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Export Performance and Prospect of Textile and Garment Industry in Ethiopia

"Research Thesis submitted in partial fulfillment of the requirements for the Master of Business Administration (MBA) Degree"

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ACRONYMS AND ABBREVIATIONS

CSA: Central Statistical Agency

EPRDF: Ethiopian People's Revolutionary Democratic Front

ETIDI: Ethiopian Textile Industry Development Institute

EFY: Ethiopian Fiscal Year

ERCA: Ethiopian Revenues & Customs Authority

GDP: Gross Domestic Product

GoE: Government of Ethiopia

GTP1: Growth and Transformation Plan 2010/11 to 2014/15

GTP2: Growth and Transformation Plan 2015/16 to 2020/21

NPC: National Planning Commission

T&G: Textile and Garment

UNCTAD: United Nations Conference on Trade and Development

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ABSTRACT

Ethiopia has a long history of manufacturing traditional textiles using hand spun yarn and handlooms for weaving. This activity has been part of the cottage industry and is considered to be a major source of employment both in rural and urban areas. Manufacturing textiles on industrial scale had made its beginning in Ethiopia in 1939. Despite its long history the sector had not been given enough attention until very recently. Appreciating benefits such as foreign exchange earnings, employment opportunity and income contribution to its gross domestic product that could be earned from the sector the Ethiopian government had provided various supports to improve the textile and garment sector but failing to achieve its targets. This research using shift-share analysis and other tools explored the performance and prospect of the sector. Although the aspired targets have not been achieved almost all the product categories under the textile and garment sector have shown improvement in export performance. Based on the analysis garment export has shown highest performance amongst other products in the category. United States has emerged as the most important export destination for textile and garment export from Ethiopia.

Key Words: Ethiopia, Textile and Garment, Export Performance, Shift-Share Analysis

CHAPTER ONE

INTRODUCTION

1.1 Definition of Terms

1.1.1. Textile

Textile refers to any filament, fiber, or yarn that can be made into fabric or cloth, and the resulting material itself.

The term is derived from the Latin '*textilis'* and the French '*texere'*, meaning "to weave," and it originally referred only to woven fabrics. It has, however, come to include fabrics produced by other methods. Thus, threads, cords, ropes, braids, lace, embroidery, nets, and fabrics made by weaving, knitting, bonding, felting, or tufting are textiles. Some definitions of the term textile would also include those products obtained by the papermaking principle that have many of the properties associated with conventional fabrics. Encyclopedia Britannica (2018)

1.1.2. Garment

Garment, also called dress, clothing, costume, apparel or attire refers to clothing and accessories for the human body. The variety of dress is immense. The style that a particular individual selects is often linked to that person's sex, age, socioeconomic status, culture, geographic area, and historical era. Encyclopedia Britannica (2018)

1.1.3. Yarn

Yarn is a strand composed of fibers, filaments (individual fibers of extreme length), or other materials, natural or man-made, suitable for use in the construction of interlaced fabrics, such as woven or knitted types. The strand may consist of a number of fibers twisted together; a number of filaments grouped together but not twisted; a number of filaments twisted together; a single filament, called a monofilament, either with or without twist; or one or more strips made by dividing a sheet of material, such as paper or metal foil, and either twisted or untwisted. Encyclopedia Britannica (2018)

1.1.4. Cultural Clothes

Also known as folk costume, regional costume, national costume, or traditional garment expresses an identity through costume, which is usually associated with a geographic area or a period of time in history. It can also indicate social, marital or religious status. If the costume is used to represent the culture or identity of a specific ethnic group, it is usually known as ethnic costume (also ethnic dress, ethnic wear, ethnic clothing, traditional ethnic wear or traditional ethnic garment). Such costumes often come in two forms: one for everyday occasions, the other for traditional festivals and formal wear.

1.1.5. Others

The others category refers to bags, byproducts and other textile and garment products that are exported from Ethiopia that are not classified under cotton, yarn, textile, garment and cultural clothes.

1.2. Background of the Study

Ethiopia has a long history of manufacturing traditional textiles using hand spun yarn and handlooms for weaving. This activity has been part of the cottage industry and is considered to be a good source of employment both in rural and urban areas. Manufacturing textiles on industrial scale has made its beginning in Ethiopia in 1939 when the first integrated textile mill was established by Italian capital. During 1960's, 5 large-scale integrated textile enterprises were established mainly by private capital. The socialist regime, which reigned from 1974 to 1991, nationalized private textile and garment (T&G) firms and at the same time established 4 more integrated textile mills to expand the sector in order to satisfy the domestic demand for regular textiles and substituting imported products. Chavan (2013)

By 1991 when Ethiopian People's Revolutionary Democratic Front (EPRDF) took power from the Derge regime there were only 19 textile and garment (T&G) factories in Ethiopia, all owned by the State due to the command economic policy of the country. Following Ethiopia's adoption of a free market economy in 1991, the number of textile and garment manufacturing companies increased to over 90. However, despite the government's efforts, few transformational changes were witnessed in the sector until 2000.

Although the first textile mill in Ethiopia was established nearly 80 years ago, the textile sector has been one of the country's least developed industries. Up until recently, contribution of textile and garment sectors income to the country's GDP was insignificant. However, with Ethiopia's growing eligible workforce and the need for the creation of jobs, the government of Ethiopia is taking steps to promote investment in this sector and has created various incentives to encourage investment in the textile and garment sector.

The government of Ethiopia is also working to transform its economy to a lower middle income category and to become a leading country in light manufacturing in Africa with its consecutive growth and transformation plans. The textile industry is considered as a number one priority by the Government's Industrial Development Strategy due to its low capital and technology requirement and its capacity to employ the vast and growing young population that is going to seek employment. Ethiopian Textile Industry Development Institute (ETIDI) has forecast one billion USD in annual revenue from textile and garment export during the second phase of its Growth and Transformation Plan (GTP) II by (2020/2021) and an astounding 30 billion by 2030. According to ETIDI more than 152 new investments are expected to commence creating more than 170,000 job opportunities during the second growth and transformation plan period (2015/16-2019/20).

In order to realize this ambitious plan the government has launched an incentive program to attract foreign and local investors to the sector with privileges like tax-free import of industrial goods, favorable bank loans, income tax breaks, and provision of production facilities in the industrial parks located around the country. The Government of Ethiopia (GoE) has plans to build at least ten industrial zones that will be set up by the government. Several industrial parks have already been built and commissioned across Ethiopia, including the Hawassa, Kombolcha and Mekelle industrial parks with costs of 246, 100 and 90 million dollars respectively.

Ethiopia has also projected national investment of $73 billion in soft and hard infrastructure development projects. Low cost electricity access is also improving, owing to its investment in grand hydroelectric power projects.

In recent years, the global market has become increasingly accessible to countries such as Ethiopia. New export opportunities were created through incentives such as African Growth and

Opportunity Act (AGOA), the Common Market of Eastern and Southern Africa (COMESA) and many other bilateral trade agreements made with western countries, including the Netherlands, Belgium, and Luxemburg. Ethiopia is also part of the "Everything But Arms" program that has been set up to provide access to the EU market for lesser developed beneficiary countries, free of duty and without quota restrictions for all export products except firearms.

Although ambitious and committed for change the garment sector in Ethiopia is still faced with various hurdles that can hinder it from achieving its target such as low production efficiency, longer lead time, lack of effective marketing and technological restrictions. The efficiency of garment manufacturers in the country is as low as 40-50%. Underdeveloped processes, and low skill and education level of workers result in this. Berg *et al.* (2015)

The lead time of the country's manufacturers can even go up to 150 days due to unavailability of raw materials. Only 40% of the total need of the country's garment industry is manufactured domestically. The rest 60% need is fulfilled through imports, making the industry susceptible to international cost and availability fluctuations.

When compared with its competitors, Ethiopia takes 45 to 60 days more in delivering orders. Many Ethiopian facilities with state-of –art equipment and machinery are sitting idle in the country due to lack of marketing efforts. Underdeveloped basic digital transaction processing technologies and over-reliance on manual order management hamper Ethiopia's garment industries growth prospects. Berg *et al.* (2015)

According to McKinsey's survey in 2015 the challenges also include poor infrastructure, cumbersome customs processes, a dearth of technical and managerial talent, and low levels of social and environmental compliance.

While EITDI expects Ethiopia will face fierce competition from countries like Vietnam, Sri Lanka, and Bangladesh from a far; the survey by McKinsey considers other African countries such as Kenya, and to a lesser extent Uganda and Tanzania as strong competitors due to the migratory nature of the sector arising from its low capital requirement and similar pursuits to develop their garment sector from its neighbors. Berg *et al.* (2015)

Considering the fact that the sector has consistently missed its target in the past during the first GTP and its current annual export performance of not far from 100 million dollars many may find a 1 billion USD export target by 2020 or 30 billion by 2030 overambitious.

Hence with the above mentioned circumstances the question remains whether the effort that the GoE is putting into the textile and garment industry is bearing sufficient progress to continue pursuing a higher share in the global textile and garment market making Ethiopia a leader in light manufacturing in Africa or not.

1.3. Statement of the Problem

Despite the high expectation of the government from the sector and corresponding investments, sizeable loans and tax incentives put in place; the textile and garment sector has consistently failed to achieve the aspired targets. The government of Ethiopia (GoE) is taking huge loans in foreign exchange for the development of industrial parks. Making the sector consume more foreign currency than it is earning for the country. The high (around 80/20) debt to equity ratio and high working capital demand of the sector has made the industry vulnerable to bankruptcy and a target for loans with ill intent. The Development Bank of Ethiopia (DBE) has also encountered bad loans from companies that have taken loans and imported old machineries with over stated values. Various large international textile and garment manufacturers (Else Addis Textile Factory, Angel's Cotton and Textile, Ayka Addis and others) have been repossessed by Development Bank of Ethiopia for defaulting to return the respective loans they had taken.

Another major challenge is the migratory nature of the industry. Light manufacturing industries such as garment production have a tendency to migrate to host nations that provide cheaper labor and tax rates moving quickly whenever the incentives run out.

Although there are some researches addressing various challenges faced by the textile and garment sector in Ethiopia; there is no research identifying the relative performance of different product varieties and export destinations until now.

Identifying the performance of the garment sector in Ethiopia relative to past performance and targeted performance considering product varieties and export destinations can give a clear picture regarding the performance and prospect of the sector to assist in future decision making.

1.4. Research Questions

In line with the statement of the problem the following research questions were raised and answered.

- How is the current export performance and prospect of the textile and garment sector in Ethiopia relative to the past and planned performance?
- What are the promising product varieties and export destinations for the textile and garment sector in Ethiopia?

1.5. Objective of the Study

1.5.1. General Objective

Assess the performance and prospect of the textile and garment industry in Ethiopia based on previous performance and targeted performance according to different product categories and export destinations from 2001 till 2010.

1.5.2. Specific Objectives

- Assess the performance of the T&G sector in Ethiopia relative to the previous and the targeted performance based on percentage contribution to GDP, employment and foreign exchange earnings.
- Assess the absolute growth, percentage growth, and percentage net shift of the export performance of each category of T&G product variety by export destination.
- Assess the absolute growth, percentage growth, and percentage net shift of the export performance of each T&G product variety.
- Identify promising export destinations and product varieties for Ethiopian T&G sector.

1.6. Scope / Delimitation of the Study

The performance of the garment sector in Ethiopia is investigated using a macro yearly time series data using shift-share analysis. All the computations will be conducted on aggregate population data.

The research will be using data mainly from Ethiopian Revenues and Customs Authority compiled by ETIDI. The product categories that will be considered are cotton, yarn, textile, garment and traditional clothes while the time period under consideration is Ethiopian Fiscal Year 2001-2010 (2008/2009-2018/2017)

1.7. Limitations of the Study

- The data used for analysis is entirely based on secondary sources; considering the existence of variations between different sources further verification would be beneficial. For this researches purpose data from ETIDI has been used due to its expertise in the area more than other governmental institutions such as Central Statistics Agency (CSA) and Ethiopian Revenues and Customs Authority (ERCA).
- The results of the research can only be referred to be indicative rather than conclusive for which a detailed analysis and case study would be required. (This research does not investigate all the factors determining the performance of the textile and garment industry.)

1.8. Significance / Contribution of the Study

The textile and garment (T&G) sector is given highest priority in Ethiopia's industrialization and economic transformation by the GoE due to its potential to contribute to employment, foreign exchange earnings and economic growth. Having a clearer picture about the performance of product varieties and export destinations can improve understanding of the sector and future decision making greatly.

1.9. Organization of the Research

The research is organized as follows: chapter one presents the introduction which includes statements of the problem, testable hypothesis, objectives, significance, and scope and limitations of the study. Chapter two provides a literature review that covers studies regarding other countries experiences and the application of shift-share analysis. Chapter three discusses the methodology for evaluating the performance and prospect of the garment sector in Ethiopia using shift-share analysis, while chapter four reports the empirical results and provides analysis of the findings based on the time series data. The final chapter, chapter five, will present the conclusion and policy recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1. Theoretical Review

2.1.1. The Role of Textile and Garment Sector for Economic Progress

Textile and garment industries are important in economic and social terms, in the short-run by providing jobs (especially for women), and foreign currency receipts and in the long-run by providing countries the opportunity for sustained economic development in those countries with appropriate policies and institutions to enhance the dynamic effects of textile and garment.

The textile and garment (T&G) industries provide opportunities for export diversification and expansion of manufactured exports for low-income countries that can exploit their labor cost advantages, fill emerging niches and meet buyer demands. Keane and Velde (2008)

The textile and garment industry also contributes to poverty alleviation and the empowerment of women. It provides wages far above the poverty line (predominantly to female employees) with promotion opportunities without much education and experience requirements making it a strong contributor to the alleviation of poverty.

According to Keane and Velde (2008) T&G are the dominant ***source of exports and foreign exchange*** in several countries. Low income and developing countries such as Cambodia, Bangladesh, Pakistan and Sri Lanka depend on T&G exports for more than 50% of total manufacturing exports (e.g. 80% in Cambodia, 83.5% in Bangladesh);

Its contribution through ***employment*** is also significant. Employment in T&G production for least developed and low income countries as a share of total employment in manufacturing ranges from 35% in selected low income countries to 75% in Bangladesh and 90% in other selected LDCs (e.g. Lesotho, Cambodia).

T&G industries are also ***a major contributor to incomes of selected countries***. The contribution of T&G production to gross domestic product (GDP) differs by country; it is up to 5% in Sri Lanka, 12% in Cambodia and 15% in Pakistan.

2.1.2. Lessons from Selected Major Textile and Garment Exporting Nations

The textile and garment (T&G) sector has demonstrated its potential to be a very important economic and social contributor to nations that have given sufficient attention to developing it. Countries that had previously non-existent or very limited T&G sector have practically been able to develop and benefit from the T&G sector with in a very short period of time. Cambodia, Bangladesh, Mauritius and Madagascar are such countries that have been selected by Keane and Velde (2008) as exemplary performers. Following we will see the specific experiences of this countries.

2.1.2.1. Cambodia

According to Keane and Velde (2008) the T&G sector in Cambodia has been contributing 80% of the nation's manufacturing export starting from the 1990's. It is also responsible for 65% of its formal employment and 10-12% of the country's GDP. Cambodia has been able to export up to two third of its export to the US by securing a bilateral agreement to ensure adequate labor standards.

By the mid 2000's the sector had directly employed more than 270,000 employees out of which 85-90% were women between 18-25 years of age. The two key factors that are credited for the success of the sector in Cambodia are its low cost of production and decent working conditions. Cambodia's socially responsible strategy has enabled it to differentiate itself and to retain the loyalty of major buyers whilst being competitive. Keane and Velde (2008)

2.1.2.2. Bangladesh

Bangladesh is another country having a T&G sector that has showed notable performance. Its T&G sector accounted for the majority of its merchandise export. Bangladesh similar to Cambodia also produces at the low end of the market (cut, make and trim) where value added and profit margins are low. (Yang et al 2004)

Bangladesh's T&G industry is the second largest employer of the country after agriculture. The T&G sector in Bangladesh according to Textile Intelligence 2003 as quoted by Nordas (2004) accounted for about half of industrial employment in 2002. The T&G sector is also the main

source of manufacturing export and employment. Bangladesh has also been able to reduce the import value of its T&G export to lower than 50% indicating backward linkage development. Nordas (2004)

Although FDI was instrumental in developing the sector; its contribution has declined due to government restrictions. Such restrictions may contribute to inadequate labor training, outdated equipment and poor infrastructure. (Yang *et al*., 2004)

On the other hand consolidation of larger manufacturers through pulling factories into one location with larger and better facilities and management has benefited Bangladesh's T&G sector. (Yang *et al*., 2004)

One of the major contributions of the T&G sector in Bangladesh is its contribution towards poverty reduction by employing the majority of its workers who come from poor households. This has enabled its workers to support themselves and their families to live above poverty line. Nordas (2004)

2.1.2.3. Mauritius

Mauritius is one of the prominent exemplary nations in Africa regarding the development of textile and garment industry with a significant contribution for the national economy. Mauritius had shifted its focus from sugar to T&G in the 1980's. Starting from the mid 2000's T&G industry in Mauritius was generating close to 20% of manufacturing value added, employing around 80,000 employees directly and 250,000 people indirectly. Keane and Velde (2008)

Various factors are noted to have contributed towards the success of the T&G industry in Mauritius. Some of which are favorable external conditions, active government intervention, preferential market access to European Union markets, productive labor, Indian migrants, investors from Hong Kong, political stability and favorable tax treatment (according to Gereffi 2002 as quoted by Keane and Velde (2008))

Following the rise of the sector large scale relocation of T&G production has occurred from Mauritius to Madagascar due to the rise of relative wages. Mauritius in response has refocused towards developing its tourism sector and production of high unit value products that require

more sophistication while reducing location disadvantage. (Gibbon 2001 quoted by Keane and Velde (2008))

2.1.2.4. Madagascar

According to Cling et al (2007) Madagascar had become the second ranking African cloth exporting nation in sub-Saharan Africa following Mauritius. The key success factors of the T&G sector in Madagascar were strong push for outward orientation by the government, generous tax breaks, low wages, trade preferences and focus on standard production as an entry point.

Another important lesson from Madagascar is the need for stability. Political instability during 2002 had significantly affected the employment as well as export from the sector; returning to normal afterwards. Keane and Velde (2008)

In summary we can take the following lessons from the successful example nations in T&G production.

2.1.2.5. Potential Benefits from the T&G Sector

- It is possible for countries that had previously non-existent or very limited T&G sector to develop and benefit from the T&G sector with in a very short period of time.
- The T&G sector has a potential to become a strong contributor for a nations manufacturing export, employment and GDP.
- The T&G sector provides attractive employment opportunity especially for young women.
- The T&G sector contributes towards poverty reduction by employing the majority of its workers who come from poor households. It enables its workers to support themselves and their families to live above the poverty line.

2.1.2.6. Key Success Factors

- Ensuring maintenance of adequate labor standards assists in securing stable market for products.
- Maintaining low cost of production is a key success factor due to the migratory nature of the industry.

