

THE IMPACT OF AGOA RELATED FOREIGN DIRECT INVESTMENT
INFLOWS ON EMPLOYMENT IN SUB-SAHARAN AFRICA: THE CASE
STUDY OF ETHIOPIA

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This is to certify that the thesis prepared by Woderyelelesh Yeshiwas, entitled: *The Impact of AGOA related Foreign Direct Investment Inflows on Employment in Sub-Saharan Africa: The Case Study of Ethiopia* and submitted in partial fulfillment of the requirements for the Degree of Master of Art in African Studies (Human and Economic Development) complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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List of Acronyms

AGOA	African Growth and Opportunity Act
EBA	Everything But Arms
EIC	Ethiopian Investment Commission
FDI	Foreign Direct Investment
GSP	General System of preference
PTAs	Preferential Trade Agreements
USBEA	United States Bureau of Economic analysis
USAID	United States Agency for International Development
USITC	United States International Trade Commission
UNCATD	United Nation Conference on Trade and Development
WTO	World Trade Organization

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ABSTRACT

One of the objectives of African Growth and Opportunity Act (AGOA) is to promote investment in Sub-Saharan African countries and it's believed that AGOA was able to create jobs through AGOA driven FDI in Sub-Saharan Africa (SSA). However, very few empirical studies have been conducted on the inflows of AGOA related FDI and its effect on employment creation to Sub-Saharan Africa countries. Thus, the study primarily examines the employment effect of AGOA related foreign direct investment in Sub-Saharan African countries particularly in Ethiopia. To examine the extent to which FDI inflows under AGOA contribute to employment for Sub-Saharan Africa in general and Ethiopia in particular, the study applied linear regression model using time series data from 1990 to 2014 for macro-level analysis and cross sectional data for micro-level (firm-level) analysis. The model result indicates that AGOA associated FDI inflows have negative effect on employment for SSA and it has insignificant effect on employment in Ethiopia at macro-level. Consistent to the macro-level findings, the model results for firm-level analysis indicates that AGOA associated FDI firms have insignificant effect on employment. Further the study identifies the short duration of AGOA, its Third Country Fabric Provision rule and the requirement of 'U.S-Visa' for some products as challenges for AGOA associated FDI in Ethiopia. Thus, the study recommends extending the program more than 10 years and simplifying the rules so as to attract quality investments that could generate more and steady jobs in beneficiary SSA countries.

Key words; AGOA, FDI, Employment, firm-level, SSA, Ethiopia

CHAPTER ONE

1. Introduction

1.1 Background of the Study

African Growth and Opportunity Act (AGOA) is a United States trade preference act that was signed into law on May 2000 as Trade and Development Act of 2000. The objective of the act is to increase trade and investment between the United States (U.S.) and Sub-Saharan African countries (SSA) by reducing and eliminating tariffs on selected export products (USITC, 2012). Requirement for AGOA preferences is based on a set of conditions contained in the AGOA legislation. In order to qualify and remain eligible for AGOA, each SSA country must be working to improve its economy as well as some of its socio-political subjects like the rule of law, human rights and respect for core labor standards and the like (AGOA, 2016). The review of country eligibility is done annually by the President of the United States. The act has been amended and re-extended a number of times and as a result the trade legislation has been categorized by phases. AGOA IV was set to expire on September 30, 2015 but President Obama signed a ten-year extension on June 29, 2015 after the U.S. Congress passed new AGOA legislation (AGOA, 2016).

While there have been different discussions on issues like the diversity of exports, the products covered, duration of the act, and most importantly factors determining country eligibility, AGOA's genuine intention and the detectable advantage the act have brought to Sub-Saharan African countries also have been under question since the passing of this legislation (Karingi *et al*, 2010).

However, currently there are 39 Sub-Saharan African countries that have been designated as eligible by the United States government of which Nigeria, Angola and South Africa have been stated as countries that have better utilized the opportunity act whereas Democratic Republic of Congo (DRC), Mali, Central African Republic and South Sudan have lost their eligibility due to failure to keep the conditionality set by the United State government (USITC, 2016). On the other hand, countries like Ivory Coast, Gambia, Madagascar, Swaziland and Mauritania have been suspended due to failure to keep the conditionality set in order to stay beneficiary of the act on different times but Swaziland and Mauritania later regained their status as beneficiaries.

Promoting foreign direct investment (FDI) is one of the objectives of AGOA as FDI can support economic growth of Sub-Saharan Africa through job creation, flow of capital, transfer of technology and know-how. The rise in inflow of FDI can change the unemployment condition of host countries in SSA both directly and indirectly. The direct effect occurs through enabling firms to generate jobs that were not there before and the indirect effect happens through the spillover effects that boost employment in secondary businesses like catering, construction rental and supplier of inputs (Arai *et al.* 2010; Jude and Silaghi, 2010).

According to AU 6th ordinary session of Ministers of Trade, at the beginning, AGOA was able to register more than US \$1 billion FDI flows directly from the U.S. and later from Southeast Asian AGOA driven export-oriented FDI especially in textile and garment manufacturing factories to SSA countries like Mauritius, Malawi and Kenya (AU, 2010). Correspondingly the multinational corporations (MNCs) mainly from Southeast Asian countries have been generating direct employment to SSA.

Ethiopia has been one of the beneficiary countries of this act following the enacting of the act since May 2000. As a result, Ethiopia has become one of the top ten African countries to export

to the U.S. market in the last few years and one of the leading countries to form a National AGOA Response Strategy and established National AGOA Center to better utilize the opportunity act (NAGOAC, 2013). The leading sectors in Ethiopia's export to the US market include garment and textile, leather and leather products and horticulture and agro-processing (AGOA, 2016).

1.2 Statement of the Problem

The African Growth and Opportunity Act (AGOA) is believed to increase the economic growth of eligible SSA countries including Ethiopia as it provides market and investment opportunity with a preferential trade agreement (USITC, 2014). Most prior studies conducted on the subject are basically focused on the effect of AGOA on Sub-Saharan African countries export performance and also the effect of AGOA on different leading export sectors of SSA countries including Ethiopia.

Paez *et al.* (2010) noted that AGOA has had a measurable impact on Africa's trade although the trade performance under AGOA has been fluctuating over the years. They further noted that AGOA has helped to increase exports but has failed to bring about sustainable and competitive export sectors in SSA. The authors did not use any specific model to assess the impact of AGOA related FDI on job creation.

Furthermore, Obembe (2011) used gravity model to determine AGOA's effect on attracting FDI and enhancing export growth in Sub-Saharan African countries and concluded that the act does not have a significant impact on either exports or foreign direct investment of eligible Sub-Saharan African countries. Similarly, a study by Addisalem (2013) used a gravity trade framework model to examine the impact of AGOA on agricultural exports in 35 eligible Sub-

Saharan African countries. The author noted that the model results show that AGOA may have a positive effect on SSA agricultural exports but it does not have a statistically significant impact on agricultural exports of SSA. These studies therefore, appear to find insignificant but positive effect of AGOA on export sector and foreign direct investment.

On the other hand, Mulangu (2012) examined the impact of eligibility to AGOA and its apparel provision eligibility on firm-level productivity and employment on selected African firms using a difference- in-difference –in-differences approach. The author found out that while AGOA and its apparel provision have positive impacts on firm’s productivity and increased employment in very large firms only, the total impact on employment is weak. Thus, this study appears to find positive and significant effect of AGOA on employment particularly in large size firms.

Likewise, some studies on the employment effect of overall FDI to Liberia and Nigeria in agriculture, mining and service sectors found that FDI have significant impact on employment creation (Arai *et al.*, 2010; Inekwe, 2014).

However, Aryeetey and Boateng (2007) found out that FDI inflows have insignificant impact on employment creation in Ghana. They further noted that the employment response to all FDI flows depend more on the nature and distribution of overall investment than the value and volume of the inflows in the host SSA countries. Therefore, this shows that the results are inconclusive.

Although AGOA is believed to encourage investment between U.S. and eligible Sub-Saharan African countries, the empirical studies on AGOA and its contribution on investment suggests that much has not been registered on promoting foreign direct investment in SSA and very few

studies have been conducted on the inflows of AGOA related FDI and its effect on employment creation to Sub-Saharan Africa particularly to Ethiopia.

The purpose of this research is therefore to examine the employment effect of foreign direct investment inflows through AGOA to SSA in general and to Ethiopia in particular. The study analyzes the aggregate employment effect of FDI through AGOA in SSA and Ethiopia by using time series data as well as the employment effect of AGOA related FDI in Ethiopia by using cross-sectional data on firm-level. It then tries to link the results of the aggregate and micro (empirical) level analysis in an attempt to paint a general picture on the impact of AGOA induced FDI on job creation in SSA and Ethiopia.

1.3 Research Objective

The general objective of the study is to examine the employment effect of AGOA related FDI inflows to Sub-Saharan Africa in general and Ethiopia in particular.

The specific objectives of the study are to:-

- Assess the trend of foreign direct investment to SSA countries in general Ethiopia in particular.
- Analyze the employment effect of AGOA related FDI inflows in SSA countries in general Ethiopia in particular.
- Examine the extent to which FDI inflows under AGOA contribute to employment creation at firm-level in Ethiopia.
- Identify the challenges and prospects of AGOA associated FDI in Ethiopia.

1.4 Significance of the Study

There are substantial numbers of studies on the issue of African Growth Opportunity Act and its role on the economy of Sub-Saharan African Countries and most of them are focused on sectorial effects, export share and generally on eligible SSA countries' export performance and their utilizations of the opportunity. Thus this study is important as it plans to examine how much AGOA has contributed to employment generation through foreign direct investments in SSA countries that are looking to benefit from the act.

The topic is relevant and timely given the opportunity act has been extended for another ten years by the United States legislator body and there are issues that need to be recognized and addressed by all involved parties in order to better utilize the opportunity for the coming ten years particularly on investment and job creation. This study provides, based on an updated data, additional input on AGOA's contribution on employment through foreign direct investments and the challenges and prospects that are associated with the framework. It does so by combining a macro and micro level analysis of AGOA driven FDI in SSA and Ethiopia.

1.5 Scope and Limitations of Study

The scope of this study is confined to examining the employment effect of foreign direct investment inflows under AGOA in SSA in general and Ethiopia in particular. For this purpose, Ethiopia's and other SSA beneficiary countries FDI inflows is assessed over the period 1990-2014. The firm-level empirical analysis is based on cross-sectional data taken from selected AGOA participant and non-participant FDI firms. This study has limitation due to the lack of specific literature and data on AGOA related FDI inflow and its registered advantage on job creation in SSA countries particularly in Ethiopia that may support the findings of the study.

1.6 Definition of Terms

AGOA: The African Growth and Opportunity Act (AGOA) is a United States Trade Act, enacted on 18 May 2000 as Public Law 106 of the 200th Congress. It significantly enhances access to the United States market for qualifying Sub-Saharan African (SSA) countries (AGOA, 2016).

FDI: Foreign Direct Investment is an investment made to acquire lasting interest in enterprises operating outside of the economy of the investor (OECD, 2008).

GSP: Generalized System of Preferences (GSP) a concept developed within the United Nations Conference on Trade and Development to encourage the expansion of manufactured and semi-manufactured exports from developing countries by making such goods more competitive in developed country markets through tariff preferences (AGOA, 2016).

1.7 Organization of the Study

The remainder of the thesis is organized in four chapters. Chapter two provides the theoretical framework on trade preference and FDI theories and empirical literature concerning AGOA and foreign direct investment in SSA. In Chapter three, methods of the study, i.e. sampling methods, source and instruments of data collection and methods of data analysis are presented. In Chapter four findings and discussion are presented. The last chapter, Chapter five presents the conclusion of study.

CHAPTER TWO

2. Literature Review

In this chapter, theoretical literature and empirical literature are presented. While the theoretical literature is focused on theories with regard to trade preference principle, FDI, African Growth and Opportunity Act (AGOA) and the link between FDI and employment, the empirical literature is based on earlier studies conducted on the role of FDI on job creation and AGOA's roles for employment in SSA.

2.1 Theoretical Literature

2.1.1 Trade Preference

The main focus of the study is to examine the employment effect of FDI flows to SSA countries and Ethiopia under the African Growth and Opportunity Act since AGOA is categorized as a preferential trade agreement, it is essential to mention some of the theoretical literatures with regard to preferential trade agreements (PTAs).

