ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES

DETERMINANTS OF EXPORT PERFORMANCE OF ETHIOPIA

by
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June 2000

DETERMINANTS OF EXPORT PERFORMANCE OF ETHIOPIA

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by Berhane Tesfay.

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ABSTRACT

The foreign trade sector plays a major role in development endeavors of developing countries, such as Ethiopia. In many instances, strength or weakness of an economy is reflected in the performance of its sub-sector. In view of this fact, this paper attempts to examine the factors that determine the performance of the Ethiopian Export sector.

To analyze the determinants of export performance, a time series export determination function as well as descriptive cross-sectional data analysis is put to use. It also focused on the one-to-often considered side of demand bottlenecks and policy constraints.

A major finding of the study is that world demand is an important determinant of Ethiopian export performance. It is also found that real exchange rate, relative price, domestic demand pressure and non-price factors which referred as the learning process (e.g. quality, diversification, packing, marketing) significantly determine performance of exports.

Subject to the limitations of world market on small economy, there exist a number of policy and institutional reforms that could have large pay-offs. Reducing dependency on few export base and improving the supply of export quality which can achieve by simple policy coordination. Restructuring the incentive framework, rigorous promotion, diversification strategy should be the concern areas for policy makers.

CHAPTER ONE

1.1. Introduction

Export can normally be defined as the sale of goods and services in foreign markets to earn foreign exchange. This foreign exchange in turn is used to buy goods from abroad, which are not available in the domestic economy or the production for which the country does not have, any comparative advantage.

Good export performance helps to maintain the trade balance and the balance of payment. This means that the amount of goods and services bought by a country from the rest of the world must equal the amount sold to the rest of the world. How ever, it does not necessarily mean that export should always be equal to import. What is important is the tendency over time for exports to cover import.

Many studies evidence the large import requirement in LDCs has resulted in large balance of payment deficit. As a result, an increased emphasis has been given to expansion of export. Examining the main factors affecting the export performance is therefore, an important issue for a country like Ethiopia.

Ethiopia has a natural advantage to exploit the world market export. It has potentially big cultivable fertile land for exportable commodity, live stock, hydroelectric, tourism and others. Despite all this potential, Ethiopian export remains insignificant. Import flows are not basically determined by earning of its exports of goods and services. Export earning had been reflected in an over smaller coverage of the import bill. That is, import demand is continuously increasing while export has not grown with the same pace; rather it is characterized by continuous deterioration. Its terms of trade are continuously declining. As a result, the country is facing with a balance of payments crisis.

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Any discussion of the Ethiopia economy including the export sector is incomplete without giving special attention to the agricultural sector. This is because agriculture plays a vital role in the Ethiopian economy and its contribution to the national income has been of immense importance. Agricultural commodities accounts for about 90% of the total export earnings. This can be attributed to the fact that the manufacturing sector is small in absolute terms, when compared to agriculture and the fact that local value added in foreign exchange terms tend to be much higher for agricultural commodities than industrial products. Hence agriculture is the single most important determinants of Ethiopian over all export performance.

Among the agricultural exports, coffee is by far the most important single cash crop export commodity and earners more foreign exchange than all other exports. For instance in 1995/96, 1996/97 coffee alone has contributed 67.9 & 63.8 percent of total export value, respectively. It is then evident that Ethiopia's export performance depends heavily, on the performance of coffee. Apart from coffee, Hide & skin follow second accounting, on average, for 12%. Pulses, Oil seeds, live animal & their product are some of the other important export commodities. In recent years chat has become another important foreign exchange earner.

The concentration on few primary product export, dominated by coffee has implication on the economy. It is subjected to various external and internal fluctuations. As some studies indicate, the concentration on one or few commodity export is the major characteristic of a poor countries. Love (1986) provided support for the argument that dependence on one commodity or a narrow range of products, the greater is the fluctuations in total earnings occurs.

Thus, it would be of paramount importance to look in to the performance of the Ethiopian export sector. This enables to look in to the contribution of some major export item on total exports. The objective of this paper is therefore, to estimate determinants of the export performance of the major exports of Ethiopia by considering both the demand and supply side factors.

1.2 Statement of the problem

In the last several decades, as mentioned earlier, there has been stagnation in the volume of Ethiopian exports. Further more, it had shown a down ward trend. This continued for a long period of time while some improvements were recorded in recent times following the economic reform.

The decrease, however, is attributed to the weak performance in the domestic agricultural sector. It was commonly agreed that the agricultural sector, which provides the bulk of Ethiopia's export commodities suffered low productivity due to the absence of modern technology, which in turn reflect poor export performance. Ethiopia's export performance experience shows that the country has also been at a disadvantage because of deteriorating terms of trade.

There has been a concerted effort by the government to improve the export sector (see chapter V). As a result the value of some of the exports have started to show some positive change. However, the overall export performance in relation to the import requirement still remains unchanged. Despite the positive effort, the value of the primary agricultural export has fluctuated more. There has been large variation in the earnings, due to production uncertainty or due to world market demand condition.

The fluctuation of earnings from export has adversely affected domestic investment through capital imports. This is mainly because the economy depends heavily on the importation of capital goods from foreign countries. The effect will trickle down to all other sectors of the economy. For instance fluctuation in the earnings exert strains on development planning because planners are not sure of future trends. In other words major economic policies are influenced by the availability of foreign exchange and the intensity of external disequilibrium. This was reflected on the five-year economic plan of the present government. Further more,

farmers (the principal producers of export) may reduce their efforts and may shift to other crop to avoid risky crops.

The poor performance of the export sector led the country to suffer from chronic balance of payments difficulties. The recent balance of payments crises in many developing countries have led to a growing attention to export promotion effort. For these countries import is a necessary condition for development purpose. But to import, on the other hand, foreign exchange is needed. As a result, expansion of exports as a source of foreign exchange earning has become a major concern of policy makers.

Several studies concerning developing countries, especially Africa, indicate that, despite the decline in the world market share of their agricultural products, the level of dependence on earning from such item has remained high. Clearly export for these countries is a precondition for the development processes.

> The importance of the export sector in any of the less developed countries (LDCs) development plans has long been recognized. Export proceeds provide the greatest proportion of the internationally acceptable funds with which the LDCs can import the skills, savings and strategic goods and services, unavailable domestically, but needed to provide basis for stable and relatively high rates of economic development. (Soutar, 1977; p.279)

On the other hand, other studies indicate manufacturing industry holds the key to economic development. A study by Chanthunya & Murinde (1998) for Africa countries argued that the manufacturing was an important source of GDP growth. But the problem is with the existing technological level and agricultural dominated economy, without giving attention to agricultural production and increases the export of this sector, industrial development will be

difficult to sustain. They described in terms of the export promotion school of thought as follows:

> It was argued that the export of agricultural or mineral products would enable the developing countries to pay for the larger part of the cost of their economic plans aiming either at greater national self sufficiency or at export of manufactured goods, earn the foreign exchange needed for the execution of these development plan, and pursue their development plans successfully. (p.25)

Export is not the only source of foreign exchange for the economy of one country. Direct foreign investment can also provide capital, technology and managerial skills. Public transfer (mostly from borrowing & assistance) is also another source of foreign exchange. The problem is then the latter one is beyond the control of the particular country, more over, linked externally with the economic and political interest of the rich countries. Where as, the former depends on the particular country effort. An economy, which heavily depends on external factors, cannot register sustainable development. But if it depends on internal factors base, one can have a sustainable development.

An analysis of Ethiopia's export performance shows that the country has not been able to expand and diversify its export volume to compensate for losses due to deterioration terms of trade or to achieve growth in real export earnings. Equally, import of capital inputs and some basic consumer goods are restrained. So does its economic development. This phenomenon therefore, increases the need for searching ways of increasing export earnings. In view of the preceding discussion, the research wishes to inquire into the determinants of Ethiopia's export activities in the world export market.

1.3. Objectives of the study

Despite Ethiopia's advantage in many of its exportable commodities, the country has not benefited by exploiting the world market. The purpose of this study is to find ways of increasing export to the world market.

Specifically the study aims: -

- To identify the factors responsible for poor export performance based on both the supply inelasticity hypothesis and demand deficiency approach of trade.
- The study has the objective of testing empirically the determinant of exports in Ethiopia using time series data, and some descriptive cross sectional data analysis also implied.

Finally, the study will try to provide policy recommendations that may help in promoting our exports.

1.4 Testable hypothesis

Given the objective of estimating determinants of export performance in Ethiopia, the following hypothesis will be tested.

i. World demand is a significant determinant of Ethiopia exports.

ii. Export performance is determined by relative price of export. This means, when price of export rises relative to domestic prices export becomes profitable; hence export from Ethiopia will increase.

iii. Improved export performance in Ethiopia is associated with greater commodity diversification.

Based on estimation, if the variation in world income determines the volume of export from Ethiopia, then Ethiopian's Export performance is tied to what happens outside of the domestic economy. How ever, other factors in addition to world income may affect export, such as, domestic price of export and price of competitive commodities abroad. This will also be tasted.

1.5 Organization of the paper

The remaining part of the paper is organized as follows. The second section provides overview of the Ethiopian economy, particularly the export sector. Section three deals with review of literature on international trade concerning export related to developing countries. It also provides some empirical work concerning developing countries as well as Ethiopian exports. Section four gives the statistical analysis for the time series data of export performance function that include both demand and supply side variables based on the adopted methodology. It also presents the results obtained from the survey Just to strengthen the empirical result of the econometric analysis. And finally section five will presents conclusion and policy recommendation.

1.6. Methodology and data source of the study

This study aims to undertake empirical analysis on Ethiopian export performance using time-series data. The study includes a descriptive analysis on export performance with the help of such analytical tools as ratios and percentage share growth rates. It also embodies an econometric analysis to identify factors that explain determinants of persistent stagnation of Ethiopian export. OLS estimation method using the PC-GIVE econometric package will be used.

The data used in the equation are mostly secondary, obtained from various sources, such as:

- Ministry of economic development and cooperation
- Ethiopian custom authority
- Various issue of National bank of Ethiopia (Annual & Quarterly)
- Various issue of International trade statistics yearbook and international financial Institution, like IMF, World Bank publication etc.
- The data are on annual basis collected for a period covering of thirty-three years; starting from 1965 up to 1997.This period is chosen because this is relatively large period of time with availability of data and will help to show a better picture of the trend in the performance of the export sector.

- With regard to the data quality, the major problem was that some of the variable in the model are represented by proxy variable. One may be expect deficiency in measurement of variables used for this purpose. To minimize this problem during analyzing the result, some primary data are intended to be used deriving by providing questionnaire for the exporters. Such approach enables one to gain additional insights on identifying determinant factors and make policy recommendation.

CHAPTER TWO

2.HISTORICAL BACKGROUND OF ETHIOPIAN EXPORT

2.1. Introduction

Like most Sub Sahara African countries, Ethiopia is one of the poorest countries in the world with majority of its people living in absolute poverty and insufficient economic and social conditions. The country's economy has been based on the rural agricultural sector in which the bulk of economic activities are concentrated.

The economic condition of the country in general has been affected by the adverse international economic environment and by the rule of different regimes, which follow different economic systems.

Under the feudal monarchy rule, which lasted until 1974, the country was in landlord tenancy economic system. During this time, the country was in a period of relative political stability. The over all economic development was reasonably healthy, in relation to the experience of the subsequent years, even if it was poor by global standards.

Taking the period between 1960-1973 for instance, Ethiopia's GDP rose at an average annual rate of 4.3%. During this period the Ethiopian economy was better than a number of African countries (Pickett, 1998). Before the 1974 revolution, export growth was relatively better than the post revolution. In these periods, the import needs were generally covered by export goods and in some years it registered surplus over the import needs (See APP.1.table.2). Compared to the subsequent years the terms of trade was very healthy.

Table 2.1 ETHIOPIA TERMS OF TRADE 1970-1984

1970	*1981*	*1982*	*1983*	*1984*	*1970-84 by %*
156	*68*	*75*	*86*	*100*	*-4.7*

Source: World Bank, 1987

2.2. Economic condition since 1974.

2.2.1 The Derge period

When the military administration came to power, socialist system became the order of the day. As a result the major production industry and Agriculture, including the exporter were nationalized and replaced by government owned production and Export Corporation. In the socialist period, even if the land reform was an important step in improving the economy, it was not accompanied by other institutional changes. The state policy diverted large investment to the inefficient state farms and inefficient state parastatals. The inefficient state policy combined with the drought and a costly war led to a protracted decline in the economy output.

