

EXPORT DIVERSIFICATION AND GROWTH: A CASE OF ETHIOPIA

By

Abdurahman Mohammed Hussien

THESIS

Submitted to

KDI School of Public Policy and Management

in partial fulfillment of the requirements

for the degree of

MASTER OF PUBLIC POLICY

2014

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Professor Kim Ji-Hong

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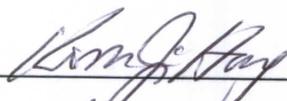
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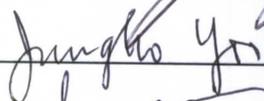
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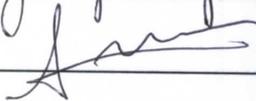
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Approval as of August, 2014

ABSTRACT

EXPORT DIVERSIFICATION AND GROWTH: A CASE OF ETHIOPIA

By

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The role of export diversification as a developmental tool to enhance economic growth for developing economies like Ethiopia has received substantial concern during the recent decades. This study explores the pattern of Ethiopia's export diversification (i.e., vertical and horizontal) and identifies its relationship with total export growth and investigates the factors that constrained export growth. A regression model is applied to examine the effect of horizontal and vertical diversifications on total export growth. Nominal exchange rate, world demand and FDI are used as control variables.

The study identified the pattern of export diversification, estimated the number of jobs created by the export sector, and discussed export concentrations using the HHI Index. The empirical findings show vertical diversification has a statistically significant impact on total export growth. Interestingly, the empirical evidence revealed horizontal diversification has no positive relationship with export growth in the long-run. Eventually, policy recommendations that help bring a balanced and sustainable export diversification and growth are drawn. These include: enhancing infrastructure development, facilitating export trade finance, adopting an effective foreign exchange regime, improving private sector development, expansion of trading across borders, and attracting and diversifying FDI inflows.

ACKNOWLEDGMENTS

First of all, I am grateful to God Almighty for granting me the opportunity to develop my academic career. Secondly, I am highly indebted to the KDI School for offering me a scholarship and having an advanced level educational experience in South Korea. Also, I would like to thank faculty members and staff of Academic Affairs Division of the KDI School for their unreserved support throughout my stay at the School. Similarly, my special appreciation goes to my thesis advisors (Prof. Kim, Ji-Hong and Prof. Yoo, Jungho) and Advanced Research Seminar professor (Choi, Changyong) for their valuable advice and remarks on the thesis, which otherwise could not have taken this final structure without their insightful guidance. Finally, I would also appreciate the supports and encouragements received from my family, fellow friends, and colleagues at the Ethiopia Commodity Exchange (ECX).

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LIST OF ABBREVIATIONS

ADF	Augmented Dickey Fuller
AGOA	Africa Growth Opportunity Act
COMESA	Common Market for East and South Africa
EBA	Everything But Arms
ECX	Ethiopia Commodity Exchange
EEA	Ethiopian Economics Association
EPRDF	Ethiopian People's Revolutionary Democratic Front
ERCA	Ethiopian Revenue and Customs Authority
ETI	Enabling Trade Index
FDI	Foreign Direct Investment
GCI	Global Competitiveness Index
GDP	Gross Domestic Product
HEXDIV	Horizontal Export Diversification
HHI	Herfindahl-Hirschman Index
IMF	International Monetary Fund
ITC	International Trade Center

LDCs	Least Developed Countries
LPI	Logistics Performance Index
NBE	National Bank of Ethiopia
NER	Nominal Exchange Rate
ODA	Official Development Assistance
OECD	Organization for Economic Cooperation and Development
PPP	Purchasing Power Parity
SAP	Structural Adjustment Program
SITC	Standard International Trade Classification
SMEs	Small and Medium Sized Enterprises
TNCs	Trans National Companies
UNCTAD	United Nations Conference on Trade and Development
USD	United States Dollar
VEXDIV	Vertical Export Diversification
WB	World Bank
WDI	World Development Indicators
WDD	World Demand
WTO	World Trade Organization

1. CHAPTER ONE: INTRODUCTION

1.1 Background

The Ethiopian economy depends highly on agriculture, which accounted for 43% of GDP, according to data from the National Bank of Ethiopia (NBE) in 2013. During the same period, service and industry sectors accounted for 45% and 12%, respectively of the country's GDP. The agricultural sector contributes to 85% of export earnings and employs 83% of the labor force. According to data from the World Development Indicators (WDI 2013), Ethiopia's GDP per capita, PPP (i.e., USD 1109) is one of the lowest in the Sub-Sahara Africa. Despite being a developing economy with least per capita income, Ethiopia, in recent years, has been one of the fastest growing economies in Africa. In terms of annual percentage growth, the Ethiopian economy showed a year-on-year average growth rate of 10.4% from 2002 to 2013 fiscal years. The driving force for the robust and rapid growth has been mainly ascribed to improved public investment in infrastructures, increased private sector investment, commercialization of agriculture, and growth in non-traditional exports (Africa Economic Outlook, 2013). Although the share of the agricultural sector to the national GDP indicated a recurrent falling tendency over the last three decades, the sector remained to have a paramount contribution to the country's employment creation and hard currency earnings.

Stability of export sector performance has been critical for the economic development of many developing countries such as Ethiopia. In recent decades, export diversification has gained increased concern among these countries aimed at augmenting export revenues, reducing instability in export earnings, and improving growth.

Although Ethiopia follows an export-led growth strategy, it has not achieved satisfactory performance in terms of export revenue generation and diversification. This is mainly due to the fact that the over three-fourth of the country's export revenue is obtained from few merchandise exports that are raw materials in nature. The country's foreign trade performance trends show that exports have been registering moderate growth, averaging about 10% per annum since 1982. The country earned all time high export revenue of USD 3.3 billion in 2013. Similarly, Ethiopia's imports have revealed an average growth rate of 12 percent each year to reach USD 12.8 billion in 2013. This resulted in a trade deficit of USD 9.2 billion in the same period. On the other hand, total exports of goods to GDP ratio have improved to 14.0% in 2012 from 7.6% in 1981. In spite of the deficits in the balance of trade, the improved exports to GDP ratio indicates the economy is gradually becoming open to international trade, which could have positive impacts on the national economy in general and the export sector in particular.

Similar to other economies in Sub-Sahara Africa, the structure of Ethiopian exports shows that few primary agricultural products constitute the lion's share of its export basket. The country's coffee, which is nicknamed as "*green gold*", is still the major export commodity, which generates one-third of the total foreign exchange earnings of the country. Other important merchandize exports include: oilseeds, Khat¹, cut flowers, live animals, pulses, meat and meat products, fruit and vegetables. These merchandize exports combined with coffee accounted for 75 percent of the total export earnings of the country. In contrast, the contribution of manufacturing exports (such as leather and leather products and textiles) to total exports is very small. Although the share of

¹ "Khat is a shrub (*Catha edulis*) cultivated in the Middle East and Africa for its leaves and buds that are the source of a habituating stimulant when chewed or used as a tea" (Online Webster Dictionary).

traditional exports is declining as a result of fast growth of non-traditional exports such as cut flowers, fruits and vegetables, generally there is high dependence on a few primary agricultural commodities. Therefore, it's highly imperative for least developing economies like Ethiopia to focus on structural and policy dimensions to bring about a sustainable and balanced diversification and export growth.

1.2 Statement of the Problem

Despite the modest growth of Ethiopia's total exports averaging 10% from 1981 to 2013, the country's export sector remains underdeveloped in terms of trade/GDP ratio (i.e., 14%), total earnings (with exports of USD 3.3 billion) and diversification (having few primary exports). During the study period, Ethiopia's trade deficit has been rising by an average rate of 21% and the value of deficits reached USD 9.2 billion in 2013. Furthermore, the structure of Ethiopia's exports is built on a narrow base of non-manufacturing and traditional exports. Although emerging non-traditional exports (for example, cut flowers) are showing promising growth, few primary commodities, mainly coffee, khat, oilseeds, pulses, and hides and skin still have supremacy in the country's export basket.

The heavy reliance on primary commodity exports indicates the narrow-base of the country's export structure having high concentration of few traditional exports. In effect, the sustained presence of highly concentrated export-base would pose a serious threat to export growth and further development of the country. Even though Ethiopia adopted various policies aiming at diversification with a framework of an export led growth strategy, the outcomes are still inadequate compared to country's potential. This study explores the pattern of export diversification (i.e., vertical and horizontal) and identifies

its relationship with total export growth. In the same token, the study investigates factors that constrained Ethiopia's export performance and diversification endeavors.

First, the prevailing high dependence on primary exports makes the country more exposed to external adversities as argued in a number of literatures; instability and volatility of foreign exchange earnings in the short-run and erratic deterioration terms of trade in the long-run. This exogenous factor has been clearly apparent in Ethiopia's case where international prices of primary commodities (such as coffee and oilseeds) were highly volatile and adversely affecting export revenues. Second, traditional exports have a low level of backward and forward linkage with the rest of the economy as they are exported without value-addition activities. Therefore, export diversification would stabilize export proceeds and speed up export growth, which in turn can instigate further economic growth for the country. Hence, the above facts and figures indicate that there should be a cautious review of the country's export trade structure and policies related to diversification. Thus, trade policies, strategies, export structure and performance, and dimensions of export diversification are the main focal points of this study.

1.3 Objectives of the Study

The study assesses Ethiopia's export diversification patterns focusing on measuring the effects of both vertical and horizontal export diversification in general. In particular, the research tries to address the following specific objectives:

- ✚ Analyze Ethiopia's external trade policies and strategies towards export diversification.
- ✚ Examine the structure and performance of Ethiopia's exports.
- ✚ Measure Ethiopia's export diversification trends.