Trade preference treatment is part of the Generalized System of preference (GSP) of the World Trade Organization (WTO) which allows developed nations to give developing countries preferential treatment by granting duty-free entry for their eligible products to make their export competitive in the global market. According to Hoekman and Ozden (2006) the framework to provide such preference was established in 1968 under the United Nations Conference on Trade and Development. According to Jones, Hornbek and Villarreal (2013) trade preference is non-reciprocal which means unlike free-trade, developing countries do not have to provide similar

trade treatment or benefits to the developed nation but developing countries must meet the eligibility criteria like operating an open market economy and the like.

Following WTO Doha Development Agenda (DDA) many WTO member countries have adopted trade preference agreements but trade preference assessments have been mixed on the literature. According to UNCTAD (1964) trade preference supports infant-industry and generated export in manufactures however the report acknowledges the problems regarding duration of preferences, issue of country's graduation, competition among developing countries and administrative costs can limit and reduced the benefits. Johnson (1967) noted that the administrative cost of implementing and monitoring preference can be high and that there may be political conflicts between developed and developing countries as a result of trade diversion and also developed countries might use the preference for political purpose to regulate developing nation government's based on their behavior and performance outside economy issues Burfisher, Robinson and Thierfelder (2004) also noted that one of the disadvantages of non-reciprocal preference programs is that, it requires renewal and have expiration periods.

On the other hand, Hokekman and Ozden (2006) believe the effectiveness of trade preferences in developing countries is determined by recipient countries ability and willingness and developed countries reliable commitments and non-discriminatory policies.

2.1.2 Overview of Foreign Direct Investment Theories

Several researchers over the years have explained FDI phenomenon but there is not a generally accepted theory on FDI. According to Shenkar (2007) the top four FDI theories are Product Life-Cycle Theory, The Monopolistic Advantage Theory, The Internalization Theory and Eclectic

Paradigm Theory (OLI framework). The following sub-section of the paper discusses these four theories.

I. Product Life-Cycle Theory

Product Life-Cycle Theory was developed by Raymond Vernon in 1966 and Vernon believed every product has four life stages which are innovation, growth, maturity and decline (Vliet, 2012). The Product Life-Cycle theory suggests that every product has a life cycle which begins with its development and eventually ends with its decline and if the innovation of a product is successful at the first stage, there will be an increase in demand for both nationally and internationally. Therefore, foreign production can be seen as country's exports builds up but the duration of foreign production and exports depend on the market demands (Morgan and Katsikeas, 1997).

II. The Monopolistic Advantage Theory

This theory was first developed by Hymer (1960) and later extended by Kindleberger (1969) and Caves (1971) (Pitelis, 1996). According to the Monopolistic Advantage Theory, in order for MNCs to operate in foreign lands, they need to have a monopolistic advantage over local firms in terms of technology, know-how and managerial expertise as there is going to be natural disadvantage like language and cultural problems (Pitelis, 1996).

However, Nayak and Choudhury (2014) argue the Monopolistic Advantage Theory has shortcomings as it failed to mention which advantage MNCs should focus on and further the theory does not consider the host government's policy regarding MNCs operations.

III. Internalization Theory

The Internalization Theory explains how FDI happens and identifies the determinants of FDI. The theory was first launched by Coase in 1937 and developed by Bukely and Casson in 1976 but it was later extended and internationally launched by Hymer in 1976 (Denisia, 2010). The Internalization Theory states that major FDI determinants are competitive and comparative advantage and FDI happens when firm's ability to exploit firm-specific advantages are higher than their costs of operating abroad due to market imperfections.

However, according to Morgan and Katsikeas (1997) the Internalization Theory only gives firm-level analysis and failed to include other aspects in FDI process.

IV. Eclectic Paradigm Theory (O-L-I framework)

The Eclectic Paradigm theory also known as O-L-I framework was developed by John Dunning in 1976 (Nayak and Choudhury, 2014) Dunning used three different theories to explain FDI by looking Ownership advantage, Location advantage and Internalization advantage where Ownership Advantage indicates three advantages; privileged access by limited natural resources, patents and trademarks, technology and know-how advantage and firm's size advantage. Location Advantage indicates the economic, political and social advantages of the place where the MNCs took their business or activities. The third factor, the Internalization Advantage indicates the internalizing of cross-border markets by firms. Further the theory states that the O-L-I parameters that influence MNCs advantage can differ from firms to firms and depends on the contextual variables, the firm's motive and the economic, social and political features of the host country (Nayak and Choudhury, 2014).

2.1.3 Foreign Direct Investment and Employment Link

Foreign direct investment (FDI) can be considered as one path for economic growth of a country as it could bring different advantages particularly to host nations that are least developed like Sub-Saharan Africa. Some of these advantages can be job creation and the transfer of capital, technology and know-how. Employment creation is one of the benefits of FDI inflows to a least developed host countries like Africa. Looking at the FDI-employment link from the home country perspective, Shenkar (2007), noted that when companies choose to invest in another country, there is expected to be a loss of jobs in a home country but from a host country perspective it is a different story this is because governments of host countries usually work on attracting foreign companies to develop high-end employment which is an increase in jobs and also enhancement on know-how to the host country.

Ernst (2005) agrees that MNCs can create employment but argues in order for a sustainable employment to exist, there must be a stable and productive FDI flows in a host countries. He further suggests that host governments should play a role in promoting stable and productive FDI inflows by discouraging short-lived investments through different policies and regulations. From this, the quality and duration of investment is important in FDI's contribution on employment creation.

However, MNCs have different tactical reasons to invest in a country and their strategies differ from one another. Some may be resource seeking while others are market seeking but most importantly host countries environment like the availability of cheap labor force, social and political stability particularly in least developing nations like SSA are the major determinant factors and more over resource driven and market driven FDI are the dominate investments in SSA (Chen et al., 2015).

Shenkar (2007) indicated that while FDI inflows may benefit employment in the host country, FDI can also create tough competition to domestic enterprises especially in a situation where a host country government offers favorable treatment like tax breaks for foreign firms but he further noted that depending on different factors in host country, local companies may gain knowledge from foreign companies and become globally competitive. From this, the business environment like government policy determines the extent to which local firms are affected by FDI inflows.

According to Ernst (2005), many market seeking investments are in labor intensive investment sectors which mean the large portion of the sequence of production took place in the host country and therefore this kind of investment contributes a lot to job creation in the host country. However resource seeking investment has limited contribution to employment creation in a host economy. Therefore the increase in FDI flows is not the only concern of host countries but more importantly the type of FDI and the actual advantage it brings to the country particularly in terms of employment creation.

According to Jude and Silaghi (2010) FDI effect on the host country's employment are direct and indirect and these direct and indirect effect can be positive or negative depending on factors like host government policy, the form and nature of firms. They indicate that direct positive effects can be an increase in employment, increase in wages and productivity, increase in skilled workers in case of provision of trainings or investment in research and development and creation of new jobs in different areas of the country and the indirect positive effects can be job creation by spillovers, introduction of labor organization practices and stimulation of local suppliers when and if FDI firms decided to buy local inputs however they noted that there may be direct negative effects like reduction of workers and job losses because of privatizations, increase wage

gap between skilled and unskilled workers and increase in regional disparities in case of firms concentration on urban areas and the indirect negative effects can be job losses in case of local firms being crowded out due to competition and discouragement and displacement of local suppliers in case of firms importing inputs, all of which could lead to a decrease in total employment in host country.

Therefore FDI flow by itself is not sufficient to employment generation. Host governments may need to work on attracting quality investments and labor intensive investments with long-life duration and high-end employment and those that could have indirect positive effects on employment by spillovers in order to take the full benefit of FDI.

2.2 African Growth and Opportunity Act (AGOA)

African growth and opportunity act is a Generalized System of preference trade agreement that is part of United States Trade and Development Act of 2000. AGOA was signed into law on May 18, 2000 but it is not the first preferential trade agreement that is given by the United States to Sub-Saharan African countries (AGOA, 2016). The United States has other Generalized System Preference (GSP) trade agreement with Sub-Saharan African countries before AGOA was enacted in 2000 and these GSP trade agreements are still operational. AGOA is perhaps a more expanded form of GSP by adding some 1,800 tariff line products and apparel provision including previously excluded products like leather products; footwear, handbags and watches in addition to the 4,600 standard GSP tariff line items and by providing this AGOA will help Sub-Saharan Africa eliminate the GSP competitive need limitation (USITC, 2016).

Although eligibility for GSP does not necessary implies AGOA eligibility, countries must first be GSP eligible in order to be beneficiaries of AGOA's trade benefits. In addition to GSP

eligibility, countries have to establish and must work towards some of the issues like having market-based economies, rule of law, protection of intellectual property, policies to reduce poverty, efforts to combat corruption and protection of human rights in order to become eligible and to stay beneficiaries of the act (AGOA, 2016).

AGOA legislation has four phases so far; AGOA I, AGOA II, AGOA III and AGOA IV. There is no big difference among the phases except that a few amendments have been made in each of AGOA legislations mainly on extending the duration of the act and including of other items that were not included in the first AGOA legislation.

The four legislations have the following amendments in them ¹(AGOA, 2015);

AGOA I was signed into law on May 18, 2000 as Title 1 of The Trade and Development Act of 2000 by President Clinton. 34 SSA countries were designated as eligible for trade benefits in AGOA I and 1,800 tariff line items in addition to the standard GSP list of about 4,600 items for non-AGOA GSP beneficiary countries were included in duty-free treatment under GSP to AGOA eligible countries. AGOA I also included apparel preferential treatment.

AGOA II was signed into law on August 6, 2002 as a Trade Act of 2002 by President Bush. Swaziland, Cote d'Ivoire, Gambia and Democratic Republic of Congo were designated as eligible for trade benefits of AGOA. AGOA II further clarified the apparel preferential treatment to be provided to “wholly assembled” or knit-to-shape articles that are assembled from the U.S or from another SSA beneficiary country and made the so called ‘hybrid’ apparel articles eligible for preferences (provides preferential treatment for apparel articles that are cut both in the U.S. and beneficiary countries). AGOA II also allowed Sub-Saharan African producers to take advantage of the AGOA benefit for merino wool sweaters and doubled the annual quantitative

¹ Accessed from www.agoa.gov on March, 2015

limit on apparel articles that are assembled in beneficiary countries from only regional fabric. Moreover, AGOA II granted Botswana and Namibia a lesser developed AGOA beneficiary country status which allowed them to use fabric formed outside the U.S. or beneficiary SSA countries.

AGOA III was signed into law on July 12, 2004 as a Trade Act of 2004 by President Bush. AGOA III extended overall duration of the program from 2008 until 2015 and the Third country Apparel Provision treatment for three years, from 2004 until 2007. AGOA III also expanded eligibility to allow non-AGOA produced collars, cuffs, drawstrings, padding/shoulder pads, waistbands, belts attached to garments, straps with elastic and elbow patches for all imports to be eligible. The phase also granted Mauritius a lesser-developed AGOA beneficiary country status allowing the country to use non-U.S. fabric and yarn in apparel wholly assembled in the country which qualified for duty and quota-free treatment but designated Angola and Burkina Faso as eligible for AGOA.

AGOA IV was signed into law on December 20, 2006 as The African investment Incentive Act of 2006 by President Bush. AGOA IV extended textile and apparel provision from 2007 until 2015 and The Third Country Fabric Provision treatment until 2012 by increasing the cap to 3.5 percent starting October 1st, 2006. Further AGOA IV offered for special rules for fabrics or yarns produced in commercial quantities and extended duty-free treatment for textile or textile articles originating entirely in lesser-developed AGOA beneficiary countries.

The most recent AGOA extension until 2025 was signed into law on June 29, 2015 by President Obama. The aim of African Growth and Opportunity Act is to help SSA continue their efforts to open up their economies and build free markets by offering tangible incentives through trade and

investment. AGOA's specific objectives are²; reinforcing African reform efforts; providing improved access to U.S. technical expertise, credit and markets; and establishing a high-level dialogue on trade and investment.