As we can see from the table.1 in appendix one, despite the fact that agriculture remained at the heart of the country's economy, it was characterized by stagnant annual growth rate. The problem became very series during the period of the command economy. During this period the sector suffered directly from the civil war and its after math. Foreign exchange requirements for fertilizer and others, which are important to the farm input has been inadequate to the farmers, the available farm inputs were directed to the inefficient state farms, which accounts about 5% of agricultural outputs.

The socialist polices also harmed agricultural production. Pricing and marketing policies, which forced farmers to sell their products at minimum prices, discouraged them, as they were not wiling to increase their productivity. Further more the nationalization of most of private companies inhibited private sector investment. This was an important factor, which hampered total production. During the decade after the revolution investment was on average only 11% per year. During the same period, domestic saving was low and declining and turned to negative in 1984/85. Between 1970 and 1990 the domestic savings was very low even by other

African countries standard. Investment from external source flows in the range of US $6.9 per capita against average of US $ 20 for low-income African countries. (World Bank, 1987)

During the seventeen years of the military government (1974-1991) total output registered average annual gains of 1.3% while the population growth rate was 2.7% (Pickett 1998). Even though the agriculture (the base of the economy) was heavily affected by the climatic conditions, the problem was aggravated by policy constraints and low level of technological development in all areas.

2.2.1.1. The manufacturing sector

Despite Ethiopia's comparative advantage of low wage rates due to cheap labor force, the contribution of manufacturing sector to the national economy remained insignificant for the past two decades. After the socialist regime came to power, the then existing industrial sector had been dominated by public enterprises. In 1980, some 145 industrial enterprises that account for over 90% of manufacturing output were under public ownership (Woldu,1980). These public enterprises had very limited contribution to export earnings. It was about 5% according to the same study. Manufacturing industrialization is an important source of structural change and diversification. It also reduces dependence on external forces. This was not however the case in Ethiopia.

In terms of growth, the average manufactured base of total GDP is very small. Industrial output decreased continuously by an annual average of -1.3 for the period 1981/2 to 1991/2 (See App.1, table 1). This sector not only has a small share to total GDP but is also a burden to agriculture rather than being supportive to it. It makes large claims on scarce foreign exchange. So it was playing a negative contribution to the total GDP growth.

The domestic resource for investment was limited by the government outlays on internal security. Ceiling fixed on asset ownership and discrimination in credit allocation had discouraged private interest. As the result of this, private investment was almost crowded out. Investment to GDP ratio was very low by any standard. Due to this the manufacturing industry had very small contribution to the national economy.

By 1991/2, the fall of the rule of the previous government, total manufacturing to GDP became around 3%. Food, Beverage, Textile, leather& shoe products, reflecting light consumer goods production dominate the market of manufactured out put, mostly serve domestic market. The case in which imports are mainly accounts for manufactured products, indicate that the domestic industry has not the capacity to fulfill domestic demand. It has very low contribution in providing manufactured products for domestic and export purpose. More over, this product faced stiff competition from low priced and high quality imported goods.

The military government just few years its demise tried to take some measures to alter the worsened economic conditions. In the late 1980s it adopted a more market-oriented stance. However, this measure was introduced too late. As a result, the reform changed nothing. By the mid 1991 when the EPRDF party came to power, much of economic infrastructures were destroyed.

2.2.2. Post Derge period

After the difficult period of seventeen years war and declining economy, a political change was surfaced in the country in 1991. The present government under took a major political and economic transformation to stabilize the economy. Structural adjustment program was introduced in 1992.

The main objective of the structural adjustment was to reduce macro economic imbalances to eliminate structural distortion and reduce poverty. To do this, significant liberalization in the economy has been made. As a result, some major obstacles have been removed and because of this series deterioration in the over all economic condition were prevented.

The present government economic policy is based on the Agriculture led industrialization strategy. At this time, a positive growth in the economy has been registered. GDP growth and the rate of domestic absorption continued to be strong. (See App.1, table1.). Complete privatization of the state farms & cooperative farms were undertaken. The government gave farmers the right to produce and sell their products on their interest.

Farm incentives like fertilizer subsidies and other farm inputs were provided for the producer for some years. More importantly the government has worked for providing assistance to the small farmers by providing extension services. This effort has recorded substantial increase in yields. In 1995/6 annual growth of agricultural output was 14.6%. At this time, agricultural constraints are basically the results of natural conditions rather than policy constraints.

After the country introduced market based economic system, exchange rate was devaluated by above 50%. Publicly owned industries were privatized. Market monopoly like in the coffee market has been abolished. Private sectors were allowed to participate in every sector of the economy; as a result investment share of the private sector in total investment after the reform has risen sharply to 60%, from 17% before the reform (World Bank, 1996).

The industrial sector in general and the manufacturing sector in particular unlike during the command economy, started to grow. Beginning 1992/3, the industrial sector as a whole showed a 10% annual growth, while manufacturing sector in particular grown annually about 15%. This may indicate the publicly owned industrial sector was inefficient. Market forces rather than command economy improves the performance of this sector.

Table 2.2 Value of manufactured export (1991/92-1996/97)

(in'000 birr)

Group	*1991/92*	*1992/93*	*1993/94*	*1994/95*	*1995/96*	*1996/97*	*Annual average growth rate*
Food	*21874*	*36077*	*39623*	*19215*	*11715*	*31206*	*7.3*
Beverage	*257*	*240*	*79*	*93*	*93*	*67*	*-23.6*
Tobacco	-	-	-	-	-	*1075*	-
Textile	*6752*	*4762*	*4142*	*7000*	*20682*	*27062*	*32.0*
Leather&shoe	*63989*	*162463*	*239402*	*367472*	*366686*	*387492*	*43.3*
Wood&	*49*	*49*	-	-	*1456*	*341*	-
Furniture	-	-	-	-	-	-	-
Paper-printing	-	-	-	-	-	-	-
Chemical	-	-	-	-			-
Non-metal	-	-	-	-	*370*	*44*	-
Metal	-	-	-	-	*7*	-	-
Total	*92921*	*203591*	*283246*	*393780*	*401115*	*447287*	*36.9*

Source: - MEDaC

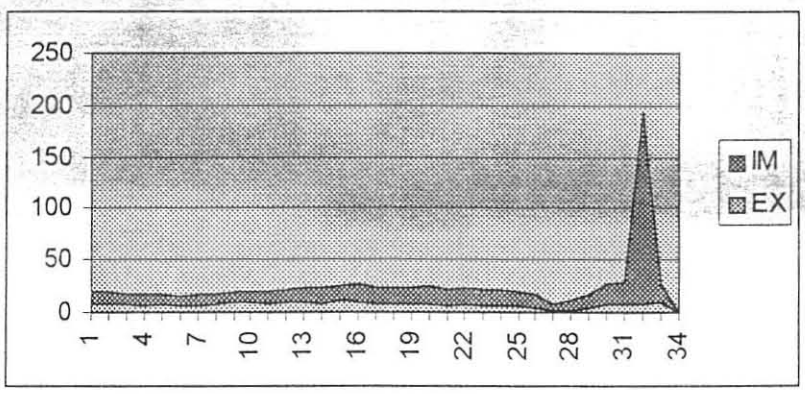
2.3 Export in Ethiopia

2.3.1 Introduction:

Generally, export trade activities in Ethiopia has a long history. Some studies indicate that in the pre-Italian time export used to exceed imports. The principal exports of the 19th century were mainly slaves, gold & Ivory etc. Slaves trade was probably the largest part estimated to account 57% of export. (Pankrest, 1964)

In the last century, however, significant changes had occurred. In the 2nd half of the last century relative significance of the export composition substantially changed. Coffee became the most important commodity export. Next to coffee, Hide & skin, Oil seed, pulses are some of the other important exportable products. In this period, there are also many other export items produced in Ethiopia, like live animal and processed meat, chat, flower, fruits & vegetable and others. But due to many reasons these products have not shown significant developments. As a result of this, the export sector is still at a very low level. The country is still unable to obtain the maximum benefit.

Fig.1 Percentage share of import and export to GDP



Source: - Calculated from annex table 1.

Where IM represents percentage share of import to GDP

EX represents percentage share of export to GDP

2.3.2 Structure of export

The volume of export in Ethiopia for the last thirty years has not changed significantly. This shows the production structure of the country has not changed for a long time. Ethiopia's export has a very narrow base. It is more dependent on the export of primary product than any other country. Since world trade in primary product grows more slowly than world trade in manufactured goods, total share of trade base on this commodity tend to fall. When we look the existing condition, the export performance remains structurally unchanged. It remains very dependent on few products even by other developing countries standard. Above 90% export content are agricultural primary commodities.

Contribution of export to total GDP was very small during the reference period 1965-1998, it didn't exceed 10% annual average. A World Bank study (1987) indicates, Ethiopian export constitutes about 9% of GDP compared to 23% for developing countries. Comparison of the country's import capacity measured in terms of export revenue indicate that only on average 50% annually covers the import costs in terms of export receipts (See app.1 Table.2.). Furthermore, the export capacity of the country in terms of financing the import requirement show ever-declining trend. Before the 1974 revolution, export earnings financed about 80% annual average of import. However, in the subsequent years the import demand has shown substantial increment while export remains more or less unchanged. The gaps between export and import increased, as a result the trade deficit widened. For instance, between 1983-1992 annual average of 32% of the import is only financed by export bill. This is because on one hand the external condition might be considered as a factor behind this decline. However, poor export promotion effort was another significant reason.

From (App.1, table.2) one can understand that the production structure was very stagnant and it was characterized by ever declining trend through a long period of time. The export structure of the country largely comprises primary products and imports are normally

manufactured goods. The exports of primary agricultural commodity have low value added. Further more, most of primary agricultural commodities have shown a declining trend in their value due to domestic production nature and the international conditions. In recent years, according Trade & Development (1998) the primary commodity in the world continued to decline. This is due to the continual effect of Brazil devaluation on the market, like market for coffee, the commodity for which Brazil accounts for some 20% of world exports. On the contrary, manufactured goods have very high value added. So the terms of trade has continuously deteriorated. This implies that the import expenditure is high relative to earnings from export.

Due to the wide gap between import requirement and the export earning, the trade balance was characterized by deficit, through the period 1987/8-1997/8. The current account was also in deficit. During the five-year period before 1974, the export grew at an average rate of 14%, while import grew by 1.1% per annum. During this period, the export activity performed well and the current account as a result was relatively in a good position.

The slow growth of export earnings and the highly increasing imports caused over time the country to finance the gap by external sources. The rapidly widening current account deficit during this period was financed largely through official transfers (mostly relief and assistance) and external loans. Although 1992/3-1994/5 was a period of significant progress on the debt situation made by debt relief cancellation & rescheduling, by 1993/94 arrears to creditor reached 916.7 million birr, which is 7.6%, the GDP of the same year. (See App.1, table 3)

Ethiopia's export performance for the last several decades was affected by the stagnant agriculture economy. The continuous civil war, which lasted for seventeen years, aggravated the difficulties for the sector seriously. During the period of 1974/75 to 1977/78 following the revolution, Ethiopia's export performance was disappointing. The volume of export showed a

steady decline at an average rate of 15.6% annually, according to the World Bank study (1987).

The effect of the war was very destructive in view of the economy. Resources of the country were consumed largely for war efforts. The expansion of military spending caused the resources to divert from other sectors, and contributed for low level of economic activities. Such conditions adversely affected the trade activities of import and export and contribute to worsening balance of payments problem.

The war, which was mainly in the northern part of the country, led to undergone a structural change in the composition of export share of non-coffee export. Especially oil seed sharply declined and the share of coffee export was rise (see App.1, table.4.). Share of total coffee export for 1973/74 before 1974 revolution was about 28%, this has rises to above 78% after 5 years in 1977/78. In recent years the coffee export share is still dominant, which accounts about 70% in 1997/98. Export of pulses was the second largest exportable before the revolution. Example in 1973/74 it was accounted 19.4%. How ever, it was surprisingly declined, in some years it was below 1%. In recent years (example 1997/98) it accounted only 2% of the total exports. Oilseed export before the revolution stands in third place. In 1973/74 it was accounted about 15% of the total exports, which dropped to below 1% in 1990/91. However, currently it is showing some improvements. That is started to grow considerably. For instance in 1997/98 about 8% of the total export was from oil seed. This is about 72% growth from the previous year 1996/97. This improvement may be due to the existing peaceful situation in the most producing regions after the 17years war ended.

a. Coffee

Coffee is the single most important export commodity for Ethiopia. Some people called coffee to Ethiopia is what is oil to the oil producing countries. More than two third of the export earnings are derived from the export of this commodity. From international point of view also coffee is the most important tradable commodity next to oil export. However, Ethiopian coffee production is at low level of technological production system. The export volume for the last two decades was not changed. For example the volume of coffee exported in 1980/1 was about 88405 metric tones, where as the average volume of export for the period 1980/1 to 1991/2 falls to 76175 metric tones. Although Arabica coffee is indigenous to Ethiopia the country produces less than 4% of the world's supply of all grades of coffee. Peckitte et al (1998).