- ✚ Identify and analyze major challenges for export diversification and growth.
- ✚ Propose key policy recommendations derived from findings of the study.

1.4 Research Questions/Hypothesis

The study will address the following research questions:

- ✚ What is the linkage between horizontal and vertical export diversification and total export growth in Ethiopia?
- ✚ What are the binding constraints for export growth in Ethiopia?

Hypothesis: an improvement in the diversification rate of manufactured export products (vertical diversification) would have more significant effect on growth of Ethiopia's exports compared to the effect of horizontal diversification (expansion of number of export sectors).

1.5 Scope of the Study

The scope of the study is limited to scrutinizing the effect of vertical and horizontal export diversification on export growth in Ethiopia for the period covering from 1982 to 2013. The study analyzes the structure, policy, strategy, and export sector performance. Furthermore, the study also examines binding constraints for export growth and possible dimensions of export diversification. The study leaves aside to make further investigation of the determinants of Ethiopia's export diversification, which is another potential area of research.

1.6 Significance of the Study

The role of export diversification as a developmental tool to enhance economic growth for developing economies has received substantial thought during the recent decades. Generally, it's thought that diversification would help to reduce instability in export revenues and foster overall growth in developing countries. Consequently, various studies have empirically proved the positive relationship and causality between export growth and overall economic growth. While in the case of Ethiopia, most previous studies focused on exploring the overall export performance with an inadequate emphasis on diversification.

However, to the best of my knowledge, a few practical studies have so far assessed the separate effect of vertical and horizontal export diversification on overall export growth, which is the primary interest of this research. Therefore, this study in general will contribute to add new insights to the existing knowledge of effects of horizontal and vertical diversification dimensions on export growth with a practical assessment on the case of Ethiopia. In particular, the study will provide insights on the relationship between export diversification (vertical and horizontal) and overall export growth. And, it provides additional input to policy makers by analyzing the binding constraints for export growth and potential dimensions of export diversification. Furthermore, the outcomes of this study will serve as a reference and basis for further research on the subject.

1.7 Limitation of the Study

The study is limited with respect to obtaining quality and extensive data series from relevant sources. In addition, the research has a shortcoming in accessing time series data where the study period covers only three decades from 1982 to 2013. Moreover, the study

has drawbacks to use trade weighted real GDP of trading partners of Ethiopia. Instead, the nominal GDP of major trading partners has been used to estimate in the regression equation as a control variable.

1.8 Organization

The entire research is organized into five main sections. Section one deals with the introductory chapter as discussed above. Section two presents surveys of theoretical and empirical literatures on export diversification and growth. Section three assesses Ethiopia's export policy, structure and performance followed by section four that discusses research methodology and empirical findings. Finally, section five draws concluding remarks and policy implications based on the research findings.

2. CHAPTER TWO: LITERATURE REVIEW

2.1 Theoretical Literature

Export diversification is described as alteration of the composition of a country's prevailing export commodities or destination markets or as the expansion of exportable products across many economic sectors. Diversification intends to set up a broader array of exports having better overseas market potential and not susceptible to related volatility in the global market prices. Export diversification in various developing economies is perceived as the advancement from traditional to non-traditional export products integral to their "export-led-growth strategy" (Samen 2010).

In various trade literatures, two different types of arguments on export diversification are found. The traditional view argues that developing economies with a narrow base of exports have a higher index of export earning instability compared to developed economies with a broader export base (Bamou 2002). This orthodox view of export diversification is based on its importance in reducing variability of export revenues triggered by periodic volatility of commodity prices in global market. The nexus of this argument lies in the idea of export product concentration and the incapability to counterbalance the volatility in the principal commodity exports by offsetting the variability and/or stability in the export of other commodities (Lakew, 2003).

According to Wilson (1984), a country's foreign exchange position would frequently be risky if it has dependence on just a single export product. Massel (1964) further demonstrated that the presence of concentrated and a very few range of exports is a major cause of volatility in a country's export revenue. He presented two African

countries: Ghana and Sudan (Ghana known for cocoa and Sudan for cotton) as examples of “mono crop countries” and claimed the potential for diversification to attain superior export earnings strength. Similarly, James (1983) contended the consequence of export commodity concentration on export earnings volatility and noted the need for diversification in line with development of industrial products.

Samen (2010) argued that diversification provides increased benefits beyond the traditional view of export earnings stability. By having a larger export base, diversification can improve value-addition and enhance growth through different ways. It can expand capacity of technological adoption through comprehensive, systematic and practical training as well as ‘learning by doing’; it also enables forward and backward linkages. He also acclaimed that diversification can create advanced markets, economies of scale and externalities, and exchange of commodities with progressive price trends for those with deteriorating price patterns.

In contrast, the new argument for export diversification focuses on dynamic comparative advantage. According to classical trade theories founded by Adam Smith and David Ricardo, every economy has a “comparative advantage” in manufacturing output, in having certain export products, and that “specialization” in these export commodities will produce “gains from trade”. The longstanding notion of comparative advantage generally suggests that what fundamentally important is “how good an economy is at producing a commodity compared with another commodity.”

Samen (2010) noted that comparative advantage is normal and equally inert for natural resources and agricultural goods; however it can be encouraged and vigorous for most manufacturing, scientific, and service sectors. Overall, it is also believed that specialization patterns noticeably differ from one economy to another. “The process of

export diversification could appear contradictory to the concept of comparative advantage. Based on trade theory arguments, the more a country actively engages in international comparative markets, the more it require to a country to become specialized in exports. Although specialization leads to a greater degree of allocative efficiency, at the same time, in a narrow export based economies, it may be accompanied by costs associated with specialization in terms of higher instability or external shocks in export revenue. This could be causing severe shocks in the economy of emerging countries. The more diversified are a countries export earnings, the better its potential to stabilize economic performance and promote growth by increasing foreign exchange sources. However, this achievement might be at the expense of advantages associated with specialization (Ali et al., 1991).

2.2 Dimensions of Export Diversification

According to various trade literatures, export diversification has many dimensions and can be scrutinized at different levels such as farm, plant, region or country. At each level, emphasis could be given to various forms of diversification. However, in the trade literature, two basic types or dimensions of export diversification have been widely discussed: *horizontal and vertical diversifications*. “Horizontal diversification occurs within a similar sector (primary or secondary or tertiary sector). And it involves alterations in the mix of a country’s exports by increasing new commodities on prevailing export base within the same sector, aimed at tackling adverse economic (to offset worldwide price volatility) and political risks” (Samen 2010).

On the other hand, vertical diversification involves a transformation from the primary to the secondary or tertiary sector. It requires bringing further uses for prevailing

products through enhancing value addition activities such as processing, marketing or other services. Major benefits of vertical diversification include expansion of market openings for natural resources or raw materials, and improve the growth and stability since value added products usually have lesser price swings than raw products.

Illescas and Carlos (2011) defined traditional and non-traditional exports of Peru based on developments by time period. He described traditional exports as those Peruvian products that have been produced and exported since longer historical periods; indicating its “comparative advantage associated to the relative abundance of resources”. On the other hand, non-traditional exports include those that have been introduced more lately and” having comparative advantage or based on relative resource abundance.”

According to Samen (2010), conditions for fruitful diversification (horizontal or vertical) can differ substantially based on capital, technology, executive capabilities, and marketing skills. Robust and healthy export growth entails both dimensions of diversification: horizontal (e.g. bring up new commodities in the current list of exports), and vertical (e.g. enter into value addition of raw materials through processing and manufacturing).

From the preceding discussion, a narrow base of primary export commodities for hard currency earnings have been a challenging issue faced by least developed countries. As a result of a secular and unpredictable declining trend in international price of these agricultural exportable products that in turn, leads to unstable export earnings. Such large volatility in export earnings has a significant adverse impact on the economy. In order to minimize the excessive dependence on primary commodities for generating export earnings, to enter into world market and to promote growth, the least developed economies need to diversify their export commodities.

2.3 Empirical Literature

As regards to the relationship between export diversification and export growth, the empirical evidences show that there is mixed outcome. Illescas (2011) noted that quite “a few studies have found out that export concentration is associated to lower growth.” For instance, (Ali et al., 1991) analyzed the export performance of three Sub-Saharan African countries, namely Malawi, Zimbabwe, and Tanzania employing various measures of horizontal export diversification. And, the study found that there is no clear relationship between the degree of export diversification and export performance for the three African economies.

Hassan and Toda (2004) conducted a comprehensive study on the association between export diversification and export growth for three LDCs: Bangladesh, Nepal, and Myanmar. The researchers found out mixed result for the captioned developing countries. For Bangladesh and Nepal, vertical diversification into non-traditional exports has more significant effect on total export growth than that of horizontal diversification into traditional exports. In contrast, in the case of Myanmar the study found absence of any association between export diversification and total export growth. According to the study, the momentum for export growth in Bangladesh and Nepal originated mainly from vertical diversification towards non-traditional products such as ready-made garments, footwear and miscellaneous manufactured products for Bangladesh and carpets and clothing for Nepal.

On the other hand, DeRosa (1992) utilized correlation analysis to examine the relation between export diversification and export growth using a data series of 42 developing economies. The findings revealed the presence of strong positive correlation

between export diversification and export growth. Furthermore, Al-Marhubi (2000) explored the positive link between diversification and growth employing cross-sectional regressions of growth of countries. Mold and Prizzon (2008) conducted a comprehensive study on 48 African economies and the result shows that export diversification has a positive effect on total export growth.

In sum, the above empirical literatures provided mixed results on the impact of export diversification on total export growth. Moreover, the foregoing studies highlighted the possibility of having different outcomes in applying different dimension of diversification on export growth.