Therefore with this liberal reform spirits, according to USITC (2014) report on AGOA trade and investment performance, AGOA approves entrance of approximately 7,000 SSA produced items to the United States market and the product item includes crude oil and petroleum, minerals, apparel and textile, leather and leather products, automotive components, food products and steel items. The report further states apparel provision requires 'U.S visa' for the products and countries that seeks to export apparel products must first establish effective visa system via U.S embassies in their respective countries in order to prevent illegal transshipment and use of counterfeit documentation . However, the rules of Third country fabric provision and the requirement of 'U.S. Visa' for some products like garment have created a slowdown of apparel exports (Williams, 2015).

Moreover, Karingi *et al.*(2010) noted that the short duration of the program and the fact that U.S. imports under AGOA is dominated by energy related products over the years also raise the issue of export diversification and further concerns of countries gaining comparative advantage and market share at the end of the trade preferential agreement.

2.3 Empirical Literature

2.3.1 Overview of Foreign Direct Investment in Sub-Saharan Africa

There are some socio-economic and political factors that are considered to be major as foreign direct investment determinants in Sub-Saharan Africa. Factors like government policies on tax

² Accessed from www.agoa.gov on March 2015

and trade and economic factors like availability of cheap labor, natural resource and raw materials are considered as major determinants on the host country's end particularly in Sub-Saharan Africa. However, this can vary among regions and the type of investment that is planned to be implemented but even so market size, access to natural resources and low cost labor are the major FDI determinants when it comes to SSA (UNCATD, 2015).

On the other hand, in recent trend among Sub-Saharan African countries with non- resource rich countries such as Ethiopia, factors like access to wide markets through different free trade agreements have become important in attracting foreign investors in to those countries, and particularly in Ethiopia, market size and social and political stability are found to be the two major FDI determinants (Chen *et al.* 2015).

According to the report of United Nation Conference on Trade and Development (2015), the global flows of foreign investment in Sub-Saharan Africa are increasing at a historically high level, even though global FDI flows have seen a decline over the years. Direct investments of developing countries like China and India are increasing in Sub-Saharan Africa nevertheless developed nations like Europe and United States still have the largest share of FDI stocks in SSA within key and leading industries like service and primary sectors (UNCTAD, 2015).

In Ethiopia, the leading sector in FDI flows is manufacturing; in sub sectors like textile and clothing and leather and footwear. While major investors by FDI source countries include Turkey, China, India and Saudi Arabia respectively accounting for 33%, 18%, 9% and 9% of the total FDI stock value in the country, these countries are also the leading countries in job creation by investing in manufacturing sector and by number of foreign owned firms from 2008-2014, china leads with 116 firms followed by India with 37 firms both in manufacturing sector and

USA stands last with 3 firms in service sector specifically in Hotel and tourism (Chen *et al.* 2015).

Overall in 2014 foreign direct investment (FDI) flows to Sub-Saharan Africa remained flat at \$ 54 billion, while there has been a decline by 2 % in Sothern Africa to 10.8 billion and by 10 % to \$12.8 billion in West Africa because of factors like Ebola and regional conflicts in the region, FDI inflows to Central and Eastern Africa has been increased by 33% to \$12.1 billion and 11% to \$ 6.8 billion respectively (UNCTAD, 2015).

According to the report of UNCTAD (2015), the gas sector in Tanzania with its massive potential and the expanding textile sector in Ethiopia have attracted flows of FDI in East Africa. The report also noted that most of FDI flows to Sub-Saharan Africa come from the service sector followed by primary (mining) sector and manufacturing sector respectively accounting for 51%, 31%, and 18% of the region's inward FDI stock in 2014.

A report by the United States Department of Commerce (2014) noted that United States has been one of the leading countries in direct investment in Sub-Saharan Africa since 2001 and total US foreign direct investment in Africa has grown by 37.5 per cent, more than \$ 16 billion since 2009 but the annual flows of foreign direct investment to Africa has slowed down every year for the last four years. The report did not indicate the reason behind the decline but stated the decrease to be from \$10.4 billion in 2009 to \$ 3.7 billion in 2012. The report further noted that the three largest U.S. FDI recipient Sub-Saharan African countries at the year end of 2012 were Nigeria, Mauritius and South Africa with \$ 8.2 billion, \$ 7billion and \$ 5.5 billion respectively. When we look at the US investment in SSA by key sectors in 2013, the mining sector attracted \$ 35,948 million, followed by service sector (\$19,558 million) and manufacturing sector (\$3,702 million) (US Department of Commerce, 2014).

2.3.2 Employment Effect of FDI in Sub-Saharan Africa

Least developed countries including many Sub-Saharan African countries design and implement policies and incentives to foreign firms in order to attract FDI flows and therefore support their economic growth. One of the main advantages of FDI flows to host countries is job creation. Many empirical studies are conducted to examine the contribution of FDI inflows to economic growth and employment generation of Sub-Saharan Africa.

Aryeetey and Boateng (2007) found out the total employment effect of FDI in Ghana is not significant. The authors state that while the mining sector is the major sector in attracting FDI in Ghana, its effect on generating employment is very low and sectors like manufacturing, agriculture, export and tourism despite having a considerable potential in generating significant number of employment, have failed to attract the needed foreign investment in Ghana. Similarly, Aryeetey (2007) noted that openness for trade and FDI does not have a significant impact on the total formal employment in Ghana after the economic reform.

On the other hand, Arai *et al.* (2010) examined the employment effect of Multinational Enterprises (MNEs) that are engaged in agriculture, mining and banking sectors in Liberia and concluded that MNEs in these sectors have generated a significant number of jobs, however, the employment creation are largely limited to semi-skilled and unskilled labor force. The study further states that MNEs in mining sector have created jobs indirectly in catering and constructions.

Moreover, Inekwe (2014) examined the link between foreign direct investment (FDI), employment and economic growth in manufacturing and service sector between 1990 and 2009 in Nigeria and found out that while FDI in service sector has positive relation with economic

growth, FDI in service sector has negative relation with employment rate. It further revealed that FDI in manufacturing sector has negative relation with economic growth but has positive relation with employment rate in the specified time period. The negative relation in FDI service sector on employment is explained by low human capital whereas the positive relation in FDI manufacturing sector on employment is explained by the availability of abundant unskilled labor in Nigeria.

Thus, FDI that is engaged relatively on more labor intensive sectors seems to have impact on the employment rate of SSA. As a result these early studies found out both insignificant and significant impact of FDI on the employment of Sub-Saharan African countries depending on the specific sector. Thus, employment response depend more on the nature of FDI and the distribution of the investment inflows across sectors than just the value of FDI inflows.

2.3.3 The Role of AGOA on Export

Several studies have been conducted over the years following the passage of AGOA. While they were unable to confirm strong positive effects, they showed great optimism about the potential of AGOA in the future. A study by Shapouri and Trueblood (2003) used a partial equilibrium model to estimate the effects of AGOA on exports from the sub-continent. The authors asked three important questions for analysis: how well the provisions in AGOA matched up with structure of African exports prior to its enactment; which countries have been able to take advantage of the act and why and what theory would have predicted so far. The authors note that as of 2002, the share of AGOA and GSP products of total exports to the U.S. had increased from 4% to 67% and as of 2003, exports from Sub-Saharan Africa to the United States ranged at 36% for manufactured goods, 28% for fuels, with Nigeria, Gabon, Angola and Cameroon being the

main exporters and 42% for food and agricultural products. They further note the significance of policies like AGOA in originating start up investments.

A study by Addisalem (2013) used a gravity trade framework model to examine the impact of AGOA on Agricultural exports of 35 eligible Sub-Saharan African countries. The author used panel data of annual agriculture trade from eligible SSA countries to the United States over years both before and after the implementation of AGOA and found out that the AGOA trade preference do not have a statistically significant impact on Sub-Saharan African countries agricultural export, although AGOA may have a positive effect on SSA agricultural export to the United States. Mueller (2008), contrary to other studies showed evidence that unilateral trade agreement such as AGOA could have negative effects on exports and suggests that AGOA is trade diverting and the costs of utilizing it are so high that in some cases traders do not want to take advantage of it. The author uses a Prais-Winsten estimation on the traditional gravity model and is therefore able to include time invariant elements such as landlocked status. In addition Raghavan (2000) also mentioned transportation costs, high risk and the continuity of the act as the reasons why countries will not be able to benefit much from AGOA.

Paez *et al.* (2010) assessed the progress and achievement of AGOA in a decade (2000-2010). The authors describe how despite the popularity of the legislation over the last decade, much has not been achieved as Africa still remains a small player in global economic markets. The authors point out that AGOA placed its hopes in the textile markets as it had the highest potential for export led growth due to its labor intensity. The authors also discuss about further measures that the U.S. government has undertaken to support AGOA efforts. These measures include the \$200 million dollar African Global Competitiveness Initiative (ACGI), the Overseas Private Investment Corporation (OPIC) with a target capitalization of about \$875 million dollars to Sub-

Saharan Africa. They also show the distinction between the United States' GSP arrangement with the region and other trade preference schemes like Everything But Arms initiatives (EBAs) of European Union. They found out that EU programs tend to be more relaxed allowing shipment of almost all products under such schemes and allow more favorable tariffs of sensitive products, EBA is also a bilateral agreement and employ conditionalities more positively by offering additional benefits for compliant countries unlike AGOA a unilateral agreement that graduates countries out of the program as their economic conditions improve.

2.3.4 The Role of AGOA for FDI and Employment

Most studies on the African Growth and Opportunity Act (AGOA) tend to focus mainly on trade dimension. There are very few studies on issue of the FDI effects of AGOA on different African countries. However apart from promoting trade between the United States and Sub-Saharan Africa, AGOA is also intended to be a catalyst for investments in Africa and investors from the U.S. and other foreign firms are anticipated to take advantage of AGOA and invest in Africa (USITC, 2014).

Paetz *et al.* (2010) raise the issue of the FDI effects of AGOA. They noted that it is a challenge to attribute FDI flows and employed no empirical tests to measure them. Karingi, Paer and Degefa (2012), based on a survey findings for Economic Commission of Africa on the assessment of how AGOA eligible countries are benefiting from the preference act, found out that a sizable share of respondents have benefited under AGOA. On the investment front, they note that AGOA has failed to attract US origin FDI and they find that out of the 76 respondents only 14 stated that AGOA has generated inflows of FDI to their enterprise or sectors through Asian originating investment in the countries where textile and apparel sector dominates like Lesotho, Botswana and Kenya.

A study by Obembe (2011) uses gravity model to determine AGOA's effect on attracting FDI to Sub-Saharan African countries and note that there is no significant impact of the legislation on FDI. On the other hand, a report published by United States International Trade Commission on AGOA (2014) states that AGOA's impact on foreign direct investment has been strongest in the apparel industry and overall AGOA has had a positive impact on FDI inflows, particularly in the textile and apparel sector in Kenya, Lesotho, Mauritius, Swaziland, and Botswana and also in South Africa's automotive industry. The report further states that although, it is difficult to quantify AGOA's effect on FDI trends, AGOA has motivated eligible SSA countries to improve their business and investment climates and therefore AGOA's eligibility helps SSA attract more investors. As a result AGOA is found to have a positive influence on FDI flows to SSA countries.

Another study by Mulangu (2012) on the impact AGOA's eligibility and its apparel provision on firm level productivity and employment on selected African firms found out that while AGOA and its apparel provision has positive impacts on firm productivity and increased employment in very large firms only, the total impact on employment is weak.

The empirical studies so far are mainly about AGOA's effect on economic growth, export performance and FDI of Sub-Saharan African countries. While some studies found significant effect of the trade legislation on export performance, FDI flows and economic growth, others found insignificant effect of AGOA. Although, the main objective of AGOA is to increase trade and attract investment in SSA, it is also important to examine to what extent the investment that are driven by AGOA are contributing to economic growth in general and employment in particular of SSA countries.

More research is therefore needed on the subject to establish knowledge about the contribution of AGOA driven FDI inflows on job creation in AGOA beneficiary SSA countries. Ethiopia is one of these countries and a detailed study is missing on FDI inflows to Ethiopia under the act and its contribution on job creation. This study therefore, plans to build on the existing literature to examine the employment effect of AGOA related FDI inflows to SSA and particularly to Ethiopia.