- Starting at the lower end of the market (cut, make and trim) as an entry point and moving towards backward integration and production of more sophisticated products as relative production cost rises enables to attract and maintain good market share.
- FDI is important for the T&G sector because it brings up to date training, equipment and management to develop the sector; hence government needs to find a balance between attracting FDI and developing local industries.
- Consolidation of larger manufacturers through pulling factories into one location with larger and better facilities and management is beneficial.
- Favorable external conditions, active government intervention, preferential market access to large markets like the US and the EU, productive labor, political stability and favorable tax treatment were other important factors that assisted in successful development of the T&G sector.

2.1.3. Shift-Share Analysis

Analysts use absolute and relative changes in growth over time to measure market growth. Absolute measures tend to conceal the differential growth of markets through the size of numbers by overstating growth of larger markets and understating the growth of smaller markets. On the other hand, percentage measures tend to distort growth figures by overstating the growth of smaller markets and understating the growth of larger markets. Furthermore, whilst the absolute and percentage measures help determine growth markets, they do not tell the relative growth increase in relation to other members of the group chosen. The shift-share technique is a relative measure which measures growth in relation to other members in the group. Ahmed & Mak (1996)

According to Deardorff's Glossary of International Economics ‘Shift-share analysis’ also known as "constant market share analysis" when applied to international trade, is a technique for decomposing the change in a country's trade into components that correspond to holding its market shares constant in various markets."

Shift-Share Analysis (SSA) is a statistical technique in which discrete changes in a variable are broken down into various components to identify underlying sources of growth or decline. This type of analysis has been widely used to examine changes in employment by geographic area,

but it can also be applied to questions of export competitiveness in international trade. Piezas-Jerbi and Nee (2009)

Shift-share analysis determines what portions of regional economic growth or decline can be attributed to national, economic industry, and regional factors. The analysis can help identify industries where a regional economy has competitive advantages over the larger economy. A shift-share analysis takes the change over time of an economic variable, such as employment, within industries of a regional economy, and divides that change into various components. Although there are different versions of a shift-share analysis, they all identify national, industry, and regional factors that influence the variable changes. While the traditional shift-share analysis splits regional changes into just three components other models expand the decomposition into additional components.

2.1.3.1. Traditional Shift-Share Model

Daniel Creamer in the early 1940's developed the traditional model of shift-share analysis which is also known as the comparative static model. The model was later formalized by Edgar S. Dunn in 1960. Shi et.al. (2008)

The traditional shift-share model analyzes changes in an economic variable between two (beginning and ending) years. These changes are calculated both in the national and regional scale and decomposed into three components; namely national growth effect, industry mix effect and local or regional share effect. Blakely & Leigh (2013)

The national growth effect is the portion of the change due to the total growth of the national economy. It is equal to theoretical change in the regional variable had it increased or decreased by the same percentage as the national economy.

The industry mix effect is the portion of change due to the performance of the specific industry. It is equal to theoretical change in the regional variable had it increased or decreased by the same percentage as the industry nationwide less the national growth effect.

The local share effect (regional share effect) is the portion of change due to regional influences. It equals actual change in the regional variable less the national growth effect and the industry mix effect. In most shift-share analysis a regional economy is compared to national economy, but this is not necessarily a requirement. LaFaive & Hohman (2009)

2.1.3.2. Dynamic Shift-Share Model

The dynamic shift-share model was proposed by Richard Barff and Prentice Knight III in 1988. Barff and Knight improved the traditional (comparative static) model which only made comparison between two years to incorporate every year in the study period. The dynamic model reduces variations that could occur due to choice of beginning and ending year because it calculates a time-series of shift-shares as the traditional model, comparing each year to the previous year and finally totaling together the results for the entire period to find the dynamic shift-share effect. Barff & Knight (1988)

The dynamic model uses the same techniques as the comparative static model, including the same three shift-share effects. It is most useful when there are large differences between regional and national growth rates, or large changes in the regional industrial mix. Barff & Knight (1988)

2.1.3.3. Esteban-Marquillas Shift-Share Model

J.M. Esteban-Marquillas in 1972 extended the traditional model to address correlation between the regional share effect and the industrial mix by dividing the regional share effect into two components; one component that is correlated to the industrial mix and another that is not. The homothetic level of economic variable takes a theoretical value of the variable assuming there is similar industry mix in the regional as well as the national economy. Marquillas (1972)

In the Esteban-Marquillas model, the regional share effect in the traditional model is separated into two effects: a new regional share effect that is not dependent on the industrial mix and an allocation effect that is. The calculations of the national share and industrial mix effects are are the same as they were in the traditional model. The allocation effect indicates the level to which the region is specialized in those industries where it enjoys a competitive advantage. Marquillas (1972)

2.1.3.4. Arcelus Shift-Share Model

Francisco Arcelus in 1984 extended the Esteban-Marquillas use of the homothetic variables by decomposing the national share effect and the industrial mix effects into expected and differential components. The expected component is based on the homothetic level of the variable, which is not influenced by the regional specialization; while the differential

component measures the remaining effect which is attributed to the regional industry mix. Arcelus (1984)

Arcelus' improvement was important because the previous models assumed all regional industries operate on a national market basis focusing on the export markets. Arcelus separated regional share effect into a regional growth effect and a regional industry mix effect further decomposing each into an expected and differential component. Arcelus (1984)

2.1.3.5. Shift-Share Model for Studying Market Growth

Shift-Share model for studying market trend analyzes three major elements of product portfolio analysis, namely product/market growth, percentage growth and net shift. Shift-share analysis for analyzing market trend requires measurements on a variable of interest at the initial and terminal period of analysis. An expected growth figure is calculated based on the average growth of all markets studied. Each market's expected growth is then compared with its actual growth. The difference in the net shift will be positive for markets that gain share over the period and negative for markets, which lose share. The magnitude of the gain or loss represents the difference between that market's actual performance and the performance it would have had if its growth rate had been equal to the average growth of the entire market. Haque (2002)

2.1.3.6. Advantages and Limitations of Shift-Share Analysis

The main attractive features of shift-share analysis are that it is very simple, economical, and easy to implement. It measures the relative gains and losses of each market or product under study in comparison with the total market or selected grouping. It also highlights slow performers, mature markets, existing supplier-buyer relationship and increased competition for an existing market. Ahmed & Mak (1996)

Interpretation of percentage net shift is dependent on the analysis group and time frame. Variation in time frame and grouping also highly affects results. Additional care should be taken in using historical data to predict future trends. Interpretation should also take into account other important factors into consideration to put the results in proper context. Ahmed & Mak (1996)

2.2. Empirical Review

Green and Allaway (1985) were the first to use the shift-share technique to identify export opportunities. They illustrated how the analysis could be used to identify a feasibility set of high technology manufactured products with high export potential and to identify opportunity for a given set of product categories.

Green and Couture (1986) explained the changes that occurred in Singapore/US trade between 1981 and 1984, by applying the shift-share technique. Wee and Wong (1987) discussed how the shift-share analysis used in regional economics can be applied in marketing. They described how the method could be used to identify the best product market alternative, the best market for a given product and the best product for a given market. As an illustration of its application, the shift-share analysis was used to identify export opportunities to the People's Republic of China.

Another study carried out by Wee and Wong (1987) employed the shift-share analysis to identify export opportunities for Singaporean firms in two dimensions. Green and Larsen (1991) used the shift-share analysis to examine the trade changes between countries. They examined the changes that occurred in the composition and direction of U.S. trade between 1985 and 1989 with the help of shift-share analysis. Ahmed *et al.* (1992) used the shift-share method to identify export opportunities for New Zealand.

Ahmed and Mak (1996) identified export opportunities for Malaysia using the shift-share techniques. Khalifa (1996) sought to identify the growth of Malaysian export market over the period 1991 to 1993. She suggested highest potential markets were identified on the basis of large positive and negative net shift. Peh Kian-heng (1999) employed the Shift-Share methodology to examine the trends in Singapore's export market growth over 1991-1996.

Ahasanul Haque in 2002 used shift-share analysis to examine the global export market and its prospect and challenges for Bangladeshs' readymade garment products. The shift-share method was used to identify the potential export market by selected seven major categories of readymade garment products on the basis of three-digit level Standard International Trade Classification (SITC) for the period of 1987-93 and 1994-2000.

The results of shift-share analysis indicate that the USA, Canada and European Union (EU) countries mainly offered the market opportunities for the export of garment products of Bangladesh. Asian countries have very negligible role in this respect. The challenges faced by the sector include: tough competition from other competitive countries such as India, Thailand, China and Vietnam, slow progress of its high-technology adoption and slow inflow of foreign investment and the phasing out of MFA (Multi Fiber Agreement) quota by 2005. Haque (2002)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Description of Study Area

This study aims to examine the performance of the textile and garment export industry in Ethiopia. This study focuses on the national income, employment and foreign exchange earned from the sector in Ethiopia. Export to the top ten countries importing T&G products from Ethiopia are considered for cotton, yarn, textile, garment and cultural clothes categories based on the total value of export for each category during the study period.

3.2. Research Approach

This research is a quantitative research using shift-share analysis; calculating the growth of each category of T&G products and destinations using absolute shift, percentage shift and percentage net shift.

3.3. Research Design

This research is a non-experimental observational study making a longitudinal retrospective analysis on the export performance of the T&G sector in Ethiopia for EFY2001-2010. It describes the characteristics of the T&G export sector in Ethiopia making comparison between the performance of different product categories and export destinations. It also interprets the results to identify the best market for each category of product in the T&G sector.

3.4. Data Types, Sources and Method of Data Collection

The data used for analysis are employment data by year and gender and export value in United States Dollars categorized by export destination and T&G export category accounted according to Ethiopian Financial Year.

All of the empirical analysis is based on secondary time series data obtained mainly from Ethiopian Textile Industry Development Institute (ETIDI), United Nations Conference on Trade

and Development (UNCTAD), Central Statistical Agency (CSA), Ethiopian Revenues and Customs Authority (ERCA) and National Planning Commission (NPC).

The data was collected by personally going to their respective offices and visiting their official online databases. Different reports issued by the same organizations on their website were also consulted.

Data quality is ensured by comparing data from various sources and selecting most reliable data. In cases where variation existed between data from different sources this research has taken data from ETIDI for its analysis due to ETIDI's expertise and authority on the area under study.

3.5. Population and Sampling

The research is based on time series national export data in United States dollar's value for EFY2001-2010. There will not be any sampling used.

3.6. Method of Data Analysis

This research uses Tables, Graphs, and Shift-Share Analysis to analyze the trend in Ethiopia's textile and garment sector. Tables and graphs were used to summarize and illustrate the trend in the plan and performance of Ethiopia's textile and garment export.

The statistical technique employed in this study to analyze the data is shift-share analysis. This technique analyses changes in trade over the time period on the basis of the export changes that occurs in the market share.

Shift-share analysis method adapted from Haque (2002) was used to identify the performance and market prospect of different categories of textile and garment products and different export destinations.

Shift-share analysis requires measurements on a variable of interest at the initial and terminal period of analysis. An expected growth figure is calculated based on the average growth of all markets studied. Each market's expected growth is then compared with its actual growth. The difference in the net shift will be positive for markets that gain share over the period and negative for markets, which lose share. The magnitude of the gain or loss represents the

difference between that market's actual performance and the performance it would have had if its growth rate had been equal to the average growth of the entire market.

Computation steps for the shift-share analysis used are as follows:

Absolute Growth (Actual Change): The actual change for each market is calculated to identify the absolute growth value. The actual change of the growth variable in a given market is simply the difference in values from one time period to another. Let $V_{j,t}$ represent the values of the export for market j at the end of the terminal time period t, and , ΔV_j be the actual change in market j over the specified period of time. Therefore

$$\Delta V_j = V_{j,t} - V_{j,t-1}$$

It is clear from this equation that the following relationships exist.

- If $\Delta V_j < o$ the j^{th} market experienced a decline;
- If $\Delta V_j = 0$ the j^{th} market remained unchanged; and
- If $\Delta V_j > 0$ the j^{th} market experienced an increase.

It should be noted that $\Delta V_j > 0$ implies only that the market j increased in value. This relationship does not show the growth of this market relative to the other markets.

Total Growth Rate: The total value of growth variable for all markets at the end of the initial time period is equal to the sum of the values for each of the individual markets, that is $\Sigma V_{j,t-1}$. Similarly, the total value of the growth variable for all markets at the end of the terminal time period is $\Sigma V_{j=t}$. The growth rate for all markets, k is equal to the ratio of the total value in the terminal time period to the corresponding value in the initial time period.

$$k = \frac{\sum_{j=1}^{m} V_{j,t}}{\sum_{j=1}^{m} V_{j,t-1}}$$

Where, k is the growth rate for all markets; $V_{j,t}$ is the value for each market j for the terminal time period t;

$V_{j,t-1}$ is expected value for each market j for the initial time period t-1; j is 1,2, ... m.

Expected Value: If a given market has grown at the rate achieved for all markets, the expected value of the growth variable at the end of the terminal time period, E(Vj,t), is the product of the actual value of this market at the end of the initial time period and the rate of change for all markets. To get this, we multiplied the value between the initial time period (Vj,t-1) and the growth rate for all market (k). That is;

$$E(V_{j,t}) = K(V_{j,t-1})$$

Expected Change: Expected change in the value of a growth variable for a particular market in a given time period is the difference between the expected value and actual value for the market at the end of the initial time period. Let E (ΔVj) represents the expected change. Thus,

$$\begin{aligned} E(\Delta V_j) &= E(\Delta V_{j,t}) - V_{j,t-1} \\ &= V_{j,t-1}(K-1) \end{aligned}$$

Net Shift: The difference between the actual change and the expected change of a given market is the net shift. This difference is denoted as N_j. Thus,

$$N_j = \Delta V_j - E(\Delta V_j)$$

It should be noted that, $N_j > 0$ does not necessarily imply that the j^{th} market's growth increases by a greater amount than it would have if it has grown at the total market rate. This conclusion would be true only if, E (Δ Vj) > 0. But if E (ΔVj) < 0 and E (ΔVj) < ΔVj < 0, then $N_j > 0$. However, this implies that the j^{th} market does not decrease as rapidly as it would be expected. Thus a ratio between the actual and expected change will not be a suitable measure.

The sum of the net shift values for all markets should be zero;

$$\sum_{j=1}^{m} N_j = \sum_{j=1}^{m} \Delta V_j - E(\Delta V_j)$$

$$= \sum_{j=1}^{m} (V_{j,t} - V_{j,t-1}) - \left[\sum_{j=1}^{m} V_{j,t-1} \left(\frac{\sum_{j=1}^{m} V_{j,t}}{\sum_{j=1}^{m} V_{j,t-1}} \right) - V_{j,t-1} \right] = 0$$

If the set of numbers (N_j), $j = 1,2,\ldots, m$, is separated into those numbers that are greater than or equal to zero and those that are less than zero, these subsets are identified as $\{N_j\}$, $j = 1, \ldots, p$, and $\{N_i\}$, $j = 1,2, \ldots, q$, respectively, (where $p + q = m$). Therefore;

$$\sum_{j=1}^{m} N_j = \sum_{j=1}^{p} N_j^+ + \sum_{j=1}^{q} N_j^- = 0.$$

$$\sum_{j=1}^{p} N_j^+ = \sum_{j=1}^{q} N_j^-$$

Total Absolute Net Shift: The sums of the positive net shifts or the sum of the negative net shifts, S, represents the total absolute net shift. That is,

$$S = \frac{\sum_{j=1}^{m} [\Delta V_j - E(\Delta V_j)]}{2} = \sum_{j=1}^{p} N_j^+$$

Percentage Net Shift: The relative gain or loss in the value of a growth variable for a particular market j, in a given time period is defined as the percentage net shift P_j. Therefore,

$$P_j = \left(\frac{N_j}{S} \right) 100$$

It can be seen that the sum of the percentage net shifts for all markets is zero. The sum of the positive net shifts is one, and the sum of the negative net shifts is minus one.

3.7. Description of Expected Outcome and Explanatory Variables

The employment and export from the textile and garment sector is expected to be growing significantly although below the targeted performance. The variety of textile and garment products exported is also growing and being diversified. New garment product lines that are growing will be identified.

The number of export destinations as well as the volume of export is expected to be growing. New and growing export destinations are expected to diversify Ethiopia's garment export market giving stability to the sector and reducing vulnerability to fluctuations of external economic and financial conditions.

The growth of the garment sector in Ethiopia is expected to be higher than most garment producing and exporting nations; mainly due to the previously very small size it is growing from and due to the high government expenditure and attractive incentives given to the development of the sector.

In absolute terms the production and employment of the garment sector in Ethiopia is still expected to be very small when compared to other major garment exporting economies.

CHAPTER FOUR

EMPIRICAL RESULTS AND DISCUSSION

4.1. Anticipated Benefits and Actual Contribution of the Textile and Garment Sector

Employment creation, foreign exchange earnings and contribution to GDP were among the top contributions that are expected from the textile and garment sector in the short run. Accordingly we will discuss the performance of the T&G sector in Ethiopia considering the three criteria.

4.1.1. Employment Creation

Creating employment opportunity is one of the major benefits of the textile and garment sector, especially for women. In developing African countries like Ethiopia where the majority of the population is young, without much education and seeking employment due to various reasons; expanding employment opportunities is very important. Employment creation is also an important criterion for governments in prioritizing which sector or industry to focus on and support. Accordingly the government of Ethiopia had set the T&G sector as one of the top priority industries to develop with aspiration to create 174,000 jobs in the T&G sector by the end of GTP2 period.

Table 1 shows employment created in the sector from 1983 to 2010 Ethiopian Fiscal Year (EFY). The data from 1983-2002 is from CSA while the data from 2003 to 2010 is calculated by ETIDI by adding the new job opportunities created during each financial year.