2.4 Key Policies to Promote Export Diversification

According to the UNCTAD 2011 report, policies to promote export diversification should be selected based on a thorough analysis of the country's specific situations. These include: "its status in the worldwide division of labor, its position in the overseas supply chain, and global demand scenarios." In general, the policy reforms necessary to foster export diversification require a multi-faceted approach covering trade, investment and industrial policies, and institutional reforms. Specific measures to promote export diversification are discussed below.

2.4.1 Investment and Industrial Policy

This kind of national policies would help cultivate possibly innovative sectors that have comparative advantage. Under this framework, countries should identify and set up enabling environments required by domestic companies to obtain access to overseas markets. Enhancing access to market commonly comprises a lessening of trade barriers for exporting companies; the establishment of firms engaged in marketing and

distribution to local manufacturers with the essential knowledge to increase access to global markets. Besides, regulatory and institutional frameworks; improved infrastructure and ICT, and investment in infrastructure, would enhance productivity, export diversification, and enable local firms to compete in international markets.

✚ **Access to Finance for Export Diversification:** a well-thought out export diversification strategy need to avail financing services for export-based companies with important priority. This is because, insufficient or lack of trade finance is one of the main limitations for prospective exporters, especially SMEs that have not access to finance or obtain credits at excessively high interest rates. For example, government could convince privately owned commercial banks to provide export financing at fair interest rates. A more advanced financial industry enables more bankrolling prospects for new and pioneering entrepreneurs who could have the capability to launch new export commodities.

✚ **Development of Infrastructure:** Well-organized infrastructure is a prerequisite to achieve better export performance. To confirm that goods reach timely, in good order and with the least waiting and delivery time, streamlined transport infrastructure and port facilities are a critical component of a fruitful export diversification policy. The insufficient operation of infrastructure could deter export companies in several ways: by hindering manufacturing operations, suspending the transport and delivery of export goods. This, in turn, would result in higher trading costs and the export sector becomes less competitive in the global market.

✚ **Communication and Technological Infrastructure:** this is another major driving factor to flourish a diversified and more competitive export sector. Building up of a suitable and reachable communication infrastructure expands productivity and helps to

have fast and effective communication with the global trading community and is vital for the realization of successful export companies.

2.4.2 Institutional and Regulatory Framework

This environment in a country could either stimulate or deter export diversification efforts. A very complex or burdensome procedures, rules and regulations governing exports may threaten determinations to diversify exports. Moreover, studies on trade support services in Africa showed that inadequate policies and structure in trade policy obstructs development of export sector. Easy and coordinated export guidelines are therefore essential to stimulate export diversification (Bonaglia and Fukasaku 2003).

2.4.3 Investing in Human Capital Development

Many empirical researches have shown the correlation between diversified export portfolio and well-educated labor-force. Further studies also attested that lack of skilled manpower is a major impeding factor on the capacity of a country to diversify its exports. 'In order to diversify exports and increase export sector's productivity, appropriate policies on technology acquisition, adoption, adaptation, development, and diffusion should be crafted. As a result, employee productivity and production efficiency could improve enabling export firms to obtain competitive edge and to thrive in the international market. In addition, "funding from private and public sectors could help skill development training programs."

2.4.4 Integration into Global Value Chains

Trans National Companies (TNCs) are progressively subcontracting portions of their value chains to intensify efficiency and competitiveness and offer options with the lowest international price. In numerous cases, this integration involves outsourcing of industrial or service sectors to be efficient and low-cost in developing economies.

Engaging in worldwide value chains needs a capability to produce specialized goods or services at the required quality and quantity and within tough delivery schedules. These burdens have made it problematic for many developing economies to assimilate into international value chains and to engage at downstream sectors as suppliers of raw materials.

2.4.5 Designing Incentive Systems

Incentive systems could be designed to enhance “flows of FDI into manufacturing sector or the production of new primary export products” or boost quality of prevailing exports. In this setting, Official Development Assistance (ODA) can be essential to uphold export diversification through capacity and infrastructure development of export sectors in developing economies. “Aid agencies could help to develop a more efficient trade and investment support networks by sharing their expertise and by allowing access to trade data and regulations.”

2.4.6 Trade Facilitation

Trade facilitation is vital for promoting exports and decreasing transaction costs involved in import-export trade. According to WTO definition, trade facilitation means “simplification and harmonization of international trade procedures, where trade procedures are the activities, practices and formalities involved in collecting, presenting, communicating and processing data required for the movement of goods in international trade.” Extra unnecessary procedures bring added transaction costs to traders. A study conducted by the OECD revealed that “each one percent of savings in trade-related transaction costs yields a worldwide benefit of USD 43 billion (OECD 2003).”

3. CHAPTER THREE: PROFILE OF ETHIOPIA'S EXPORT POLICY, STRUCTURE, AND PERFORMANCE

3.2 Export Diversification Policy in Different Regimes of Ethiopia

The export diversification policy in Ethiopia can be reviewed based on three various regimes that have ruled the country. These three regimes are: the Imperial era (periods before 1974), the military regime (1974-1991), and the EPRDF regime (periods after 1991). The governments during the three regimes put into effect different set of policies aimed at augmenting the export sector and sustaining performance beyond traditional exports. The export policies pursued during the Imperial regime were mainly *in-ward oriented*, which had adverse effects on the export sector competitiveness. In contrast, the prevailing government- EPRDF regime- abandoned the *command type policies* of the Military regime and emerged with *market-oriented policies*. A brief assessment of the export policies of the three regimes is discussed as follows.

3.1.1 Policies of the Imperial Era (Pre 1974)

In this period, the export sector was administered by a fairly free market-oriented policy, where the private sector played a foremost role in foreign trade. The major strategy followed during the imperial period was towards *import substitution*. The export policies crafted under the country's development plan were designed into the following three phases.

I. *The First Five Year Development Plan (1957-1962)*: this plan emphasized infrastructure development, industry support and import substitution strategies. Promotion of exports did not receive adequate concern. Nevertheless, the plan stressed that level of demand for three dominant exports (i.e., coffee, hides and skins, and

oilseeds) as well as price movements of the respective commodities highly dictate the country's export volume, revenue, and balance of payments. Accordingly, it drew its attention on diversifying the country's exports by capitalizing on the huge potential of livestock and agro-industries to grow exports by 9% per annum.

II. *The Second Five Year Development Plan (1962-1967):* major focus was made on export diversification to raise foreign exchange revenue through structural change. The plan urged for manufacturing and mining sectors to play considerable role in developing exports. Importantly, target was set to decrease the share of agricultural exports to 72.3% from 93.6 % in between the plan period and to lift up the proportion of manufacturing exports to 24.2% from 5.2%. Tax holidays and easing of export licenses were used as incentives to private sector engaged in the production of non-traditional exports. The yearly average export growth rate was projected to reach at 11%. The main policies formulated during this period include: setting up foreign trade enterprises, adjusting tariff rates to protect local producers and enhance exports, exports credit schemes and subsidies.

III. *The Third Five-Year Development Plan (1962 to 1967):* the expansion of non-agricultural exports and geographic market diversification of primary export commodities were priority areas during this period. In general, the export share of traditional commodities was targeted to decrease to 75% from 85%. In particular, coffee export share was envisaged to reduce to 40% from 55% in the period under review. The key policy actions taken were controlling foreign exchange and over-valuation the forex rate, raising tariff rates, levying of non-tariff barriers by imposing a higher export tax and

restrictions. Despite such policy measures, the anticipated outcome of export diversification could not be achieved owing to structural bottlenecks facing the economy.

3.1.2 Policies of the Military Regime (1974-1991)

A command type of economic policy was adopted during this period. The military junta or the regime devised policies that impaired the participation of the private sector. The policies were inclined towards the development of state-owned enterprises or government parastatals. On the other hand, privately run companies were restricted and their involvement in the development endeavors of the country was set to the lowest degree. A seemingly *inward-oriented strategy* was pursued with prohibitive tariff and quantitative restrictions.

Under a 10 Year Perspective Plan (1985/86-1994/95), the military regime envisioned to streamline the export structure by promoting high value-added goods, growing the share of manufacturing exports, and increasing foreign exchange revenues. The plan granted special emphasis on state-run export enterprises and geographic diversification towards communist countries and bordering African countries. Moreover, total exports were projected to grow on average by 15.4% per annum, where state-run companies were anticipated to contribute 90% in the export sector.

As disclosed in the perspective plan, the export share of four primary export products namely, coffee, hides and skins, pulses, and oilseeds were intended to reduce to 53.2% from 73.5%. In addition, other traditional exports such as live animals, fruits and vegetables, spices were estimated to increase to 4.8% from 26.5% in a span of the ten year plan. The second-half of the plan also aimed at expanding new export products in

the mining and manufacturing sectors such as marble, cooper, and potash and leather products, respectively.

The policy tools that were put in place to achieve the plan consists of offering tax and tariff incentives, enhancing variety, quality, and quantity of exports, dissemination of market information such as world prices of commodities to local suppliers and exporters. Last but not least, in 1989/90, the government circulated a directive that banned the export of unprocessed hides and skins to meet the objective of export diversification.

3.1.3 Policies of the EPRDF Regime (Post 1990/91)

The incumbent governing party—Ethiopian People’s Revolutionary Democratic Front (EPRDF)—ousted the Military regime in 1991. Afterwards, a *free market economic policy* was adopted. A series of economic reforms were made and outward-oriented policies were pursued as a development strategy. The policies aimed at diversifying the narrow base of Ethiopia’s exports and easing the dearth of hard currency in line with a free market system. Subsequently, the role of government enterprise in export business was reduced and instead private sector participation was actively supported. Some of the major policy tools put into effect comprise: devaluation of the local currency, gradual liberalization of the forex market, restructuring the foreign trade licensing system, lowering tariffs and removing export taxes and subsidies to parastatal corporations.