CHAPTER THREE

3 Research Method

3.1 Introduction

The study employs both quantitative and qualitative methods. The quantitative analysis follows descriptive and inferential statistics. It uses descriptive statistics to describe and interpret findings from secondary and primary data. It uses inferential statistics in an attempt to indicate potential cause and effect relationships between employment creation through FDI and participation in AGOA. The study also applies qualitative methods in an attempt to identify challenges and opportunities surrounding AGOA related FDI in Ethiopia.

3.2 Study Population and Sampling

The target population groups for the study are sub-Saharan African countries. For the aggregate analysis the study uses time series data from 1990-2014 for both other SSA countries and Ethiopia. The study also considered individual FDI firms under different sectors which are based in Ethiopia, both AGOA participants and non-participants FDI firms. It also includes different stakeholders involved in promoting and implementing AGOA including Ethiopian government and non-government organizations. The study considers 2014/2015 year census of individual firms in Ethiopia.

The study at first stage applied stratified random sampling technique among individual foreign owned firms to gather primary data from the study population groups in Ethiopia. Accordingly FDI firms working in Ethiopia in 2014/2015 are categorized into AGOA participant and non-AGOA participant groups. Therefore, from the total 242 operational FDI firms, 23 foreign firms

were identified as AGOA participant firms and the rest 219 foreign firms were non participant. Thus, a census sampling has been used for AGOA participant group and from the sample size of 23 AGOA participant FDI groups, 20 agreed to participate on the study. A probability sampling technique has been used to select respondents from non-AGO participant FDI groups. Thus, from 219 non-participant FDI firms, a sample size of 20% has been drawn as a reliable and representative sample size by taking into consideration a number of factors like availability of time, cost and human resources. According to Calderon and Gonzales (1993: 170-171) when a pure probability sampling technique is applied, usually 20 % of the total population can be taken as an appropriate sample size if there is homogeneity in the population from which the sample is drawn. This group of FDI is considered homogenous as they are foreign firms primarily engaged in export of selected main items and at the time of the study not participating in AGOA scheme. Accordingly, 43 non-AGO participant FDI firms have been randomly selected as a sample size using random selection formula in MS Excel but complete data was found for 37 non-participant FDI firms. This gave rise to a total sample size of 57 FDI firms (20 AGOA participant and 37 non-participant) based in Ethiopia being included in the study.

3.3 Data Sources and Data Collection Instruments

The study mainly used secondary and primary sources of data. Secondary data are gathered from UNCATD, USBEA and ILO websites and these collected data are time series i.e. form the period of 1990-2014. The data are used for aggregate analysis on trends of FDI inflows and employment in SSA from the period of 1990 up to 2014. Time series data from these websites are also used for country level analysis for Ethiopia on the trends of FDI flows and employment from the period 1990-2014. Other secondary sources include United States International Trade Commission (USTIC), AGOA web site and sectorial development institution records.

The primary data gathered from 57 individual firms using questionnaire are used for empirical analysis (see ANNEX I) and the primary data via interview are gathered from individual firm owners, responsible government and non-government bodies like Ethiopian Investment Commission, Ministry of Trade, Sectorial development associations and experts are used for the purpose of compliment of findings and identification of challenges and prospects associated with FDI and AGOA framework in SSA and particularly Ethiopia.

Seven key informants have been selected based on their involvement in promoting and management of the act and their knowledge on the issue for the key-informant interview using snowball sampling technique. The interview questions in use for this purpose are specifically designed to assess the level of their perception on AGOA and identification of challenges and prospects associated to AGOA framework. The area of questions focus on:- i) their perception on whether AGOA is an opportunity or not ii) whether FDI inflows to Ethiopia through AGOA has been significant, particularly in job creation and iii) what are the major challenges and prospects of AGOA. In-depth interview have also been conducted with 5 firm owners and managers to identify the benefits and challenges face while exporting under AGOA (see ANNEX II and III).

The data collection instruments are document review, questionnaire (structured and semi-structured) and two type of interview (key-informant interview and in-depth interview). Questionnaire is used to collect all the required information on individual firms. Document review is used to collect all the required information from secondary sources and two different interview types are used as an instrument to collect the primary data for compliment purpose.

3.4 Methods of Data Analysis

3.4.1 Descriptive Analysis

Descriptive analysis is used to summarize the overall trends and variability in FDI flows and employment in SSA and Ethiopia. Percentage and graphic analysis are employed to describe the trends in FDI inflows and employment in both SSA and Ethiopia. In addition Coefficient of variation is estimated for FDI and employment to discuss the variability in SSA and Ethiopia.

3.4.2 Econometric Analysis

i) Aggregate Level Analysis

3.4.2.1 Stationarity

The study used time series data for aggregate level analysis of SSA and Ethiopia. Therefore a Unit Root Test is used to test the stationarity of the data. In this study a Phillip-Perron (PP) test used to test for stationarity. The PP test can be estimate using the following formula;

$$\Delta Y_t = \beta_1 + \beta_t + \delta Y_t - 1 + \sum_{i=0}^n a \Delta Y_{t-i} + \mu_t \quad (1)$$

Where: μ_t is a pure white noise error term; and where $\Delta Y_{t-1} = (Y_{t-1} - Y_{t-2})$, $\Delta Y_{t-2} = (Y_{t-2} - Y_{t-3})$,, $\Delta Y_{t-n} = Y_{t-n} - Y_{t-(n+1)}$; $\Delta Y_{t-1} = \delta Y_t - 1$ is the log-length. The PP test uses non-parametric statistical methods to take care of the serial correlation in the error terms without adding lagged difference terms. The null hypothesis is that the variable has a unit root (non-stationary) i.e. $H_0: \rho = 1$ against the alternative hypothesis having no unit root (stationary). Thus, if null hypothesis is accepted, then Y_t series is non-stationary time series (Gujarati, 2004).

3.4.2.2 Structural Break

The study further applies structural break test to see the change in both FDI flows and employment in SSA and Ethiopia. Therefore a Chow test is used to test the structural stability. Chow Test was conducted using F-Test two-sample for variances technique on excel. Basically the F-test two-sample for variances can be estimate using the following formula;

$$\begin{aligned} y_t &= \beta_1 + \beta_2 x_t + u_{1t} \\ y_t &= \delta_1 + \delta_2 x_t + u_{2t} \end{aligned} \quad (2)$$

Where the first formula applies for before the break time at time t and the second formula applies for after the structural break at time t . The null hypothesis here is no structural break (Gujarati, 2004).

The equation for structural stability is estimated with data from total FDI inflows from 1990 – 2014 period and employment data from 1991-2014 period to see the change before and after the enactment of AGOA for total FDI inflows and employment in SSA and Ethiopia.

3.4.2.3 Regression Model Analysis

The aggregate analysis uses linear regression model based on time series data and included four variables namely GDP per capita, FDI, and inflation rate and AGOA dummy. The total employment equation is estimated as follows:

$$E_t = \beta_1 * FDI_t + \beta_2 * GDP_t + \beta_3 * INFL_t + \beta_4 * AGOAP_t + \varepsilon_t \quad (3)$$

Where in equation (3) E_t is total employment in a year t . FDI_t represents annual FDI inflows in a year t , GDP_t represents the annual growth of GDP per capita in a year t , $INFL_t$ represents annual

inflation rate in a year t and $AGOAP_t$ represents the AGOA dummy such that $AGOAP = 0$ before AGOA program or $AGOAP = 1$ after AGOA program. ε_t stand for the error term.

The variables included in the model are:-

Employment

To capture the before and after variation on the number of total employment in Sub-Saharan Africa and Ethiopia, annual number of employment from 1991-2014 was used. The data was extracted from International Labor Organization statistics.

African Growth and Opportunity Act (AGOA)

This explanatory variable is measured as 1 and 0 such that 1= the period before the introduction of AGOA and 0= the period after the introduction of AGOA. AGOA dummy is included in the model to capture its effect on total employment in SSA and Ethiopia. The time period covers between 1991 and 2014. According to USITC (2014) report AGOA has suspected to generate employment in SSA. The expected sign of coefficient is positive.

Growth Rate of per Capita GDP

This variable is included in the model to capture the impact of growth rate of per capita GDP on total employment in SSA and Ethiopia. The data was extracted from the United Nation Conference on Trade and Development statistics. The expected sign of the coefficient is positive.

Foreign Direct Investment (FDI)

One of FDI benefit to host countries is employment generation, therefore, to capture foreign direct investment effect on total employment, annual FDI inflows to Sub-Saharan Africa and

Ethiopia is used (Ernst,2005). The data was extracted from the United Nation Conference on Trade and Development statistics. The expected sign of coefficient is positive.

Inflation Rate

Inflation rate shows the percentage change in consumer price index for both Sub-Saharan Africa and Ethiopia. This variable is included in the model to capture the effect of consumer price index on total employment. Vermeulen (2015) examined the relationship between inflation, growth and employment in South Africa and indicated that there is no economic theory on direct causal link between inflation and employment but argue there was no strong evidence of inflation have positive effect on employment in the short run rather there is negative impact on the long run. The data was extracted from the United Nation Conference on Trade and Development statistics. The sign of coefficient is expected to be negative.

ii) Firm-level Analysis

3.4.2.4 Multicollinearity

The firm-level analysis used a cross-section data. A multicollinearity test determines whether there is a correlation between the independent variables on a cross-sectional data. To test for multicollinearity problem, a VIF test is used, the rule of thumb here is that the larger the value of VIF, the more collinear the variable. Thus, the null hypothesis is there is no multicollinearity if the VIF value does not excess 10 or the closer $1/VIF$ value to 1, the smaller the degree of collinearity of the variable with other independent variable (Gujarati, 2004).

3.4.2.5 Heterosecdasticity

Test for heterosecdasticity indicates whether the variance is constant in the error terms. To test for heterosecdasticity in the cross-sectional data, White's test for heteroscedasticity is used. Thus, under the null hypothesis of no heteroscedasticity if the test statistic exceeds the critical Chi-square value, there is heteroscedasticity (Gujarati, 2004).

3.4.2.6 Regression Model Analysis for Case Study

Further to see the impact AGOA on job creation when other variables are controlled, the study use cross-sectional data for firm-level analysis. Therefore the empirical analysis of the number of local employee equation is estimated with the data from 57 FDI firms using 2014/2015 year data and takes nine variables as follows:

$$EFDI = \beta_1 * AGOAP + \beta_2 * CS + \beta_3 * X + \beta_4 * L + \beta_5 * O + \beta_6 * SE + \beta_7 * SW + \beta_9 * FE + \varepsilon \quad (4)$$

Where in equation (4) the dependent variable total employment in FDI is represent by EFDI. The explanatory variables AGOAp represents a dummy variable AGOAp= 1 is AGOA participant and AGOAp= 0 is non-participant, CS represents firm's capital size in birr, X represents firm's export in birr, L represents location of firm (distance from the city in km), O represents firm's ownership status, a dummy variable O= 0 is Western or O= 1 is Asian, SEC represents type of sector the firm is engaged in. SEC is three dummy variables such that SEC= 1 is Textile and garment or SEC= 0 other sector, SEC= 1 Leather and leather products or SEC= 0 other sector and SEC=1 Horticulture or SEC= 0 other sector, SW represents average monthly salary of workers in birr, FE years of firm's experience in Ethiopia.

Variables included in the model are:-

Employment in FDI firms

To identify the total employment in FDI firms in Ethiopia, the total number of employees in both AGOA participant and non-participant FDI firms in 2014 are used. The data was collected from both AGOA participant and non-participant individual FDI firms.

African Growth and Opportunity Act (AGOA)

This explanatory variable is measured as 1 and 0 such that 1= if FDI firm participating in AGOA scheme 0= otherwise. AGOA dummy is included in the model to capture its effect on total employment in FDI firms. 20 AGOA participant and 37 non-participant individual FDI firm data are used. According to USITC (2014) report AGOA has suspected to generate employment in SSA.

Current Capital

To capture the firm's capital size effect on total employment, individual firm's current capital is used. According to Mulangu (2012) AGOA has increased employment in large size firms. The expected sign of coefficient is positive.

Ownership

This variable is included in the model to capture the effect of the type of ownership on total employment in FDI firms. Ownership is measured such that 1= if firm is owned by Asians and 0= if firm is owned by Westerns. According to AU (2010) report AGOA related MNCs from Asian countries have created employment in SSA. The expected coefficient sign is positive.