Table 1: Number of Employees in Medium and Large Textile and Apparel Manufacturing Industries by Sex and Year from 1983 to 2010

Sex	1983 EFY (1990/91)	1984 EFY (1991/92)	1985 EFY (1992/93)	1986 EFY (1993/94)	1987 EFY (1994/95)	1988 EFY (1995/96)	1989 EFY (1996/97)	1990 EFY (1997/98)	1991 EFY (1998/99)
Male	18355	18066	17317	18100	18419	17269	16964	15992	16408
Female	16353	15981	16180	16349	16484	15172	14833	13291	13096
Total	34,708	34,047	33,497	34,449	34,903	32,441	31,797	29,283	29,504
Annual Growth Rate (%)		(1.90)	(1.62)	2.84	1.32	(7.05)	(1.99)	(7.91)	0.75

Sex	1992 EFY (1999/00)	1993 EFY (2000/01)	1994 EFY (2001/02)	1995 EFY (2002/03)	1996 EFY (2003/04)	1997 EFY (2004/05)	1998 EFY (2005/06)	1999 EFY (2006/07)	2000 EFY (2007/08)
Male	16474	15992	14467	14655	14680	12663	13215	14586	9506
Female	11025	12012	11597	11566	12026	10644	12984	14720	8717
Total	27,499	28,004	26,064	26,221	26,706	23,307	26,199	29,306	18,223
Annual Growth Rate (%)	(6.80)	1.84	(6.93)	0.60	1.85	(12.73)	12.41	11.86	(37.82)

Sex	2001 EFY (2008/09)	2002 EFY (2009/10)	2003 EFY (2010/11)	2004 EFY (2011/12)	2005 EFY (2012/13)	2006 EFY (2013/14)	2007 EFY (2014/15)	2008 EFY (2015/16)	2009 EFY (2016/17)	2010 EFY (2016/17)
Male	11129	14116	15,467	15,858	17,537	18,327	18,902	20,206	21,525	23,133
Female	13130	16608	21,130	22,439	26,358	28,203	32,051	43,791	59,919	72,987
Total	24,259	30,724	36,597	38,297	43,895	46,530	50,953	63,997	81,444	96,120
Annual Growth Rate (%)	33.12	26.65	19.12	4.65	14.62	6.00	9.51	25.60	27.26	18.02

Source: ETIDI (1983 to 2002 Ethiopian Fiscal Year from Central Statistical Agency report of Large and Medium Industries Survey and 2003 to 2010 Ethiopian Fiscal Year is obtained by adding number jobs created each year in the Medium and Large Textile and Apparel Industries)

During the first 17 years since 1983the number of jobs in the T&G sector declined from 34,708 in 1983 to 18,223 in 2000 loosing around 47% of jobs. Starting from year 2000 onward the declining trend was reversed showing consistent growth from year to year for the last ten years. The renewed government attention and effort focused on the sector from year 2000 onwards supplemented by GTP I and GTP II plans have created 77,897 jobs in the past 10 years. Growing at an average annual growth rate of 18% currently the number of employees in the sector has reached 96,120. Overall employment opportunity created by the T&G sector had increased 4.3 times during the decade.

The male to female ratio of employment during the first 17 years until year 2000 remained close to one to one. While in the period of 10 years from 2001-2010 the ratio of female employees rose from 48% to 76%. As it was discussed in the literature the T&G sector is giving better employment opportunity for female workers.

Although below the aspired target the employment generated in the sector especially for women is very encouraging. The employment data clearly supports the government initiative to promote the T&G sector.

While the number of jobs created in the sector and its consistent positive growth for the last 10 years is encouraging; when viewed in relative to Ethiopia's population size of more than 100 million the sector needs to go a long way to create significant employment at national level.

4.1.2. Foreign Exchange Earnings

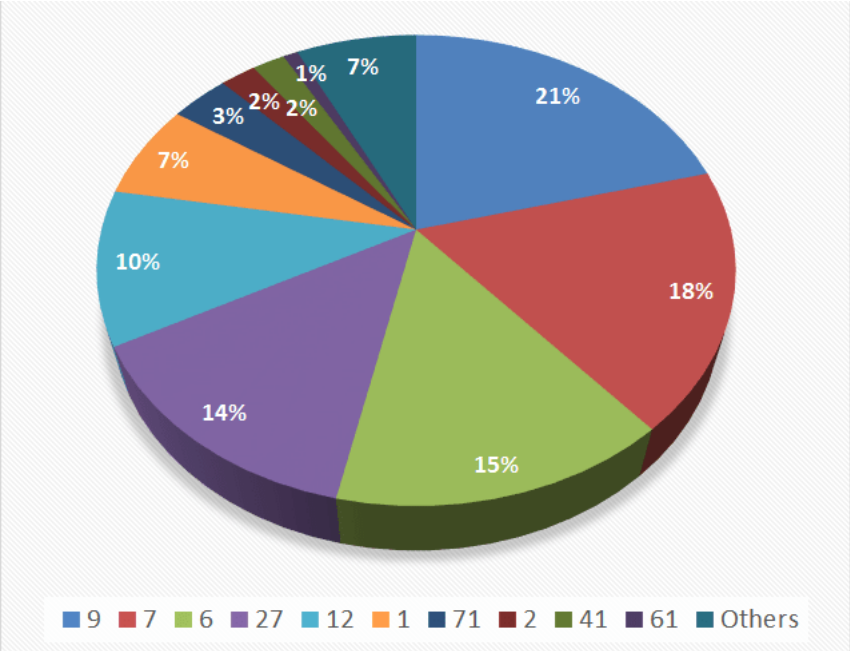
The foreign exchange earnings from the T&G sector was around 2 million USD by 1993 EFY. Showing little progress year by year it reached 14 million USD by year 2000. Showing similar pattern to the employment generated in the sector from year 2000 onward the foreign exchange earned from the sector rose from 14 million USD to 109 million USD rising 6.6 times. The average annual growth rate of the foreign exchange earned during the decade was 33%, which is much higher than the average annual growth in employment of 18%. Overall the sector has generated 769 million USD during the ten years.

According to Export Genius (an international import export trade data provider) the T&G sector ranked 10th in its foreign exchange contribution to the Ethiopian Economy. Coffee, edible vegetables, other plants, minerals, oil seed, live animals, precious stones, meat and leather came ahead of T&G holding ranks 1-9 respectively. T&G's foreign exchange contribution only amounted less than 1% of the nation's foreign exchange earnings.

Table 2: Ethiopia's 10 Largest Export Products in 2015

Identification Code	Product Description	Share in Value (%)
9	Coffee, tea, maté and spices	20.87
7	Edible vegetables	17.85
6	Live trees and other plants	14.67
27	Mineral Fuels	13.79
12	Oil seeds and oleaginous fruits	10.57
1	Live Animals	6.61
71	Natural or cultured pearls and precious stones	3.48
2	Meat and edible meat offal	2.13
41	Raw hides and skins (other than furskins) and leather	1.95
61	Articles of apparel and clothing accessories, knitted or crocheted	0.88

Figure 1: Ethiopia's 10 Largest Export products in 2015



Source: Export Genius

4.1.3. Income (Contribution to GDP)

In its most recent export performance the T&G sector had generated 109 million USD annually for the Ethiopian Economy during 2010 EFY. Taking this value if we compare it with Ethiopia's 2018 expected GDP of 80 billion USD the contribution of the T&G's export constitutes much less than 1% of the economy. Comparing it to other major T&G exporting nations that earn up to 15% of their GDP from the textile and garment sector Ethiopia has a long way to go. Even if Ethiopia successfully achieves its target export value of one billion USD by 2025 the T&G sector wouldn't be able to contribute more than 1% of its national income.

4.2. Best Market for Product Identification Based on Shift-Share Analysis

This section discusses the market trend for the five different product categories under the T&G sector; namely cotton, yarn, textile, garment, cultural clothes and others categories. Markets that have high potential for each product category will be identified. In addition comparison amongst the different product categories will be made to identify which product categories have higher potential for export than the others.

4.2.1 Cotton

Ethiopia has a vast amount of arable land suitable for cotton production. Despite the huge potential for cotton production the export of raw cotton from Ethiopia has been suspended due to shortage of cotton supply for local yarn and textile manufacturers until 2008 EFY. After the commencement of exporting cotton in 2009, Ethiopia exported 3.46 million USD worth of cotton to 11 countries in 2009. During the following year the export value improved to close to 6 million USD growing by 73% while the number of recipient countries declined to six. Indonesia, Bangladesh and Italy were the top 3 recipient countries in 2010 by receiving 2.9, 1.4 and 0.72 million worth of cotton from Ethiopia. Indonesia has purchased almost 50% of the cotton exported from Ethiopia.

Table 3: Ethiopia's Cotton Export for 2009 & 2010 Period in USD & Percentage Value

Country	2009	2010
Indonesia	491,424.00	2,925,786.87
Bangladesh	646,593.62	1,447,494.22
Italy	188,039.26	724,316.17
Portugal	144,830.91	319,722.58
Swaziland	489,420.00	291,713.45
France	756,709.57	263,000.18
Tunisia	281,892.60	0.00
Switzerland	196,154.10	0.00
South Africa	172,913.65	0.00
Malaysia	46,577.97	0.00
Germany	42,359.76	0.00
TOTAL	3,456,915.44	5,972,033.46
Annual Growth Rate (%)		**73%**

Country	2009	2010
Indonesia	14%	49%
Bangladesh	19%	24%
Italy	5%	12%
Portugal	4%	5%
Swaziland	14%	5%
France	22%	4%
Tunisia	8%	0%
Switzerland	6%	0%
South Africa	5%	0%
Malaysia	1%	0%
Germany	1%	0%
2010 TOTAL	100%	100%

Source: Own compilation based on data from ETIDI / ERCA

Table 4 shows absolute growth value, percentage growth rate and percentage net shift results for Ethiopia's cotton export between 2009 and 2010 EFY.

Table 4: Shift-Share Analysis Results for Ethiopia's Cotton Export for 2009 & 2010 Period

	Country	Absolute Growth
1	Indonesia	2,434,363
2	Bangladesh	800,901
3	Italy	536,277
4	Portugal	174,892
5	Germany	(42,360)
6	Malaysia	(46,578)
7	South Africa	(172,914)
8	Switzerland	(196,154)
9	Swaziland	(197,707)
10	Tunisia	(281,893)
11	France	(493,709)
	TOTAL	2,515,118

	Country	Percentage Growth
1	Indonesia	595%
2	Italy	385%
3	Bangladesh	224%
4	Portugal	221%
5	Swaziland	60%
6	France	35%
7	Germany	0%
8	Malaysia	0%
9	South Africa	0%
10	Switzerland	0%
11	Tunisia	0%
	TOTAL	**173%**

	Country	Percentage Net Shift
1	Indonesia	72%
2	Italy	14%
3	Bangladesh	11%
4	Portugal	2%
5	Germany	-3%
6	Malaysia	-3%
7	South Africa	-10%
8	Switzerland	-12%
9	Tunisia	-17%
10	Swaziland	-19%
11	France	-36%
	TOTAL	**0%**

Source: Own computation based on data from ETIDI / ERCA

According to the analysis Indonesia has the highest potential market for cotton export from Ethiopia in all three growth measurements by having 2.4 million USD absolute growth value, 595% percentage growth rate and 72% percentage net shift. Following Indonesia Bangladesh and Italy take 2nd and 3rd ranks according to absolute and percentage growths while switching positions when compared by percentage net shift.

4.2.2 Yarn

The export of yarn from Ethiopia shows a very unique trend beginning with an export value of 3.8 million, rising to 28.4 million around the middle of the study period in 2006 and declining to close to 3 million USD by 2010. While the average annual growth rate was 17%, the overall period growth rate was -20%. During this 10 years period Ethiopia has exported a total of 111 million USD worth of yarn.

Another surprising observation is that 99% of Ethiopia's yarn export was to Turkey at the beginning of the period under study in 2001. By the end of the period in 2010 83% of yarn

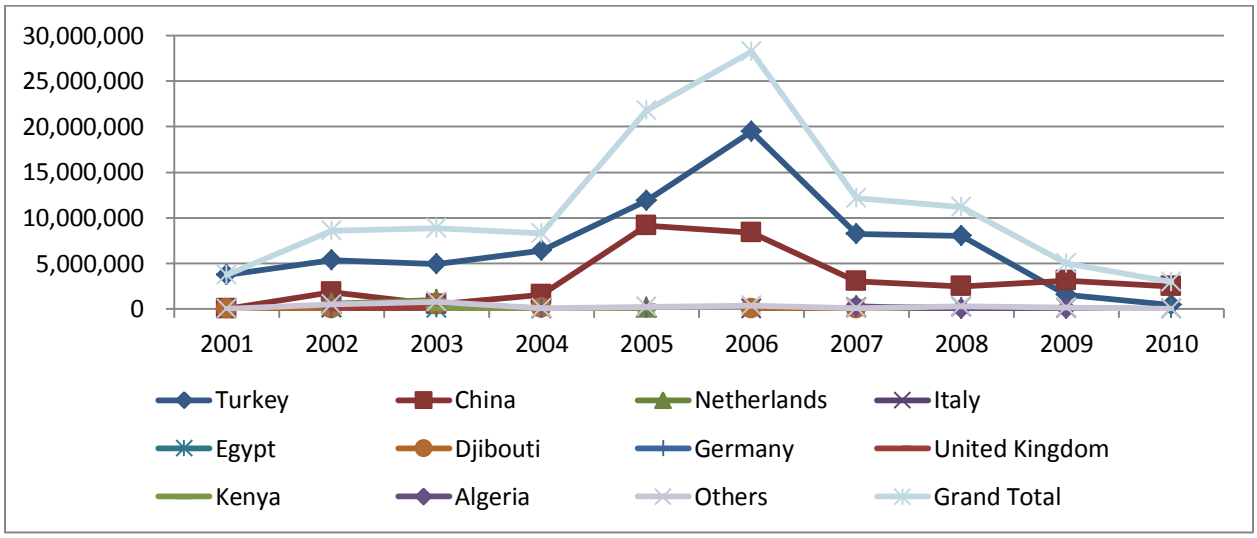
export from Ethiopia was to China. When we look at the total export during the 10 years 63% was exported to Turkey while 29% was exported to China. All of the remaining export destinations had insignificant share during the period.

Table 5: Ethiopia's Yarn Export from 2001 to 2010 in USD Value by Destination

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Grand Total
Turkey	3,715,870	5,347,889	4,929,644	6,392,926	11,881,597	19,482,093	8,230,388	8,006,229	1,601,840	454,358	**70,042,832**
China	50,749	1,849,708	513,217	1,555,235	9,177,284	8,351,470	3,016,783	2,472,974	3,139,640	2,487,557	**32,614,616**
Netherlands		623,153	1,036,518		193,897						**1,853,568**
Italy		144,003	637,277	18,608		48,956	107,240				**956,083**
Egypt	243	68,016	108,896	82,347			150,668	274,292	76,760	16,474	**777,696**
Djibouti	2,332	1,860	427,559	97,911		2,519	53,106				**585,287**
Germany		54	259,133	32,111	38,672		98,037				**428,008**
United Kingdom		39,360	143,631		236,253						**419,244**
Kenya			23,868	45,526	62,993		116,071	105,160			**353,618**
Algeria							285,300	28,861	25,222		**339,383**
Others	0	525,506	822,707	103,957	216,150	356,014	81,107	324,209	173,698	39,062	**2,642,411**
Grand Total	**3,769,194**	**8,599,548**	**8,902,450**	**8,328,621**	**21,806,847**	**28,241,051**	**12,138,699**	**11,211,724**	**5,017,160**	**2,997,452**	**111,012,746**
Annual Growth Rate (%)		128%	4%	-6%	162%	30%	-57%	-8%	-55%	-40%	-1%
Average Annual Growth Rate (%)	17%										
Overall Period Growth Rate (%)	-20%										

Source: Own compilation based on data from ETIDI / ERCA

Figure 2: Ethiopia's Yarn Export from 2001 to 2010 in USD Value by Destination



Source: Own compilation based on data from ETIDI

Table 6: Shift-Share Analysis Results for Ethiopia's Yarn Export from 2001 to 2010

	Country	Absolute Growth
1	China	2,436,808
2	Egypt	16,231
3	Netherlands	0
4	Italy	0
5	Germany	0
6	UK	0
7	Kenya	0
8	Algeria	0
9	Djibouti	(2,332)
10	Turkey	(3,261,512)
11	Others	39,062
	Grand Total	(771,742)

	Country	Percentage Growth
1	Egypt	6766%
2	China	4902%
3	Turkey	12%
4	Djibouti	0%
	Netherlands	#DIV/0!
	Italy	#DIV/0!
	Germany	#DIV/0!
	UK	#DIV/0!
	Kenya	#DIV/0!
	Algeria	#DIV/0!
	Others	#DIV/0!
	Grand Total	80%

	Country	Percentage Net Shift
1	China	99%
2	Egypt	1%
3	Netherlands	0%
4	Italy	0%
5	Germany	0%
6	UK	0%
7	Kenya	0%
8	Algeria	0%
9	Djibouti	0%
10	Turkey	-101%
11	Others	2%
	Grand Total	0%

Source: Own computation based on data from ETIDI / ERCA

Table 6 shows results for absolute growth, percentage growth and percentage net shift values for Ethiopia's top 10 yarn exporting destinations. Turkey registered very low values of - 3.2 million, 12% and -101% for the three growth indicators respectively while China registered 2.4 million USD, 4902% and 99%. From these results we can observe that despite Turkey taking the lead in the total value of yarn exported from Ethiopia during the last ten years the future of yarn export from Ethiopia is dominated solely by China.

An important consideration that needs to be taken into account is the weak performance of Ethiopia's yarn export. Due to the very small size of the market the percentage values may appear exaggerated. The small size of the export volume may also limit its potential to attract various buyers. Better illumination of this performance can be found if we consider Ethiopia's yarn production performance, which is beyond the scope of this research.

4.2.3 Textile

Table 7 shows the performance of textile export from Ethiopia to the highest ten recipient countries for the period from 2001 to 2010.

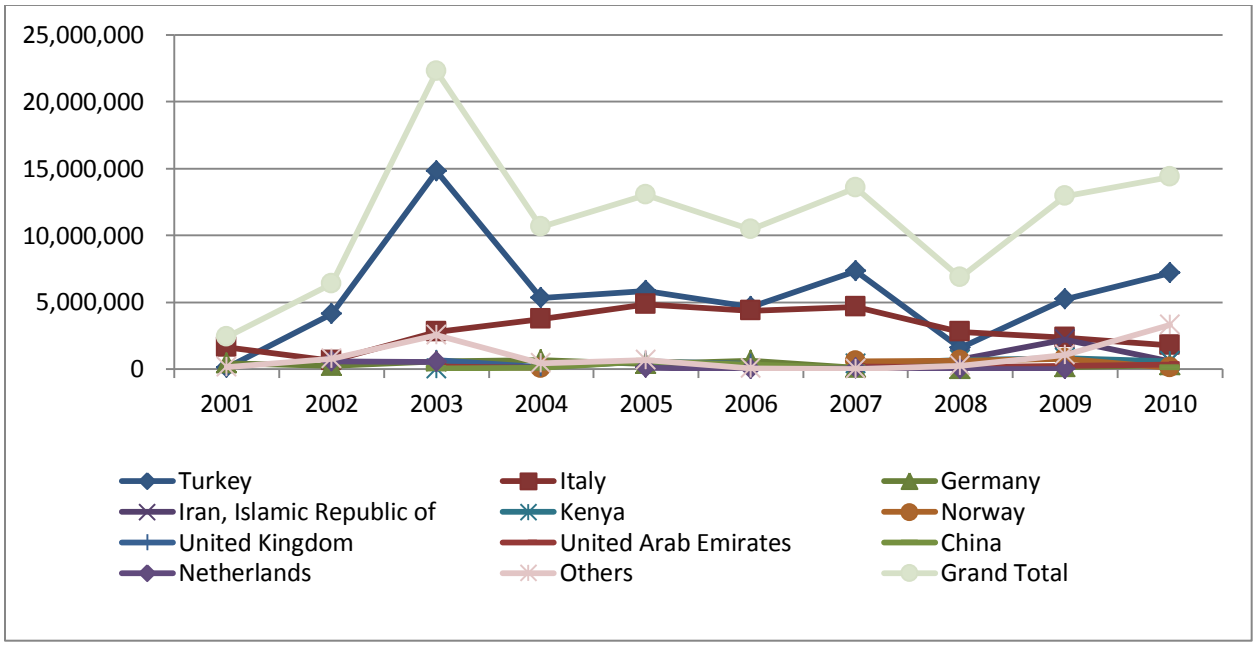
Table 7: Ethiopia's Textile Export from 2001 to 2010 by Destination

(Value '000 USD)

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Grand Total
Turkey	125	4,154	14,808	5,310	5,840	4,657	7,317	1,573	5,237	7,174	56,194
Italy	1,659	624	2,776	3,730	4,832	4,353	4,648	2,777	2,355	1,807	29,561
Germany	462	277	592	701	394	637	119	33	151	290	3,656
Iran,	0	0	0	0	0	0	0	730	2,232	602	3,564
Kenya	0	0	37	0	0	0	398	704	851	573	2,563
Norway	0	0	0	65	0	0	612	629	781	126	2,212
UK	0	0	687	150	598	408	0	0	1	0	1,843
UAE	0	0	201	124	0	0	228	177	254	367	1,351
China	0	0	77	111	587	329	113	0	0	101	1,318
Netherlands	0	566	557	0	91	18	69	12	2	0	1,314
Others	153	757	2,530	446	674	52	34	231	1,066	3,335	9,279
Grand Total	**2,399**	**6,378**	**22,265**	**10,637**	**13,016**	**10,454**	**13,537**	**6,866**	**12,929**	**14,375**	**112,855**
Annual Growth Rate (%)		166%	249%	-52%	22%	-20%	29%	-49%	88%	11%	-2%
Average Annual Growth Rate (%)		49%									
Overall Period Growth Rate (%)		499%									

Source: Own compilation based on data from ETIDI / ERCA

Figure 3: Ethiopia's Textile Export from 2001 to 2010 in USD Value by Destination



Source: Own compilation based on data from ETIDI / ERCA

Ethiopia has exported a total of 112 million USD worth of textile during the period. Turkey had received around 56 million USD worth of textile followed by Italy & Germany with 29 and 3 million USD worth of export. When seen in percentage terms Turkey and Italy received 50 and 26 percent while all the remaining countries had less than 5% share individually.