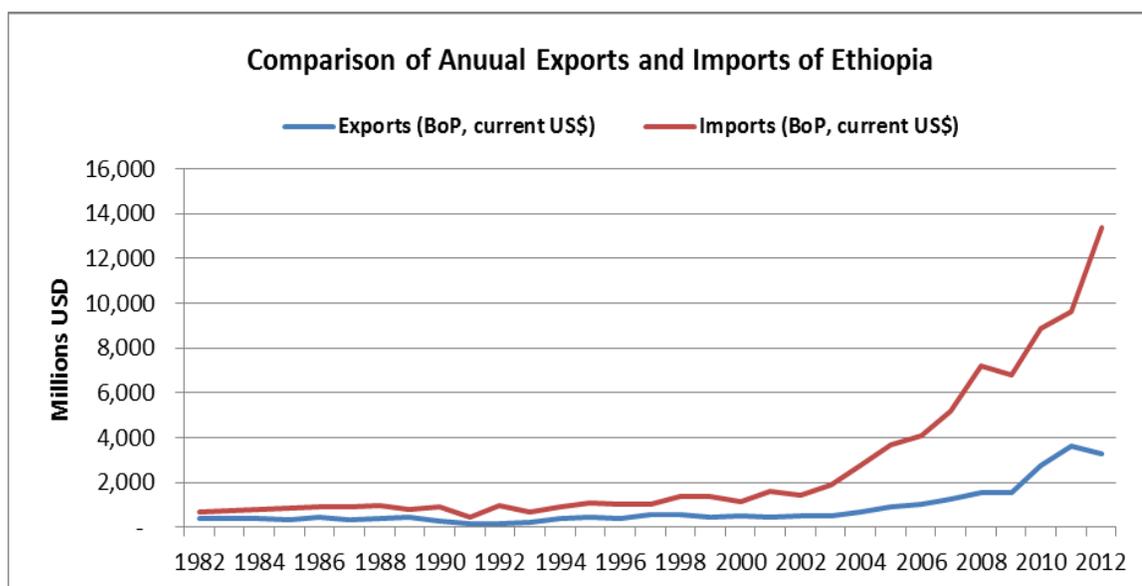
The Ethiopian government went through a Structural Adjustment Program (SAP) with the support of the International Monetary Fund (IMF) and the World Bank in 1992. The aim of the SAP was to improve the ailing economy arising from macro-economic imbalances. Under this policy endeavors, efforts were made to keep opening up the economy to international competition in order to take advantage of market expansion.

Besides, the government devised export development strategy and set up institutions that would render export support services. To achieve the objective of export diversification, specific incentive system for the export sector were put into action. The export-targeted incentive schemes include: foreign exchange retention, duty drawback, voucher system, bonded manufacturing warehouse, export credit guarantee, and external loan scheme.

3.3 Structure of Ethiopian Exports and Performance

As discussed earlier, Ethiopia's export structure is dominated by few primary agricultural export products. Not only primary exports capture the export structure, but also a high level of market concentration is observed. The top export products such as coffee, oilseed, pulses, and hides and skins accounted for 75% of total exports, where coffee alone had an average share of 6% in the country's GDP. Moreover, the country remained unable to fully finance its import needs through its earnings from the export sector registering a trade deficit of USD 9.2 billion during 2013. Further trend analysis also attests the deteriorating terms of trade of the country with its export value index (2000 = 100) and import value index (200=100) standing at an average of 253 and 419, respectively. The ensuing chart illustrates the annual export and import values of the country.

Figure 1: Comparison of Annual Export and Imports of Ethiopia



Source: World Bank, World Development Indicators (WDI) 2013

The Table below shows a cross-country comparison of the average annual ratio of Exports to GDP for six East African economies.

Table 1: Exports of Goods and Service % of GDP, East African Countries

	1982- 1986	1987- 1991	1992- 1996	1997- 2001	2002- 2006	2007- 2011	2012- 2013
Burundi	10.7	10	9.4	7.5	6.9	6.1	8.9
Ethiopia	6.7	5.6	7	12	14	11.6	14
Kenya	26.1	2.9	32	21.6	26.4	26.6	27.3
Rwanda	11.9	6.6	5.6	7.5	9.9	12	13.2
Sudan	7.9	4.4	5.3	9.6	16.08	20.07	35.1
Tanzania	n.d	11.4	19	14.3	19.8	25.8	29.6

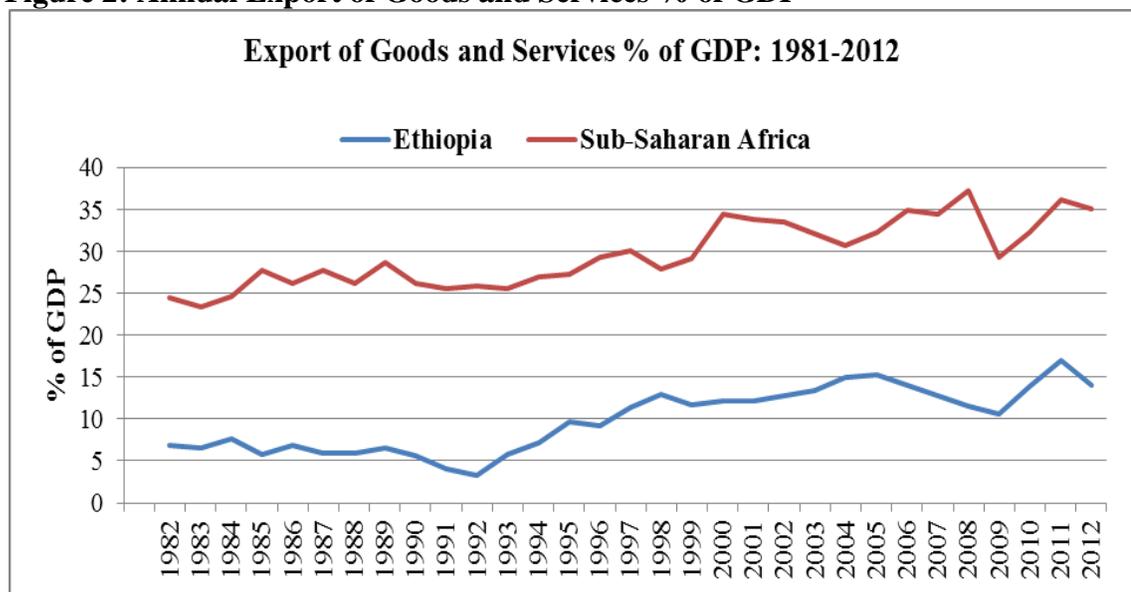
Source: Own Computations, World Bank, WDI 2013 (n.d= no data available)

Considering non-oil based economies, the export/GDP ratio indicates that Ethiopia attained the second highest ratio improved by nearly seven percentage points during the last three decades (from 6.7% in 1982-1986 to 14.0% in 2012-2013). Except

Tanzania, which recorded the highest improvement, the other regional economies either had maintained their status quo or exhibited declining ratio of exports to GDP during the review period. Since Sudan is an oil based economy, comparison has not been made with the rest of East African economies.

A further analysis is also made to show trend of Ethiopia's aggregate export to GDP ratio for the period covering 1982-2013. Besides, an attempt is made to compare the export/GDP ratio of Ethiopia with other Sub-Saharan African countries. The following chart depicts the same trends.

Figure 2: Annual Export of Goods and Services % of GDP



Source: World Bank, World Development Indicators (WDI) 2013

From the above line chart, it can be observed that the ratio of exports to GDP steadily increased from the beginning of 1992 to 2007 following the series of economic reforms under the free-market economic system.

Private sector participation in the export business was encouraged and the government initiated various incentive schemes and strategies to make exports as an

engine of growth. Table below illustrates the average annual aggregate exports growth rate for five east African countries in the last three decades.

Table 2: Exports of Goods and Service % Growth Rate, East African Countries

	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006	2007-2012
Ethiopia	0.9	(7.2)	30.9	10.0	13.7	11.0
Kenya	3.7	7.1	5.3	(0.3)	7.9	5.6
Rwanda	8.8	(7.0)	(7.3)	18.5	17.0	19.0
Sudan	(1.5)	(12.0)	7.2	34.4	18.0	n.d
Tanzania	n.d	n.d	20.4	9.8	9.2	17.5

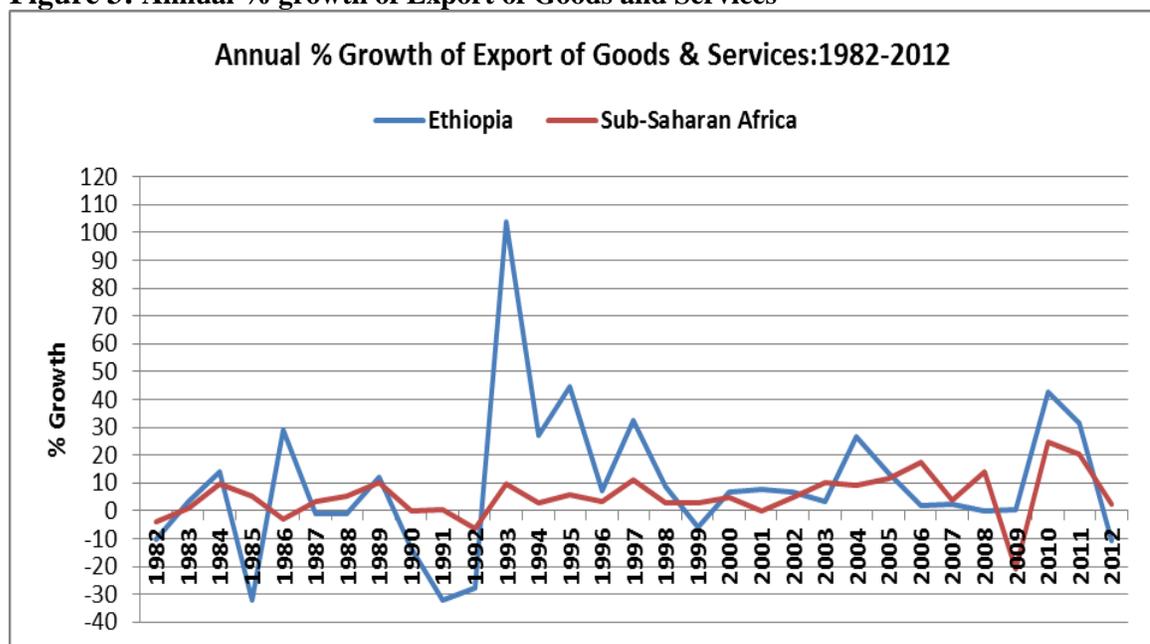
Source: Own Computations, World Bank, WDI 2013 (n.d= no data available)