Location

This explanatory variable is included in model to see the effect of distance of the firm from main city on the number of employment in the firm. The distance from main city is measured by kilometers. Hoogstra and Van Dijk (2004) examined the impact of location on firm employment growth and found out that firms that are located in high population areas, great economic diversity activity areas and in industrial zones have more employment growth than those which are located outside of these location characteristics. The expected sign of coefficient is positive.

Type of Sector

To capture the effect of sector type effect on employment in FDI, two dummy variables are included in the model such that 1= if the firm is engaged in textile and garment sector 0=otherwise, and 1= if the firm is engaged in horticulture sector 0=otherwise. Ernst (2005) suggests that some investments are labor intensive which implies that those sectors contribute a lot to employment creation in the host economy if the large portion of the production process happens in host countries. The sign of coefficients are expected to be positive or negative.

Firm's Experience

The age of the firm or firm's experience is the other explanatory variable that is included in the model. Firm's experiences can have positive impact on total employment in the firm. Mulangu (2012) found that the age of the firm has positive and significant effect on employment. The expected sign of coefficient is positive.

Total Export Value

This variable is included in the model to capture the effect of total export value on employment. If the firm export a lot it is likely to have many employees. Songwe and Winkler (2012) found that export have positive impact on labor demand in SSA. The expected sign of the coefficient is positive.

Average Monthly Salary of Local Workers

The other explanatory variable is average monthly salary of local workers. To capture the effect of salary on employment in FDI firms, the average monthly salary of skilled and unskilled local workers in individual FDI firms are used. Congiglio *et al.* (2014) found that higher minimum wage is associated with a lower skilled labor for domestic and foreign firms in SSA. They further stated foreign firms mostly Asians hired more unskilled workers and pays lower wages for both skilled and unskilled local workers. The expected sign of coefficients are positive and negative for average salary of unskilled workers and average salary of skilled workers respectively.

Data collected through interviews were analyzed and used as identification of challenges and prospects.

CHAPTER FOUR

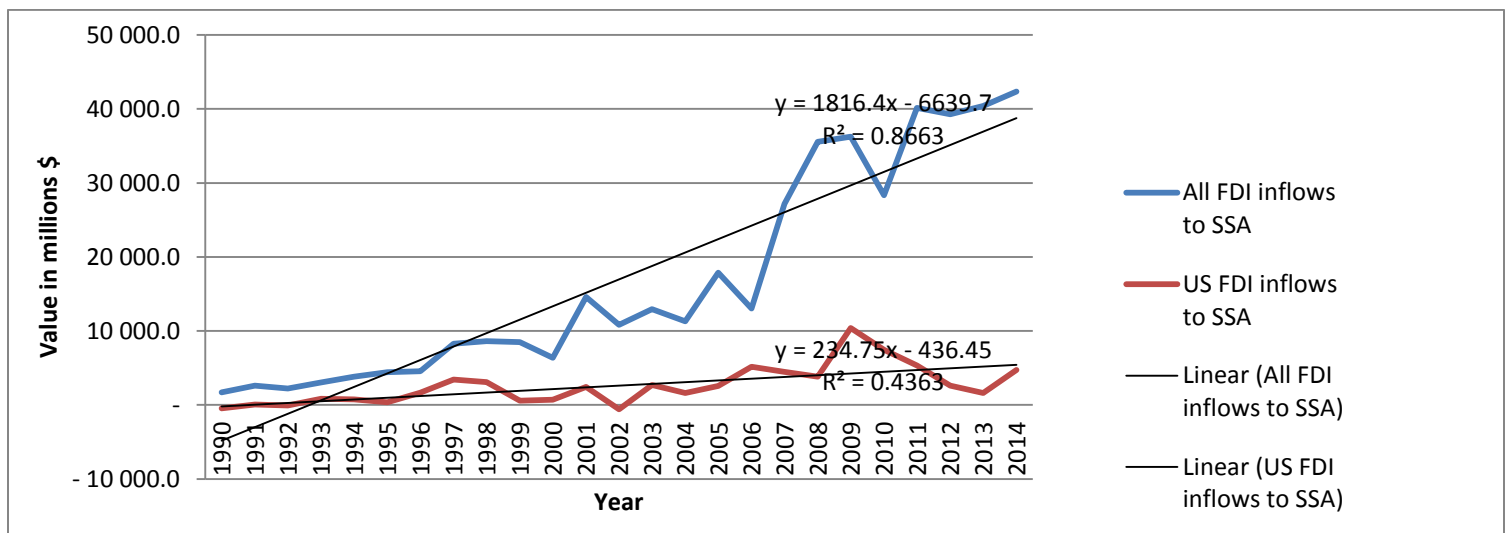
4. Findings and Discussion

This chapter discusses the results of the study based on the analysis of primary and secondary data.

4.1 Trends and Variability of Foreign Direct Investment in Sub-Saharan Africa and Ethiopia

i) Trends of Foreign Direct Investment in Sub-Saharan Africa

According to UNCATD (2015) report, the historical level of foreign direct investment inflows to Africa is increasing even though globally FDI flows have been declining overall.



Source: UNCATD data-web and U.S. bureau of economic analysis data-web (U.S FDI inflows), 2016

Figure 4.1 FDI inflows to SSA from 1990-2014

Note: FDI inflows are negative when more money is divested from a country than is invested in that year (USBEA, 2016).

Figure 4.1 shows that global FDI flows to Sub-Saharan Africa until 2001 was very small. Between the periods 1990 to 2001, the highest value registered was 8,488 million dollars in 1999. The value shows a decrease by two folds in 2000 and then increase to 14,595 million

dollars in 2001. After 2001 the total value has been fluctuating until 2007 where it reached 27,192 million dollars. The value falls down again after 2009 but starts to show an increase after 2012 and reached 42,371 million dollars in 2014. Thus, overall the total FDI flows to Africa after 2001 is higher than the 1990's but the value has shown high volatility and this is suspected due to unstable social and political conditions of the region and the financial crisis of the world after 2009 (UNCATD, 2015).

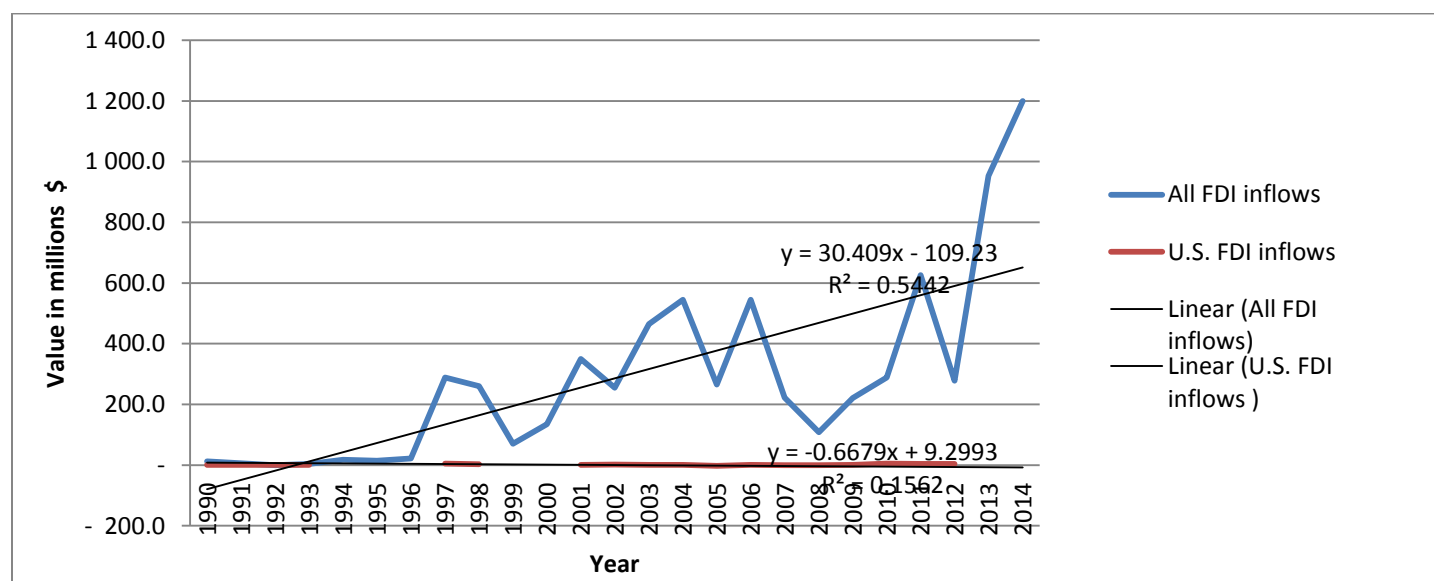
On the other hand the U.S. FDI inflows to SSA have been very small until 2000, the highest FDI inflows during that period was registered in 1997 with a value of 3,436 million dollars (see Figure 4.1). U.S. FDI inflows have been fluctuating from the year 2000 to 2014. While the minimum FDI inflow was in 2002 with an amount of -578 million dollars, the maximum FDI inflow was registered in 2009 with an amount of 10,417 million dollars. Therefore, the financial inflows to SSA have continuously fallen down from 10,417 million dollars in 2009 to 1,601 million dollars in 2013, the value then rose to 4,748 million dollars in 2014, showing an increase by three fold.

Thus, consistent with the FDI theories on literature and suggestions with respect to foreign direct investment flows, the fluctuation of U.S. FDI inflows to SSA can be explained by different socio-economic and political factors in the continent like from regional conflicts to the increase of new partners like China and India investment in Africa.

ii) Trends of Foreign Direct Investment in Ethiopia

On the other hand, on historical level, FDI inflows to Ethiopia overall is increasing from the period 1990 to 2014 but the annual financial inflows have been fluctuating over the years (UNCATD, 2015). Figure 4.2 indicates the highest FDI inflows before 2000 was registered in

1997 with a value of 288 million dollars. After 2000 FDI inflows to Ethiopia have been fluctuating until it rise to 953 million dollars in 2013 and then reached 1200 million dollars in 2014.



Source: UNCATD data-web and U.S. bureau of economic analysis data-web (U.S FDI inflows), 2016
Figure 4.2 FDI inflows to Ethiopia from 1990-2014

Note: FDI inflows are negative when more money is divested from a country than is invested in that year and data for some years are suppressed to avoid disclosure of data of individual companies (USBEA, 2016).

Complete data for all the specified years was not found for U.S. FDI inflows to Ethiopia due to confidentiality matters but for the years that are disclosed figure 4.2 indicates the values are very small over the years. In 2005 and 2014 negative FDI values have been registered, -5 and -48 million dollars respectively and according to U.S Bureau of Economic Analysis, FDI inflows are negative when more money is divested from Ethiopia than is invested in that year. The highest U.S. FDI inflow was registered in 1995 with a value of 25 million dollars (USBEA, 2016).

Therefore, consistent on the literature very small amount of U.S. FDI flows in Ethiopia has registered due to U.S. investors interest in primary and service industry in natural resource rich SSA countries while in Ethiopia the comparative advantage is textile and leather manufacturing industry which have largest FDI stocks by foreign firms with FDI sources countries like Turkey,

china and India attracted by factors like market size, cheap labor and social and political stability. The key-informant interview findings also suggest that one of the major reason U.S. origin FDI do not invest in Ethiopia is due to the lack of the availability of institutional and physical adequate infrastructure, they look good on paper but in practice there is still a lot to do and most U.S. investors does not want go all those trouble as a result they choose to take their business to other countries with much better physical and institutional infrastructures.

iii) Variability of Foreign Direct Investment to Sub-Saharan Africa and Ethiopia

Table 4.1 shows the coefficient of variation for 1st period (1990-1999) FDI inflows is 53.6% and the coefficient of variation for 2nd period (2000-2014) FDI inflows is 50.5%. This indicates there is more variation in FDI inflows to sub-Saharan African in the first period of time than the second period of time. Over all there is high variability on the total FDI inflows to SSA between the period 1990 and 2014 with a coefficient of variation of 82.9%. However, overall AGOA might have helped stabilized the fluctuation in FDI inflows to SSA (see Table 4.1).