Coffee export is subject to high externally induced price fluctuations. Particularly Brazil is the main competitor of Ethiopian coffee Arabica. Brazil is the only other country major producer of coffee arabica. For coffee in general, Brazil is the main determinant of the world price. This makes the receipts from coffee sales unsustainable. Although external factors significantly affects our coffee export, the poor internal effort to improve productivity and quality further causes for low performances.

> The production of high quality dried cherry requires the selective picking of ripe cherries and the careful drying of cherries on table. In practice, much of Ethiopia's coffee is picked simply by stripping the branches of all cherry regardless of ripeness or is collected from the ground. Drying is often done on bare earth rather than on drying tables. This practices cause roughly half of Ethiopian coffee to be of mediocre quality suitable only as filler. (Westlake, 1998. P.V).

All most all-Ethiopian coffee export comprises unwashed, provided the supply is available. The price for unwashed is less than the washed. (See table below). Knowing this, less effort, from both private and public owned exporters made to gate the maximum benefit, by providing quality exports. There is also another considerable potential for Ethiopian coffee export. According to some evidences Ethiopia coffee is preferred because most of the coffee grown in Ethiopia is organic, farmers do not use chemical inputs. However, there is no clear promotional works to exploit the advantage of coffee export.

Table 2.3

	Percentage of Export quantity			Percentage of export value				
Sep-Oct	Unwashed	Washed	Total	Unwashed	Washed	Total	Ratio of the unit value Of washed to unwashed	
1989/90	80.3	19.7	100	79	21	100	1.07	
1990/91	78.1	21.9	100	74	26	100	1.25	
1991/2	81.7	18.3	100	76	24	100	1.42	
1992/3	85.7	14.3	100	73	27	100	2.2	
1993/4	88.6	11.4	100	82	18	100	1.67	
1994/5	86.9	13.1	100	85	15	100	1.2	
1995/6	87.7	12.3	100	86	14	100	1.21	
1996/7	84.4	15.6	100	82	18	100	1.16	
1997/8	86.3	13.7	100	78	22	100	1.83	

Source: strategy for development of coffee sector

The trade between the coffee producer and the coffee traders (exporters) is undertaken by the so-called 'sebsaby', these mediators have no facilities to keep the quality of the coffee products. According to Westlake's study most Sebsabies undertake no assembly, processing, storage or financing function. They do not provide a necessary assembly services and they probably inhibit rather than enhance competitive price information. They make no additional payment to

farmers for cherry of high quality. On the other hand producers are not allowed to sell to traders directly. If traders could be able to buy directly from producer they would be likely to pay quality related price since the price they receive for their auction is a function of quality. So this may be the major reason for poor effort for quality improvement.

b. Hides and Skins

Another component of Ethiopia export, probably the second most important one is Hide and skin. This export Item has a long history in the country export experiences, which serve as a source of foreign exchange earnings. In a study conducted 120 years ago (in 1879) as Pankrest indicated, the export of Hide & Skin at that time was estimated to stand at first place. At present, even it has not show significant change in relation to the long experience; it is the second most important exportable commodity next to coffees.

In relation to Ethiopia's animal population growth, which stood 7th in the world and first in Africa, there are a great potential for development or growth of this product. But in reality it does not show significant change, as we can observed from the (App.1, table.4) in some years before 1983/84 percentage share of Hides & Skins to total export receipt on average was annually about 10%. After 1994/95 however, some important changes had occurred, i.e. it becomes about 14%.

Hides & Skins product is considered as a by-product of livestock breeding for other purpose. Its volume directly depends on number of slaughters for other purposes. Having these constraints, from the available amount, the larger part of this production is not qualified for export purpose. From the available amount qualified for export about 34% hide & about 10% skin is exported according to World Bank (1987) Study. The rest were not. There are some reasons suggested for the problem, such as carelessness in skinning and poor handling which reduce the quality, thereby export values, and lack of improved animals husbandry practices

which dispose the animals for varieties of diseases. UNCTAD study on this issue, describe some of the problem as follows.

> ..... the livestock sector in Ethiopia has a greater potential and that hides and skins improvement activities and their market structure play an important role. In addition, the government has put great efforts in the development of the livestock sector. However, there are problems, which hinders the full exploitation of these valuable resources. Some of these problems include: (i) lack of effective program to promote improved animal husbandry practices, (ii) lack of proper animal slaughtering facilities, (iii) lack of a proper collection system based on quality and incentive system for primary producers, (iv) lack of reliable information on livestock upon which reliable sector policy guidelines & investment decision can be made. (P. 92).

Another important feature of Ethiopian export is that, traditionally the export commodities were domestically consumed by large proportion. According to some studies such as (Wastlake, 1998, World Bank 1987 & others) more than 50% coffee production's not exported, it is domestically consumed. In 1996/97 domestic consumption of coffee was 192,000 tones as a ratio of consumption to production of 0.47. Also from survey for 10.83 million households in 1995/96, annual average coffee consumption for rural & urban Household was 12.7 Kg. Based on this estimates give very high proportion of national consumption for that year, of 143,000 tones (Westlake, 1998). On the other hand, 66% of all hides and 90% of all goat and ship skins are utilized domestically. About 95% of pulses production and 85-95% of oil seeds production are consumed at home. Such as sugar, which are under direct control of the government, exports only due to involuntary sacrifices at home (world Bank, 1987).

2.3.3. Ethiopian export & geographic concentration

Besides to commodity concentration, Ethiopia's export market is dominated by high degree of geographic concentration. The most important markets for Ethiopia's exports are listed in App.1.table.5. German, USA, Japan and Saudi Arabia are the important ones. As one can observe from the table, before the 1974 revolution and the subsequent few years USA was the most important market. In 1973 for example about 30%, in 1976 about 32% of the total export was to USA. Next to the USA, the important market was Europe, especially Germany and Italy. In Asia Japan & Saudi Arabia and from Africa Djibouti are the other important markets.

Since the first halves of the eightieth, even the major markets remain unchanged, which is still concentrated on the few countries mentioned above, but their relative share is significantly changed. Germany becomes the most important market. Example in 1986 export to Germany was reach about 32%, While to America declined to 15% in the same year. Further declining in 1989 to below 2%. At present America's share is below 10%, while Germany shows annual average share of about 20%. Europe in general dominated the market Japan and Saudi Arabia's share also account significant percentage of the export from Ethiopia.

In general the figure indicates that Ethiopia's export was mainly directed to very narrow market, or to few countries during the past two-three decades. The concentration in such countries like EEC and Middle East may have some positive factor contributing to its historical development and geographic proximity. Nevertheless, the basic point behind the pattern of the countries' export that concentrates in few markets is attributed to the country's inability to exploit new market opportunities.

2.3.4.Other constraints of the export

The over valued exchange rate, which lasted until few years ago was another problem in the export sector. The socialist government didn't give consideration to the exchange rate as an essential instrument for encouraging export expansions. The disparity between official and black market forced the traders to wish the parallel exchange rate, which stands at large premium to the official rate to take advantages. High export and import taxes, low local price paid to producers together with the over valued exchange rate led to large share of the exportable items to trade through illegal channels.

It was estimated that 225,000 head of cattle, 750,000 goats & Sheeps, 100,000 camels used to be illegally exported annually to the neighboring countries during the rule of the past regime. According to the study it was roughly estimated that coffee & livestock alone may have amounted in some years about 30% of the official exports (World Bank, 1987).

Despite the recent changes made by the new government to avoid major constraints including the export sector, due to the very increasing import demand at present time the amount of export earnings in terms of covering the import cost is declining. In 1993 it was only 25%. However, there were some indications of improvement in the subsequent years. Nevertheless, there is an observation that the current account deficit has widened less than the difference between the stagnant export earnings and rising merchandise imports would suggest because of the relative successful development of non-factor service receipts. Such as Ethiopia Airline.

Generally the export earning of the country's dependent on relatively few primary product base without no structural change for the past several decades. On the other side Ethiopia is known for its natural mineral resources, such as gold, gas etc. but none of these mineral has been exploited on a large scale, even though, there is a large prospect of these and other exportable minerals. As consequences of this, the country's earning continued to fluctuate with the internal

& external shocks, resulting from the instability of primary commodities price. The heavy reliance on coffee export has been deteriorating in the price terms of trade for the country since the collapse of International coffee agreement in 1989. This was the time, when the world price of coffee fallen by more than 40% following the suspension of the quotas (world Bank, 1989). The concentration on few countries also made the country's export capacity to be highly governed by these countries political and economic conditions. The effort to diversify the products and to vary market was very less.

To improve and expand our export and to rise earnings from the export a proper policy have to be designed at national level. Export for primary commodities are likely to decline with improvement of technology in world market. Since our export at present is mainly of the products discussed above and unless some meaningful policy measures are not taken, the economic development may be susceptible.

CHAPTER THREE

3. SURVEY OF THE LITERATURE

3.1.The theoretical framework

3.1.1. Introduction

The importance of trade springs from the extensive degree of observed specialization in societies. People cooperate in the use of their scarce resources, knowing full well that through such cooperation more goods and services could be produced than if every one tries to do many different jobs at once (maizels, 1985). According to Adam smith, trade allows countries to produce what they are best at and to buy from abroad every thing else. More over the theory developed by Ricardo, points out that even if a country had an absolute advantage in all production line, it could still gain from trade.

Although there is no doubt the about importance of trade in the international economy one of the concern of the developing countries is the unsatisfactory nature of economic relations between developed and under developed countries.

Classical economists claim that the international trade theory which they believe to be responsible for the 'unfavorable terms of trade' depicts the nineteenth century pattern of international trade, where under developed countries export raw materials and import manufactured goods. This they assert undermines the economic progress of developing countries.

However, the then orthodox economists who used to believe in the comparative cost advantage theory, specifically about the above assertion proved that international trade could be applicable both to developed and under developed countries.

Despite the above controversy, in the subsequent years that indeed there has been concern regarding as to whether or not developing countries could accelerate their economic development by expanding their export in the international trade. And many researchers support the importance of trade for exploitation of comparative advantage in resource endowment. The question has now shift to whether or not the theoretical model assumed in the comparative cost analysis is applicable to these countries.

Considering the international trade in view of Ricardian comparative advantage theory, an economy which open up to trade regime can enable to attain higher production and consumption by specialization on the good the country has comparative advantage. The H-O theorem on the other hand, stated that the key determinant of the pattern of trade is the relative endowment of the factor of production of a given country. These theories of trade seem inconsistent in relation to LDCs, especially African countries (Chanthunya & Murinde, 1998). This is because the LDCs export is mainly primary commodity export. Such export as commonly argued is subject to deteriorating terms of trade. As a result specialize in a large-scale primary export and importing manufactured goods would fail to reap any long run gains from trade.

The "vent-for-surplus"[1] originated from work of Adam Smith theory of international trade provides a more effective approach than the conventional comparative cost theory to the international trade for the under developed countries according to Myint (1958). The comparative cost theory assumes resources of a country are given and fully employed before the country inters into international trade. The function of trade is then to reallocate it's given

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[1] *International trade overcomes the narrowness of the home market and provides an outlet for surplus product above domestic demand.*

resources more effectively between domestic and export, based on the relative prices open to the country. With given techniques and full employment, export production can be increased only at the cost of reducing the domestic production.

In contrast, the event-for-surplus theory assumes that when the country inter into international trade, it possess a surplus productive capacity.[2] Hence the function of trade here is the surplus resources that would have remained unutilized in the absence of trade. This indicates production could be easily increased without necessarily reducing domestic production.

One of the most important recent developments in international trade theory is that large proportion of world trade occurs among similar industrialized countries (Helpman & Krugman, 1985; markusen & wigle, 1990). This trade pattern is apparently at odds with the predication of traditional competitive models of trade. They agree that from their study that differences in the relative endowment are not the only cases of trade and advocated the inclusion of scale economies and imperfect competition. Their conclusion therefore, to the high volume of north-north trade relative to north-south[3] trade is caused a) by higher protection level in the south and high north protection against south export. b) By the low GNP in the south relative to the north. Both these hypothesis are consistent and complementary with explanation based on monopolistic competition models.