The data evidently indicate that Ethiopia revealed a notable annual growth of exports, except during 1987-1991. The decline in this period was mainly attributed to the downfall of the military regime (absence of well-functioning government while in power transition), intensified conflicts, and huge spending on defense. Nevertheless, the highest growth rate of exports (i.e., 13.7%) was witnessed in the 2002-2006 period. The expansion of non-traditional exports such as flourishing cut flowers industries has enabled the export sector to grow during this period. Furthermore, annual exports continued to grow, though at declining rates during 2007-2013 following the global economic recession and massive coffee export crises² in the domestic economy.

² The Ethiopian government charged prominent coffee exporters for stockpiling coffee in expectation of price increases in the world market. Consequently, the government confiscated 17,000 metric tons of coffee and revoked their business licenses in 2009. This crisis had adversely affected the countries overall export performance during the period.

The ensuing chart depicts the year-on-year growth rate of aggregate exports of Ethiopia and other Sub-Sahara African economies for the periods covering 1980-2013. The annual trend shows that the export growth rate follows a cyclical fluctuation as mostly is triggered by volatility in international commodity prices. Accordingly, during the last thirty years, the lowest and highest growth rates were observed in year 1991 and 1993, respectively as discussed earlier.

Figure 3: Annual % growth of Export of Goods and Services



Source: World Bank, World Development Indicators (WDI), 2013

Export Growth versus Export-Sector Jobs:

A further assessment of Ethiopia’s export performance is made with respect to job creation in the export sector. Analysis on export growth and job growth in the export sector reveals that the latter follows the growth pattern of the country’s overall exports. Although official data on employment generation of the export sector is unavailable, an indirect method of computation is used to estimate the figures. The annual value of total

exports, total labor force, rate of unemployment, GDP, and GDP per worker is used in the computation.

Assumption: Rate of unemployment is assumed to be 8% in 1981 and 17.5% in 21012 based on UNDP estimate.

Estimation Methodology:

- GDP/Labor force is computed by dividing Real GDP by size of labor force.
- GDP/Labor force gives us the yearly average income that supports to employ a single worker.
- Then, the number of employment created by the export sector is computed by dividing the country’s annual export value by the average income of a worker.
- The following table summarizes the indirect method of computation used to estimate the number of export sector jobs.

Table 3: Estimated Number of Export Sector Jobs in Ethiopia: 1981 and 2012

Variables	1981	2012
a. GDP (2005 Constant US Dollar)	5,607,927,671	24,662,742,422
b. Export Value (2005 Constant US Dollar)	380,000,000	2,962,735,439
c. Number of Labor force	14,485,906	42,036,456
d. Unemployment (8% & 17.5%)*c	1,158,872	7,356,380
e. Actual Labor force =c-d	13,327,034	34,680,076
f. GDP/Actual Labor force (US Dollar) =a/e	421	711
g. Export value/ GDP per actual labor force =b/f	903,056	4,166,118
h. Estimated Number of Export Sector Jobs= g	903,056	4,166,118

Own Computation, Data from WDI

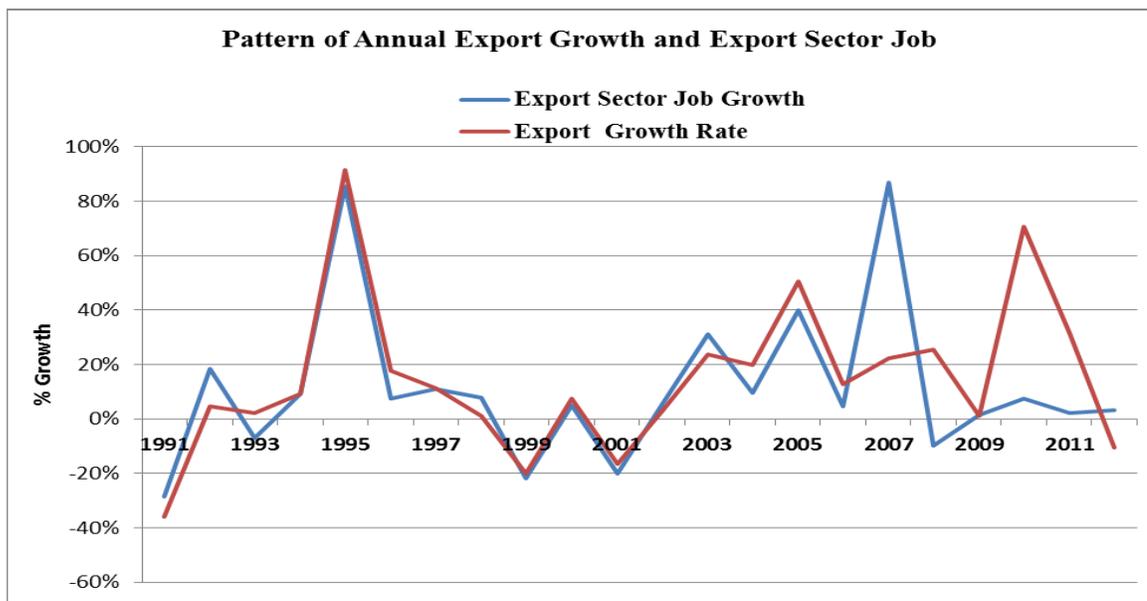
A total of 903,056 jobs were estimated to be generated by the export business during 1981. However, in 2012 this figure is estimated to reach 4.17 million jobs, which has shown a dramatic upward growth of more than four folds or 461%.

Table 4: Comparison of Cumulative Growth of Exports and Export sector Jobs

Period	Cum. Growth Rate of Exports	Cum. Growth Rate of Export Sector Jobs
1981-1985	-2.2%	n.d
1986-1990	0.7%	n.d
1991-1995	14.3%	15.5%
1996-2000	3.6%	1.9%
2001-2005	16.2%	13.2%
2006-2012	19.6%	15.4%

Source: Own Compuattion Using,World Bank, WDI 2013

Figure 4: Pattern of Export Growth and Export Sector Jobs



Source: Own Computation, using World Bank, WDI 2013

3.4 Performance in Export Diversification

Even though the performance of Ethiopia's aggregate exports revealed some improvements during the study period, an important concern that needs a careful scrutiny is diversification in the range of export goods. In this section, effort is made to analyze the diversification or concentration index of the country's exports. In this study, export diversification is measured using the Herfindahl Index (HI), which is the most frequently applied measure of trade and commodity concentration. It is also known as Herfindahl-Hirschman Index (HHI). The measure accounts of export values across a given range of products or sectors.

$$S_{i,t} = \sum_{k=1}^J (s_{i,t}^k)^2, \text{ where } s_{i,t}^k = x_{i,t}^k / \sum_{k=1}^J x_{i,t}^k$$

The Herfindahl index $S_{i,t}$ for country i at year t is computed as follows:

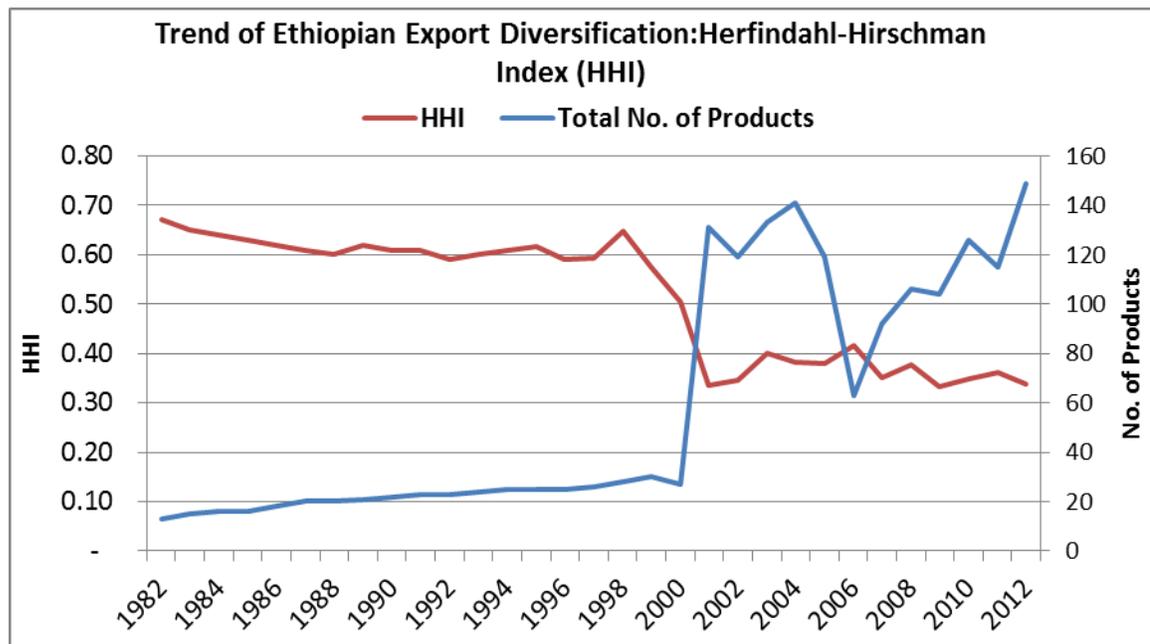
- ✚ $X_{i,t}^k$ = is country i 's export of good k in year t
- ✚ J = is the total number of industries in the country's economy
- ✚ $S_{i,t}^k$ = is the share of export of good k in country i 's total export

The HHI index takes values from 0 to 1, while higher value show greater concentration and values closer to 0 indicate greater diversification.