Looking at the overall trend we can see that the export of textile in 2001 started from below 3 million USD and rose to 22 million USD in just 2 years growing 166% and 249% in the consecutive years. Following this rise the performance declined and reached to less than 7 million by 2008 and rose again to 14.4 million USD by 2010. Generally the export of textile shows fluctuation throughout the study period. It is also dominated by mainly 2 recipient nations.

Table 8: Shift-Share Analysis Results for Ethiopia's Textile Export from 2001 to 2010

	Country	Absolute Growth
1	Turkey	7,049,877
2	Iran	602,132
3	Kenya	572,782
4	UAE	367,005
5	Italy	147,500
6	Norway	125,936
7	China	100,980
8	UK	-
9	Netherlands	-
10	Germany	(172,400)
	Others	3,182,621
	Grand Total	11,976,433

	Country	Percentage Growth
1	Turkey	5760%
2	Italy	109%
3	Germany	63%
	Iran	#DIV/0!
	Kenya	#DIV/0!
	Norway	#DIV/0!
	UK	#DIV/0!
	UAE	#DIV/0!
	China	#DIV/0!
	Netherlands	#DIV/0!
	Others	2184%
	Grand Total	599%

	Country	Percentage Net Shift
1	Turkey	61%
2	Iran	6%
3	Kenya	5%
4	UAE	3%
5	Norway	1%
6	China	1%
7	UK	0%
8	Netherlands	0%
9	Germany	-23%
10	Italy	-77%
	Others	23%
	Grand Total	0%

Source: Own computation based on data from ETIDI / ERCA

Table 8 shows results for absolute growth, percentage growth and percentage net shift values for the top 10 destinations Ethiopia exports textile to. Turkey has registered the highest absolute growth value of 7 million USD followed by Islamic Republic of Iran, Kenya, UAE, Italy, Norway and China that have received 100 to 600 thousand USD worth of export.

Due to an initial value of zero export to 7 of the top ten textile importing nation's percentage growth comparison was only possible for Turkey Italy and Germany. Turkey leads all by 5,760% percentage growth. Italy and Germany follow with 109 and 63 percent growth rate respectively. Based on the percentage net shift ranking Turkey Iran and Kenya take the first three positions with 61, 6 and 5 percentage net shift.

4.2.4 Garment

Table 9: Ethiopia's Garment Export from 2001 to 2010 by Destination

(Value '000 USD)

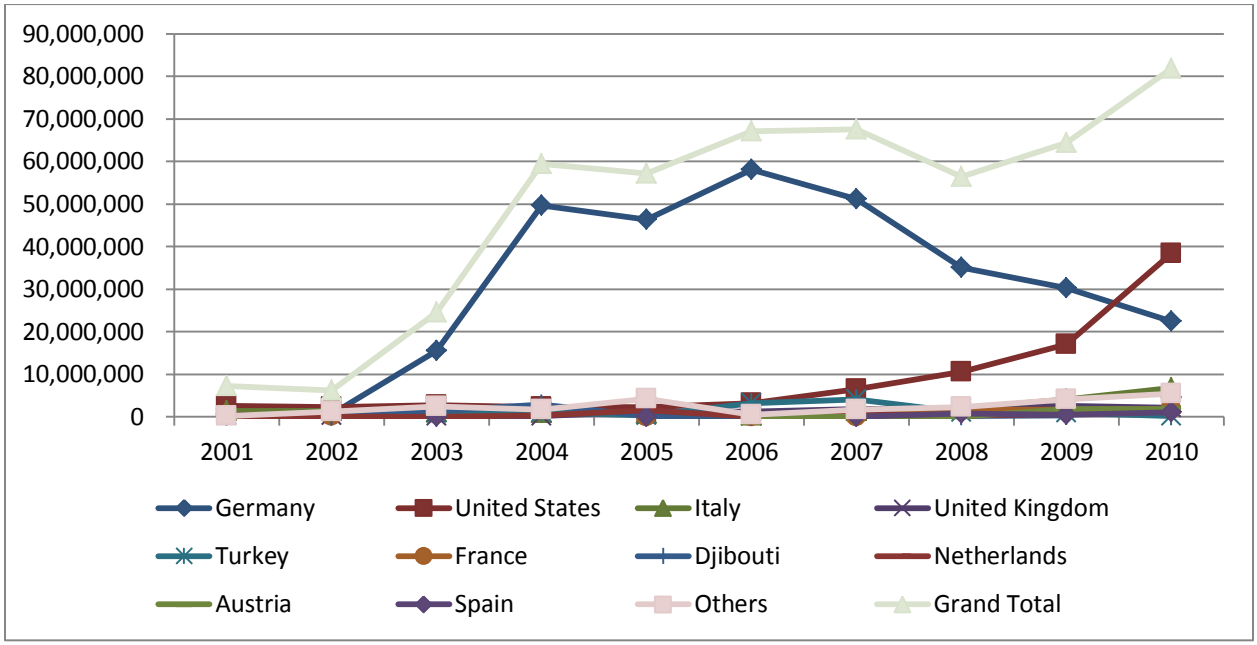
Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Grand Total
Germany	1,885	616	15,502	49,653	46,417	58,107	51,229	35,097	30,258	22,404	311,170
USA	2,620	2,275	2,843	2,356	2,321	3,249	6,607	10,667	17,128	38,448	88,513
Italy	1,479	1,366	1,171	908	815	382	1,389	2,010	4,193	6,885	20,598
United Kingdom	327	373	240	297	1,206	1,218	1,819	1,994	2,578	2,223	12,275
Turkey	0	0	925	1,170	380	3,298	4,177	1,082	904	284	12,220
France	346	230	0	0	0	0	32	1,793	1,724	1,804	5,929
Djibouti	63	79	1,405	2,897	203	240	0	290	335	0	5,512
Netherlands	147	1	90	406	1,619	18	608	307	691	1,219	5,106
Austria	156	0	0	0	0	0	74	39	1,859	1,855	3,983
Spain	0	0	1	0	1	0	22	832	579	1,184	2,618
Others	271	1,311	2,464	1,728	4,241	555	1,664	2,296	4,142	5,479	24,150
Grand Total	**7,293**	**6,251**	**24,640**	**59,415**	**57,202**	**67,068**	**67,622**	**56,408**	**64,391**	**81,784**	**492,075**
Annual Growth Rate (%)		-14%	294%	141%	-4%	17%	1%	-17%	14%	27%	-6%
Average Annual Growth Rate (%)		51%									
Overall Period Growth Rate (%)		1021%									

Source: Own compilation based on data from ETIDI / ERCA

The garment export from Ethiopia shows a much better performance and overall growth trend than all the other categories in the T&G sector. Starting with a humble beginning of 7.3 million USD export in 2001the garment export from Ethiopia has increased more than 10 fold exporting

a total of 492 million USD worth product during the 10 years period. The average annual growth rate of this category was 51%.

Figure 4: Ethiopia's Garment Export from 2001 to 2010 in USD Value by Destination



Source: Own compilation based on data from ETIDI / ERCA

Germany with the exception of two years had consistently been the top garment recipient nation followed by the United States. Germany and USA had contributed 63% and 18% of the garment export between 2001 and 2010.The combined export to the two nations was around 400 million USD out of the 492 million total export value.

As it can be observed from the graph the rise of export to Germany took off early during the first five years. While Germany's export volume declined during the last 4 years; export to the United States grew radically. Export to USA took the leading position from Germany in the final year of the study where the two export destinations switched their percentage contribution of 47% and 28% to 28% and 47%.

Table 10: Shift-Share Analysis Results for Ethiopia's Garment Export from 2001 to 2010

	Country	Absolute Growth
1	USA	35,827,889
2	Germany	20,519,285
3	Italy	5,406,402
4	UK	1,896,102
5	Austria	1,698,361
6	France	1,458,616
7	Spain	1,183,503
8	Netherlands	1,072,241
9	Turkey	284,104
10	Djibouti	(62,732)
	Others	5,207,573
	Grand Total	74,491,345

	Country	Percentage Growth
1	Turkey	#DIV/0!
2	Spain	#DIV/0!
3	USA	1468%
4	Germany	1189%
5	Austria	1188%
6	Netherlands	831%
7	UK	680%
8	France	522%
9	Italy	466%
10	Djibouti	0%
	Others	2022%
	Grand Total	1121%

	Country	Percentage Net Shift
1	USA	63%
2	Germany	9%
3	Spain	8%
4	Turkey	2%
5	Austria	1%
6	Netherlands	-3%
7	Djibouti	-5%
8	UK	-10%
9	France	-14%
10	Italy	-68%
	Others	17%
	Grand Total	0%

Source: Own computation based on data from ETIDI / ERCA

Looking at the shift-share analysis we observe that an absolute growth value of 35 million, 20.5 million and 5.4 million USD was achieved by USA Germany and Italy. UK Austria, France, Spain and the Netherlands followed with one to two million USD absolute growth value.

Comparing their growth in percentage growth terms the order is slightly changed to USA, Germany, Austria, Netherlands, UK, France, Italy and Djibouti. Although Turkey and Spain had positive absolute growth; due to their zero initial value their percentage growth could not be calculated.

Lastly when we make comparison using percentage net shift USA leads the group by 63% net shift followed by Germany, Spain, Turkey and Austria with values of 9%, 8%, 2% and 1%. Export to the rest of the countries grew by values less than the total market growth rate resulting negative percentage net shift.

4.2.5 Cultural Clothes

The last category under the T&G group of export products is for cultural clothes. This group as expected has one of the smallest performances. It started with an export value of 532,525 USD and grew around 10 times to 5.2 million USD by 2005 and later continuously declined until its export reached 2.4 million USD in 2010. The total value of export from this category was 36.3

million USD during the 10 years. Amongst all the recipient nations Sudan and USA accounted for 56% and 27% of the 10 years export. When combined they cover 83% of the cultural cloth export from Ethiopia.

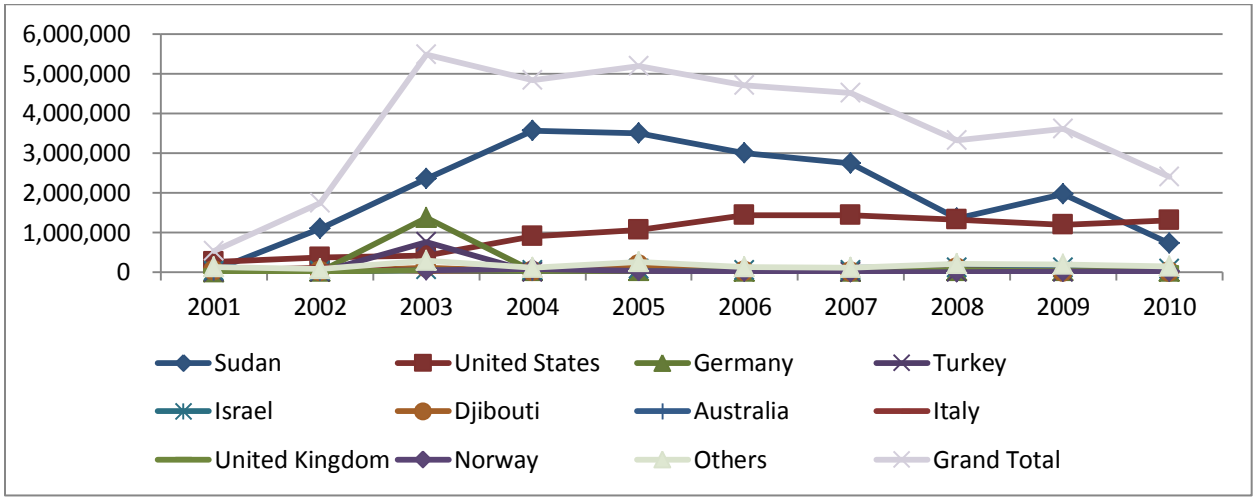
Table 11: Ethiopia's Cultural Clothes Export from 2001 to 2010 by Destination

(Value '000 USD)

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Grand Total
Sudan	44	1,099	2,349	3,568	3,504	3,003	2,743	1,352	1,972	724	20,357
United States	263	360	415	901	1,055	1,428	1,429	1,315	1,188	1,301	9,656
Germany	1	6	1,370	33	29	18	10	37	30	9	1,543
Turkey	0	1	748	3	0	0	0	0	0	0	752
Israel	22	32	60	45	73	40	52	104	106	82	617
Djibouti	26	9	109	8	177	8	2	96	3	3	440
Australia	12	19	40	11	7	19	111	122	65	31	437
Italy	26	113	27	50	33	31	27	43	12	5	366
UK	19	18	42	32	24	31	24	49	29	94	361
Norway	0	0	44	85	33	10	4	2	18	6	202
Others	119	79	281	103	253	123	110	207	193	139	1,608
Grand Total	533	1,736	5,483	4,839	5,190	4,709	4,513	3,327	3,617	2,393	36,339
Annual Growth Rate (%)		226%	216%	-12%	7%	-9%	-4%	-26%	9%	-34%	-1%
Average Annual Growth Rate (%)		41%									
Overall Period Growth Rate (%)		349%									

Source: Own compilation based on data from ETIDI / ERCA

Figure 5: Ethiopia's Cultural Clothes Export from 2001 to 2010 by Destination



Source: Own compilation based on data from ETIDI / ERCA

The performance of cultural clothes category does not show much relationship with the Ethiopian government's effort to improve T&G production and export from Ethiopia.

Table 12: Shift-Share Analysis Results for Ethiopia's Cultural Clothes Export from 2001 to 2010

	Country	Absolute Growth
1	USA	1,037,976
2	Sudan	679,747
3	UK	74,646
4	Israel	60,423
5	Australia	19,335
6	Germany	8,079
7	Norway	5,616
8	Turkey	(436)
9	Italy	(21,437)
10	Djibouti	(23,448)
	Others	19,904
	Grand Total	1,860,406

	Country	Percentage Growth
1	Sudan	1648%
2	Germany	840%
3	USA	495%
4	UK	493%
5	Israel	377%
6	Australia	260%
7	Italy	18%
8	Djibouti	10%
9	Turkey	0%
10	Norway	#DIV/0!
	Others	117%
	Grand Total	449%

	Country	Percentage Net Shift
1	Sudan	79%
2	USA	18%
3	UK	1%
4	Norway	1%
5	Germany	1%
6	Turkey	0%
7	Israel	-2%
8	Australia	-3%
9	Italy	-17%
10	Djibouti	-17%
	Others	-60%
	Grand Total	0%

Source: Own computation based on data from ETIDI / ERCA

Table 12 shows results for absolute growth, percentage growth and percentage net shift values for the top 10 destination countries Ethiopia exports cultural clothes to during 2001-2010. USA, Sudan, UK, Israel and Austria rank from 1 to 5 in absolute growth values while the order shifts to Sudan, Germany, USA, UK and Israel when compared using percentage growth values. The percentage net shift comparison gives a very clear picture placing Sudan and USA 1st and 2nd with 79% and 18% respectively with the rest of the countries having 1% and less scores.

4.2.6 Total Textile & Garment Export Comparison by Destination

Table 13 shows the export performance of cotton, yarn, textile, garment and other related products combined based on the export destinations they were exported to. The T&G sector at the beginning of the study period in 2001 was exporting 14.4 million USD. For the remainder of the study period the T&G sectors export has continuously grown for seven of the nine years that followed. Growing with an average growth rate of 33% the annual export value grew 6.6 times and by the end of the study period the annual export income from the T&G sector had reached

109 million USD. During the 10 years period Ethiopia has exported a total of 769 million USD worth of T&G products.