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[2] *a surplus over domestic requirement and not a surplus of exports over imports*

[3] *The nature of the economic relation b/n the advanced and the less developed regions and the world economy, 'North' and 'south' as it is becomes customary to refer them*

3.1.2. Export and economic growth

From the theoretical point of view, export growth affects the rate of economic growth in less developed countries. The theoretical consideration of importance of export performance include as pointed out by Fosu (1990): First, Export development allows the home country to concentrate investment in those sectors where it enjoys a competitive advantage.

The resulting specialization is likely to augment overall productivity. Second the larger international market permits economies of scale to be realized in the export sector. Third, world wide competitive pressure are likely to reduce inefficiencies in the export area and result in adoption of more efficient techniques in the over all traded goods sector. Finally, a larger export sector would make available more of the resource necessary to import in a more timely fashion both physical and human capital, including advanced technology in production and management, and for training higher quality labor.

Other points for the theoretical justification discussed by Sheehly (1992) that shifting resources into export production creates a positive influence on growth. If the export sector is characterized by higher productivity than the rest of the economy, then countries with a larger export sector or which are reallocating resources to the export sector should experience more rapid growth.

Several statistical works have been done to examine the importance of export for economic development particularly for the less developed countries. Most of the study have been attempted to avoid auto correlation between export and growth using methods, such as share of export in GNP. And conclude that these evidences are providing the link between export performance and economic growth. Observations apart from the success stories of Korea, Taiwan and Brazil, there are enough other observations both for different time periods in the

same country (for example Turkey and Philippines) showing the relation between export expansion and economic growth.

Table 3.1
Previous empirical studies on export and growth.

Study	*Data set*	*Econometric technique*	*Results*
Emery(1967)	*Cross country (50) 1time period (1953-63)*	*OLS (GNP on export)*	*EP*
Maizels (1968)	*Time series (1950-62)(9countries)*	*OLS (GDP on export)*	*EP*
Voivodas (1973)	*Cross country (22) Time series (12)(1956-67)*	*OLS (GDP growth on export share)*	*EP*
Michaely (1977)	*Cross country (41) 1 time period (1950-73)*	*Spearman rank correlation per capita GNP growth on growth of export share)*	*EP*
Balassa (1978)	*Cross country (10) 2 time periods (1960-66, 1967-73)*	*OLS (GNP growth on export growth or real export growth)*	*EP*
Williamson (1978)	*Cross- country (22) time-series (1960-74)*	*OLS (change in GDP on lagged export)*	*EP*
Fajana (1979)	*Time series (20) (1954-74) Nigeria*	*OLS (GDP growth on export share or export change/output)*	*EP*
Tyler(1979)	*Cross country (55) 1 time period (1960-77)*	*OLS (GDP growth on export growth)*	*EP*
Feder (1983)	*Cross country (31) 1 time period (1964-73)*	*OLS (GDP growth on export growth and export change/output)*	*EP*
Schenzler (1982)	*Time series (30)(1950-79) (3 countries)*	*OLS (GDP growth on export growth or export share)*	*EP*

Source: - Jung and Marshall (1985)
The number of countries is given in parenthesis
EP represents in favour of export promotion hypothesis

And countries like India, Argentina leave little doubt the link between export performance and growth rates (Kruger, 1990). Other studies by (Feder, 1982; Balasa, 1985; Michealy, 1977; and Fosu, 1990) clarify that export was observed to exert positive impact for economic development. And the evidences substantiate the export promotion hypothesis.

The result of the above relationship is controversial pertaining to the poor countries. The important observation in the study for the low-income countries, which are heavily weighted towards sub-Saharan Africa, Helliner (1986) concluded that the result show no significant link between the change in export share of GDP and growth. Similar results also reported by (Sheehly 1992; Ram, 1987; Moschose 1989; Michealy 1977). Michealy et al (1977) pointed out "The positive association of the export share appears to be particularly strong among the more developed countries. This seems to indicate that growth is affected by export performance only once countries achieve some minimum level of development."(p.52). Similar

result was also reported by Moschos (1989) on the bases of cross section data do not support the view that the positive effect of export expansion on economic growth. He explained that positive effect of export expansion on economic growth is limited to 'more advanced' developing countries and that this effect does not existent among less advanced countries.

Chanthunya and Murinde et al also described that in order to confirm or reject the export led growth hypothesis causality between export and growth has to be investigated using econometric test. According to them recent works in this direction utilize recent development in econometrics in general and testing for non-stationerity, cointegration and the use of error correction in particular. And most studies, which make use of this approach, indicated that the causality test offer weak support for the alternative notion of trade as an engine of growth. Recent studies that focused on correcting some of the flaws in the previous studies have further indicated that no such conclusive evidence can be reached.

The reason why African countries benefit from export performance apart from the other LDCs, is because Africa countries are not on the same footing with the other LDCs in that their exports are likely to be weighted towards agricultural products as compared with other LDCs. The evidence from the study of Fosu (1990) focused on Africa countries as a group. From the estimation export have a positive impact on economic growth. The result showed a 10% increase in the growth of export independently augments economic growth by slightly over 1% on average. Thus, African LDCs apparently enjoy a beneficial impact from exports.

It is however, through different approaches the various researchers arrived at the results, t For instance, Sheehly criticize the results obtained by regressing GDP growth on the rate of export growth on the ground that they are biased by the built in correlation between GDP and export. Most recent studies also shed light on the shortcoming of the previous results. Because the majority of the previous works had a series methodological weakness in what they presupposes.

Another critique was that the heterogeneity and complexity of different historical experiences of development would indicate the need for caution regarding broad generalization on the relationship between export performance and output growth in economic development. As Goncalves and Richternig (1987) test the relation ship between export performance and output growth seem to conceal much more than they reveal. Structure of the economy and its specific relation with the international economic system may affect the impact of export performance on economic development.

3.1.3. LDCs export and the view of export pessimism

Over the last several decades, economists have debated on the relevance of two alternative strategies believed to help developing countries achieve economic growth. Import substitution & export promotion. Developing countries are mainly exporters of primary commodities, which are subject to very slow growth. The primary product by their very nature as well as by structural place in the world tends to face a down ward trend of prices. Besides this there is pessimism about demand for LDCs exports in developed countries market. The international environment is not conducive developing countries either for expansion in export volume or increment in export prices. The idea of inward oriented strategy then advocated and suggested that the trade policies of these countries must be adjusted accordingly.

Arguments against the agricultural export is grounded in the claim that there is an extreme tendency for terms of trade to move against primary commodity producing countries and in favour of exports of manufactured products. This makes the rich countries richer the poor countries poorer. This is the first pessimistic view based on natural market forces. Some of the reason for this outcome according to the Prebisch -Singer hypothesis:

> On one hand technological progress, which took place in the center, did not result in lowering of price of industrial goods exported to the periphery countries. On the contrary, the price of manufactured goods imported by the periphery countries from the center went up. Technological progress, which occurred in the periphery countries, resulted in the lowering of prices of primary commodities exported to the rich countries. The fall in the prices of primary commodities was said to have been exacerbated by two other factors. Namely, the low elasticity of demand for primary commodities and technical progress in the developed countries, which resulted in the reduction of raw materials, used per unit of output and reduced the demand for primary commodities in the developed countries. In contrast manufactured goods faced a high-income demand elasticity, which always kept their price buoyant. The inevitable consequence was a misdistribution of gains.(Chanthunya& Murinde, p.26).

The second pessimistic view is based on the notion that markets do not exist because of tariff and non-tariff barriers set by developed countries for LDCs exports. A recent study, that could strengthen the pessimism of LDCs trade is, the study by (Ghash, 1992) which stated that developed countries dominate primary commodity trade. Even though developing countries economy account for the dominant share of primary commodity export, the top ten exporters of food are all developed countries.

The pessimistic view became popular after WW.II. The proponents of the pessimist school of thought Nurkuse (1959) and Presisch (1961) have stressed the potential advantages of growth through import-substitution policies. This strategy suggest high tariff and non-tariff barriers be erected around domestic industries to replace foreign supplies. The local firms would have the

opportunity to achieve economies of scale associated with larger production volume or to lower unit cost through specialization. It also encourages learning by doing and saving the need for foreign currency, particularly in the wake of balance of payments difficulties, by producing at home what otherwise imported. According to the import substitution advocators, while trade served as the engine of growth in the 19th century, it could no longer be relied upon to play that role in the 20th centuries because of a slow down in the growth of demand in the developed countries. However, a number of practical disadvantages often appear from attempting to apply import substitution strategy. International experiences suggest that developing countries that have adopted more outward oriented trade strategy have had better economic performance than countries that adopted more inward economic strategies (Prasad,1992). As a result outward oriented strategies are increasingly being advocated.

Bhigwati (1978) and Krueger (1978) advocated the advantage of outward oriented strategy in the following respects. In terms of relaxing a country's foreign exchange constraints, the domestic resource cost of earning a unit of foreign exchange by export tends to be less than the domestic resource cost of saving a unit of foreign exchange by import substitution. Second, since it relies on exogenous world demand, the process of industrialization through export expansion is not constrained by the narrow domestic market and benefits from economy of scale and efficiency derived from competition on the world market. Third, foreign investment, which is essential to the capital of poor developing countries, has more beneficial effects in export expansion in that it tends to have more linkage to agriculture by the processing of primary products.

3.2. Theoretical consideration related to the determinants of export performance

In economic analysis of export performance both demand and supply variables be considered as determinant factors. World demand and relative export price in the export function affect export performance from the demand side, while domestic demand pressure, factor productivity, exchange rate which determine the price competitiveness of export may be considered as the supply variables.

3.2.1 Demand side factors

Demand deficiency hypothesis of trade traced the slow growth of LDC exports in relation to world exports to international demand (Ghosh, 1992; Ror, 1991). Developing countries export expansion depends on the propensity and growth in the industrial countries and other exogenous non-price determinants of the external demand. These are usually the low-income elasticity of primary commodities, development of synthetic substitutes, economics in the use of raw materials in industrial countries. For instance, Nurkse (1984), wrote about increasing economy in the use of raw materials both damping the demand for developing countries' exports over time, shift in the industrial output composition towards goods with a lower import content and the restrictive import policies of developed countries.

The restrictive measures applied to imports by the industrial countries according to (Mandwani, 1964) studies described that lower the whole vast range of primary items except for those which by their nature cannot be produced domestically in these countries, all measures serve to stimulate increased domestic production of the expense of imports, besides if some of the products are not subjected to import restriction in the markets of industrial countries, their consumption is discouraged by leaving internal taxes which are usually more than the value of the items imported.

Demand side factors of export mostly expressed in terms of relative price and disposable income of consumers (importers). Express in functional form as follows

$$X=f(p,y) \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (3.1)$$

Where x is export, p represents price and y is disposable income. This implies the higher the income the more will be the demand of consumers of a particular good, so is demand for export goods.

Many economists argued, Trade in general and export in particular is termed as an engine of growth in the international economies (Lewis, 1980; Riedel, 1984 & Finadly, 1980). Many of them focused attention on the nature of less developed countries and showed trade as an engine of growth. Finadly described trade as an engine of growth for the economy of the south but they asserted the power that derives that engine is generated by the exogenously determined natural growth rate of the north. Conceptually as well as on the basis of empirical works that the LDCs economy in general and export in particular are highly sensitive to economic condition abroad. Lewis et al (1980) also described that the relationship between MDCs & LDCs.[4] He pointed out trade is the link through which the former control the growth rate of the latter. As MDCs growth faster, the rate of growth of their imports accelerates and LDCs export more.

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[4]*According to lewis MDC refers to more developed countries. Where as LDC follows the usual meaning.*

3.2.2 Supply side determinants

The proponents of supply inelasticity hypothesis have pointed out that the slow growth of LDCs export is mainly due to constraints appearing on the supply side of export. Exchange rate, relative price, non-price factors which accounts for export diversification, export incentives, government policy, institutional factors relating to bureaucracy of export procedures, centralized service needed by exporters are some of the frequently discussed supply constraints in many studies etc. Weather condition, resource endowments, Technology, domestic market growth determines the export supply of developing countries. Apart from the weather and resource endowment, all the other determinants of supply are affected by domestic policies (Bond, 1987). Policies that lead to higher investment cause for spread of new technology in the rural sector tend to rise agricultural capacity and provide increased export earning, which can used to import the capital and raw materials necessary to begin expansion in the manufacture sector.