The UNCTAD database provides export concentration index of countries using the HHI. In this study, the trends of actual HHI indices are adapted from the UNCTAD database. The HHI indices for Ethiopia indicate that the export concentration index improved to 0.31 in 2013 from 0.67 in 1982. Similarly, the total number of export

products by major classification —Standard International Trade Classification (SITC) at the three digit level -- increased from 20 products in 1982 to 150 products in 2013. The total number of export products consists of a broader list of merchandise exports (such as coffee, oilseeds, pulses, hides and skin, fruits and vegetables, etc). The trend of HHI index is depicted on the ensuing chart.

Figure 5: Trend of Ethiopian Export Diversification: HHI Index

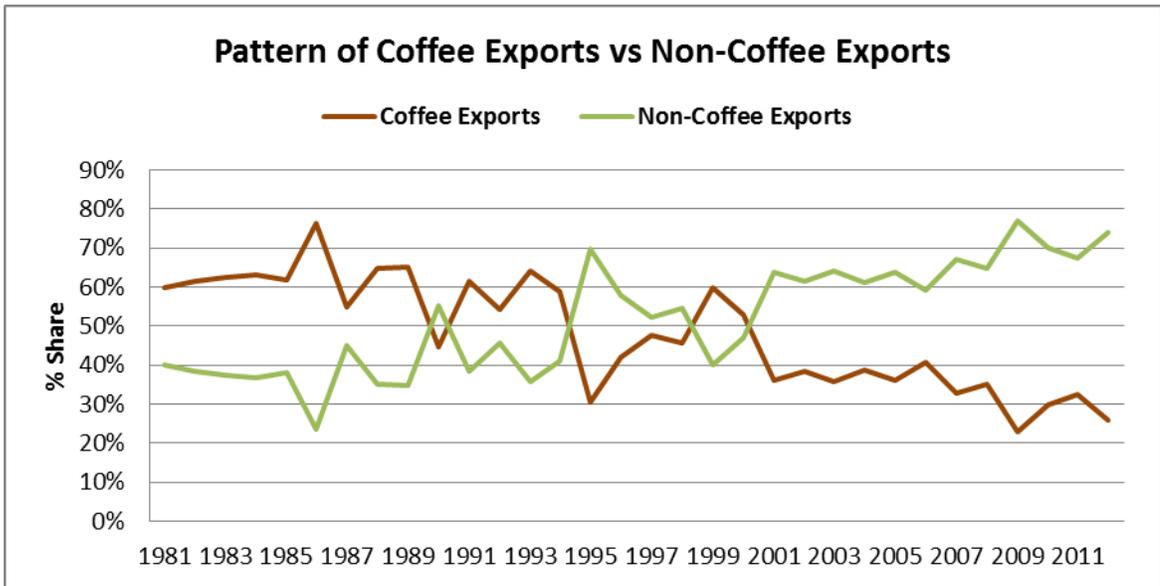


Source: Data from UNCTAD, 2013

Coffee vs Non-coffee Exports

Another essential analysis of diversification across Ethiopian coffee and non-coffee export products reveals that the share of coffee export steadily declined from 60% in 1981 to 26% in 2012. On the other hand, that of non-coffee export increased from 40% to 74% in the same period.

Figure 6: Pattern of Ethiopian Coffee Exports versus Non-Coffee Exports



Source: Own graph, data from UNCOM Trade and National Bank of Ethiopia, 2013

3.5 Binding Factors for Low Level of Export Growth

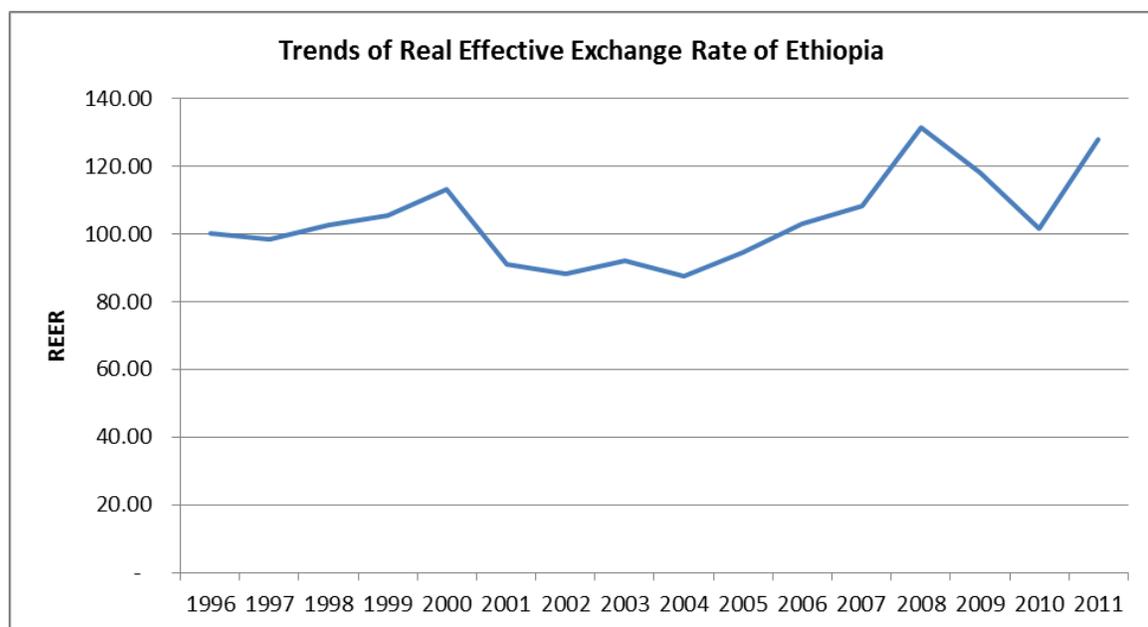
As discussed earlier, Ethiopia has pursued various trade development policies and strategies such as import substitutions and protection of infant industries in the imperial era; highly state-controlled foreign trade system in the military regime; and free-market system during recent periods. Despite the different strategies, each regime integrated an objective of export diversification policies to lessen reliance on few cash crops dominated export structure into a wider export portfolio. Even, in the recent periods, policies and strategies that fairly support exports have been designed. However, Ethiopia still suffers from limited export diversification and growing trade deficits with deteriorating terms of trade, which had negatively impacted its capability to finance its import needs.

In this context, the binding constraints for the unfavorable export performance are analyzed based on demand and supply driven factors. The demand related factors could

be tackled through external policies aimed at increasing trade negotiations. While the supply-side factors could be mitigated by focusing on realistic domestic policy mixes.

Exchange Rate Policy: exchange rate has been used as an ‘external anchor’ in a view to stabilize domestic prices during the last decade. As a result, the real effective exchange rate has shown a sharp rise, which in turn, affected export competitiveness and import-competing industries in the economy. According a recent report released in July 2014 by the World Bank, the real exchange rate of Ethiopia should be devaluated by 10%. The empirical finding of the report revealed that “a 10 percent lower real exchange rate could increase export growth in Ethiopia by more than five percentage points per year and increase economic growth by more than two percentage points.” The estimated positive effect of the real exchange rate variable is grounded on the fact that Ethiopia’s export basket is predominantly filled with basic commodities that compete more on price than on quality.

Figure 7: Trend of Real Effective Exchange Rate of Ethiopia



Source: UNCTAD Database

In addition, the demand for foreign currency surpasses its supply and there are frequent times that the country's foreign currency reserves are depleted, which affected the foreign trade sector as investors couldn't obtain hard currency up to six months or more to import basic goods.

Poor Infrastructure: although Ethiopia is currently undergoing a massive infrastructure development, availability of transport and communications infrastructure has been yet at its infancy stage, which in turn has adversely impacted its trade enabling environment. According to the 2012 World Economic Forum's Enabling Trade Index (ETI) that benchmarked 131 global economies, Ethiopia ranked 121th and 93rd places, respectively, in terms of availability and quality of transport infrastructure and availability and quality of transport services. Similarly, the country ranked 128th place with regard to availability and use of ICT. Therefore, poor infrastructure has been one of the serious deterring factors for unsatisfactory export performance in the country.

High Trading Costs: being a landlocked country with a low level of infrastructures, Ethiopia is ranked as one of the least favorable country in terms of engaging in world trade. According to World Bank's 2013 Survey Report of Trade Logistics in the Global Economy, Ethiopia ranked 141 out of 155 economies in terms of trade Logistics Performance Index (LPI). In addition, in terms of international shipments and logistics competence score, Ethiopia ranked 129th and 139th, respectively, out of 155 economies. Furthermore, according to the World Bank's Doing Business Report of 2014, total cost to export in US dollars per container in Ethiopia was USD 2,180 compared to USD 450 recorded by Malaysia as the global best performer. This relatively higher trading cost of Ethiopia is mainly attributed to poor infrastructure such as transportation and complex customs procedures.