Table 4.1 Coefficient of variation for FDI inflows to SSA and Ethiopia

Year	Sub-Saharan Africa					Ethiopia				
	FDI in millions(\$)	Mean	Std.	CV	N	FDI in millions(\$)	Mean	Std.	CV	N
1990-1999	47 825.6	4782.56	2561.6	53.6%	10	694.1	69.10	104.4	151%	10
2000-2014	376506.8	25100.46	12672	50.5%	15	6457.9	430.52	20.7	4.8%	15
1990-2014	424 332.4	16973.30	14073	82.9%	25	7151.9	286.17	297.3	103.9%	25

Source: author's calculation based on UNCATD data web, 2016

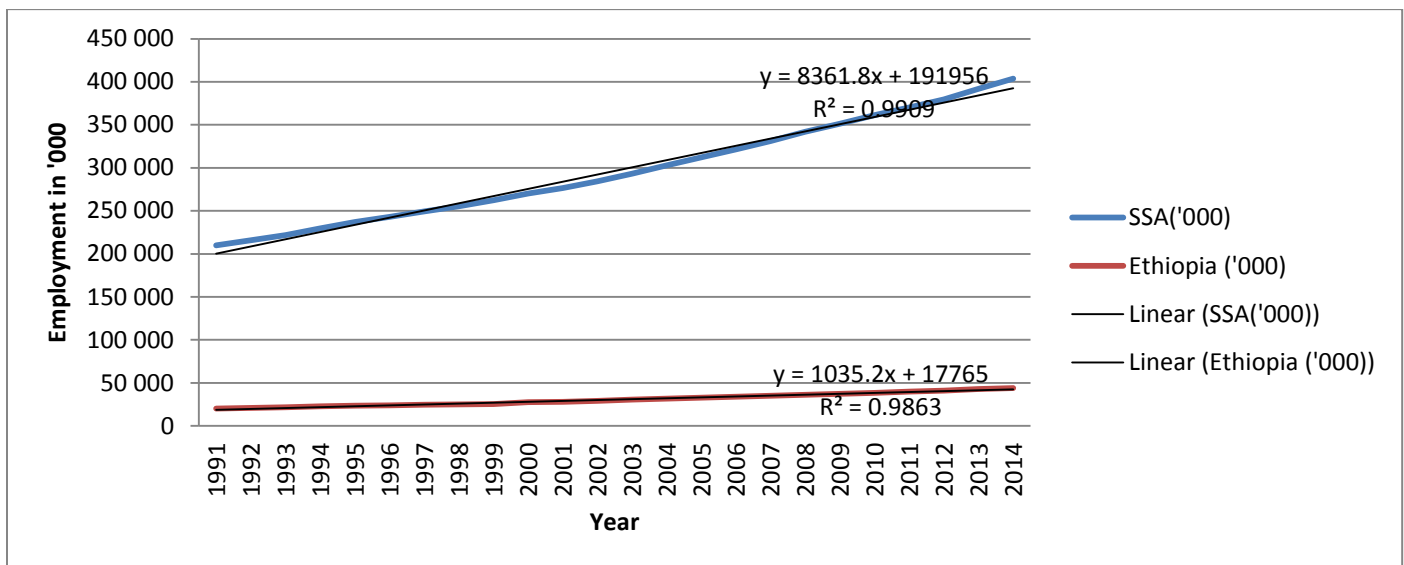
Table 4.1 also shows the coefficient of variation for 1st period (1990-1999) FDI inflows to Ethiopia is 150% and the coefficient of variation for 2nd period (2000-2014) FDI inflows is 68.8%.

Thus, there is high variation in the FDI inflows to Ethiopia in the first period (1990-1999) and AGOA could have help to stabilize the fluctuation in FDI inflows to Ethiopia in second period (2000-2014). However, overall there is high variation in FDI inflows to Ethiopia over the years.

4.2 The Employment effect of AGOA Associated Foreign Direct Investment Inflows in Sub-Saharan African and Ethiopia

i. Trends of Employment in Sub-Saharan Africa and Ethiopia

Figure 4.3 shows the trends of employment in SSA and Ethiopia. Exact data was not available for the whole Sub-Saharan African countries to each year. Thus the data shown on Figure 4.3 is the forecast of International Labor Organization (ILO, 2016).



Source: author's calculation based on data from ILO data web, 2016

Figure 4.3 Employment in SSA and Ethiopia from 1991-2014

Overall the employment trend in SSA and also in Ethiopia is estimated to increase. In 1991 the total employment number in SSA was estimated to be 209,831 and the total employment

estimation for Ethiopia was 20,296. In 2000 the estimate employment number in SSA was 270,330 and employment in Ethiopia was estimate to be 27,462. In 2014 Sub-Saharan Africa's employment estimation number is 403,848 and the estimate number for employment in Ethiopia is 44,118 (see Figure 4.3).

ii. Variability of Employment in Sub-Saharan Africa and Ethiopia

Table 4.2 shows that the first period i.e. 1991-1999 coefficient of variation is 7.3% and the second period i.e. 2000-2014 coefficient of variation is 12.5%. This indicates there is high variation in employment in the second period of time which from 2000 to 2014. Over all the coefficient of variation for the total period is 19.6%.

Table 4.2 coefficient of variation for employment in SSA and Ethiopia

Year	Sub-Saharan Africa					Ethiopia				
	Employment	Mean	Std.	CV	N	Employment	Mean	Std.	CV	N
1991-1999	2123946	235993.96	17118.78	7.3%	9	208305	23145	1729.7	7.4%	9
2000-2014	4991540	332769.32	41491.54	12.5%	15	528614	35240.9	5160.6	14.6%	15
1991-2014	7115486	296478.56	58145.46	19.6%	24	736919	30704.9	7215.1	23.5%	24

Source: author's calculation based on ILO data web, 2016

Table 4.2 shows the coefficient of variation in total employment for the first period is 7.4% and the second period's coefficient of variation is 14.6% which indicates again there is more variation in second period i.e. 2000-2014 than the first period i.e. 1991-1999. Overall the total coefficient of variation is 23.5%.

Thus, there is higher variability in employment in the second period of time i.e. 2000-2014 than the 1991-1999 for both SSA and Ethiopia, while overall there is high variability in employment in Ethiopia than the total employment in SSA.

4.3 Model Estimation Results

4.3.1 Aggregate-level Analysis

4.3.1.1 Statistical Tests

i) Descriptive Statistics

The descriptive results for SSA are reported in Table 4.3. The average number of employment in Sub-Saharan Africa is 296,478.6. The average FDI inflow is 17,651.8 million USD and the average GDP per capita is 1,128,614.9 USD. The average inflation rate as measured by consumer price index is 83.7 and out of the total observation 62.5% is after the introduction of AGOA program (see Table 4.3).

Table 4.3 Descriptive statistics for SSA

Variable	Unit of measurement	Mini	Max	Mean	Std. Dev.	%
Total employment	Number of total employment	2089831	403848	296478.6	59396.1	-
Annual GDP	USD	522412.5	2426500.7	1128614.9	677861.9	-
Inflation rate	CPI/USD	0.31	190.9	83.7	60.4	-
FDI inflows	USD	2244	42371	17651.8	14289.3	-
AGOA program	0= before AGOA 1= after AGOA	-	-	-	-	62.5%

Source: author's calculation based on UNCATD and ILO data web, 2016; N= 24

Table 4.4 Descriptive statistics for Ethiopia

Variable	Unit of measurement	Mini	Max	Mean	Std. Dev.	%
Total employment	Number of total employment	20296	44117	30704.92	7370.33	-
FDI inflows	USD	0.2	1200	297.52	304.34	-
Annual GDP	USD	7174.5	54254.8	17364.12	13780.69	-
Inflation rate	CPI	60	423.3	144.9	114.3	-
AGOA program	0= before AGOA 1=after AGOA	-	-	-	-	62.5%

Source: author's calculation based on UNCATD and ILO data web, 2016; N=24

On the other hand, Table 4.4 indicates the average number of employment in Ethiopia is 30,704.9. The average FDI inflow is 297.5 million USD and the average GDP per capita is 17364.12 USD. The average inflation rate as measured by consumer price index is 144.9 and out of the total observation 62.5% is after the introduction of AGOA program (see Table 4.4).

ii) Test for Stationarity

The study further conducted unit root test to see the stationarity status of the data for all variables of SSA and Ethiopia since the data is a time series. Thus, Table 4.5 shows that the variables FDI inflows, employment, GDP per capita and inflation rate are stationary at all level. That is, the null hypothesis of a unit root of all variables for SSA is tested against the alternative hypothesis of stationarity. Thus, the results indicate that all time-series are stationary.

Table 4.5 unit root test for SSA using the Phillips-Perron test

Variable	Phillips-Perron test	P>(t)	Stationarity Status
Log of FDI	143.75	0.000	Stationary
Log of employment	4235.69	0.000	Stationary
Log of GDP	846.34	0.000	Stationary
Inflation rate	95.48	0.000	Stationary
Critical value: 1% level: PP= -11.90, 5% level: PP= -7.30, 10% level: PP= -5.30; N= 23			

Table 4.6 unit root test for Ethiopia using the Phillips-Perron test

Variable	Phillips-Perron test	P>(t)	Stationarity Status
Log of FDI	17.25	0.000	Stationary
Log of employment	4301.25	0.000	Stationary
Log of GDP	291.09	0.000	Stationary
Inflation rate	51.43	0.000	Stationary
Critical value: 1% level: PP=-11.90, 5% level: PP= -7.30, 10% level: PP= -5.30; N= 23			

Similarly, Table 4.6 shows that the variables FDI inflows, employment, GDP per capita and inflation rate are stationary at all level. That is, the null hypothesis of a unit root of all variables

for Ethiopia is tested against the alternative hypothesis of stationarity. Thus, the results indicate that all time-series are stationary.

iii) Test for Structural Break

Test for structural break was conducted using the Chow test to see whether there a structural change in FDI inflows after the introduction of AGOA in SSA and Ethiopia. Therefore, Table 4.7 indicates that the change in FDI inflow to SSA is significant as it reject the null hypothesis. This shows there has been structural break in FDI inflows to SSA after the introduction of AGOA program. Thus, AGOA may have brought significance change in FDI flows to SSA.

Table 4.7 Chow test for SSA and Ethiopia FDI inflows

	SSA		Ethiopia	
	Before AGOA	After AGOA	Before AGOA	After AGOA
Mean	5126.20646	26438.01851	75.78777778	451.6578571
Variance	6873912.057	156386453.7	13175.47144	94127.3948
Observations	9	14	9	14
DF	8	13	8	13
F	0.043954651		0.139974887	
P(F<=f) one-tail	7.02081E-05		0.004535531	
F Critical one-tail	0.306840779		0.306840779	

Source: Author's calculation based on UNCATD data web, 2016

Likewise chow test was conducted to see the change before and after AGOA in FDI flows to Ethiopia. Table 4.7 indicates that the change is significant as it reject the null hypothesis at 5% level. Thus, this shows there has been structural break in FDI flows to Ethiopia after AGOA program and therefore AGOA may have brought significance change in FDI flows to Ethiopia.

Moreover, the Chow test was conducted to see the change in employment before and after the enactment of AGOA in SSA and Ethiopia. The equation for structural stability is estimated with

data from total employment based on ILO forecast for SSA and Ethiopia from 1991–2014 periods. Thus, the result presented in Table 4.8 indicates the change is significant as it rejects the null hypothesis no structural break. This shows there has been structural break in employment in SSA after the enactment of AGOA and therefore AGOA may have generated significant change in total employment in SSA.

Table 4.8 Chow test for employment in SSA and Ethiopia

	SSA		Ethiopia	
	Before AGOA	After AGOA	Before AGOA	After AGOA
Mean	239264.293	337229.2612	23501.14502	35796.54381
Variance	266775592.7	1665085235	2542109.455	25742030.01
Observations	8	14	8	14
DF	7	13	7	13
F	0.160217379		0.098753263	
P(F<=f) one-tail	0.010803642		0.002517084	
F Critical one-tail	0.281662961		0.281662961	

Source: Author's calculation based on ILOSTAT data web, 2016

Table 4.8 also indicates the change in employment in Ethiopia is significant as it rejects the null hypothesis of no structural break. This shows there has been structural break in employment in Ethiopia after the enactment of AGOA and therefore AGOA could have generated significant change in total employment in Ethiopia as well.