There is a wider agreement that an overvalued exchange rate is likely to have a variety of adverse effects on an economy by way of discouraging export and reducing the profitability of production for world markets. It discourages national production of importable because the local currency cost of import be kept artificially low, (Killick, 1992). The effect is likely serious consequences both for agriculture and manufacturing (the chief import substitution sector). He explained as follows.

> Some people argue that the exchange rate will not affect the performance of primary product exports because the prices of the goods are dominated in dollars of other foreign currencies & dominated by world supply & demand conditions and will thus not be influenced by the domestic exchange rate of small suppliers. This is a fallacy based on confusion between foreign currency & local currency

> effects. While the dollar price of a country, export will probably be largely unaffected by its exchange rate, that rate will determine how many units of local currency the dollar price will buy. Devaluation will increase the local currency proceeds of exports, which will discourage production, particularly if inflation raises production cost. (p.140)

In most studies export relative price is considered as powerful factor, which determines the export sector. (Goldstein & Khan 1978; Bond, 1987; Cuddington & Urzua, 1989) discussed the importance of price in expansion export. Bond et al (1987) stressed pricing policies have to allow producers price to reflect market prices if a country is to have an optimal production mix for domestic market and export. Cuddington & Urzua pointed to adopt policy that improve price, because quality improvement can potentially affect both the numerator and denominator of the relative price of primary goods in terms of manufactures. Balassa(1987) pointed out econometric analysis shows the agricultural export strongly respond to price incentives. The responsiveness apparently greater to Sab Sahara African countries than in developing countries in general.

Countries with economies dependent on one or few export products are subjected to economic instability. So they have to diversify the commodity of export base, Willson (1984). Export diversification strengthens competitiveness and leads to export expansion. A prior argument about the impact of commodity concentration on export instability hold that the more is a country's dependence on one commodity or a narrow range of products, the greater is the likelihood that fluctuations in total export earnings will follow the pattern of change in earning from the country's major products (Love, 1986). Because of the concentration does exert a causal influence, the obvious policy response suggested was that of diversification. On the other hand Lin & Ho (1979) presented, citrus paribus, instability is not due to export concentration per se but the nature of commodities exported. According to them one of the

major feature of characterizing Hong Kong export pattern is the increasingly high concentration on manufacturing. In as much as Hong Kong derived export earning almost exclusively from light manufactures, which are both income and price elastic, its over all export receipts become much more stable than other country. Hong Kong's success in exporting light manufactures suggests that export dependency per se is not a major cause of instability. The most important factor in this remarkable performance is an ability to produce and adjust products of the right kind commodity for the right market. In principle, highly diversified exports are incompatible with competitive exports. Diversification is only important in time of need. Other studies underpin this by (Soutar, 1977) evidence, which suggest that a fluctuation in the price of primary products is highly manifest than in the price of most industrial goods. These fluctuations appears to be partly due to the relative price inelasticities of both the demand and supply of primary goods and partly due to the relatively greater influences of non economic factors, such as weather and other natural phenomena, in the LDCs.

Apart from the above there are also other factors, which are considered to influencing the export performance. Domestic demand pressure is among the factors accountable for affecting the export from the supply side. The domestic demand pressure on export performance has seemed a controversial issue on both theoretical and empirical level. Some argue that domestic demand does not affect exports. Others argue that domestic demand affects export through its effect on domestic price, thus an export supply equation that includes a relative price variable should not have an additional explanatory variable that measure domestic demand pressure. Ball (1966) studies described that even if home and export sales are equally profitable, a rise in over all domestic demand pressure may create strong competition for resources, which would have been devoted to exports. Other studies which are indicated in Zilberfarb paper studies (cooper, 1970 & Arthus, 1970) found a negative effect of domestic demand on export performance and their conclusion was domestic demand has a direct effect on export and not just an indirect influence through price effect.

The study by Zilberfarb (1980) has included both variables to examine the effect on export performance. The argument for the inclusion of domestic demand pressure in the export equation, in addition to the relative price variable rests on market imperfections. Prices are relatively rigid in the short run (specially down ward), So that they do not reflect adequately changes in domestic demand pressure.

The empirical evidence provided by Zilberfarb et al study was that a) export are influenced by the return to exporter relative to the return to domestic market. The elasticity of this price variable has been upward in those studies that fail to take in to account the effect of domestic demand pressure on exports. b) Domestic demand pressure has a direct negative effect on export performance. As a result he concluded that an export supply equation should include a measure of domestic demand pressure in addition to a relative price variable to account for short run disequilbirium situation.

In most developing countries imports of intermediate and capital goods are themselves a

adverse impact on exports. Farther more, the slower growth of exports would, other things equal, reduce foreign exchange availability and lead to a greater import compression. (Kaha & Knight, 1986).

3.3. Review empirical work for LDCs export

There are number of empirical models on export demand and export supply developed by many researchers. One of the leading and most used equations is the one by Goldstein & Khan (1978). In their studies, they have tried to investigate the price responsiveness of both demand and supply export of eight industrial countries. They are introduced export supply and demand model and further estimated both simultaneously so as to eliminate bias arising from the two-way relationship between export price and quantity. Their finding was that enables estimating export supply and export demand simultaneously, provide price elasticity of demand possibly considerably larger than previously obtained by other researcher for the same group of countries. Previous studies on the behavior of export, according to the study, have ignored the simultaneous relationship between the export price and export quantity.

There is no particular model specified for developing countries. How ever, they followed the above model. From many of these studies, the low price elasticity and high-income elasticity of demand for LDCs export in developed countries considered as the main factor behind the poor export performances of developing countries. This supports the view that export from developing countries is sensitive to change in the level of income in developed countries. According to Lewis:

> The growth rate of world trade in primary products over the period of 1873 to 1913 was 0.87 times the growth of industrial production in the developed countries, and just about the same relationship about 0.87 also ruled in the two decades to 1973...we need no elaborate statistical proof that trade depends on prosperity in the industrial countries. More interesting is the evidence that the relationship was quantitatively the same over a hundred years, so that the two third increase in the rate of growth of exports of primary products from LDCs was no more or less

than could be predicted from the increased rate of growth of MDC production (Lewis 1980, p.556)

This study described that LDCs export performance depends on the demand side, which is income growth of the importing countries, which are the MDC. Lewis interest in his 1970 study was that given the observation of a stable hundred year link between growth in developed countries and primary export of developing countries geared at the ratio 0.87, is taken as evidence that the trade engine is mechanically efficient and that therefore, since 1973 growth rate of world economy has halved, slow down of developed country growth leads mechanically to a slow down of LDCs trade.

The evidence in Riedel's studies (1984, 1988) on the other hand, has shown that the prosperity in developed countries cannot apply to manufactures exports of LDCs. As an evidence of econometric regression, over the entire period total exports grew more than proportionally to MDC income. The rapid expansion of manufactures export in the 1970s even in the 1960s LDC exports of manufactures grew almost twice an fast as MDC real GDP, but in the 1970s, despite a general slow down of growth after 1973, LDCs exports maintained their rapid pace, growing more than four times as fast as MDC real GDP. His conclusion was presented as follows.

> ...Unless one is prepared to argue that a radical shift in preferences favoring LDC manufactures occurred in the 1970, since manufactures, share in MDC consumption is declining secularly and further, since the mid-1970, witnessed a rise of protectionism against developing countries exports if anything the opposite would seem to be the case nor can it be argued that the growth of exports in the 1970s was maintained by finding markets outside the developed countries, since the share of MDC, in LDC exports has been steadily increasing. The

> evidence therefore, suggests that supply rather than demand factors have principally determined LDC export performances in manufactures (Riedel, 1984, p.68-69).

So the evidence in Reidel studies (1984) shows that Lewis study (1980) is misleading as it fails to treat the supply side influences. The export performance of these countries could more explained by domestic supply more than by external condition. He also stressed the point that previous econometric work has neglected the supply side of LDC exports for the simple reason that it is difficult to model. This shows the level of economic activity in developed countries and export performance of LDCs had weak linkage in case of manufactures. The major commodity group for which a stable export relationship to MDC real GDP is on food, in particular beverage (coffee, tea and coca). These were not center of Lewis study about trade engine.

The basic idea of Reidels et al (1984, 1988) stressed that even there can be no doubt that the economic prospects in one region of the world affect those in other regions, measure of linkage obtained by regressing LDC exports on MDC income prove far too unstable to be interpreted reasonably as mechanical gears of an engine of growth. Such analysis ignores the influences of relative price changes and shifts in supply.

An attempt was made by Goldar (1989) and Roy (1991) to estimate determinants of export function by combining the two approaches. The model brought all the determinant factors from the point of view of demand and supply variable with respect to export performance following the work of (Lewis 1980 & Reidel, 1988). As mentioned in their studies, many authors (e.g. pomfret, 1975; youtopolous, 1976; Bhagwati & Srimivasan, 1975) have included both demand and supply side determinants of export performance in the same regression equation. Both found that the world demand is an important determinant of export performance of developing countries.

3.4. Review of empirical works related to Ethiopian export performance.

The studies by World Bank (1987) and Feltensher (1985) attempt to examine the export supply performance in Ethiopia. Feltensher was unable to estimate export supply elasticity either for coffee (the dominant commodity export) or for aggregate export supply. The possible reason he pointed out for this was the considerable government intervention in the export market. He also pointed out the possibility that the domestic price may not reflect the true price obtainable by exporters if developing countries choose to sell on the home market. The World Bank group (1987) study had estimated an export supply function of the Ethiopian economy using the following formula.

$$X_t = f(y_t, p_{t-1}, ET, T_t, C_t) \text{---------- (3.2)}$$

Where X is export supply from Ethiopia

P is unit price of export

ET is the real effective exchange rate

T Represents ratio of export tax total tax

Y is index of real GDP

C is level of private consumption

Then examined how far the trends in export prices, real effective exchange rate, domestic production capacity, cost of production, private and domestic consumption as well as tax rate could explain Ethiopia's poor export performance from their econometric estimation. All variables had the expected signs and from the numerical result they interpreted that Ethiopia export supply responses to export tax and private consumption were the only statistical

significant variables at 10% level with elasticity 0.29and -0.78 respectively. While export price and exchange rate variables were not statistically significant with -0.16 and 0.12 respectively.

- From a sample of ten African countries export experience with respect to the export led growth hypothesis, Chunthunya and Murinde et al (1998) had conducted empirical study using econometric analysis. Ethiopia was one sample of the study. Result of their estimation in case of Ethiopia provided no causality between export and economic growth. i.e. export has not relationship to GDP.

- Many Ethiopians have also conducted researches pertaining to the export performance in Ethiopia. Gebeyehu (1983) tried to examine the Determinants of export in Ethiopia from the sample of the period between (1962-1973) by investigating the demand side factors. He used a constant market share approach. He also made some comparison of the export performance in Ethiopia with eight other Africa countries. And concluded that Ethiopia's export performance was better in the late 1960s and by the standard of other African countries examined, better competitiveness and better export commodity mix seem to have been the major factors that had contributed to this performance.

Another study related to Ethiopian agricultural export conducted by Tadesse (1995) for the period (1974-1992) empirically estimated using supply side equation model.

$$LogX^{s}_{t}=a_{o}+a_{1}log(px/pd)_{t}+a_{2}log(px/pd)_{t-1}+a_{3}logy_{t}^{*}+a_{4}T_{t}+u_{t} \quad \ldots\ldots\ldots\ldots\ldots\ldots (3.3)$$

Where p represents relative export price to domestic price at current and at lag.

Y represents domestic production capacity, and

T is time trend.

This model is following the approach of Goldestain and Khan simultaneous equation (1998). How ever it is not provided why only the supply side equation used. He showed that the performance of export in general was poor. Decline in producer price due to participation of military administration in the economy despite increase in export price received by the government, excessive and prolonged overvaluation of the domestic currency relative to the currencies of the country's trading partner, lack of diversification of exports are some of the major factors accountable for the declines in export.

- The other is the work of Getachew (1991) for MSc thesis on Ethiopian export. He estimated the elasticity of export supply variables to evaluate the export performance. However, the model he used not really supply function. His approach is some how a reduced form since he incorporates the demand variables as well. He got price elasticity, domestic demand pressure and relative consumption found statistically significant at 5% level with coefficient of -1.77, 1.64 and -1.09 respectively. He then concluded low level of investment, rise in domestic consumption as a result of rapid population growth, inefficient marketing system and policy issues as related to the pricing of exportable items, overvalued exchange rate, taxation system and poor physical infrastructure are some of the major factors that have set a limit to export. When he summarized his work, slow growth of domestic production than total demand is the main cause for the sluggish performance of Ethiopian export. In general the studies on Ethiopian export follows the same analysis based on the supply side or demand side of the export only. But this kind of analysis of export may yield biased estimates of the parameters. (Houtaker & Magee, 1969; Goldstain & Khan, 1978; and others).