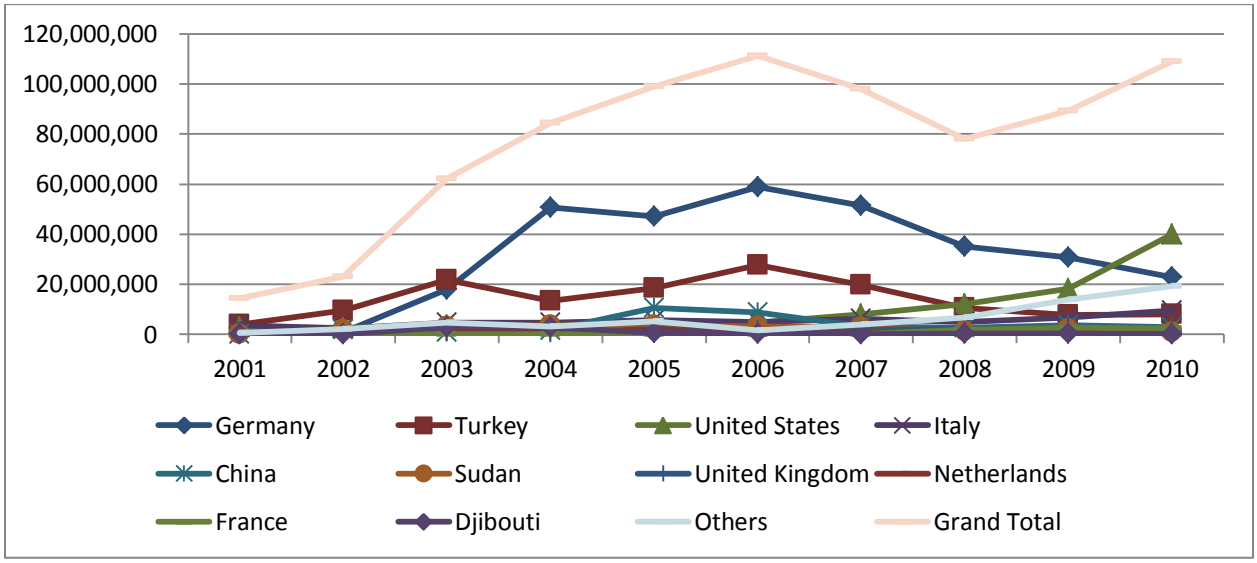
Table 13: Ethiopia's Textile & Garment Export from 2001 to 2010 by Destination

(Value '000 USD)

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Grand Total
Germany	2,348	899	17,856	50,634	47,024	58,811	51,459	35,167	30,661	22,845	317,705
Turkey	3,841	9,664	21,906	13,409	18,589	27,712	19,786	10,676	7,872	7,913	141,368
USA	2,886	2,636	3,566	3,280	3,673	4,706	8,036	12,014	18,315	39,947	99,060
Italy	3,576	2,315	4,624	4,707	5,681	4,815	6,171	4,829	6,748	9,421	52,886
China	51	1,850	753	1,702	10,539	8,680	3,130	2,532	3,675	2,802	35,714
Sudan	48	1,769	3,247	3,640	3,648	3,046	2,827	1,453	2,095	839	22,612
UK	346	431	1,112	479	2,063	1,657	1,843	2,043	2,608	2,317	14,899
Netherlands	151	1,190	1,685	408	1,931	37	680	319	694	1,224	8,318
France	359	305	16	18	14	20	58	1,823	2,514	2,418	7,545
Djibouti	91	91	2,911	3,018	560	259	76	465	349	74	7,895
Others	709	2,046	4,569	3,175	5,272	1,609	3,955	6,648	13,809	19,228	61,020
Grand Total	14,405	23,195	62,244	84,469	98,995	111,352	98,021	77,971	89,341	109,028	769,022
Annual Growth Rate (%)		61%	168%	36%	17%	12%	-12%	-20%	15%	22%	
Average Annual Growth Rate (%)		33%									
Overall Period Growth Rate (%)		657%									

Source: Own compilation based on data from ETIDI / ERCA

Figure 6: Ethiopia's Textile & Garment Export from 2001 to 2010 by Destination



Source: Own compilation based on data from ETIDI / ERCA

Germany, Turkey and USA have ranked from one to three with percentage contribution of 41%, 18% and 13% respectively. Italy, China, Sudan, UK, Netherlands, France and Djibouti followed standing 4 to 10 with percentage contribution of 7%-1%.

Resembling to the graph indicating the performance of the garment category the performance of the T&G export increased from 2001 to 2006 declining for two years (2007 and 2008) then rising again from 2008 onwards. The rise of T&G sector is mainly influenced by rise of Ethiopia's export to USA and a combination of other recipient nations not considered independently due to their small individual contribution. The 'others' category had registered positive percentage net shift of 2%, 23% and 17% for yarn, textile and garment subcategories in the previous shift-share analysis result tables (Tables 6, 8 and 10).

Table 14: Shift-Share Analysis Results for Ethiopia's T&G Export from 2001 to 2010 by Destination

	Country	Absolute Growth
1	USA	37,061,364
2	Germany	20,496,848
3	Italy	5,845,482
4	Turkey	4,072,033
5	China	2,750,945
6	France	2,058,854
7	UK	1,970,748
8	Netherlands	1,073,124
9	Sudan	791,447
10	Djibouti	(16,836)
11	Others	18,519,515
	Grand Total	94,623,525

	Country	Percentage Growth
1	China	5521%
2	Sudan	1764%
3	USA	1384%
4	Germany	973%
5	Netherlands	812%
6	France	673%
7	UK	670%
8	Italy	263%
9	Turkey	206%
10	Djibouti	82%
11	Others	2714%
	Grand Total	757%

	Country	Percentage Net Shift
1	USA	45%
2	Others	35%
3	Germany	13%
4	China	6%
5	Sudan	1%
6	Netherlands	0%
7	France	-1%
8	UK	-1%
9	Djibouti	-2%
10	Italy	-44%
11	Turkey	-53%
	Grand Total	0%

Source: Own computation based on data from ETIDI / ERCA

In absolute growth value ranking USA and Germany lead the group with 37million and 20.5 million USD value growth. Italy, Turkey, China, France, UK, Netherlands, Sudan and Djibouti have scored between 3 to 10 million. When considering percentage growth China, Sudan and USA rank 1 to 3 followed by Germany, Netherlands France UK, Italy, Turkey and Djibouti.

The last comparing criteria of percentage net shift divided the group into two equal half's where we can clearly see which countries role as a T&G export destination is fading away and which

countries is rising. Turkey and Italy alone comprise 97% of the negative percentage shift followed by Djibouti, UK and France combined comprising the remaining 3% negative net shift.

On the other hand USA contributed 45% of Ethiopia's positive percentage net shift. Germany, China & Sudan also contributed 13%, 6% and 1% positive net shift respectively. Here we can see that USA, Germany and China have become the most important export destinations for Ethiopia during the past 10 years.

Another important observation is that the export destination of T&G product is becoming widely diversified as we can see from the 35% positive percentage net shift from the combination of other destinations which individually only have a small contribution but combined are responsible for more than 1/3 of the growth.

4.2.7 Total Textile and Garment Export Comparison by Product

Table 15 shows the export performance of each category of T&G products for the past 10 years followed by Figure 7 that shows the contribution and comparison of each category to the total T&G export.

Table 15: Ethiopia's Textile & Garment Export from 2001 to 2010 by Product Category

(Value '000 USD)

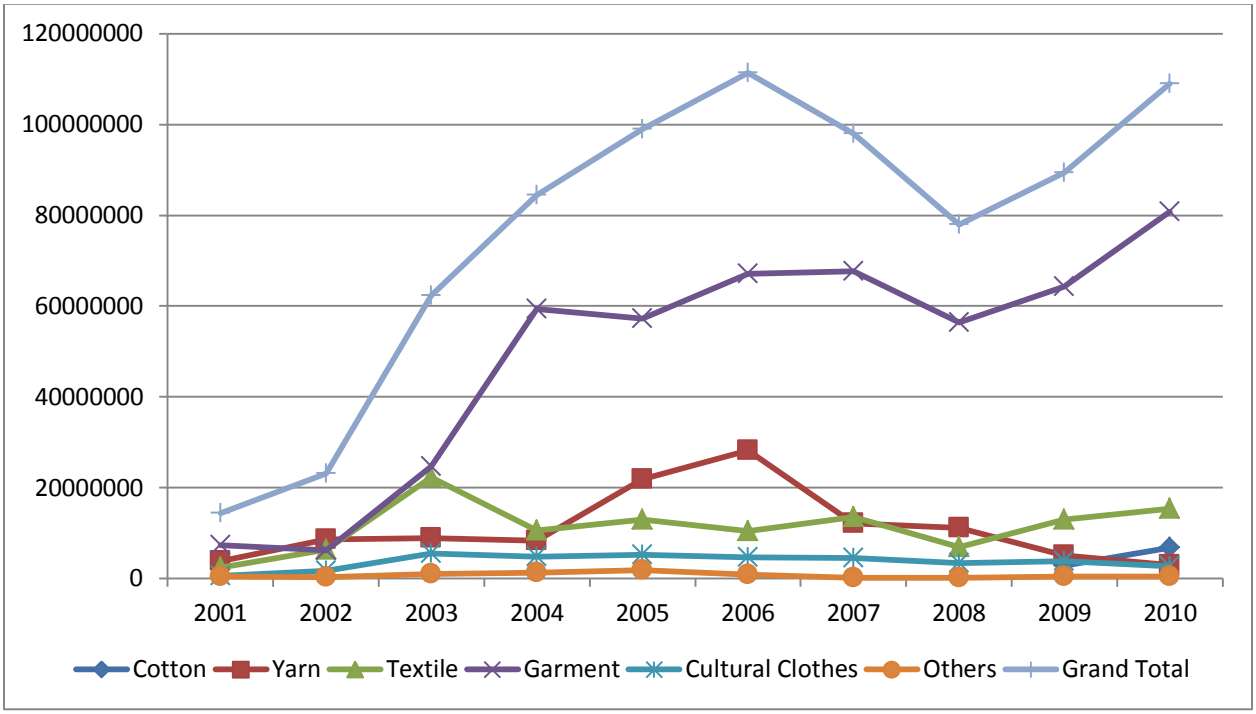
Category	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Grand Total
Cotton	0	0	0	0	0	0	0	0	2,880	6,712	9,592
Yarn	3,769	8,600	8,902	8,329	21,807	28,229	12,139	11,212	5,017	2,997	111,001
Textile	2,399	6,378	22,228	10,637	13,016	10,454	13,537	6,866	12,929	15,329	113,772
Garment	7,294	6,253	24,677	59,415	57,212	67,068	67,622	56,408	64,287	80,825	491,062
Cultural Clothes	531	1,734	5,483	4,839	5,180	4,716	4,524	3,339	3,745	2,729	36,820
Others	411	230	953	1,250	1,780	885	200	147	483	436	6,776
Grand Total	14,405	23,195	62,244	84,469	98,995	111,352	98,021	77,971	89,341	109,028	769,022
Annual Growth Rate (%)		61%	168%	36%	17%	12%	-12%	-20%	15%	22%	
Average Annual Growth Rate (%)		33%									
Overall Period Growth Rate (%)		657%									

Source: Own compilation based on data from ETIDI / ERCA

The T&G sector's export has risen with an average annual growth rate of 33% and has risen 6.6 times during the ten years. Garment export comprised 64% of the total export while textile, yarn,

cultural clothes comprised 15%, 14%, 5% and 1% of the total export. Garment export has been the leading category among the group throughout the period except for one year. During this period the share of garment export from the total T&G export has risen from 51% in 2001 to 74% by 2010.

Figure 7: Ethiopia's Textile & Garment Export from 2001 to 2010 by Product Category



Source: Own compilation based on data from ETIDI / ERCA

Table 16: Shift-Share Analysis Results for Ethiopia's T&G Export from 2001 to 2010 by Category

	Category	Absolute Growth
1	Garment	73,530,549
2	Textile	12,929,777
3	Cotton	6,711,932
4	Cultural Clothes	2,197,846
5	Others	25,164
6	Yarn	(771,742)
	Grand Total	94,623,525

	Category	Percentage Growth
1	Garment	1108%
2	Textile	639%
3	Cultural Clothes	514%
4	Others	106%
5	Yarn	80%
6	Cotton	#DIV/0!
	Grand Total	757%

	Category	Percentage Net Shift
1	Garment	79%
2	Cotton	21%
3	Cultural Clothes	-4%
4	Others	-8%
5	Textile	-9%
6	Yarn	-79%
	Grand Total	0%

Source: Own computation based on data from ETIDI / ERCA

According to the absolute growth, percentage growth and percentage net shift comparisons in table 16 we can see that the garment sub category is leading the group in all three growth measurements. Based on absolute growth comparison textile, cotton, cultural clothes and others follow taking 2^{nd} to 5^{th} ranks.

The percentage growth rates ranking also presents a similar result except for the absence of percentage growth rate for cotton due to the inexistence of cotton export during the initial year of the study period.

The percentage net shift criteria shows that garment and cotton are the only promising product categories with positive percentage net shift result. The export of yarn holds the lowest position with -79% percent net shift; showing that its performance is much lower than T&G sectors market growth rate. Textile, cultural clothes and others also have a negative percentage net shift value.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. Summary of Findings

- Based on the T&G sector's employment, foreign exchange earnings and contribution to GDP we can see that the sector has shown an encouraging growth during the past 10 years although its performance is still relatively low when compared to its targeted performance and to the performance of other major T&G exporting nations.
- According to the shift-share analysis results we can see that the garment products export category is contributing around three quarters of Ethiopia's T&G export and it also has contributed 79% of the positive net shift in the T&G sector.
- The promising export destinations for cotton, yarn, textile, garment and cultural cloth products were Indonesia, China, Turkey, USA and Sudan respectively. All the leading destinations for each T&G product category have shown significant preference more than other export destinations having positive net shift values ranging from 61% to 99%.
- Over all due to the high percentage contribution of garment products to the total T&G export United States has emerged as the most important export destination for Ethiopia's T&G export. Although Germany and Turkey taking 1st and 2nd place contributed 41% and 18% to the 769 million USD T&G products exported by Ethiopia during the last ten years they both have given way to the United States as the new leader.

5.2. Statement of Conclusion

- Considering the various activities that are set in motion towards improving the performance of the T&G sector further; undoubtedly Ethiopia is expected to continue rising as one of the top emerging T&G sourcing nations.
- The T&G sector in Ethiopia despite its failure to achieve the government target set for the sector has shown great improvement. The uninterrupted government attention put to transforming the sector is bearing fruit.

5.3. Recommendations

This research has been able to clearly show that indeed the T&G sector in Ethiopia is significantly growing along with the government effort put towards improving the sector. In addition to government effort cheaper labor cost, changing trading dynamics, various tax free export opportunities, migratory nature of the industry and other factors also seem to be promoting the sectors growth. Previously strong export destinations are giving way to new trading partners. Accordingly the following recommendations are forwarded.

- The government effort put towards improving the T&G sector should be maintained in order to be able to harvest fruit from the investment that has already been put to improve Ethiopia's T&G production and export.
- The government of Ethiopia should evaluate and improve the incentives given to investors in the T&G sector. Especially the high share of debt financed by Development Bank of Ethiopia (DBE) compared to equity raised by investors should be reevaluated not to attract mischievous investors that may enter the sector to skim and run away with the money they borrowed.
- Efforts need to be put in place towards expanding the new and rising T&G product markets as per the identified best market for each product. (Cotton- Indonesia , yarn- China, textile- Turkey, garment- USA and cultural clothes- Sudan)
- Considering that most of the product categories under the T&G sector are monopolized by a single or very few export destinations the GoE needs to work to diversify the export market for each T&G product. If not, the export performance of the T&G sector would be prone to any changes in the terms of trade or demand fluctuation with this major importing nations.
- Developing local production and consumption of T&G products is also very attractive especially for countries with substantial population like Ethiopia. The local market has lower transportation cost and lesser demand of quality which is easier to achieve for an infant T&G industry such as the one found in Ethiopia. Incentives for T&G sector should be broadened to cover companies that work to serve the local market to reduce the current local demand being served by import.

5.4. Future Research Direction

Although the performance of the T&G sector in Ethiopia is showing progress; when compared with major exporting economies in the world it has a long way to go. Further researches identifying how Ethiopia can learn from strengths as well as mistakes from economies that have benefited greatly from the T&G sector will be of great value.

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Appendixes

Appendix 1

Percentage of Employees in Medium and Large Textile and Apparel Manufacturing Industries by Sex and Year (1983-2010)

Sex	1983 EFY (1990/91)	1984 EFY (1991/92)	1985 EFY (1992/93)	1986 EFY (1993/94)	1987 EFY (1994/95)	1988 EFY (1995/96)	1989 EFY (1996/97)	1990 EFY (1997/98)	1991 EFY (1998/99)	1992 EFY (1999/00)
Male	53%	53%	52%	53%	53%	53%	53%	55%	56%	60%
Female	47%	47%	48%	47%	47%	47%	47%	45%	44%	40%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

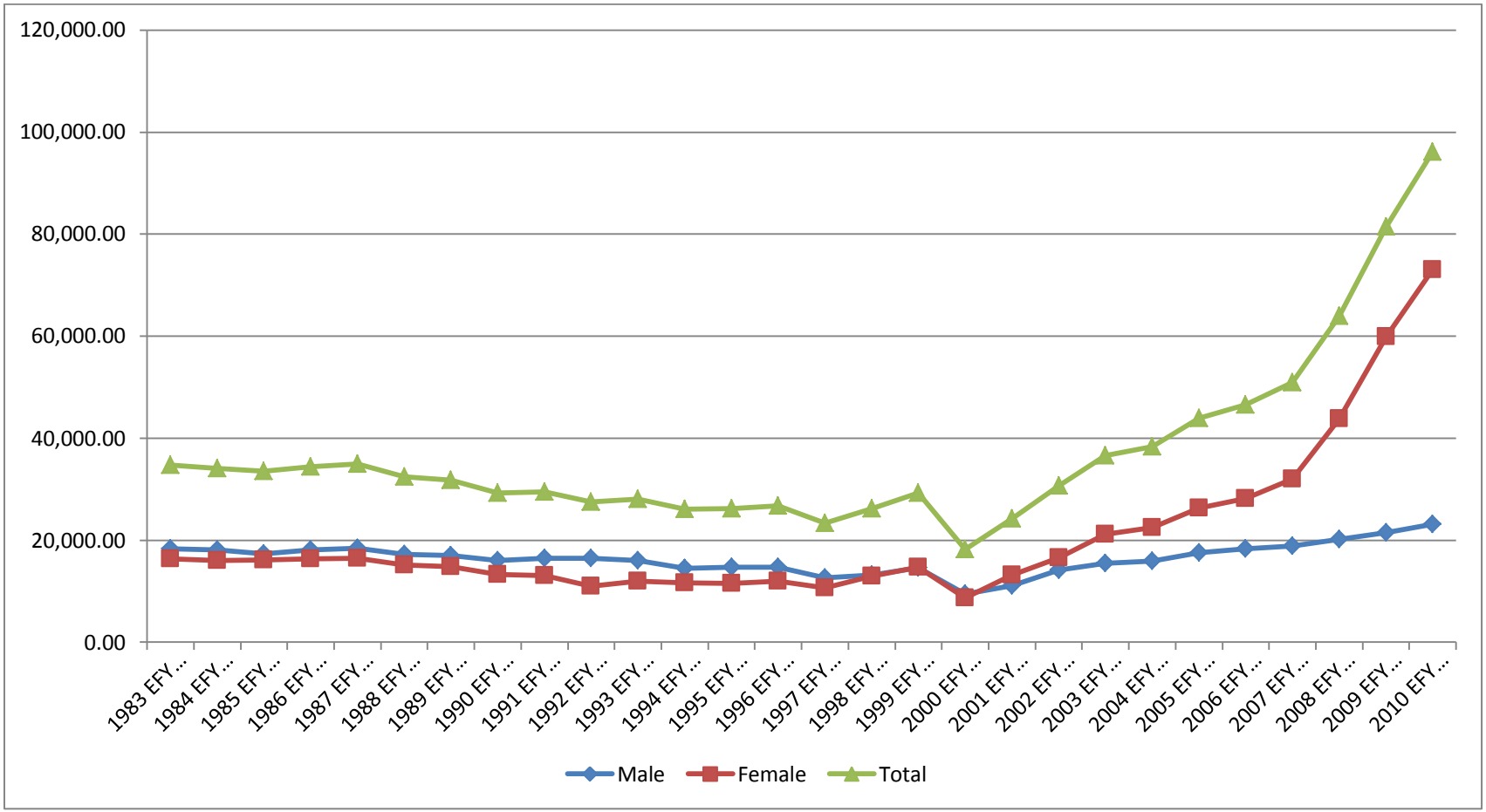
Sex	1993 EFY (2000/01)	1994 EFY (2001/02)	1995 EFY (2002/03)	1996 EFY (2003/04)	1997 EFY (2004/05)	1998 EFY (2005/06)	1999 EFY (2006/07)	2000 EFY (2007/08)	2001 EFY (2008/09)
Male	57%	56%	56%	55%	54%	50%	50%	52%	46%
Female	43%	44%	44%	45%	46%	50%	50%	48%	54%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Sex	2002 EFY (2009/10)	2003 EFY (2010/11)	2004 EFY (2011/12)	2005 EFY (2012/13)	2006 EFY (2013/14)	2007 EFY (2014/15)	2008 EFY (2015/16)	2009 EFY (2016/17)	2010 EFY (2016/17)
Male	46%	42%	41%	40%	39%	37%	32%	26%	24%
Female	54%	58%	59%	60%	61%	63%	68%	74%	76%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: Own computation based on data from ETIDI / CSA

