Tome & Prin	Sao Tome & Prin	Rwanda
Sierra Leone	Seychelles	Sao Tome & Prin	Senegal	Senegal	Senegal	Sao Tome & Prin
South Africa	Sierra Leone	Senegal	Seychelles	Seychelles	Seychelles	Senegal
Swaziland	South Africa	Seychelles	Sierra Leone	Sierra Leone	Sierra Leone	Seychelles
Tanzania	Swaziland	Sierra Leone	South Africa	South Africa	South Africa	Sierra Leone
Uganda	Tanzania	South Africa	Swaziland	Swaziland	Swaziland	South Africa
Zambia	Uganda	Swaziland	Tanzania	Tanzania	Tanzania	Swaziland
	Zambia	Tanzania	Uganda	Uganda	Uganda	Tanzania
		Uganda	Zambia	Zambia	Zambia	Uganda
		Zambia				Zambia

Source: USITC Trade Data Base, accessed in May, 2008

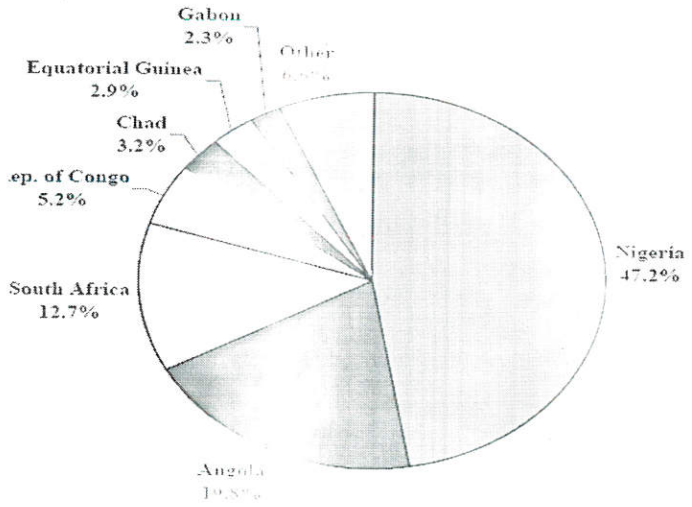
Annex: 5 US Exports to major Sub Saharan Africa Trading Partners, 2006

Pie chart 1



Annex: 6 US imports from Major Sub Saharan African Trading Partners , 2006

Pie chart 2



Source: US Department of Commerce, Bureau of Census

As cited by J.Diemond,Market Access and Compliance/ office of Africa March 2007

Declaration

I, the undersigned, declare that this is my original work and has not been presented for a degree in any other University, and that all source of materials used for the project have not been duly acknowledged.

Declared by:

Name: Kokeb G. Giorgis

Signature: _____

Date: June 13/2008

Confirmed by Advisor:

Name: Girma Estifanos

Signature: _____

Date: June 13/2008

Place and Date of Submission----------