CHAPTER FOUR

4. ANALYSIS AND DISCUSSION RESULT

4.1. ECONOMETRIC ANALYSIS

4.1.1 Model specification

In specification of relevant function of export, numbers of econometric models have been designed to investigate the behavior of aggregate export. In this case there has been two approaches of estimating the export performance. On one hand side, attempts have been made to estimate the export demand and supply function in a simultaneous equation specification.

The pioneer study of this approach has been done in (1969) by Houthacker and Magee. The estimation was done using the demand and supply functions in a simultaneous equation. In this study both prices and income elasticities have been taken as important factors in determining the export activities. Following the study in (1978) Goldstein and Khan introduced the model for both export supply and export demand which helps to investigate the price responsiveness. The two models of export estimated simultaneously to eliminate any bias arising from the two-way relationship between export quantity and export prices. Both of the studies are conducted for the industrialized countries manufactured export. However, other studies, following the above approaches have tried to investigate export behavior in relation to export from developing countries. Bond et al (1987) has investigated the behavior of developing countries exporting primary commodities using the above approach of export function.

The model specified by Bond was as follows:

Export demand function:

$$\ln X^d = a_{0+}\ a_1 (P_X/P_W) + a_2 Y_w \quad \text{---------- (4.1.1)}$$

Where X^d is quantity of export of commodity demanded.

P_X export price for the commodity

P_W the average price of the commodity in international trade

Y_w Real income in importing countries.

Export supply function:

$$ln X^s = \hat{a}_{0+} \hat{a}_1 ln (PX/PE) + \hat{a}_2 ln (PX/PE)_{t-1+} \hat{a}_3 lnY^* + \hat{a}_4 lnSS + \hat{a}_5 t \quad \text{-----(4.1.2)}$$

Where X^s is quantity of export supplied.

P_X Domestic price level in producing country in local currency.

P_W the exchange rate of producing country currency in US dollar.

Y^* An index of overall productive capacity

SS Supply shock

t a trend term includes to reflect long run changes that affect the supply of export of the commodity.

The expected sign are

$$\hat{a}_{1>0}, \quad \hat{a}_{2>0}, \quad \hat{a}_{3>0}$$

This equation is based on the notion that exporters increase their supply of exports as the price of exports rise relative to domestic prices. The lagged price variable allow for the possibility of delayed supply adjustment beyond the period of one year.

Normalizing the equation for the price of export yield:

$$LnPX = b_{0+} b_1 ln X^s + b_2 lnPE + b_3 ln (PX/PE)_{t-1+} b_4 lnY^* + b_5 t \quad \text{---------- (4.1.3)}$$

The normalized coefficients are related to structural parameters in the following way.

$b_{0=}-\hat{a}_0/\hat{a}_1$, $b_{1=}1/\hat{a}_1$, $b_{2=}\ \hat{a}_1/\hat{a}_1$, $b_{3=}\ \hat{a}_2/\hat{a}_1$ $b_{4=}\ \hat{a}_3/\hat{a}_1$, $b_{5=}\hat{a}_4/\hat{a}_1$ $b_{1=}\ \hat{a}_0/\hat{a}_1$ $b_{6=}$ $\hat{a}_5/\hat{a}_1$

Equation 4.1.1 and 4.1.3 can be estimated simultaneously to obtain estimates of the structural parameters. The price elasticity of demand of all commodities for all developing countries in the reference is calculated to be –0.35, while the average income elasticities were significant. The result support exports of agricultural product are less sensitive to short-term fluctuation.

The model specified by prasad et al (1992) which is basically similar to Bond's work but with the aim to over come the problem of earlier estimates of price elacticities which usually less than unity and justify "export pessimism" by adopting different approach. He draws a distinction between the world demand curve for a specific commodity configuration and the demand curve facing a single country. In the supply model, unlike the function that have generally used, it explicitly incorporates a nominal variables interacting with the real variables. The model applied for Indian economy. In his estimation the relative price elasticity of demand found to be above unity quite different from earlier studies. Income elasticity of demand is about unity, which is stable. Implies price competitiveness remains more or less unchanged. Then he concluded that the estimated structural coefficients tend to confirm, the structurally invalid, export price elasticities stem from the incorrect specification of the demand function rather than from inherent barriers in the world market.

On the other hand the export function, which incorporates both demand side and supply side determinants of exports on the same regression equation, has been developed. This type of model brought the entire determinant factor from both demand and supply side point of view with respect to export performance. Such form of equation is neither an export demand nor an export supply function. It is termed as export determination model. This type of function was used by many earlier studies as mentioned in the preceding chapter.

Among the others, Goldar in (1989) have used such form of model to estimate India's engineering export performance. In his work the export function has been specified in the following form: -

$$X = f(A, L, E, W, D, T) \text{ ----------} (4.1.4)$$

Where X denotes quantity index of exports; A represents total factor productivity; L, represents cumulative output; E, exchange rate; W, world demand for the export; D for domestic demand pressure and T time trend.

We can put the above equation in log form as follows

$$LnX = á_0 + á_1 lnA + á_2 lnL + á_3 lnE + á_4 lnW + á_5 lnD + á_5 t \text{ ----------} (4.1.5.)$$

Similar to the above equation have been estimated for Indonesia export by Roy in 1991. In this study he tried to estimate for both primary commodities and manufactured exports. The variable used in this equation was similar to the above but there is some difference in some of the included variables. For instance, in Roy's equation relative prices are included as important export determinant variable, which is not included in Goldar equation.

The export function in Roy's was presented as follows

$$EXP = f(EFF, WE, EXR, DDP, CGDP, EXDMPC) \text{ ----------} (4.1.6)$$

Where *EXP denotes* export from Indonesia

WE implies world demand, in this case world export is taken as a proxy

EXR is exchange rate

DDP is domestic demand pressure(Ratio of production index to trend value)

CGDP cumulative output

EXDMPC ratio of the index of domestic price to the index of export price for domestically produced goods.

EFF represents efficiency index equal to $(V_i/WL_i + Qk_i)$

Where $\mathbf{V_i}$ Value added by i^{th}

W marginal productivity of labour

Q marginal productivity of capital

L_i average daily employed labour worked for producing the out put

k_i average daily employed capital worked for producing the output

Following the above works, this study applies the second approach technique of estimation in an Ethiopian context. The variable that assumed most important determinant of export performance of Ethiopia are world demand for Ethiopian export, relative price, exchange rate, domestic demand pressure and for the non-price competitiveness, which represented by cumulative output (or GDP). World demand and relative price assumed to affect export performance from the demand side while the others are responsible for the supply side.

The export function is specified in the form of: -

Exp. = f (WE, EXR, DDP, GDP, RP, ET,) ....*(4.1.7)*

Given the above variables econometric estimation of the export performance specified in the following relationship: -

$EXP = \alpha_0 + \alpha_1 WE + \alpha_2\, DDP + \alpha_3 EXR + \alpha_4\, GDP + \alpha_5 (P_d/P_x) + \alpha_6 ET + Ut$...............*(4.1.8)*

Where Exp = Represents Export quantity supplied from Ethiopia.

WE = World demand measure by world export as a proxy.

EXR = Exchange rate (Birr earning per unit dollar).

DDP = Domestic demand pressure

GDP = represent for cumulative out put

ET = Export tax

(P_x/p_d) = Relative price (defined as the ratio of domestic price to the

Index of export price of domestic goods

U_i = the disturbance term

α = Represents the estimated coefficients.

In econometric estimation it usually used logarithm of the equation. Following this practice the log form of the equation above is yield the following form.

$$LnEXP=\alpha_0+\alpha_1 lnWE+\alpha_2 lnDDP+\alpha_3 lnEXR+\alpha_4 lnCGDP+\alpha_5 ln(P_x/p_d)+\alpha_6 lnET+Ut \quad \ldots\ldots\ldots\ldots (4.1.9)$$

α's now represent elasticities.

The expected result is: $\alpha_{1>0}, \alpha_{2<0}, \alpha_{3>0}, \alpha_{4>0}, \alpha_{5<0}$ and $\alpha_{6<0}$

4.1.2 Variable description and measurement

- The dependent variable is represented by the export from Ethiopia, measured total value of export deflated by world unit value index for primary commodity.

- World demand is represented by the world export for the primary commodity. The rational for including this variable is that, since countries like Ethiopia are price takers, their export to the world market is influenced by the demand from the rest of the world, especially from the high-income countries. The variable in this case consisting the category of commodity *SITC (0+1), SITC (2+4)* obtained from the international trade statistics yearbook. This category consists mostly the primary commodities, which constitute most exports of developing countries.

Domestic demand pressure which represents the degree of domestic demand for the exportable products, is another very important variable in Ethiopian case, because almost all the export commodities from Ethiopia are highly demanded domestically, despite they have better advantage through exporting. It is difficult to represent this variable exactly. But many researchers used it by different proxy variables. In this case it represented by domestic nominal credit.[5] this is considered as a good substitute as any for domestic demand. It is highly correlated to gross domestic

expenditure, it is unaffected by variation in net imports, and it directly manageable through fiscal and monetary policies (Prasad, 1992).

- Exchange rate provides a major determinant of price competitiveness of exports. In this model the nominal exchange rate is used. This is because the exporters are more willing to respond to nominal exchange rate than they do for real exchange rate. How ever, since domestic relative prices are affected by changes in nominal exchange rate real, exchange rate is used to investigate the effect.

  $RER = (E^*p_f)/p_n$

  Where p^* *foreign price of traded goods*

  E *is the nominal exchange rates*

  P_n *the domestic price of home goods*

  Increased exchange rate expected to improve official exports at the cost of smuggling.

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[5] ***It is the sum of net bank credit to the government and bank credit to commercial sector, measured by the end period outstanding credit.***

- The relative price is defined as the ratio of price of export to the domestic price index. When perfect competition prevails in the industry and the export demand curve is infinitely elastic an increase in export prices will give to an increase in export sales with sales in domestic market remaining unchanged (Roy, 1991). The domestic price index is represented by the index of Addis Ababa domestic price index.

- To account for improvement in non prices competitiveness of export or to capture quality improvement which comprises diversification, marketing, packing, delivery time etc GDP is used. It may be noted that these non-price factors affect the growth rate rather than the level of exports. This argument suggests that domestic growth is an important determinant of the growth potential of a country's export (Roy, 1991). The non-price competitiveness assumes to a large extent a result of learning process evidently cumulative output (represented by GDP) is commonly used in empirical studies as measure of learning process.

- Tax rate is explained as the ratio of total export tax to total export receipt. At this time export tax is substantially reduced. However, since the paper is looking past experiences it is important to examine its effect. So it is included to asses government barriers on export. At some times coffee export was reach up to 50% of FOB value.

The functional specification of the model is a log-linear function as earlier studies have done. Ordinary least square (OLS) method of estimation has been used. Both aggregate export and some major components will be estimated. The expected results of the variables are as follows. Domestic demand pressure, which is the higher the level of domestic demand pressure the lower, the supply in the export market. Export tax also expected to affect the level of export negatively. In other words, an inverse relationship is expected between export and domestic demand, export and tax imposed. While all the other variables expected to have positive sign, which implies that, they affect positively for the export performance.

4.1.3 Analytical method

4.1.3.1 Introduction

Many economic time series data are subjected to the problem of non-stationary. In econometric research involving time series data, before any kind of statistical estimation takes place the data of all variables in the model have to be tested for their stationarity.6

Much conventional asymptotic theory for least square estimation (e.g.the standard proof of consistency and asymptotic normality of estimators) assumes stationarity of the explanatory variables, possibly around the deterministic trend. (Banerjee,Dolado, Galbraith and Hendry, 1993).

The problem with regression relating to non-stationerty in time series data is most likely to generate a spurious regression results. When the data are nonstationary non-standard distribution appears, So that inferential procedures must differ from those applicable when the series are stationary. This is because of the fact that a random walk does not have constant mean and a finite variance. As a result OLS estimator will not give consistent estimators.