Weak Private Sector: the structure of industry in Ethiopia is mainly characterized by the presence of a relatively small number of state-run enterprises, low competitive environment, and high bureaucratic procedures and entry bottlenecks. For example, according to the World Economic Forum's Global Competitiveness Index (GCI) report of 2013-2014, Ethiopia ranked 127th out of 148 economies, recording 3.5 index score (the highest index being seven points and one point being the lowest). During the same period, Switzerland ranked as the world's most competitive economy with an index score of 5.7. Further review of the World Bank report (2014) on goods market efficiency such as "intensity of local competition," "extent of market dominance," and "effectiveness of anti-monopoly policy," the country ranks below average, at 133rd, 144th and 131st, respectively. In addition, WDI data indicates that the country's annual average ratio of private sector gross fixed capital formation to GDP from 1982 to 2012 stands at 12%.

Weak Access to Finance: this has been one of the impeding factors for the low level of exports diversification and growth. Due to underdeveloped financial sector, export financing is one of the major constraints. The problem of access to finance has been the second most hindering factor for export business in general and the private sector in particular, after infrastructure problem. According to WDI database, the average ratio of domestic credit to private sector (% of GDP) from 1982-2012 reach 15%. Similarly, the yearly average ratio of domestic credit provided by the Ethiopian financial sector (% of GDP) during the captioned periods was only 25%. These figures are by far lower compared to other neighboring countries in East Africa (such as Kenya and Uganda).

Low Level of Border Trade: Ethiopia's track record in trading with neighboring regional countries is found to be relatively low owing to absence of adequate infrastructure that links border trade partners. The World Bank's Doing Business Report of 2014 disclosed that Ethiopia ranked 166th out of 189 countries in overall trading across borders. In the same period, Ethiopia ranked 35th out of 47 countries in trading across border among Sub-Saharan countries; and 23rd out of 40 landlocked countries.

According to the World Bank report (2014), "weak regional integration of countries like Ethiopia limits the country's potentials for growth and diversification because there exist large trading opportunities within Africa in food products, basic manufactures, and services." The report further argues that Ethiopia has underperformed in boosting export volume by using the various trade preferences in the US, Europe, and other trading partners. The country lagged behind other countries (that don't have preferential treatment) in terms of the potential volume of exports it could be exporting duty-free. For instance, "Ethiopia is exporting less than US\$3 billion worth of merchandise when an identically populous Vietnam is exporting US\$120 billion while facing higher tariffs both in the EU and U.S." In addition, considering market size and proximity of neighboring economies, Ethiopia's bilateral trade performance with neighboring regional partners is slightly over one-fifth of the total expected value of half a billion US dollars.

4. CHAPTER FOUR: EMPIRICAL ANALYSIS ON ETHIOPIA’S EXPORT GROWTH AND DIVERSIFICATION

4.1 Methodology

In this section, the research methodology is briefly discussed. Accordingly, source and type of data employed, definition of key variables, and specification of applied model is presented as follows. A simple regression model is applied to examine the effect of horizontal and vertical diversification on total export growth.

4.2 Data Sources and Types

The study employed secondary data sources. A time series data on annual export volume and value were collected and analyzed across export commodities. Relevant data sources used in the study include: Ethiopian Revenue and Customs Authority (ERCA), National Bank of Ethiopia (NBE), Ethiopia Economics Association (EEA), UNCom Trade, World Bank (WB), UNCTAD, and other relevant databases and publications. Based on these sources, the data are analyzed by employing both quantitative and qualitative methods.

4.3 Definition of Key Variables

The basic variables to be defined here include export diversification and two important dimensions of export diversification: vertical and horizontal. In this study, export diversification is defined as “change in the composition of a country’s existing export product mix.” (Semen 2010). And, export diversification is analyzed at country level. Horizontal diversification reflects an alteration of the country’s traditional export commodities and vertical diversification represents the discovery of new areas of non-traditional export products through processing, value addition or marketing efforts.

The following approaches are discussed to define the horizontal diversification (traditional) and vertical diversification (non-traditional products).

- 1. Time Factor:** traditional exports constitute those commodities that have been prevailing since the ‘colonial era’ such as coffee, cotton, and tea. In contrast, non-traditional exports comprise those that have been developed ‘after the colonial period’ such as processed foods (Bamou, 2002). However, since Ethiopia is the only country in Africa that had never been colonized, it’s difficult to put a cutoff period to classify traditional and non-traditional products based on time factor.
- 2. Trade Value:** in this definition, traditional exports include 10 largest three digit commodity groups accounting for 75 percent of total export value. If those 10 commodities do not account for at least 75 percent, more three-digit groups are added to reach at 75 percent. By implication, non-traditional exports entail all the remaining export groups (World Bank, 1997).
- 3. Ratio of Manufactured Exports to Total Exports:** this ratio would represent vertical diversification (non-traditional exports) as a country moves to diversify its export portfolio from primary products (mainly raw materials) to secondary products (mostly through value addition). The ratio is computed by dividing value of manufactured exports by total value of exports of a country (Yokoyama et al (2009)).
- 4. Number of Export Products:** using this approach horizontal diversification (traditional exports) can be measured on the basis of Standard International Trade Classifications (SITCs) at three-digit products classification level. The approach measures extensive margins which indicate the number of exports products of a country over a certain period. (Yokoyama et al (2009)).

In this study, approach 3 and 4 are used to define and measure both vertical and horizontal export diversifications as explained above.

4.4 Model Specification

A simple econometric analysis is applied to carry out the empirical analysis of impact of horizontal and vertical diversification on total export growth. The study partly replicates the model used Yokoyama et al (2009). The model estimates export growth as measured using variables such as the growth rate of manufactured exports as a percentage of total exports --representing vertical diversification (VEXDIV) and the number of export products at the three digit level--reflecting horizontal diversification (HEXDIV). Besides, three other macro-economic variables: nominal exchange rate (NER), world demand (WDD), and inward stock of FDI are used as control variables to capture exogenous factors in the export sector. World demand is represented by the aggregate nominal GDP of the country's main trading partners. Thus, the relationship of these variables with the growth rate of total exports (GRTEX) will be empirically analyzed. The empirical study expects that all these variables will have positive signs.

Based on the above definition, the effect of vertical and horizontal diversifications on the growth rate of total export is estimated using the following regression equation:

$$\text{GRTEX} = a + b_1 \text{VEXDIV} + b_2 \text{HEXDIV} + b_3 \text{NER} + b_4 \text{WDD} + b_5 \text{FDI} + U, \text{ where}$$

- ✚ GRTEX = is the growth rate of value of total exports.
- ✚ VEXDIV = is vertical diversification index represented by the ratio of manufactured exports to total exports.
- ✚ HEXDIV = is horizontal diversification index proxied by the number of export products based on Standard International Trade Classifications (SITC) at the three-digit products classification.

- ✚ NER=the nominal exchange rate, which is the average bilateral nominal exchange rate between the Ethiopian Birr (ETB) and the US Dollar.
- ✚ WDD= is the world demand represented by the aggregate nominal GDP of major trading partners of Ethiopia. (GDP of 48 trading partners, which account for 98% of export revenue, is considered for the period covering 1982-2012).
- ✚ FDI= is the inward stock of foreign direct investment into the exporting country.
- ✚ a= is constant or intercept term
- ✚ U= error term
- ✚ $b_1, b_2, b_3, b_4,$ and b_5 = are the coefficients to be estimated

$$VEXDIV = (TVMEX) / (TEX) \dots\dots\dots 1$$

Where, VEXDIV is the index of vertical diversification, TVMEX is value of total manufactured exports, and TEX is value of total exports. Similar to the works of Yokoyama et'al (2009), horizontal diversification (HEXDIV) in this study has been proxied by the number of export sectors classified by the Standard International Trade Classification (SITC) at the three-digit level.

4.5 Stationarity Test

Based on empirical literatures, a unit root test is applied to ascertain stationarity of variables used in a time series data. The unit root test aids in examining if a particular variable used is stationary or static. Thus, for our purpose the commonly used technique, i.e., Augmented Dickey Fuller (ADF) has been applied to detect the stationarity of variables in the empirical analysis. These variables are: GRTEX, VEXDIV, HEXDIV, NER, WDD, and FDI. A higher negative value of ADF represents stationarity of data

series used. The underlying hypothesis tested shows that non-stationarity in the data series do exist. The following table summarizes the ADF test and critical values.

Table 5: Results of Stationarity Test using ADF Values

Variables	ADF Value
VEXDIV	-3.6725
HEXDIV	-2.3594
NER	-4.057825
WDD	-1.521487
FDI	-3.22841

According to table 4 above, the test results revealed that the variables used in the regression model are stationary. This means that the null hypothesis is rejected at a significance level of one percent and ten percent. Thus, the test result indicates that it's meaningful to undertake estimation of the long-run regression. Therefore, the next move is to measure the long-run effect of vertical diversification (VEXDIV) and horizontal diversification (HEXDIV) diversification on total export growth (GRTEX).

4.6 Major Findings

As explained earlier, the time series data used in the regression covers periods from 1982 to 2013. The results of the estimated variables are summarized on the table below.