Appendix 2

Number of Employees in Medium and Large Textile and Apparel Manufacturing Industries by Sex and Year (1983-2010)



Source: Own computation based on data from ETIDI / CSA

Appendix 3

Shift-Share Analysis Table for Ethiopia's Cotton Export for 2009 & 2010 Period

Country	2009	2010	Absolute Growth	Percentage Growth	Expected Value	Expected Change	Net Shift	Total Absolute Net Shift	Percentage Net Shift
Indonesia	491,424.00	2,925,786.87	2,434,362.87	5.953691457	848,965.10	357,541.10	2,076,821.77		0.72
Italy	188,039.26	724,316.17	536,276.91	3.851941191	324,849.36	136,810.10	399,466.81		0.14
Bangladesh	646,593.62	1,447,494.22	800,900.60	2.238645998	1,117,030.14	470,436.52	330,464.08		0.11
Portugal	144,830.91	319,722.58	174,891.67	2.207557635	250,204.28	105,373.37	69,518.30		0.02
Germany	42,359.76	0.00	(42,359.76)	2.36073E-10	73,179.08	30,819.32	(73,179.08)		(0.03)
Malaysia	46,577.97	0.00	(46,577.97)	2.14694E-10	80,466.30	33,888.33	(80,466.30)		(0.03)
South Africa	172,913.65	0.00	(172,913.65)	5.78323E-11	298,718.94	125,805.29	(298,718.94)		(0.10)
Switzerland	196,154.10	0.00	(196,154.10)	5.09803E-11	338,868.24	142,714.14	(338,868.24)		(0.12)
Tunisia	281,892.60	0.00	(281,892.60)	3.54745E-11	486,986.76	205,094.16	(486,986.76)		(0.17)
Swaziland	489,420.00	291,713.45	(197,706.55)	0.596039087	845,503.07	356,083.07	(553,789.62)		(0.19)
France	756,709.57	263,000.18	(493,709.39)	0.347557624	1,307,262.20	550,552.63	(1,044,262.02)		(0.36)
TOTAL	3,456,915.44	5,972,033.46	2,515,118.02	1.727561338	5,972,033.46	2,515,118.02	0.00	2,876,270.96	0.00
								(2,876,270.96)	

Source: Own computation based on data from ETIDI / ERCA

Appendix 4

Table 5: Ethiopia's Yarn Export from 2001 to 2010 in USD Value by Destination

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Grand Total
Turkey	3,715,870	5,347,889	4,929,644	6,392,926	11,881,597	19,482,093	8,230,388	8,006,229	1,601,840	454,358	**70,042,832**
China	50,749	1,849,708	513,217	1,555,235	9,177,284	8,351,470	3,016,783	2,472,974	3,139,640	2,487,557	**32,614,616**
Netherlands		623,153	1,036,518		193,897						**1,853,568**
Italy		144,003	637,277	18,608		48,956	107,240				**956,083**
Egypt	243	68,016	108,896	82,347			150,668	274,292	76,760	16,474	**777,696**
Djibouti	2,332	1,860	427,559	97,911		2,519	53,106				**585,287**
Germany		54	259,133	32,111	38,672		98,037				**428,008**
United Kingdom		39,360	143,631		236,253						**419,244**
Kenya			23,868	45,526	62,993		116,071	105,160			**353,618**
Algeria							285,300	28,861	25,222		**339,383**
Others	0	525,506	822,707	103,957	216,150	356,014	81,107	324,209	173,698	39,062	**2,642,411**
Grand Total	**3,769,194**	**8,599,548**	**8,902,450**	**8,328,621**	**21,806,847**	**28,241,051**	**12,138,699**	**11,211,724**	**5,017,160**	**2,997,452**	**111,012,746**
Annual Growth Rate (%)		128%	4%	-6%	162%	30%	-57%	-8%	-55%	-40%	-1%
Average Annual Growth Rate (%)		17%									
Overall Period Growth Rate (%)		-20%									

Source: Own compilation based on data from ETIDI / ERCA

Appendix 5

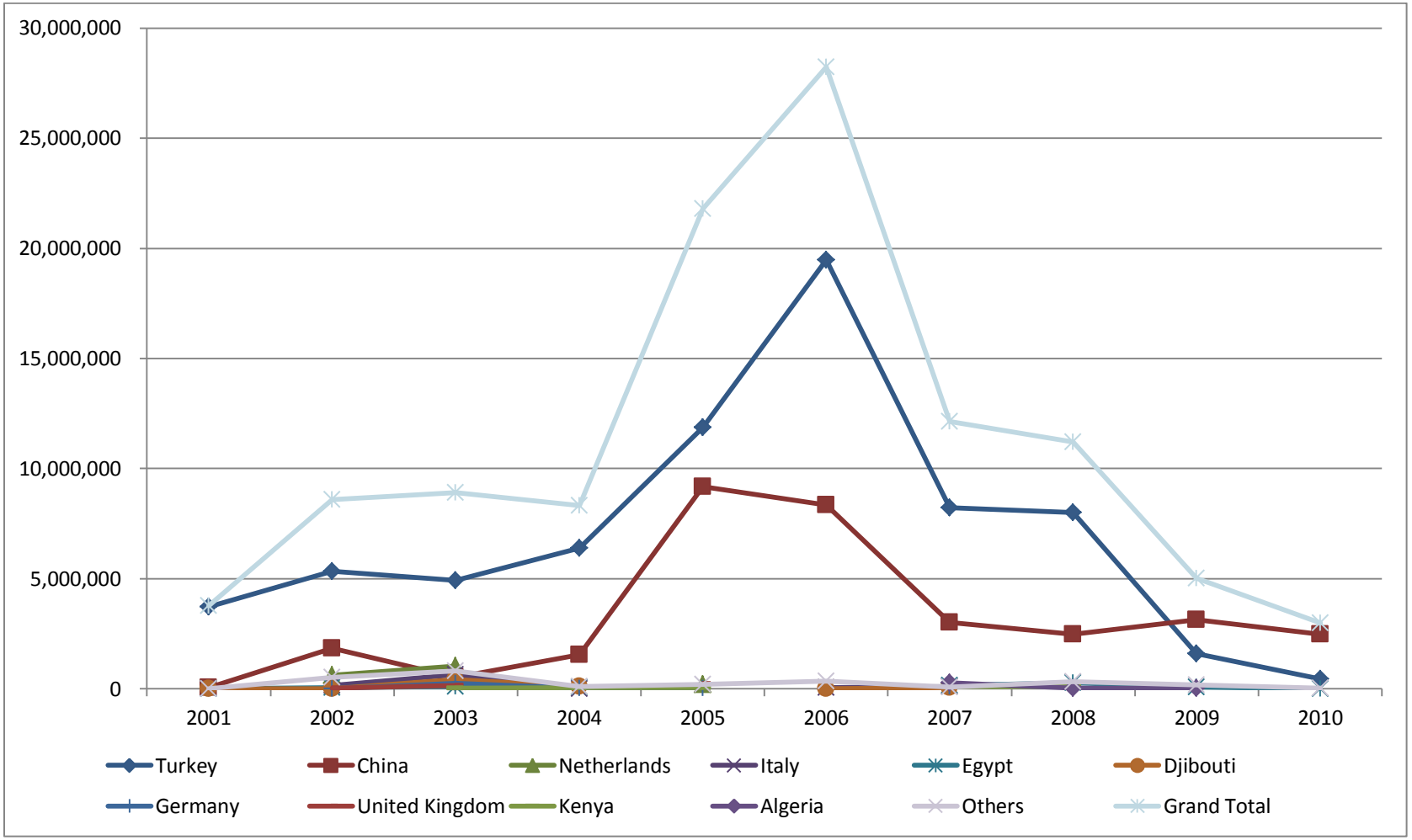
Ethiopia's Yarn Export from 2001 to 2010 in Percentage Contribution by Destination

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Grand Total
Turkey	99%	62%	55%	77%	54%	69%	68%	71%	32%	15%	63%
China	1%	22%	6%	19%	42%	30%	25%	22%	63%	83%	29%
Netherlands	0%	7%	12%	0%	1%	0%	0%	0%	0%	0%	2%
Italy	0%	2%	7%	0%	0%	0%	1%	0%	0%	0%	1%
Egypt	0%	1%	1%	1%	0%	0%	1%	2%	2%	1%	1%
Djibouti	0%	0%	5%	1%	0%	0%	0%	0%	0%	0%	1%
Germany	0%	0%	3%	0%	0%	0%	1%	0%	0%	0%	0%
United Kingdom	0%	0%	2%	0%	1%	0%	0%	0%	0%	0%	0%
Kenya	0%	0%	0%	1%	0%	0%	1%	1%	0%	0%	0%
Algeria	0%	0%	0%	0%	0%	0%	2%	0%	1%	0%	0%
Others	0%	6%	9%	1%	1%	1%	1%	3%	3%	1%	2%
Grand Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: Own computation based on data from ETIDI / ERCA

Appendix 6

Ethiopia's Yarn Export from 2001 to 2010 in USD Value by Destination



Source: Own computation based on data from ETIDI / ERCA

Appendix 7

Shift-Share Analysis Table for Ethiopia's Yarn Export from 2001 to 2010

Country	2001	2010	Absolute Growth	Percentage Growth	Expected Value	Expected Change	Net Shift	Total Absolute Net Shift	Percentage Net Shift
China	50,749	2,487,557	2,436,807.99	4902%	40,358.18	(10,390.87)	2,447,198.85		99%
Egypt	243	16,474	16,230.88	6766%	193.64	(49.86)	16,280.74		1%
Netherlands			-	#DIV/0!	-	-	-		0%
Italy			-	#DIV/0!	-	-	-		0%
Germany			-	#DIV/0!	-	-	-		0%
UK			-	#DIV/0!	-	-	-		0%
Kenya			-	#DIV/0!	-	-	-		0%
Algeria			-	#DIV/0!	-	-	-		0%
Djibouti	2,332		(2,331.84)	0%	1,854.39	(477.44)	(1,854.39)		0%
Turkey	3,715,870	454,358	(3,261,511.75)	12%	2,955,045.46	(760,824.33)	(2,500,687.43)		-101%
Others	0	39,062	39,062.23	#DIV/0!	-	-	39,062.23		2%
Grand Total	**3,769,194**	**2,997,452**	(771,742.49)	80%	2,997,451.68	(771,742.50)	0.00	55,342.97	0%
								(16,280.74)	
								35,811.85	

Source: Own computation based on data from ETIDI / ERCA

Appendix 8

Ethiopia's Textile Export from 2001 to 2010 by Destination

(Value '000 USD)

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Grand Total
Turkey	125	4,154	14,808	5,310	5,840	4,657	7,317	1,573	5,237	7,174	56,194
Italy	1,659	624	2,776	3,730	4,832	4,353	4,648	2,777	2,355	1,807	29,561
Germany	462	277	592	701	394	637	119	33	151	290	3,656
Iran,	0	0	0	0	0	0	0	730	2,232	602	3,564
Kenya	0	0	37	0	0	0	398	704	851	573	2,563
Norway	0	0	0	65	0	0	612	629	781	126	2,212
UK	0	0	687	150	598	408	0	0	1	0	1,843
UAE	0	0	201	124	0	0	228	177	254	367	1,351
China	0	0	77	111	587	329	113	0	0	101	1,318
Netherlands	0	566	557	0	91	18	69	12	2	0	1,314
Others	153	757	2,530	446	674	52	34	231	1,066	3,335	9,279
Grand Total	2,399	6,378	22,265	10,637	13,016	10,454	13,537	6,866	12,929	14,375	112,855
Annual Growth Rate (%)		166%	249%	-52%	22%	-20%	29%	-49%	88%	11%	-2%
Average Annual Growth Rate (%)		49%									
Overall Period Growth Rate (%)		499%									

Source: Own compilation based on data from ETIDI / ERCA

Appendix 9

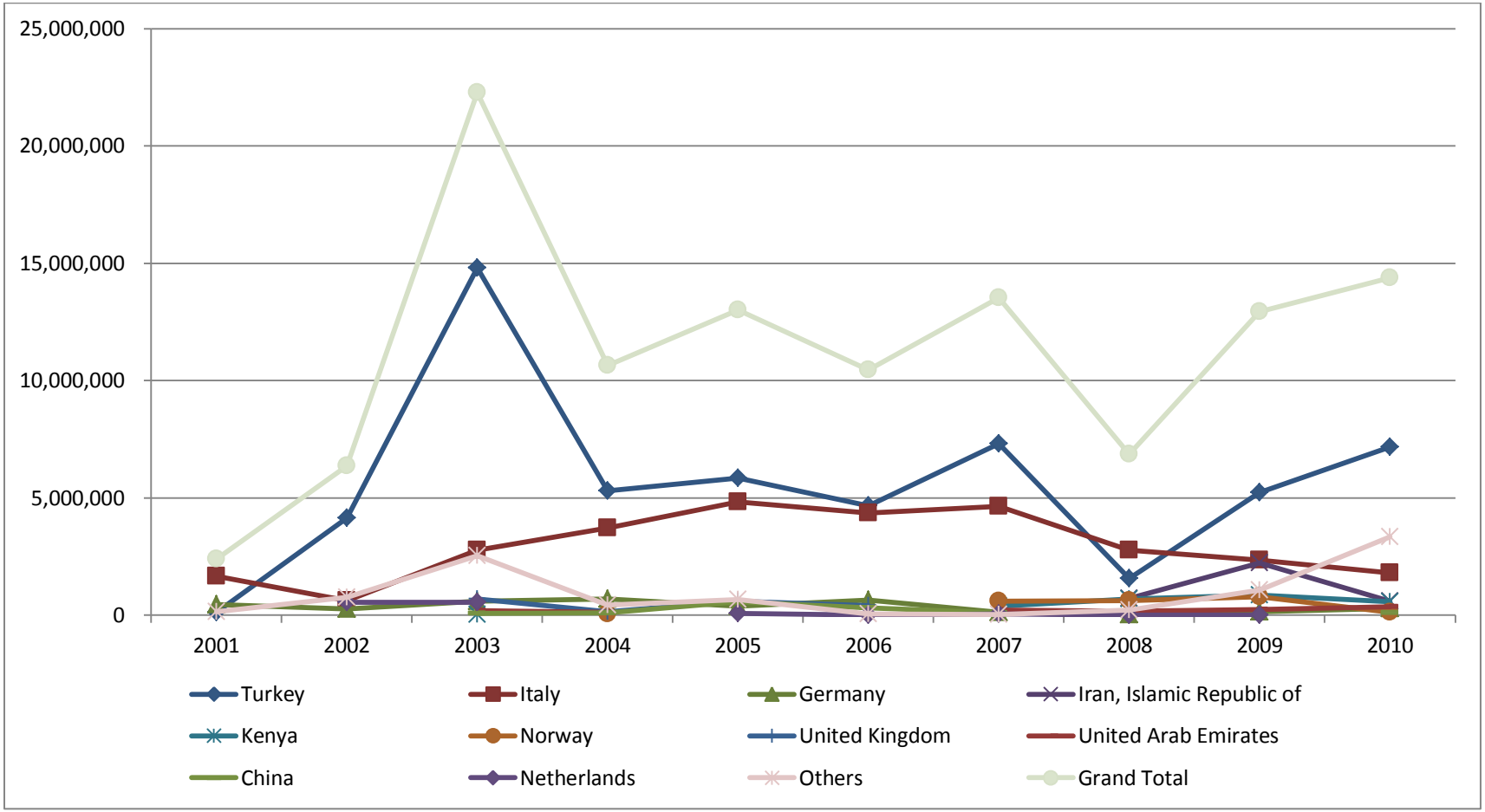
Ethiopia's Textile Export from 2001 to 2010 in Percentage Contribution by Destination

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Grand Total
Turkey	5%	65%	67%	50%	45%	45%	54%	23%	41%	50%	50%
Italy	69%	10%	12%	35%	37%	42%	34%	40%	18%	13%	26%
Germany	19%	4%	3%	7%	3%	6%	1%	0%	1%	2%	3%
Iran, Islamic Republic of	0%	0%	0%	0%	0%	0%	0%	11%	17%	4%	3%
Kenya	0%	0%	0%	0%	0%	0%	3%	10%	7%	4%	2%
Norway	0%	0%	0%	1%	0%	0%	5%	9%	6%	1%	2%
United Kingdom	0%	0%	3%	1%	5%	4%	0%	0%	0%	0%	2%
United Arab Emirates	0%	0%	1%	1%	0%	0%	2%	3%	2%	3%	1%
China	0%	0%	0%	1%	5%	3%	1%	0%	0%	1%	1%
Netherlands	0%	9%	3%	0%	1%	0%	1%	0%	0%	0%	1%
Others	6%	12%	11%	4%	5%	0%	0%	3%	8%	23%	8%
Grand Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: Own computation based on data from ETIDI / ERCA