According to Granger and New bold (1974) any regression for which R^2 >DW is one that is likely to be Spurious. This could be interpreted as a sign of lack of any equilibrium relationship among the variables in the regression. Even though it has significant t- statistic and high R^2, the DW statistic will have low values, which will converge to zero as the sample size increase. The low DW value may leads to reject the null hypothesis of no relationship between variables even this is true. So before any estimation is made it is important to test the level of integration through the unit root test in order to have reliable result export performance model.

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[6] *A series termed as a stationary if it has a constant mean and finite variance.*

4.1.3.2 The test for Unit Root

Each variable in the study is tested for its stationarity in order to determine its order of integration. Even there are several tests that are used to test for unit root, the test proposed by Dickey and Fuller (DF) and the augmented DF test have been widely applied to many practical researches.

a, The Dickey-Fuller test

The (DF) test for unit root is formulated as: -

$$\Delta y_t = \rho y_{t-1} + \varepsilon_t \quad \text{.....(4.3.1) or alternatively}$$

$$y_t = (1+\rho) y_{t-1} + \varepsilon_t \quad \text{where } \alpha = (1+\rho) \text{ .... (4.3.2)}$$

Where the DF test consists of testing the negativity of ρ in the OLS regression in (1). Hence if $\rho < 0$ then in (2) $\alpha < 1$.

The null hypothesis is $H_0: \rho = 0$

The alternative hypothesis $H_A: \rho < 0$

In other words the null hypothesis to be tested that y_t is not I (o) against the alternative that y_t is I (o). Which implies that $\alpha < 1$ and that y_t is integrated of order zero.

b, The ADF test

The DF test presumes the condition that the error of the AR (1) model is white noise, which of course too restrictive for econometric application. The augmented Dickey Fuller (ADF) test on the other hand accounts for possibility that ε_t is not white noise. The test follows the same procedure but augmented with an AR (k) process.

The Augmented DF test stated as follows: -

$$\Delta y_t = \alpha_O + \rho\, y_{t-1} + \alpha_1 (t - t_m) + \sum^{k}_{i-1} \alpha_i \Delta y_{t-1} + \varepsilon_t \quad \text{---------- (4.3.3)}$$

Where $(t-t_m)$ is time trend subtracted from its mean

The augmentation is to include lags of Δy_t and this improves the statistical fit of the equation and ρ is more efficient with added information.

4.1.3.3 Test for Cointegration

To understand cointegration we need to define integration. A series is said to be integrated if it accumulates some past effect. Such a series is non stationery because its future path depends up on all such past influences, and is not laid to some mean to which it must eventually return. So we must difference an integrated series to achieve stationarty. The problem with regression on the difference however, may result in loss its long run meaning of the variable due to the differencing. Cointegration test in this regard becomes important one.

According to Benarjee, Dolado, Galberth and Hendry (1993) there are three reasons for regarding the concept of cointegration as central to econometric modeling with integrated variables as well as to the examination of long run relationship among these variables. In the first place, the link that the concept formalized among the variables of higher order of integration, for which some linear combination is of a lower order of integration. Second, regression involving levels of time series of non stationery variables make sense if and only if these variables are cointegrated. A test for cointegration then yields a useful method of distinguishing meaningful regression from those called spurious or nonsense. Third, a set of cointegrated variable is known to have among other representation, an error correction

representation. That is, the relationship may be expressed so that a term representing the deviation of observed values from the long run equilibrium inters the model.

Many economic variables happen to have the nature of non stationarity. The variable in our model also likely to be integrated of order greater than zero. So we have to apply the test for cointegration. This is because some pairs of them may have long run equilibrium relationship. Cointegration test then entails whether a linear combination of series may have a lower order of integration than any one of them has individually. So the need for testing cointegration allow us to describe the existence of equilibrium or stationary relationship among two or more time series each of which individually non stationery. In other words, this allow us to whether we can establish a model that can be considered as the short run and long run relationship of the variables. As a result if the variables cointegrated the error term of this relationship will be used to construct a dynamic error correction model.

Although there are many tests that can be used to test for cointegration, Engle-Granger (EG) two step procedure and Johansen methodology are widely used. Johansen's approach of testing for cointegration is known by its attribute in an equation, which have more than two variables. However, number of problems also associated with this approach. In this paper the Engle-Granger procedure is applied.

4.1.3.3.1 The Engle- Granger two step procedure

This test entails, testing whether the residuals have a unit root from the regression on levels using OLS. It has a two-step procedure, which perform as follows: In the first step, the parameters of the cointegration vector are estimated by running the static regression in the level of the variables. In the second step, we test whether residuals have a unit root using ADF tests. In this case $\hat{U}$ is note observed. Then we use the estimated residual from the cointegrating regression.

In this test the null hypothesis is that the estimated error term has a unit root against the alternative hypothesis that the variable are cointegrated. According to Charmaza & Deadman (1997) this test entails if only two variables appear in the long run relation both have to be of the same order of integration. If the number of variables is greater than two, the order of integration of the dependent variable can not be higher than the order of integration of any of the explanatory variables. Moreover, there must be either none or at least two explanatory variables integrated to an identical order higher than the order of integration of the dependent variable.

4.1.4. The error correction model

In time series econometric research some people work with method of transformation technique and others removing the trend from the data to avoid spurious regression results and then apply traditional econometric time series analysis.

The practice of differencing integrated series to achieve stationerty and of treating resulting series as the proper objective of econometric analysis has a problem. It is performed at the cost of losing some information about long run behavior. As it happens, testing for non stationerity is potentially misleading. In that non standard distributions appear where the data non

stationary. So that inferential procedure differ from those applicable where the series are stationery. (Banerjee, Dolado, Galbraith and Hendry et al p.84).

The error correction mechanism (ECM) on the other hand helps to capture both the short run and long run relationship between the variables. ECM can be constructed from the cointegrated equation. Engle-Granger (1987) established that a cointegrated system can be represented in an error correction structure, which incorporates both changes and levels of variables such that all the elements are stationary. In other words, the error correction structure provides the framework of estimation, forecasting and testing of cointegrated system.

The model in this paper then represented in error correction model as follows: -

$$\Delta EXP=\beta_0+\beta_1\Delta WE+\beta_2\Delta EXR+\beta_3\Delta GDP+\beta_4\Delta RP+\beta_5\Delta ET+\beta_6\Delta DDP+\beta_7 k_{t-1}+\varepsilon_t \text{----(4.5.1)}$$

Where $k = U_i$ and

$$U_i = EXP-(\alpha_0+\alpha_1 WE+\alpha_2 DDP+\alpha_3 EXR+\alpha_4 GDP+\alpha_5 RP+\alpha_6 ET)$$

This is based on the assumption that the error term U_i and ε_t are white noise process.

Further more, the effect of shocks that the country confronted in the reference period, such as political movement, drought etc need to be tested. The structural stability test adopted in this study is to use the chow test. In addition to test a systematic changes and sudden changes in the model the cumulative sum of recursive residual and cumulative sum of squares for recursive residuals will be applied. According to this stability test the null hypothesis that the regression parameters are constant or the regression equation is correctly specified. If the plots on residuals from recursive regression did not cross any one of the two critical boundaries at 5% level of significance we would not reject the null hypothesis.

4.1.5 Estimation result

This part presents the estimation result as well as the tests made prior to the estimation. As we have seen in the preceding discussion, before any estimation is done, it is essential to test the order of integration of each variable included in this study (i.e. testing whether an individual series is I (1).

4.1.5.1.Result of unit root test

The unit root test of each variable found to be difference stationery. i.e. the first differences are stationery.(See the table below) The null hypotheses of a unit root, in the variables considered are non-stationery at level against an alternative of stationery. In our case we cannot reject the null hypothesis. The outcome of the unit root test is also supported by graph.

Table4.1.1

The ADF test statistic for unit root for export function

Variables	*Levels*		*First difference*	
	With constant only	*With constant and trend*	*With constant*	*With constant and trend*
LEXP	*-0.09*	*-0.771*	*-4.084***	*-4.421***
LWE	*0.47*	*-1.77*	*-4.708***	*-4.8***
LRER	*-1.64*	*-0.303*	*-3.596**	*-4.08**
LGDP	*1.52*	*-1.213*	*-6.58***	*-7.459***
LDC	*-0.71*	*-1.182*	*-4.118***	*-4.196**
LRP	*-1.56*	*-1.478*	*-4.898***	*-4.898***
LRTAX	*-1.056*	*-1.566*	*-4.77***	*-4.77***

ADF test critical value

At level

With constant

At 5% = -2.96

At 1% =-3.67

With constant and trend

At 5% = -3.57

At 1% = -4.30

critical value at difference

with constant

at 5% = -2.97

At 1% = -3.685

with constant and trend

at 5% = -3.58

At 1% = -4.32

*** Indicates significance level at 1%.*

** Indicates significance level at 5%.*

The next step after testing for order of integration is testing whether the linear combination of these variables is stationery. This test implies test of equilibrium relationship between the variables in the model. Variables to be related in the long run, they must be cointegrated. Using the Engle-Granger two-step procedures, the variables in the model were found to posses a long run equilibrium relationship.

Table 4.1.2

Summery of long run equation result.

LRVX=-3.3574+0.7609LWE-0.3403LRP+0.547LRER+0.1874LRTAX-0.6434LRD+ 0.1.451LRGDP						
SE =	*(3.567)*	*(0.2686)*	*(0.2208)*	*(0.2507)*	*(0.0892)*	*(0.2921)*	*(0.5106)*

R^2 *= 0.91*	*F-statistic (6,26) = 45.27 [0.000]*
DW =1.48	*wald test = 45.27[0.0000]***
	*Unit root test = -4. 8187***

Test summery
AR 1-2F (1,24) = 1.5426(0.2335)
ARCH F (1,24) = 2.214 (0.1498)
NORMALITY X^2 *= 0.84134(0.6566)*
X_i^2 *= 1.4278(0.2662)*
RESET = 0.15173(0.700

The OLS estimation results of the long run model that include all variables are presented in the above table. From the diagnostic test there is nothing to suggest that the model is miss specified, since none of the tests are significant at 95 percent critical value. The goodness of fit is reasonable. Wald test decisively reject the null hypothesis that all of the long run coefficients (except the constant term) are zero. But since all the variables are nonstationery there is a possibility that the observed relationship is spurious. Hence conclusive judgment about the goodness of the model cannot be made at this level.

Based on this result we are going to test if the linear combination of the variables is stationery. In other words, testing for the stationarty of the null hypothesis residual (ε_t) obtained from the static long run equation. This is important for the very concept error correction model (ECM) rests on the idea that there exists an equilibrium relationship between the relevant variables. This implies a unit root test for the null hypothesis of no cointegration. The unit root test of the null hypothesis of no cointegration, using the ADF test discussed earlier results in a test statistics of -4.8187, at 5 percent level of significance. Thus, the null hypothesis of no cointegration is rejected. (See table 4.1.2)

4.1.5.2. The error correction model

The result of cointegration between the set of variables provides a statistical foundation for the use of error correction mechanism model, which have become popular in econometric analysis. For integrated variables there is an error correction representation. The ECM includes the lagged residual, which shows the existence of disequilibrum in the short run, and the coefficient of ECM indicates how fast the disequlibrum adjusts to its long run equilibrium.

The results of short run dynamic model indicated above are well specified. From the result, the first two variables world demand and relative price are highly significant different from zero at 1% significance level with expected sign. Exchange rate also significant at 5% level of significant. This result suggests that the main export determinants in the short run are growth of world demand, relative price and exchange rate system. Domestic demand pressure is also another important variable negatively affecting export performance at 10% level of significance. Also the non-price factors, which are represented by GDP are also significant but (at 10% significance level) how ever, tax rate is not significant. Except tax all the variables have the expected signs and are significantly different from zero.

The empirical result of the short run dynamic model of export gives a good result. (Table 4.3) From statistical point of view, the estimated model fits the data quite well. R^2 value of 0.87 means that above 87% of the variation of export in the short run is explained by the model. How ever, on the bases of the estimated standard error tax rate coefficient does not appear to be strictly significant and has no correct sign. The F-test result indicates that the joint effects of all the variables on the dependent variable are statistically significant. The Durbin-Watson test of serial autocorrelation 1.77 this result does not indicate the existence of autocorrelation. However, from the DW test table this value fall in the inconclusive area.

The error correction term has a negative sign and it is statistically significant at 1% level. This shows that the short run disequilibrum adjusts to its long run equilibrium by the speed of about 72% in one year.