Table 6: Outcome of Regression Analysis on Effects of Vertical and Horizontal Diversification on Total Export Growth

	Coefficients	Standard Error	t Stat	P-value
Intercept	-1.23481	4.939012	-1.500622	0.1263
VEXDIV	0.49165	0.173520	2.417650	0.0099*
HEXDIV	-0.06493	0.499971	-0.561597	0.5796 **
NER	0.21760	0.140674	1.632499	0.0015*
WDD	1.73507	0.244689	2.190838	0.0049*
FDI	0.03972	0.121411	3.361033	0.0004*

$R^2 = 0.76254$ and Adjusted $R^2 = 0.75920$:

(Signifies that the regression equation has an explanatory power)

(* At 1% significance level and ** at 10% significance level)

Interpretation of values of R-Square (R^2) implies that 76% of the variation in export growth is explained by the variables used in the empirical analysis. The outcome of the regression estimation and variables is discussed as follows:

Vertical Diversification (VEXDIV): this variable has been regressed using percentage share of manufacture exports in total exports. Accordingly, the empirical finding shows that vertical diversification is one of the most driving factors of export growth of Ethiopia. As summarized in Table 6 above, VEXDIV is positively and statistically significant at

one percent level. This implies that a one percent rise in the share of manufactured exports in total exports would result in a 0.49 percent increase in total export growth. Thus, vertical diversification will have a greater significant effect on the growth rate of total exports in the long run. Similar to other empirical findings, this result proved that developing countries like Ethiopia should re-focus their policies and strategies towards augmenting manufactures based exports to bring significant changes to its export structure and economic transformation.

Horizontal Diversification (HEXDIV): this is measured using the number of export products at the three digit level in SITC. The empirical evidence on Ethiopia's case indicates that horizontal diversification is not positively correlated with export growth in the long-run. The coefficient of the regression HEXDIV (i.e., -0.065) indicates that it's not statistically significant. This finding shows that increasing the number of export sectors in the long-run doesn't have a significant impact to enhance export growth in Ethiopia.

Nominal Exchange Rate (NER): the coefficient of NER reveals that foreign exchange rate and export growth of Ethiopia have positive correlation. This outcome attests the anticipation that depreciation of the local currency (ETB) against US Dollar will make Ethiopian exports more competitive in the global market. Accordingly, in the empirical study, the NER was presented in local currency per unit of the US Dollar. Thus, the NER coefficient of 0.22 indicates that a depreciation of the local currency by one percentage point would trigger exports to grow up by 0.22 percent.

World Demand (WDD): this variable has been regressed using aggregate nominal GDP of major trading partners of Ethiopia. The GDP of 48 trading partners, which account for

98% of Ethiopia's export revenue, is taken into account. During the study period, Germany, Saudi Arabia, and China were the top three trading partners of Ethiopia having a cumulative trade share of 23%. The empirical finding of the coefficient of world demand (i.e., 1.74) shows the variable is statistically significant at one percent level. Thus, it can be inferred that when world income rises by a percentage point, the total exports would expand by 1.74 percent in the long run. Hence, similar to the empirical evidences for other countries, income elasticity has significant positive impact on export growth.

Foreign Direct Investment (FDI): the outcome of the regression analysis shows FDI has also a positive relationship with export growth of Ethiopia, though it's the least variable in terms of statistical significance compared to the other estimated variables. A percentage increase in the stock of FDI inflows will result in 0.04 percent increase in export growth. In fact, the result is consistent with the low level of FDI into Ethiopia that should be further developed to bring a significant effect on the country's export growth through accumulation of capital.

In general, the outcome of the empirical findings is a very fascinating one as it offers insightful results on the patterns of export diversification and driving factors for export growth in Ethiopia. Eventually, the empirical finding enables to identify sources of vertical and horizontal diversifications and their significance to the country's export growth and pertinent policy implications.

5. CHAPTER FIVE: CONCLUSIONS AND POLICY IMPLICATIONS

5.1 Conclusions

The study analyzed the pattern of Ethiopia's export diversification and growth by reviewing the country's external trade policies, strategies, export structure, and performance during the last three decades. Moreover, attempts are made to highlight and discuss the various policies implemented by three different regimes that have ruled the country and the impeding blocks for growth in the export sector. Ethiopia adopted different export diversification policies with the framework of an export-led economic growth strategy. Though a satisfactory performance was not achieved, various export focused policies and strategies have been put in place during the imperial era, military regime, and the incumbent EPRDF government.

In the imperial period, the policy and strategy adopted had an orientation towards import substitution and private sector development. Also, the importance of export diversification was stressed under three major five-year development plans to attain a diversified and stable export earnings through curtailing dependence on few primary agricultural exports and expanding export destinations. Establishment of foreign trade enterprises, raising tariff rates, introducing export credit schemes and subsidies, controlling foreign exchange, and over-valuation the forex rate, and levying of non-tariff barriers were among the policy actions taken in the period.

During the military regime, a ten year plan was developed to address export diversification and growth in the export sector. However, the inward-oriented policies pursued by the regime had a leaning towards the expansion of state-owned enterprises.

This, in effect, destroyed the private sector and privately run companies were crippled with prohibitive tariff and quantitative restrictions.

Under the current EPRDF regime, a series of economic reforms were made with a framework of a free market economy and outward-oriented policies as the main growth strategy. Concerted efforts and measures have been made to boost export diversification and growth with the participation of the private sector. Devaluation of the local currency, gradual liberalization of the forex market, restructuring the foreign trade licensing system, lowering tariffs, and removing export taxes and subsidies were among the major policy tools implemented in this period.

The study has also tried to identify the pattern of export diversification and estimate the number of jobs created by the export sector as well as to measure export concentrations. The export sector played a crucial role in creating employment opportunities besides its significant contribution to the country's hard currency earnings. The study estimated that by the year 2012, the export sector created 4.17 million jobs, which dramatically increased by 461% from 903,056 jobs in 1981. With regard to export concentration, HHI index is used to measure the concentration of exports. The result adapted from UNCTAD database indicated that the HHI index improved to 0.31 in year 2013 from 0.67 in 1982. Similarly, based on the SITC classification, the total number of export products reached 150 in year 2013 compared to 20 products during 1982.

Another important finding of the study is also the pattern of vertical and horizontal diversification and its effects on overall export growth. Using a linear regression model, the research found out that vertical diversification has greater statistically significant impact on total export growth. Besides, the empirical evidence

showed that vertical diversification has no positive relationship with export growth of Ethiopia in the long-run. Other controllable macro-economic variables such as nominal exchange rate (NER), world demand (WDD), and FDI were used in the estimation equation and all variables are found to have positive effect on export growth. Statistically speaking, a one percent progressive change in the share of manufactured exports in total exports generates a 0.49 percent improvement in aggregate export growth. Similarly, the regression outcome indicated that NER, WDD, and FDI are significant in driving export growth, with coefficients of 0.23, 1.74, and 0.03, respectively.

Despite implementation of various policies and strategies, the performance in export diversification and growth has been yet at a lower level. The country still has a narrow base of export structure with growing trade deficits and deteriorating terms of trade, which had adversely affected its ability to finance its imports. The study has also revealed that the major deterring factors for a low level of export growth include: unsound foreign exchange policy, poor infrastructure, high transaction costs, under developed private sector, poor access to trade finance, and low level of border trade. Generally, the outcomes of the study show that the challenges facing export diversification and growth in Ethiopia have structural, institutional, and policy perspectives.

5.2 Policy Implications and Recommendations

Based on the foregoing discussion, analysis, and empirical findings, the study draws the following policy implications and recommendations to bring a balanced and sustainable export diversification and growth in the Ethiopia.

- ✚ **Improve Infrastructure Development:** there should be increased public investment in the development of energy, transport, communications, and information technology infrastructures to build an efficient trade logistics system and reduce transaction costs. It's also vital to develop business incubators and special export processing zones. By doing so, Ethiopia can increase the market competitiveness of its export products in the global market.
- ✚ **Facilitate Export Trade Financing:** the government should ensure sufficient access to finance for export firms in order to grow the sector. Besides to internal sources of finance, other external means of financing schemes, for example venture capital should be sought. As there is no currently any export-import bank that specializes in financing foreign trade in Ethiopia, it's also commendable to set up a dedicated Export-Import Bank through a public-private partnership or other suitable platforms.
- ✚ **Adopt Sound Foreign Exchange Policy:** the country should periodically evaluate the reliability of its foreign currency regime as part of having a healthy macro-economic policy in general and improved growth in the export sector. As the recent World Bank empirical study indicates, the real exchange rate in Ethiopia is overvalued; this favors imports but hurts exports. Thus, policy makers should ensure to implement a competitive real exchange rate.
- ✚ **Enhance Private Sector Development:** there has to be clear policies and strategies to build a competitive and vibrant private sector that would play a significant role in the export sector. This involves designing incentive systems, renovating the business environment, reducing complex procedures, bureaucratic hurdles, and corruptions.
- ✚ **Expand Trading Across Border:** the government should speed up the WTO accession process and carry out bilateral trade agreements to expand export trade.

Most importantly, the country should be able to maximize quota and duty free export entry benefits from various trade development programs and regional partnerships such as the African Growth Opportunity Act (AGOA), Common Market for East and South Africa (COMESA), and Everything but Arms (EBA).

✚ **Capacity Building and Support Services:** the private sector and export businesses should obtain capacity building, awareness programs, and trainings on improved production systems, technologies, and knowledge sharing activities. Moreover, various export support services such as market linkages, trade fairs, exhibitions, and expos should be provided on a continual basis.

✚ **Attract and Diversify FDI Inflows:** Ethiopia should make use of its comparative advantage of the availability of cheap and trainable labor, land, and natural resources to attract inbound FDI, discover new export products, boost hard currency earnings, expand capital accumulation, and enable technology transfer. It's highly imperative to diversify the primary agricultural exports, to induce manufacturing based exports, and to intensify vertical diversification through value addition activities and forward and backward linkages in the economy. In addition, the highly concentrated FDI stock inflows from China, Turkey, and India should be diversified by attracting FDI inflows from other potential countries to avoid possible political and market risks.

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