Appendix 10

Ethiopia's Textile Export from 2001 to 2010 in USD Value by Destination



Source: Own computation based on data from ETIDI / ERCA

Appendix 11

Shift-Share Analysis Table for Ethiopia's Textile Export from 2001 to 2010

Country	2001	2010	Absolute Growth	Percentage Growth	Expected Value	Expected Change	Net Shift	Total Absolute Net Shift	Percentage Net Shift
Turkey	124,564	7,174,440	7,049,876.90	5760%	746,450.31	621,886.72	6,427,990.18		61%
Iran		602,132	602,132.08	#DIV/0!	-	-	602,132.08		6%
Kenya		572,782	572,781.77	#DIV/0!	-	-	572,781.77		5%
UAE		367,005	367,005.07	#DIV/0!	-	-	367,005.07		3%
Norway		125,936	125,936.50	#DIV/0!	-	-	125,936.50		1%
China		100,980	100,980.02	#DIV/0!	-	-	100,980.02		1%
UK			-	#DIV/0!	-	-	-		0%
Netherlands			-	#DIV/0!	-	-	-		0%
Germany	462,371	289,971	(172,399.70)	63%	2,770,768.53	2,308,397.64	(2,480,797.34)		-23%
Italy	1,659,190	1,806,689	147,499.74	109%	9,942,732.94	8,283,543.35	(8,136,043.61)		-77%
Others	152,750	3,335,371	3,182,621.06	2184%	915,355.28	762,605.73	2,420,015.33		23%
Grand Total	**2,398,874**	**14,375,307**	11,976,433.43	599%	14,375,307.07	11,976,433.43	(0.00)	6,961,129.75	0%
								1,174,913.85	
								2,893,107.95	

Source: Own computation based on data from ETIDI / ERCA

Appendix 12

Ethiopia's Garment Export from 2001 to 2010 by Destination

(Value '000 USD)

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Grand Total
Germany	1,885	616	15,502	49,653	46,417	58,107	51,229	35,097	30,258	22,404	311,170
USA	2,620	2,275	2,843	2,356	2,321	3,249	6,607	10,667	17,128	38,448	88,513
Italy	1,479	1,366	1,171	908	815	382	1,389	2,010	4,193	6,885	20,598
United Kingdom	327	373	240	297	1,206	1,218	1,819	1,994	2,578	2,223	12,275
Turkey	0	0	925	1,170	380	3,298	4,177	1,082	904	284	12,220
France	346	230	0	0	0	0	32	1,793	1,724	1,804	5,929
Djibouti	63	79	1,405	2,897	203	240	0	290	335	0	5,512
Netherlands	147	1	90	406	1,619	18	608	307	691	1,219	5,106
Austria	156	0	0	0	0	0	74	39	1,859	1,855	3,983
Spain	0	0	1	0	1	0	22	832	579	1,184	2,618
Others	271	1,311	2,464	1,728	4,241	555	1,664	2,296	4,142	5,479	24,150
Grand Total	**7,293**	**6,251**	**24,640**	**59,415**	**57,202**	**67,068**	**67,622**	**56,408**	**64,391**	**81,784**	**492,075**
Annual Growth Rate (%)		-14%	294%	141%	-4%	17%	1%	-17%	14%	27%	-6%
Average Annual Growth Rate (%)		51%									
Overall Period Growth Rate (%)		1021%									

Source: Own compilation based on data from ETIDI / ERCA

Appendix 13

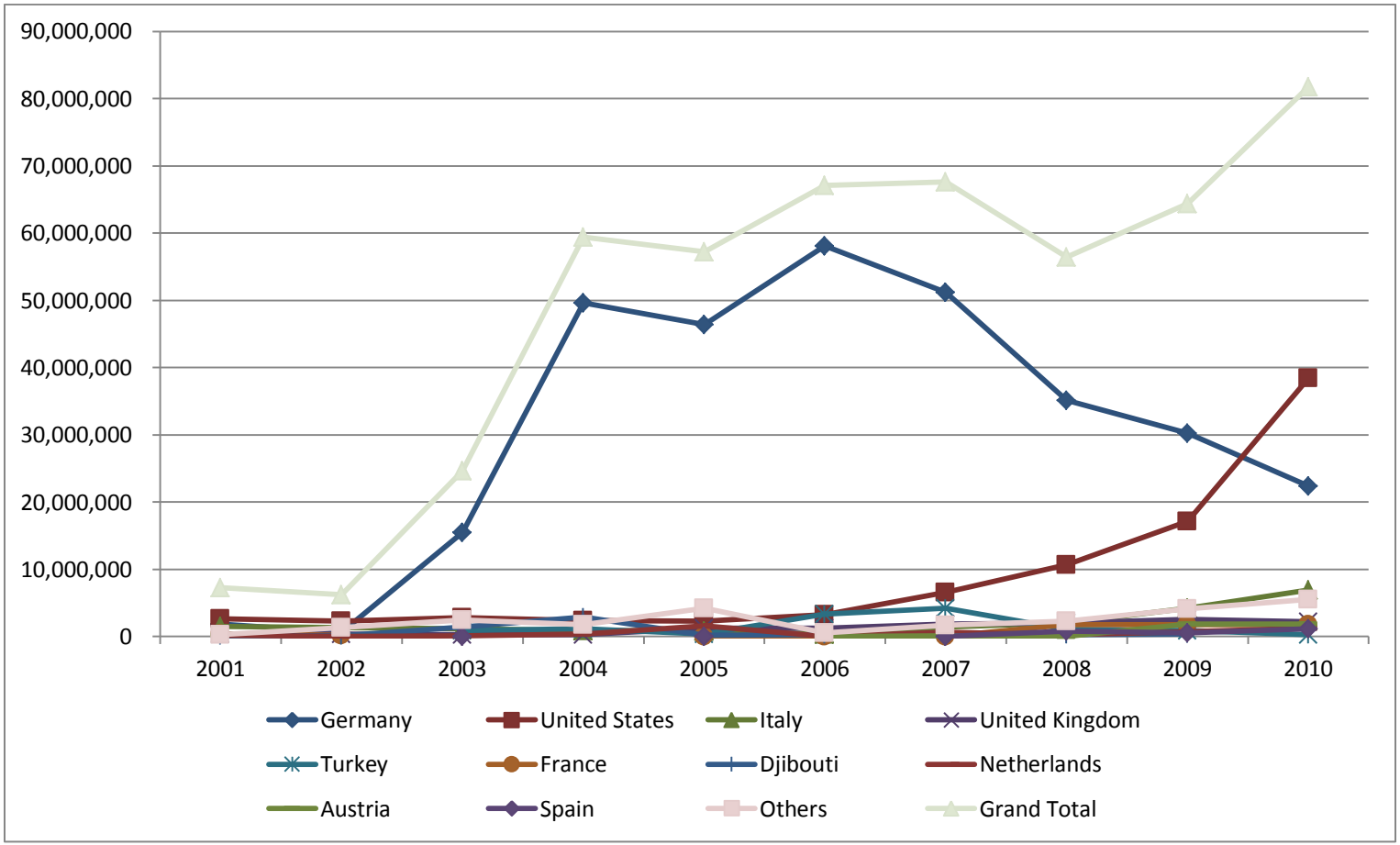
Ethiopia's Garment Export from 2001 to 2010 in Percentage Contribution by Destination

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Grand Total
Germany	26%	10%	63%	84%	81%	87%	76%	62%	47%	27%	63%
United States	36%	36%	12%	4%	4%	5%	10%	19%	27%	47%	18%
Italy	20%	22%	5%	2%	1%	1%	2%	4%	7%	8%	4%
United Kingdom	4%	6%	1%	0%	2%	2%	3%	4%	4%	3%	2%
Turkey	0%	0%	4%	2%	1%	5%	6%	2%	1%	0%	2%
France	5%	4%	0%	0%	0%	0%	0%	3%	3%	2%	1%
Djibouti	1%	1%	6%	5%	0%	0%	0%	1%	1%	0%	1%
Netherlands	2%	0%	0%	1%	3%	0%	1%	1%	1%	1%	1%
Austria	2%	0%	0%	0%	0%	0%	0%	0%	3%	2%	1%
Spain	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%	1%
Others	4%	21%	10%	3%	7%	1%	2%	4%	6%	7%	5%
Grand Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: Own computation based on data from ETIDI / ERCA

Appendix 14

Ethiopia's Garment Export from 2001 to 2010 in USD Value by Destination



Source: Own computation based on data from ETIDI / ERCA

Appendix 15

Shift-Share Analysis Table for Ethiopia's Garment Export from 2001 to 2010

Country	2001	2010	Absolute Growth	Percentage Growth	Expected Value	Expected Change	Net Shift	Total Absolute Net Shift	Percentage Net Shift
USA	2,619,817	38,447,707	35,827,889.32	1468%	29,379,155.32	26,759,338.04	9,068,551.27		63%
Germany	1,884,941	22,404,226	20,519,285.33	1189%	21,138,105.94	19,253,164.92	1,266,120.41		9%
Spain		1,183,503	1,183,502.64	#DIV/0!	-	-	1,183,502.64		8%
Turkey		284,104	284,103.96	#DIV/0!	-	-	284,103.96		2%
Austria	156,144	1,854,505	1,698,361.00	1188%	1,751,033.26	1,594,888.98	103,472.02		1%
Netherlands	146,736	1,218,977	1,072,240.58	831%	1,645,530.29	1,498,793.98	(426,553.40)		-3%
Djibouti	62,732		(62,731.56)	0%	703,484.23	640,752.67	(703,484.23)		-5%
United Kingdom	326,992	2,223,093	1,896,101.66	680%	3,666,951.80	3,339,959.97	(1,443,858.31)		-10%
France	345,642	1,804,259	1,458,616.18	522%	3,876,102.21	3,530,459.88	(2,071,843.71)		-14%
Italy	1,478,951	6,885,354	5,406,402.49	466%	16,585,253.24	15,106,302.18	(9,699,899.69)		-68%
Others	270,964	5,478,538	5,207,573.30	2022%	3,038,648.61	2,767,684.24	2,439,889.06		17%
Grand Total	**7,292,920**	**81,784,265**	**74,491,344.89**	**1121%**	**81,784,264.90**	**74,491,344.87**	**0.03**	**1,106,289.37**	**0%**
								(1,106,289.34)	
								1,106,289.36	

Source: Own computation based on data from ETIDI / ERCA

Appendix 16

Ethiopia's Cultural Clothes Export from 2001 to 2010 by Destination

(Value '000 USD)

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Grand Total
Sudan	44	1,099	2,349	3,568	3,504	3,003	2,743	1,352	1,972	724	20,357
United States	263	360	415	901	1,055	1,428	1,429	1,315	1,188	1,301	9,656
Germany	1	6	1,370	33	29	18	10	37	30	9	1,543
Turkey	0	1	748	3	0	0	0	0	0	0	752
Israel	22	32	60	45	73	40	52	104	106	82	617
Djibouti	26	9	109	8	177	8	2	96	3	3	440
Australia	12	19	40	11	7	19	111	122	65	31	437
Italy	26	113	27	50	33	31	27	43	12	5	366
UK	19	18	42	32	24	31	24	49	29	94	361
Norway	0	0	44	85	33	10	4	2	18	6	202
Others	119	79	281	103	253	123	110	207	193	139	1,608
Grand Total	533	1,736	5,483	4,839	5,190	4,709	4,513	3,327	3,617	2,393	36,339
Annual Growth Rate (%)		226%	216%	-12%	7%	-9%	-4%	-26%	9%	-34%	-1%
Average Annual Growth Rate (%)		41%									
Overall Period Growth Rate (%)		349%									

Source: Own computation based on data from ETIDI / ERCA

Appendix 17

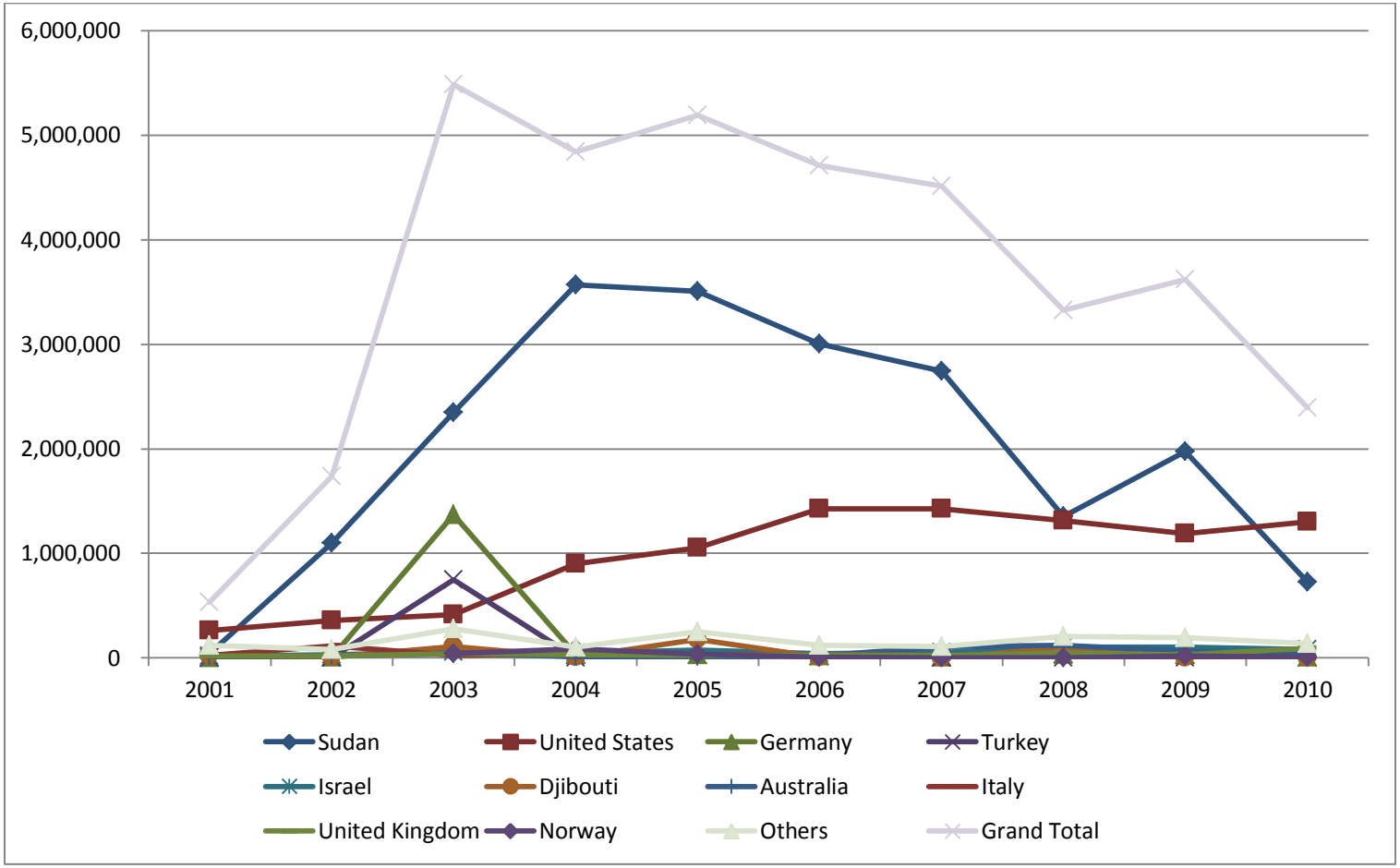
Ethiopia's Cultural Clothes Export from 2001 to 2010 in Percentage Contribution by Destination

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Grand Total
Sudan	8%	63%	43%	74%	68%	64%	61%	41%	55%	30%	56%
United States	49%	21%	8%	19%	20%	30%	32%	40%	33%	54%	27%
Germany	0%	0%	25%	1%	1%	0%	0%	1%	1%	0%	4%
Turkey	0%	0%	14%	0%	0%	0%	0%	0%	0%	0%	2%
Israel	4%	2%	1%	1%	1%	1%	1%	3%	3%	3%	2%
Djibouti	5%	1%	2%	0%	3%	0%	0%	3%	0%	0%	1%
Australia	2%	1%	1%	0%	0%	0%	2%	4%	2%	1%	1%
Italy	5%	6%	0%	1%	1%	1%	1%	1%	0%	0%	1%
United Kingdom	4%	1%	1%	1%	0%	1%	1%	1%	1%	4%	1%
Norway	0%	0%	1%	2%	1%	0%	0%	0%	1%	0%	1%
Others	22%	5%	5%	2%	5%	3%	2%	6%	5%	6%	4%
Grand Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: Own computation based on data from ETIDI / ERCA

Appendix 18

Ethiopia's Cultural Clothes Export from 2001 to 2010 by Destination



Source: Own computation based on data from ETIDI / ERCA

Appendix 19

Shift-Share Analysis Table for Ethiopia's Cultural Clothes Export from 2001 to 2010

Country	2001	2010	Absolute Growth	Percentage Growth	Expected Value	Expected Change	Net Shift	Total Absolute Net Shift	Percentage Net Shift
Sudan	43,920	723,667	679,746.82	1648%	197,355.82	153,436.08	526,310.75		79%
USA	262,819	1,300,796	1,037,976.37	495%	1,180,993.83	918,174.39	119,801.98		18%
UK	19,008	93,654	74,646.49	493%	85,413.23	66,405.29	8,241.20		1%
Norway		5,616	5,615.95	#DIV/0!	-	-	5,615.95		1%
Germany	1,091	9,170	8,078.76	840%	4,904.61	3,813.14	4,265.62		1%
Turkey	436		(436.00)	0%	1,959.19	1,523.19	(1,959.19)		0%
Israel	21,830	82,253	60,423.32	377%	98,094.97	76,264.83	(15,841.50)		-2%
Australia	12,065	31,400	19,335.12	260%	54,212.62	42,148.09	(22,812.97)		-3%
Italy	26,117	4,680	(21,437.06)	18%	117,357.01	91,240.27	(112,677.33)		-17%
Djibouti	25,953	2,505	(23,448.30)	10%	116,622.55	90,669.26	(114,117.56)		-17%
Others	119,286	139,190	19,904.12	117%	536,016.74	416,731.09	(396,826.97)		-60%
Grand Total	**532,525**	**2,392,931**	1,860,405.61	449%	2,392,930.58	1,860,405.63	(0.01)	427,559.04	0%
								(427,559.06)	
								427,559.05	

Source: Own computation based on data from ETIDI / ERCA

Appendix 20

Ethiopia's Textile & Garment Export from 2001 to 2010 by Destination

(Value '000 USD)

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Grand Total
Germany	2,348	899	17,856	50,634	47,024	58,811	51,459	35,167	30,661	22,845	317,705
Turkey	3,841	9,664	21,906	13,409	18,589	27,712	19,786	10,676	7,872	7,913	141,368
USA	2,886	2,636	3,566	3,280	3,673	4,706	8,036	12,014	18,315	39,947	99,060
Italy	3,576	2,315	4,624	4,707	5,681	4,815	6,171	4,829	6,748	9,421	52,886
China	51	1,850	753	1,702	10,539	8,680	3,130	2,532	3,675	2,802	35,714
Sudan	48	1,769	3,247	3,640	3,648	3,046	2,827	1,453	2,095	839	22,612
UK	346	431	1,112	479	2,063	1,657	1,843	2,043	2,608	2,317	14,899
Netherlands	151	1,190	1,685	408	1,931	37	680	319	694	1,224	8,318
France	359	305	16	18	14	20	58	1,823	2,514	2,418	7,545
Djibouti	91	91	2,911	3,018	560	259	76	465	349	74	7,895
Others	709	2,046	4,569	3,175	5,272	1,609	3,955	6,648	13,809	19,228	61,020
Grand Total	14,405	23,195	62,244	84,469	98,995	111,352	98,021	77,971	89,341	109,028	769,022
Annual Growth Rate (%)		61%	168%	36%	17%	12%	-12%	-20%	15%	22%	
Average Annual Growth Rate (%)		33%									
Overall Period Growth Rate (%)		657%									