The results of the test for structural change therefore show that there has been structural change in both FDI flows and employment associated with AGOA program. However, whether this result hold when other variables affecting employment are controlled needs further analysis and this is further discussed in section 4.3.1.2.

4.3.1.2 Regression Results

The results of structural change test show that there has been structural change in employment associated with AGOA. However, in order to see whether this holds when other variables are included, a linear regression model was fitted. In order to examine the effect of AGOA on total employment in SSA and Ethiopia after other variables, like total FDI flows, annual per capita GDP and inflation rate were fitted. Table 4.9 indicates that AGOA program, annual per capita GDP, total FDI inflows and Inflation rate all have positive and statistically significant (1% significance level) effect on employment in SSA (see Table 4.9).

Table 4.9 OLS estimates of total employment in SSA (Dep. variable= Total employment in SSA)

Variable	Coef.	Std. Err.
Log of FDI	0.0683113	(0.0148801)***
Inflation rate	0.0008699	(0.0001503)***
Log of GDP	0.107074	(0.030675)***
AGOA program	0.2970001	(0.0782525)***
Log of FDI after AGOA	-0.074187	(0.0199159)***
_cons	4.486671	0.2019479

Source: author's calculation using STATA based on UNCATD data web, 2016; N = 24; F (5, 18) = 759.62; Prob> F= 0.000; R-squared = 0.9953; Adj. R-squared=0.994; ***P-value $\leq$ 0.01 **P-value $\leq$ 0.05 and *P-value $\leq$ 0.10

However, the intercept variable FDI inflow after AGOA has negative significant influence on total employment. This indicates though the introduction of AGOA has positive and significance change in both employment and total FDI inflows, AGOA associated FDI inflows appear to have negative influence on total employment in SSA. This is may be due to FDI inflows after AGOA are more capital intensive investment with high capital and technology like mining which does not need a lot of labor force.

Further the model estimation for employment in Ethiopia indicates that AGOA program has positive and statistically significant (10% significance level) effect on employment. Annual FDI inflows and GDP per capita have positive and statistically significant (1% significance level) effect on employment. However, the intercept variable FDI inflow after AGOA has found to have insignificant effect on employment. Thus, AGOA's positive and significant effect on total employment may be through domestic AGOA participant firms in Ethiopia (see Table 4.10).

Table 4.10 OLS estimates of total employment in Ethiopia (Dep. variable= Total employment in Ethiopia)

Variable	Coef.	Std. Err.
Log of FDI	0.0316012	(0.0077621)***
Log of GDP	0.1278594	(0.0496719)***
INFLA	0.0001854	0.0001312
AGOA	0.1053941	(0.0574691)*
Log of FDI after AGOA	-0.012905	0.0238325
_cons	3.80883	0.1901436

Source: author's calculation using STATA based on UNCATD data web, 2016; N= 24; F (5, 18) =106.38; Prob> F= 0.000; R-squared=0.9673; Adj. R-squared= 0.9582; ***p-value $\leq$ 0.01 **p-value $\leq$ 0.05 and *p-value $\leq$ 0.10

To sum up, after the introduction of AGOA there is a positive and significance change in both employment and total FDI inflows for Sub-Saharan Africa and Ethiopia, and overall FDI inflows have positive and significant effect on total employment however, the model results suggest that AGOA associated FDI inflow has negative influences for employment generation in SSA and insignificant effect for Ethiopia when other variables affecting employment are controlled.

4.3.2 Firm-level Analysis

4.3.2.1 Statistical Tests

i) Test for Multicollinearity

The firm-level analysis uses a cross-sectional data for the model estimation but before the regression model is conducted it is necessary to test the multicollinearity and heteroscedasticity problem in the variables. To determine the multicollinearity in the independent variables, a VIF test is used on STATA. Thus, the VIF values of all variables are between 1 and 2 which indicate there is no multicollinearity problem between these independent variables (see ANNEX IV).

ii) Test for Heteroscedasticity

Once the multicollinearity is conducted a cross-sectional data also needs to be tested for heteroscedasticity problem. Thus, to examine whether there is a difference of residual variance in observations, White's test for heteroscedasticity is conducted using STATA. Thus, the result does not reject the null hypothesis of no heteroscedasticity. Thus, there is no heteroscedasticity problem in the model (see ANNEX V).

iii) Descriptive Statistics

In this sub-section two kinds of descriptive results are presented for the firm-level data. First descriptive statistic for sector employment is presented, and then summary statistics of all included variables data is presented. Accordingly, Table 4.11 shows that 40% of the total male and female employment among AGOA participating firms is generated by horticulture sector. This shows that horticulture sector is contributing more employment generation among the sample AGOA participating FDI firms while Agro-processing sector contributes the lowest, 3% of the total male and female employment in the sample FDI firms (see Table 4.11).

Table 4.11 also shows that 48% of the total male and female employment among non-participant firms is generated by Textile and garment sector and 44.6% of the total male and female employment among the non-participant firms is generated by horticulture. This shows that Textile and garment sector, followed by horticulture sector are contributing more employment generation among the sample non-participant FDI firms while leather sector contributes the lowest, 9.4% of the total male and female employment among the sample non-participant FDI firms. The ANOVA test for employment also shows a significant mean difference in employment levels across the firms, whether this difference is statistically significant after controlling for other variables also affecting firm-level employment will be tested in section 4.3.2.2.

Table 4.11 Employment in sampled FDI firms

Sector type	Employment in sample FDI firms											
	AGOA participant firms				Non-participant firms				Total			
	Male	Female	Total	%	Male	Female	Total	%	Male	Female	Total	%
Textile and garment	401	2342	2743	20.0	5993	13808	19801	48.0	6394	16150	22544	41%
Leather and leather products	1353	3688	5041	36.8	913	2972	3885	9.4	2266	6660	8926	16.2%
Horticulture	1519	3989	5508	40.2	5718	11878	17596	42.6	7237	15867	23104	42%
Agro-processing	205	217	422	3.0	-	-	-	-	205	217	422	0.8%
Total	3478	10236	13714	100	12624	28658	41282	100	16102	38894	54996	100%
ANOVA test for employment												
Source of Variation			SS	df	MS	F	P-value	F crit				
Between sectors			9220894.41	1	9220894	12.46969	0.00084	4.0129734				
Within sectors			41410011.2	56	739464.5							
Total			50630905.6	57								

Source: author's calculation based on individual FDI firms' data, 2016

Moreover, Table 4.12 indicates that the maximum number of local employees in the sample FDI firms is 13,000 and the minimum is two. The average number of employees in the sample FDI firms is 964. The average monthly salary of skilled workers is 4043.96 birr while for unskilled worker the average monthly salary is 968.16 birr. The average year of experience among the sample FDI firms is 6 years. The maximum capital among the sample FDI firms is 2,800,000,000 birr and the minimum is 800,000 birr. Among the sample FDI firms 35% are AGOA participant and 45.6% are owned by Asians. 47.4% of the total FDI firms are engaged in textile and garment sector, 26.3% are engaged in horticulture and 22.8% are engaged in leather production.

Table 4.12 Descriptive statistics for FDI firms in Ethiopia

Variables	Unit of measure	Min	Max	Mean	Std. Dev.	%
AGOA participation	1= if the firm participated in AGOA, 0= otherwise	0	1	0.351	-	35.1%
Ownership	1= if the firm is owned by Asians, 0= firm is owned by Westerns	0	1	0.456	-	45.6%
Textile and garment sector	1= if the firm is engaged in textile, 0= otherwise	0	1	0.474	-	47.4%
Leather products sector	1= if the firm is engaged in leather products, 0=otherwise	0	1	0.228	-	22.8%
Horticulture sector	1= if the firm is engaged in horticulture, 0=otherwise	0	1	0.263	-	26.3%
Distance from Addis Ababa	KMs	0	860	64.65	138.273	-
Firm's experience in Ethiopia	Years	1	16	6.75	3.790	-
Total export in 2014/2015	Birr	443766.4	7232400000	213657934.3	969692106	-
Capital current	Birr	800000	2800000000	126795175.5	490243632	-
Average monthly salary of skilled workers	Birr	1200	50000	4043.86	6762.740	-
Average monthly salary of unskilled workers	Birr	450	2000	968.16	363.316	-
Total employment	Number of local workers in 2014/2015	2	13000	964.44	1898.896	-

Source: author's calculation based on individual FDI firms' data, 2016; Number of obs. = 57

4.3.2.2 Regression Result

The study further examines the employment effect of AGOA associated FDI inflows in Ethiopia based on firm level data. Thus for the case study, linear regression model was fitted for the total number of local employees in FDI firms against a number of variables like AGOA participation, capital size, export value, average monthly salary of unskilled and skilled workers, firm's location, ownership type, sector type and firm experience in Ethiopia.

Table 4.13 OLS estimates of employment in FDI firms (Dep. variable= local employment in FDI firms)

Variables	Coef.	Std. Err.
AGOA participation	0.0174245	0.1310127
Ownership type	0.2209669	0.1436932
Textile sector	0.3042457	0.1811834
Horticulture sector	0.5503905	(0.1858552)**
Location	0.000583	0.0004506
Experience	-0.003204	0.0175368
Total export value	0.1278698	0.0963
Capital	0.4445211	(0.0942718)***
Average monthly salary of skilled workers	-0.6802547	(0.2445687)**
Average monthly salary of unskilled workers	0.882786	(0.4487618)**
_cons	-2.193011	1.960613

Source: author's calculation using STATA based on individual FDI firm data, 2016

Note: N = 57; F (10, 46) =7.18; Prob>F = 0.000; R-squared=0.61; Adj. R-squared=0.52; ***p-value ≤ 0.01 **p-value ≤ 0.05 *p-value ≤ 0.10

Table 4.13 indicates that AGOA participation have statistically insignificant effect on local employment in FDI firms. Current capital of firms has positive and statistically significant (1% significance level) effect on employment. This indicates capital size of FDI firms have strong positive correlation with local employment in Ethiopia. Horticulture sectors have positive and significant (5% significance level) effect on employment. This was also significant in the descriptive statistics of sector type employment, horticulture sector employ the highest number of workers. Average monthly salary of unskilled workers has positive and significant (5%

significance level) effect on employment in FDI firms. It is suspected FDI firms may pay more for unskilled workers since their salary is relatively low than skilled workers therefore FDI firms may hire more unskilled workers. Average monthly salary of skilled workers has found to have negative and significant (5% significance level) effect on total employment in the sample FDI firms.

4.3.3. Macro-level versus Micro-level Analysis

The findings of the structural break test suggest that AGOA at macro-level have brought significant effect on FDI inflows and total employment in SSA and Ethiopia. AGOA program may also help stabilize the inflation in FDI flows to both SSA and Ethiopia. Moreover, in the regression model estimation after controlling other variables, AGOA have found to be positive significant for SSA and Ethiopia. On the other hand, AGOA associated FDI inflows has negative influences on total employment in SSA. It is suspected that AGOA associated FDI inflows in SSA may be engaged in more capital intensive investments than labor intensive investments. Further the inflows of FDI may crowd-out domestic firms and there may be loss of jobs and an increase in total unemployment for SSA. Moreover, AGOA in Ethiopia at macro-level has positive and significant effect on employment but AGOA associated FDI inflows have insignificant effect on employment. Thus, it is suspected AGOA's effect on employment can be through domestic firms and not through FDI firms.

Moreover, the firm-level model estimation indicates that AGOA has statistically insignificant effect on total employment in FDI firms in Ethiopia rather total employment in FDI firms is positively and significantly affected by the capital size of FDI firms and horticulture sector type. It is suspected the introduction of AGOA may have induced non-AGO participant FDI firms in Ethiopia to work harder and invest more to maintain their competitiveness.

Therefore, the macro-level finding is consistent to the micro-level finding as the findings suggest that introduction of AGOA has positive correlation with total employment for both SSA and Ethiopia. Nevertheless AGOA associated FDI inflows at macro-level for SSA has negative influences on the total employment and it has insignificant impact on total employment for Ethiopia at both country-level and firm-level.