Source: Own computation based on data from ETIDI / ERCA

Appendix 21

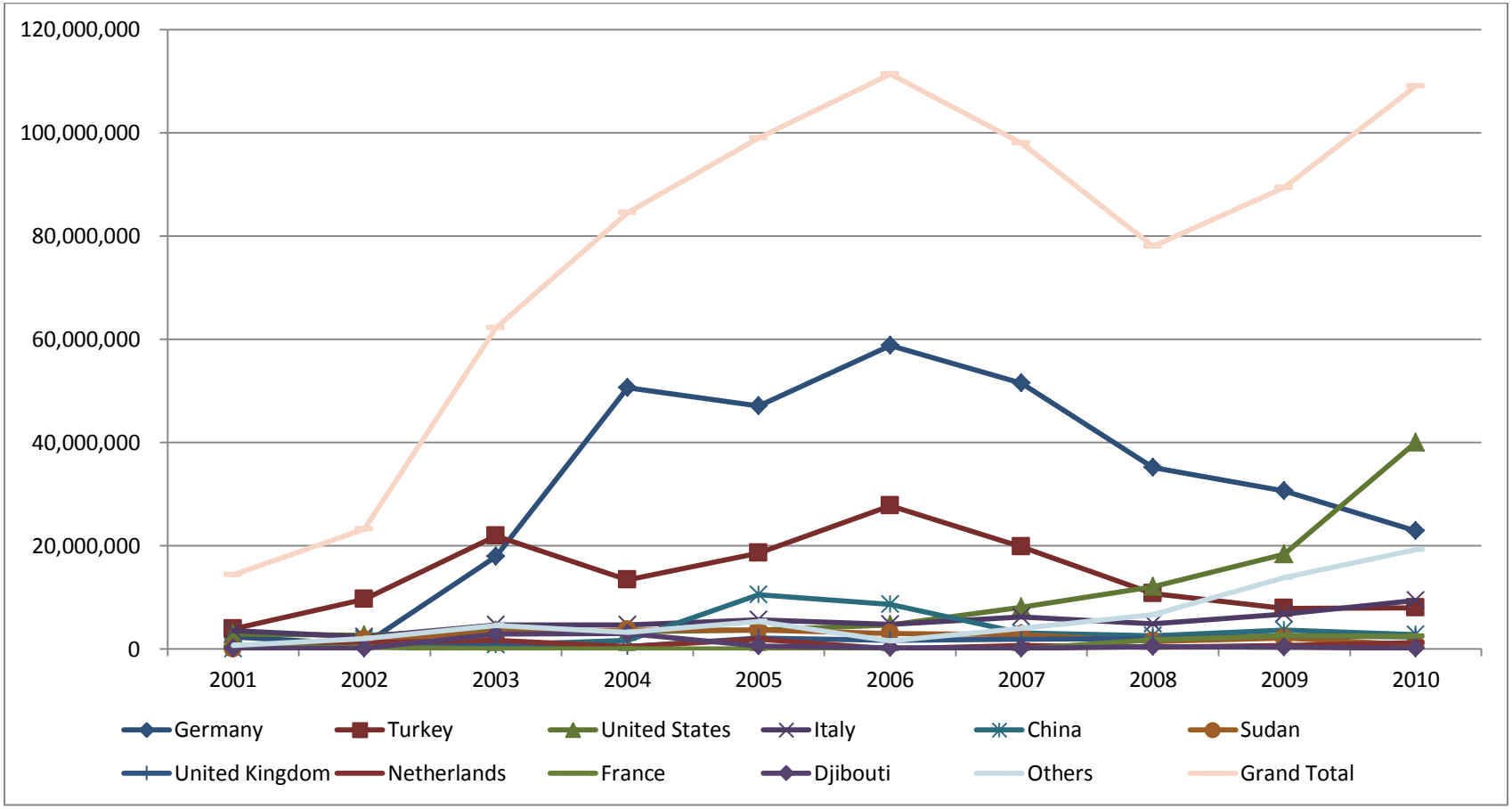
Ethiopia's Textile & Garment Export from 2001 to 2010 in Percentage Contribution by Destination

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Grand Total
Germany	16%	4%	29%	60%	48%	53%	52%	45%	34%	21%	41%
Turkey	27%	42%	35%	16%	19%	25%	20%	14%	9%	7%	18%
United States	20%	11%	6%	4%	4%	4%	8%	15%	21%	37%	13%
Italy	25%	10%	7%	6%	6%	4%	6%	6%	8%	9%	7%
China	0%	8%	1%	2%	11%	8%	3%	3%	4%	3%	5%
Sudan	0%	8%	5%	4%	4%	3%	3%	2%	2%	1%	3%
United Kingdom	2%	2%	2%	1%	2%	1%	2%	3%	3%	2%	2%
Netherlands	1%	5%	3%	0%	2%	0%	1%	0%	1%	1%	1%
France	2%	1%	0%	0%	0%	0%	0%	2%	3%	2%	1%
Djibouti	1%	0%	5%	4%	1%	0%	0%	1%	0%	0%	1%
Others	5%	9%	7%	4%	5%	1%	4%	9%	15%	18%	8%
Grand Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: Own computation based on data from ETIDI / ERCA

Appendix 22

Ethiopia's Textile & Garment Export from 2001 to 2010 by Destination



Source: Own computation based on data from ETIDI / ERCA

Appendix 23

Shift-Share Analysis Table for Ethiopia's T&G Export from 2001 to 2010 by Destination

Country	2001	2010	Absolute Growth	Percentage Growth	Expected Value	Expected Change	Net Shift	Total Absolute Net Shift	Percentage Net Shift
USA	2,886,132	39,947,496	37,061,364.27	1384%	21,844,794.45	18,958,662.52	18,102,701.74		45%
Others	708,591	19,228,106	18,519,515.12	2714%	5,363,241.76	4,654,650.82	13,864,864.29		35%
Germany	2,348,403	22,845,252	20,496,848.45	973%	17,774,790.24	15,426,386.84	5,070,461.62		13%
China	50,749	2,801,694	2,750,944.52	5521%	384,113.61	333,364.56	2,417,579.96		6%
Sudan	47,560	839,007	791,447.21	1764%	359,973.44	312,413.79	479,033.42		1%
Netherlands	150,815	1,223,939	1,073,124.25	812%	1,141,502.19	990,687.04	82,437.22		0%
France	359,119	2,417,973	2,058,853.93	673%	2,718,133.13	2,359,013.67	(300,159.74)		-1%
UK	346,000	2,316,748	1,970,748.15	670%	2,618,831.70	2,272,831.93	(302,083.78)		-1%
Djibouti	91,017	74,181	(16,835.73)	82%	688,894.61	597,877.92	(614,713.66)		-2%
Italy	3,575,557	9,421,039	5,845,481.76	263%	27,062,971.88	23,487,414.91	17,641,933.14)		-44%
Turkey	3,840,869	7,912,902	4,072,033.11	206%	29,071,090.42	25,230,221.04	(21,158,187.93)		-53%
Grand Total	**14,404,812**	**109,028,337**	**94,623,525.04**	**757%**	**109,028,337.41**	**94,623,525.04**	**(0.00)**	**2,274,362.29**	**0%**
								(2,274,362.29)	

Source: Own computation based on data from ETIDI / ERCA

Appendix 24: Ethiopia's Textile & Garment Export from 2001 to 2010 by Product Category

(Value '000 USD)

Category	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Grand Total
Cotton	0	0	0	0	0	0	0	0	2,880	6,712	9,592
Yarn	3,769	8,600	8,902	8,329	21,807	28,229	12,139	11,212	5,017	2,997	111,001
Textile	2,399	6,378	22,228	10,637	13,016	10,454	13,537	6,866	12,929	15,329	113,772
Garment	7,294	6,253	24,677	59,415	57,212	67,068	67,622	56,408	64,287	80,825	491,062
Cultural Clothes	531	1,734	5,483	4,839	5,180	4,716	4,524	3,339	3,745	2,729	36,820
Others	411	230	953	1,250	1,780	885	200	147	483	436	6,776
Grand Total	14,405	23,195	62,244	84,469	98,995	111,352	98,021	77,971	89,341	109,028	769,022
Annual Growth Rate (%)		61%	168%	36%	17%	12%	-12%	-20%	15%	22%	
Average Annual Growth Rate (%)		33%									
Overall Period Growth Rate (%)		657%									

Source: Own compilation based on data from ETIDI / ERCA

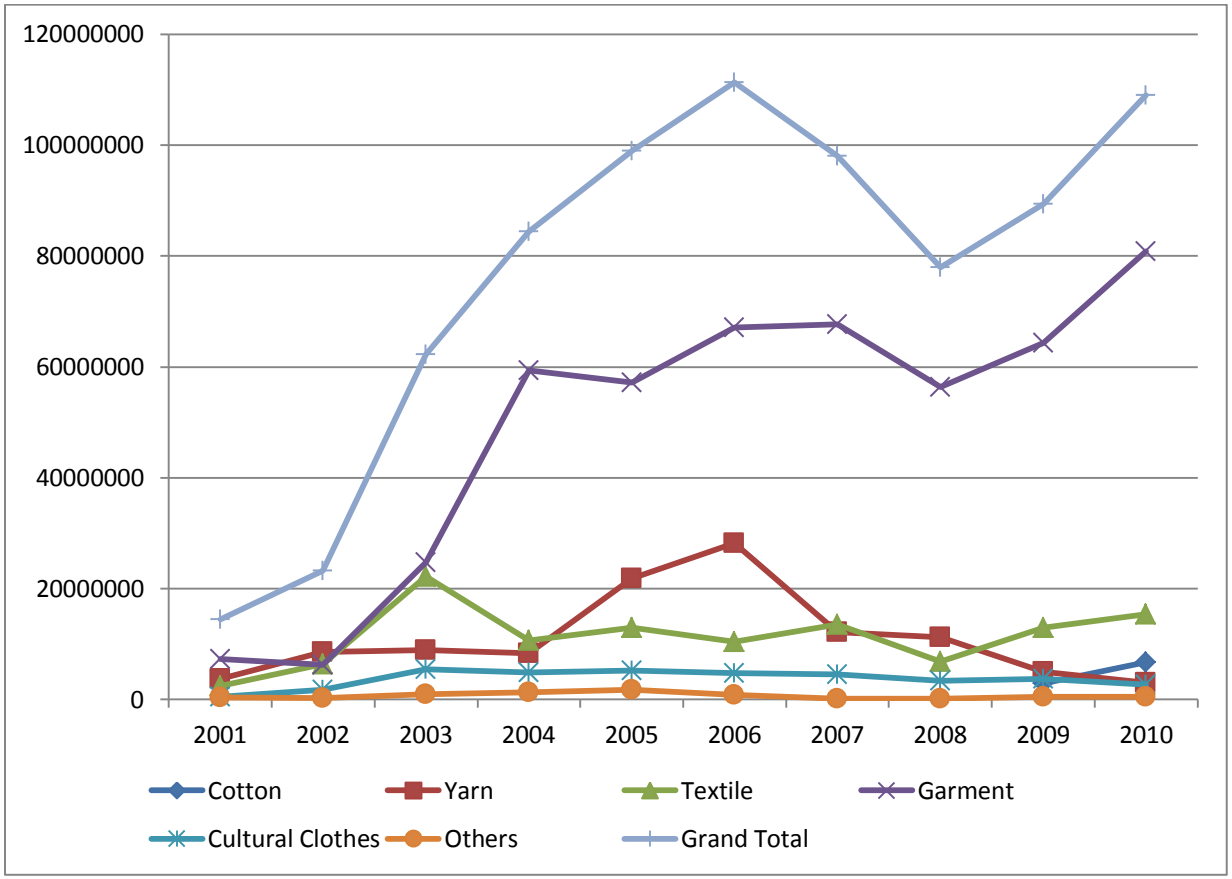
Appendix 25: Ethiopia's Textile & Garment Export from 2001 to 2010 in Percentage Contribution by Product Category

Category	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Grand Total
Cotton	0%	0%	0%	0%	0%	0%	0%	0%	3%	6%	1%
Yarn	26%	37%	14%	10%	22%	25%	12%	14%	6%	3%	14%
Textile	17%	27%	36%	13%	13%	9%	14%	9%	14%	14%	15%
Garment	51%	27%	40%	70%	58%	60%	69%	72%	72%	74%	64%
Cultural Clothes	4%	7%	9%	6%	5%	4%	5%	4%	4%	3%	5%
Others	3%	1%	2%	1%	2%	1%	0%	0%	1%	0%	1%
Grand Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: Own computation based on data from ETIDI / ERCA

Appendix 26

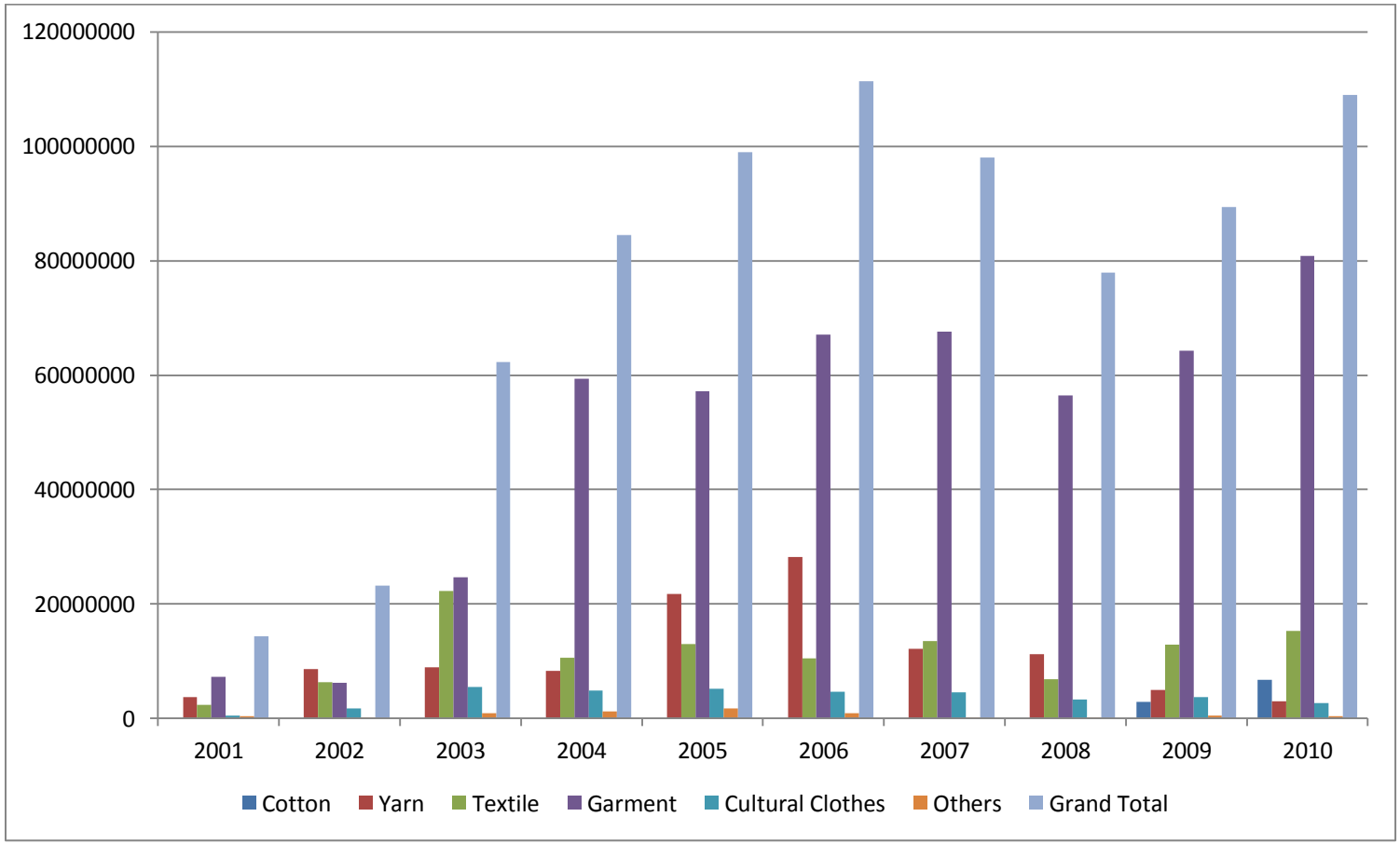
Ethiopia's Textile & Garment Export from 2001 to 2010 by Product Category



Source: Own computation based on data from ETIDI / ERCA

Appendix 27

Ethiopia's Textile & Garment Export from 2001 to 2010 by Product Category



Source: Own computation based on data from ETIDI / ERCA

Appendix 28

Shift-Share Analysis Table for Ethiopia's T&G Export from 2001 to 2010 by Category

Category	2001	2010	Absolute Growth	Percentage Growth	Expected Value	Expected Change	Net Shift	Total Absolute Net Shift	Percentage Net Shift
Garment	7,294,020	80,824,569	73,530,548.57	1108%	55,207,583.23	47,913,563.19	25,616,985.38		79%
Cotton		6,711,932	6,711,931.55	#DIV/0!	-	-	6,711,931.55		21%
Cultural Clothes	531,425	2,729,271	2,197,846.36	514%	4,022,293.19	3,490,868.24	(1,293,021.88)		-4%
Others	411,300	436,464	25,164.46	106%	3,113,078.33	2,701,778.75	(2,676,614.29)		-8%
Textile	2,398,874	15,328,650	12,929,776.60	639%	18,156,793.52	15,757,919.89	(2,828,143.29)		-9%
Yarn	3,769,194	2,997,452	(771,742.49)	80%	28,528,589.14	24,759,394.97	(25,531,137.47)		-79%
Grand Total	**14,404,812**	**109,028,337**	**94,623,525.04**	**757%**	**109,028,337.41**	**94,623,525.04**	**(0.00)**	**22,940,371.09**	**0%**
								(22,940,371.09)	

Source: Own computation based on data from ETIDI / ERCA

Appendix 29

Ethiopia's Textile & Garment Export Performance during GTPI from 2003 to 2007 EFY by Product Category

No.	Product Type	2003			2004			2005			2006			2007		
		Planed	Performed	Performance	Planed	Performed	Performance	Planed	Performed	Performance	Planed	Performed	Performance	Planed	Performed	Performance
1	Yarn	10	9.1	91%	20	8.9	44.5%	45	23.5	52.2%	70	28.2	36.4%	100	20	20%
2	Textile	25	22.9	91.6%	50	8.3	16.6%	112	9.6	8.6%	175	6.3	17.8%	250	36	.14%
3	Garment	65	26.8	41.2%	130	63	48.5%	293	61	20.8%	455	72.2	31.4%	650	252	38.8%
4	Cultural Clothes		3.4			4.4			4.9			4.7			5.0	
Total		100	62.2	62.2%	200	84.6	42.3%	450	99	22%	700	111.4	15.9%	1000	313	31.3%

Source: Own computation based on data from ETIDI and NPC's GTPI Evaluation