4.4 Challenges and Opportunities of AGOA associated FDI in Ethiopia

According to USITC (2014) report on AGOA trade and investment performance, overall increase in trade under AGOA has also been accompanied by an increase in foreign direct investment inflows to SSA which created about 300,000 jobs. The OLS model result for employment at firm-level indicates that AGOA has positive but insignificant effect on local employment in FDI firms in Ethiopia. There may not be a question if AGOA creates opportunities like markets, FDI flows and job creation to SSA including Ethiopia. Nevertheless, there appears to be issues with respect to the significant effect of the program particularly on job creation.

The section discusses the possible reasons behind the firm-level result by incorporating the findings from key-informant interviews with experts and in-depth-interview with selected firm owners. The findings suggest that duration of AGOA program, The Third Country Fabric Provision special treatment and the requirement for U.S-Visa for some products as major challenges to both individual countries and FDI firms.

The short duration of the trade agreement has led investors not take the opportunity and invests more in Ethiopia. It takes considerable amount of time for investments especially supply chain sectors like agriculture to take a root and develop their business. Similarly, in apparel sector,

product orders have relatively longer lead-time which requires long and predictable project duration. The longest duration of AGOA has being ten years, investors do not want take the risk of the possible extension of the program. This has discouraged investors from opening and expanding their business thereby missing the opportunity over and over again. Furthermore the short duration of the program affects and influence the quality of the investment in Ethiopia, foreign investors do not want to invest more with high cost for a short period of time therefore they tended to focus on low cost and quickly made products that do not need high tech, quality raw materials and highly experienced skilled labor force.

The other challenge under the program is Third Country Fabric Provision rule. Despite the fact that The Third Country Fabric Provision have different duration period usually 3-5 years, countries that used The Third Country Fabric Provision have the highest export in textile and apparel products which allows them to use fabric and yarns that are made outside of U.S. and beneficiary SSA countries. However, this apparel especial treatment is not applicable to all beneficiary countries and Ethiopia is not the beneficiary of this especial treatment, this has been a challenge to FDI firms in Ethiopia as quality raw materials like fabric and yarn are not easily accessible thus, importing raw material with high costs has been identified as a challenges among firm owners.

Moreover, The U.S-Visa for some of products like garment has make the shipment process complicated and this as a result constrained firms in particular and the country in general on utilizing the opportunity. Further, the fact that there is only one place (Ethiopian Revenue and Custom Authority Head Office in Addis Ababa) to go and collect the visa is identified as a challenge by some firms owners as they have to travel for hours to get the visa for their products before they start the shipment process in every order.

While AGOA was found to have insignificant effect on total employment in the country, FDI firms have different benefit for being AGOA participant firms. Some of the advantages sample FDI firms get while exporting through AGOA include; access to U.S market without having to pay tax, access to a cheap and easy way of promotion on their products, opportunity to familiarize with the latest trends and further discover other international markets and also increase the quality and type of products and therefore make the products more competitive in the international market.

Further the findings suggest that inflows of AGOA associated FDI firms indirectly could inspired the domestic firms in making their product more competitive in the international market through the spillover effects like the transfer of know-how and technology.

CHAPTER FIVE

5.1 Conclusions

This study has assessed the trends of FDI inflows to SSA and Ethiopia using a time series data from the period 1990-2014. The study also analyzed the employment effect of FDI inflows in SSA and Ethiopia using a time series data from 1991-2014. OLS model estimation was used to analyze the FDI inflows effect on total employment. The study further, examined the extent to which AGOA related FDI inflows contribute to employment creation in Ethiopia by using cross-sectional firm-level data of 57 sample FDI firms and applied linear regression model to estimate the effect. At last the study discusses some of the challenges and prospects of AGOA associated FDI in Ethiopia.

The findings suggest that over all FDI inflows to SSA and Ethiopia is increasing at historical level and the total FDI inflows to Africa after 2001 is higher than the 1990's but the value had shown high volatility and this is suspected due to unstable social and political conditions of the region and the financial crisis of the world after 2009 (UNCATD, 2015). However the study found that AGOA may have increase FDI inflows to SSA and Ethiopia and further could have stabilized the volatility in FDI inflows.

Moreover, although the trend in employment shows an increase in the total employment for SSA and Ethiopia and further there is a structural change in employment after the introduction of AGOA, the model estimation for employment suggest AGOA associated FDI has negative influences on the total employment for both SSA at macro-level. Thus, it is suspected AGOA associated FDI inflows may be engaged in more capital intensive and not in labor intensive investments. Further, there is also a suspicion that FDI inflows may crowd out domestic firms

which result in loss of jobs and an increase in total unemployment. The increase in total employment is rather explained by overall FDI inflows, GDP per capita and inflation rate which all have positive and significant effect on employment. AGOA also have positive impact on employment in Ethiopia at macro-level but it is suspected the impact is rather through participant domestic firms since AGOA associated FDI inflows have insignificant effect on employment. Therefore, the findings are not consistent with earlier empirical studies of FDI-employment link on the literature which found positive but insignificant effect of FDI on employment for SSA (Aryeetey, 2007; Aryeetey and Boateng, 2007; and Inekwe, 2014), whereas for Ethiopia at aggregate level (the case study) these earlier studies are in agreement with the findings of study.

Further, the OLS model estimation result of total employment in FDI firms suggests that AGOA participation have statistically insignificant effect on local employment in FDI firms which is consistent with Mulangu (2012) founding that AGOA and its apparel provision has positive impacts on firm productivity and increased employment in very large firms only but the total impact on employment is weak. Thus, the increase in total employment is rather explained by capital size of sample FDI firms and sector type (horticulture sector) which have positive and significant effect on local employment in FDI firms. It is suspected the introduction of AGOA may have induced non-AGOA participant firms in Ethiopia to work harder and invest more to maintain their competitiveness.

At last the study has discussed some of challenges and prospects of AGOA associated FDI in Ethiopia by incorporating the findings of key-informant interviews and in-depth interview with experts and firm owners respectively. The findings and discussions are consistent with the literature that suggest that AGOA may have created opportunities like markets access to FDI

firms and FDI inflows and knowledge transfer to Ethiopia but the issues associated with AGOA i.e. the short duration of the program, The Third Country Fabric Provision and The ‘U.S Visa’ requirements for garment products that are part of rules of origin have been identified as challenges for AGOA associated FDI firms in Ethiopia and beneficiary SSA countries. Therefore, the study suggests extending AGOA more than 10 years and simplifying the rules can help attract quality investments and further give the existed FDI firms an opportunity to expand their business which as a result can generate more jobs in beneficiary SSA countries particularly in Ethiopia.

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APPENDICES

ANNEX I: Survey Questionnaire

Introduction

First of all, I would like to extend my deepest appreciation to your company/ firm/ for the willingness and cooperation in undertaking this thesis study.

The objective of this questionnaire is to analyze the local employment effect of foreign direct investment through African Growth Opportunity Act (AGOA). Therefore your contribution will add value to the quality of the thesis study. Your honest answer is kindly requested and highly appreciated.

Here, I guarantee you that the information obtained through the questionnaire will only be used for this study and will be kept confidential.

Introduction

- Please don't write your name or your company's name.
- Encircle appropriate alternative for each question with chooses.
- Put “√” for the appropriate answer for each “Yes” or “No” intended question.
- Please give a brief answer for the open ended questions.
- Thank you in advance for your cooperation.

Part I: About the management

1. Your position in the company

- a) Owner and manager b) Owner c) Manager
- d) Head of marketing e) Communication officer f) Other

2. Citizenship _____

3. Sex _____

4. How many months per year do you spend in Ethiopia on average?

5. Your highest educational level

- a) Secondary school complete b) TVET graduate c) College diploma
d) First degree e) Second degree and above

5.1 Give the total number of years of your formal education

6. How many years of work experience do you have in the firm in Ethiopia?

6.1 In total _____

6.2 In your current position _____

7. How many years of work experience do you have in the same or related company abroad?

7.1 In the same company _____

7.2 In total _____

Part II: About the firm

8. What type of sector is the firm engaged in?

- a) Textile and garment b) Leather and leather products
c) Horticulture d) Agro-processing
e) Other, specify _____

9. How many types of items is the firm producing and selling? Please, mention the products

10. What type of ownership does the firm have?

- a) Foreign b) joint venture

11. Which country abroad is the parent company based?

12. How many years of experience do the firm have in Ethiopia?

13. Does the firm participate in AGOA scheme?

Yes ☐

No ☐

3.1 If yes, when does it start participating? _____

14. How many local workers are employed in your firm?

a) Number of male employees : current _____ initial _____

b) Number of female employees: current _____ initial _____

c) Number of skilled employees : current _____ initial _____

d) Number of unskilled employees: current _____ initial _____

15. What is the average salary of local workers in Birr?

a) Average monthly salary of skilled (professional) workers in Birr _____

b) Average monthly salary of unskilled workers in Birr _____

16. How much is the total value of export in USD for the year 2014 G.C?

17. What is the local firm's total capital (current value/worth) in Birr?

18. What is the distance of the firm's location from Addis Ababa city in kilo meters?

THANK YOU FOR YOUR COOPERATION!

ANNEX II: Interview Guide

A Survey on the Level of Perception of Responsible Government and Non-Government Institutions/Bodies on FDI inflows to Ethiopia under African Growth Opportunity Act (AGOA)

The list of questions in this tool is designed for in-depth interview to gather information on three major areas from key government and non-government organizations that are associated in the promotion, provision of technical assistance and implementation of AGOA in Ethiopia.

This tool is specifically designed to get the perception of these organizations towards AGOA as an opportunity; its FDI flows and contribution on employment; and to identify the challenges and prospects of AGOA.

Part I: General Information

1) General Information

1. Name: _____

2. Position: _____

3. Organization: _____

4. Telephone: _____

5. Email: _____

Part II: Basic Interview Questions

1) Is AGOA an opportunity to Ethiopia and other sub Saharan African countries (SSA)?

1.1 If you consider AGOA as an opportunity, how is it an opportunity?

2) Do you think the utilization of AGOA is satisfactory? Explain

3) How diversified the foreign investment is under the opportunity?

- 4) Which sectors do foreign investors prefer to invest in more?
- 5) What do you think of the level of foreign direct investment (FDI) achieved as a result of this opportunity to Ethiopia in relation to other SSA?
- 6) Do you think AGOA is successful in generating overall FDI and U.S origin FDI to Ethiopia?
- 7) Do you think the FDI inflows under AGOA are significant in generating employment?
- 8) What do you think are the challenges and prospects of AGOA for participating countries and Ethiopia?
- 9) Is there a national or international campaign to attract foreign investors to invest in Ethiopia and benefit from AGOA?
- 10) Do you think AGOA should be a more long term act?

ANNEX III: Interview guideline for firm owners and managers

A Survey on the Level of Perception of firm owners and managers on challenges and prospects of AGOA

The list of questions in this tool is specifically designed to get the perception of selected firm owners and managers on AGOA and to identify the challenges and prospects they face as an AGOA-participant firms.

Part I: General Information

1) General Information

1. Name: _____

2. Position: _____

3. Organization: _____

4. Telephone: _____

5. Email: _____

Part II: Basic Interview Questions

1. Does your company participate in African Growth and Opportunity Act (AGOA) scheme?
2. If your company doesn't participate in AGOA scheme, can you please explain why?
3. If your company does participate in AGOA scheme, what are the criteria to be participant on the scheme?
4. What are the advantages your company gets by participating on the scheme?
5. What are the constraints and challenges your company faces while exporting through AGOA scheme?

ANNEX IV: Multicollinearity test result for firm-level analysis

Variable	VIF	1/VIF
Textile sector	2.80	0.357382
Export value	2.38	0.419682
Horticulture sector	2.29	0.436681
Ownership type	1.75	0.571014
Capital	1.54	0.648057
Average monthly salary of skilled workers	1.51	0.663477
Average monthly salary of unskilled workers	1.50	0.668375
Experience	1.48	0.673784
AGOA participation	1.34	0.748162
Location	1.30	0.766899
Mean VIF	1.79	

ANNEX V: Heteroscedasticity test result for firm-level analysis

White's heteroscedasticity test

Ho: no heteroscedasticity

Ha: unrestricted heteroscedasticity

$\chi^2(56) = 57$

Prob > $\chi^2 = 0.4377$