The diagnostic test summery in general passed the test. So we accept the hypothesis of that the model is correctly specified. Furthermore the test for possible presence of structural instability is adopted. The null hypothesis in this case, is that the regression parameters are constant. Using recursive regression, the plots did not cross any one of the two critical levels at 5% level of significance. This implies the null hypothesis that the equation is correctly specified is not rejected.

Table 4.1.3

Dynamic equation result of the export regression

VARIABLES	*COEFFICIENT*	*STANDARD ERROR*	*t-value*	*SIGNIFICANCE*
Constant	*0.0513*	*0.06*	*0.828*	*0.4158*
DLWE	*1.047*	*0.315*	*3.315*	*0.0029*
DLRP	*-0.766*	*0.15*	*-4.835*	*0.0001*
DLRER	*0.438*	*0.16*	*2.72*	*0.012*
DLRDC	*-0.736*	*0.36*	*-2.026*	*0.0540*
DLRGDP	*0.669*	*0.38*	*1.757*	*0.0917*
DLRTAX	*0.073*	*0.067*	*1.088*	*0.2873*
ECM $_{t-1}$	*-0.705*	*0.171*	*-4.107*	*0.0004*
R^2 = 0.87			*F-statistic = 22.45*	
DW = 1.77			*Significance [0.000]*	
TEST SUMMERY				
AR 1-2F(2,22) = 0.54095[0.5897]				
ARCH 1 F (1,22) = 0.24866[0.6230]				
Normality X^2 = 1.3093[0.5196]				
X^2 F (14,9) = 1.4073[0.3082]				
RESET (1,23) = 0.31051[0.5828]				

The econometric estimation result incorporating the demand and supply side factors to explain export performance demonstrates that coefficient of world demand, exchange rate, domestic demand pressure, non-price factors are significantly positive. The world demand is found to be important determinant of export performance in both the aggregate estimation. This result provides support for our hypothesis out lined earlier. The existence of demand for export from

the consuming countries is therefore, seems to be the deriving force behind the growth of our export. From the theoretical and empirical evidence, though export from Ethiopia constitutes a small fraction of the global export, economic activities in the major industrial countries remains the over all determinants of the state of export of Ethiopia. There is little that the government can do to influence the world demand. But by orienting the export strategy to those, products and markets in which demand is relatively stronger, government intervention could be vital.

The real exchange rate is the indication of international competitiveness of domestic production. The positive and significant coefficient entails export may be influenced by exchange rate policy. It happens that an increase in birr earning for one dollar improve the price competitiveness of export and hence leads to an increased export performance of Ethiopia. Using the real exchange rate as a policy instrument in increasing export is effective as can be seen from the result. The recent government policy of using exchange rate management maintaining the birr at realistic level is an effort to promote competitiveness of exports. Given that exchange rate is a significant factors, it then implies that the over valued rate during the derge system is likely to have seriously contributed for the declining export then. The finding of a significant positive relationship between export performance and the variable GDP, in other words, the positive significant effect of non price factors on export indicates non price competitiveness such as improve product quality including marketing, design, delivery on time etc to some extent affects the export performance. This may also indicates that export expansion is associated with the capacity improvement to supply the exportable.

It is also found that the export performance of Ethiopia is negatively associated with the level of domestic consumption (domestic demand pressure). Variation in internal demand pressure may thus affect export performances. This finding seems to be consistent principally on the view that our export are alternatively unprofitable compared to home sales. It can also be

related with our economic level where basic needs such as food are not yet satisfied and where foreign trade does not constitute significant part of GDP, which can lead to reduce exportable supplies either for consumption or shifting in production. This finding however, implicitly drawn attention to demand management, as an important element of foreign trade policy.

The relative price elasticity for export turns out to be well from the result. The rise in domestic price of exportable relative to international export prices have deteriorates the export growth.

The inclusion of the tax variable in the regression enables to analyses the relative impact as period under investigation covers mostly when the taxes of export were high. How ever, from the result export tax coefficient was found to be insignificant.

4.2. SOME CONSTRAINTS OF EXPORTS AND POLICY OF THE GOVERNMENT

4.2.1 Constraints of export

The regression analysis depicted above relies on secondary data. Many of the variables are represented by proxy measures. Such estimation may shed some light on the relevant issue. But this may not be totally reliable owing to the deficiency of using proxy variables as opposed to actual variables. In view of this consideration, some researches were conducted by distributing questionnaire to get a better view of the problem as well as the prospects of the Ethiopian export.

The questionnaire was more of unstructured type, intended to investigate the commonest problems that constraints traders involved in exporting. The major themes are policy issues related to internal and external market of export.

Of the 26 interviews which focused on firm level export organizations, 50% were coffee exporters 25% hide and skin exporters, while The rest are exporters of oilseed & pulses. The investigation also showed exporters of vegetable and flower mainly export products via 'ETFURIT.' The Majority of the respondents have a long period of business experiences.

The content of the interview can be summarized as follows.

- Marketing and price related issues
- Investment and finance
- Policy related issues

Sectoral differences among exporters are taken into account during questionnaire administration. More of the results of the questionnaire are presented in this part of the discussion and some of them listed on the table. This is because the interview was not intended for a numerical entry, but was meant for a qualitative type.

4.2.1.1 Coffee exporters

According to the respondents the major bottleneck in coffee export is price policy. They as well cited poor incentives, inadequate supply of quality standard product and the fluctuating world market nature the other constraints that hinder the export of coffee. (see app.1, table.7).

A. Price policy

Coffee export price is not solely determined by world market. The government sets premiums on sales prices. Almost all coffee exporters complain about the premiums and may abstain from making clear their choice. For instance, Yirga cheffee G2 washed coffee is subjected by government to a premium of US 0.30 cents per pound. Exporters stated that they lose market while attempting to conform to government price regulations. In fact, personal interviews with certain exporters revealed that in some instances exporters pay out the premiums from their pocket simply to be able to sell their products. This is likely to create tremendous disincentive effect.

Table4.2.1 Differentials premium price for selected coffee,

Assuming the clothing price is US cents 100/lb

Washed	*Premium*
Yirgacheffe G2	*30*
Sidamo G2	*20*
Limmu G2	*5*
Harrar G5	*25*

Source: - from survey

The above price was primarily implemented by national bank as a system of price control. This many argue could adversely affects competitiveness of Ethiopian coffee exporters. This mark up creates differential price in which Ethiopia's price becomes higher than other competing countries. Traders on the sector recommend that the government should lift the premium price and induce free market on coffee. But the government is not willing to do so as coffee is a strategic commodity. Yet, the problem is aggravating by its inflexible nature. There would be a compromise in that if total abolition of the controls were not feasible, it would be useful to make the policy flexible. It also would be important to promote alternative export policy option to achieve the required controls.

All the firms, which are under the investigation show a declining trend. The major reason for performance below the required capacity was the increasing number of firms in the sector following the free market economy with limited increase in the total supply of coffee.

Coffee export license holders have increased to two hundred at present, out of which only about 65 are actively involved. The new policy measures have encouraged the registration of many exporters while the absence of a clear standard partially explains why less than half of the license holders are actively engaged. It is also argued that some of the new entrants are basically importers and secure export licenses simply to benefit from the export promotion policy, i.e. withholding foreign currency of 10% of their earnings. In other words, the main reason is to get finance (foreign currency) for import purposes.

4.2.1.2. Hides and Skins exporters

As we know the export of hide and skin is the second most important foreign exchange earner to the country. The survey result; indicate that all the firms are involved in export of semi processed (wet blue) product. It also shows some preliminary efforts to diversify products that focus on more value added. However, currently there is a tendency operating under capacity.

One problem in this sub sector like in Coffee, is the increasing number of firms following the introduction of free market. As the result of the free market economy many private investors have joined the sector despite the decline in the supply of the raw materials over time because of the skin disease, which has increasingly become serious. Recent statistical survey put that from the raw supply of hide and skin to the market, roughly around 30% is damaged by the disease, known as 'Ekek'. Additional problems such as scratching and poor handling have increased the rate of defective product.

There is no market problem in exporting good quality hides and skins, when viewed in light of the demand for hide and skins in the world market and the need to provide quality standard products. Traders can export as much as they can supply at attractive prices. However, the problem is lack of adequate quality products. At present form the total export of hide and skin, the share of good quality (grade 1-3) does not exceed 20%, which means around 80% is defective with one or another type of disease and/or damage (see table 4.2.2). Much of the poor quality hides and skins are used for domestic consumption purpose at the expense of export.

Table.4.2.2 Selection result of semi-processed skins (e.g. Sheep skin)

Standards in descending order.	*% in total export of H&S*	*US$ unit value*	*Revenue losses (in dollar) due to quality deficiency*
1-3	*20*	*75/DZ*	*0*
4	*20*	*50/DZ*	*25/DZ*
5	*25*	*23/DZ*	*52/DZ*
6-7(reject)	*30-35*	*15/DZ*	*60/DZ*

Source: - Calculated from survey

It is evident that capacity and resource utilization in the livestock and their byproducts is very minimal. From the table above, we can observe that an increase in quality (grade 6-7) to (grade 1-3) is five times as much worth the value of unqualified products. Assuming the total supply is ten thousand dozen hides and skins, the total value of exchange earnings can't exceed $360 thousand dollar, given the existing level of standards. Over total earnings would have been $750 thousand dollar, if we were able to manage the standard of grade 1-3. The extent lost for each grade is listed in column four of the above table. Thus, the poor animal resource management leads to loss of that amount.

Ethiopia has the largest livestock population in Africa. This means we have a strong base for export of hide and skin products. There is no supply constraint. The skin, which is classified, as Bati-genioun is of high quality demanded for fashion-leathers. The problem is lack of animal care and technological equipment. Improving management of the existing animal breeds, Primarily through improvement in animal health and nutrition is likely to have great impact on export earning.

The government has not been able to coordinate, organize and direct all bodies involved in the animal sector. For the problems encountered the solutions are known. If there is coordinated effort, scratching can be avoided simply by enlightening people to bring cultural change, and

the disease can be contained by launching nationwide campaign. Cognizant of this facts policy makers should give special emphasis for this industry. Of course currently an institution that works towards this ends established under the ministry of agriculture, and is coordinating stakeholder involved in the sector to make the animal and their products healthy. Encouraging the flourishment of investment in the area of animal health therefore can have a good return.

4.2.1.3. Other constraints

Apart from coffee and hide and skin there are a number of small export items such as oilseed, pulses, vegetable, fruit, chat etc. For many of these, their performance depends on the transportation capacity, packaging and collection facilities. According to the respondents, even though no market demand for product as fruits and vegetables, flowers, and chat, the export of these products is very much demanding as they are sensitive to handling capacity. High value fruits, vegetables and cut flowers produced by the state owned farm are exported by ETFRUIT (by air) to Europe and Middle East market. For such products, especially fruits and vegetables have no marketing constraints since our harvest season is different from other exporters or producers. The fact that our harvest season differs from the others makes it possible for us to exploit the market with relatively less competition.

However, the main constraints for the export of vegetable and fruit are the limited air transport capacity, the ever-increasing airfare and the problem of cold storage at farm level as well as the failure of proper and timely collection of this perishable commodity. i.e. little damage could cause a loss of more than 50% of total receipts.

Unless government help is provided, poor infrastructure may result in a loss and hence discourage private investors from participating. Lack of cool store in port inhibits shipment, hence they cannot inter in to the world market.

Other problems also include inability to catch up with ever-changing variety of demand, failure to create a good image, which means lack of, improve packaging (in terms of strength and decoration). Exporters used only old fashion system of packaging, so far no local firms engaged in packaging is available. This has a negative impact on the price.

In general we can summarize the finding of the survey as follows

- Government interference in price decision in coffee, and some others led to less competitiveness.
- Problems related to financial shortage due to excess stock and lack of access to finance in case of shortage due to collateral requirement and interest rate.
- Absence and fluctuating nature of world market for Ethiopian export.
- Poor domestic supply of the desired quality and standards.
- Lack of appropriate government support in expansion of the export sector.

4.2.2. Ethiopian export and government policy

From the preceding time series econometric analysis and survey results, the price and non-price constraints have been investigated. The results suggest that the poor policy efforts seem to be the main reason behind the poor performance. It is possible to expand export provided that appropriate policies favour for export is in place and flexibility that takes into account world market fluctuations is introduced.

Considering the typical example of NIEs experience, allow us to justify the role of appropriate policies. These countries registered rapid growth through expansion of exports. However, the economic miracle of the NIEs was not only due to "getting price right" but also due to government support leading to dramatic growth in export. The basic reason for the success in export orientation can be attributed, in large measure, to sound policy implementation, at the right place and at the right time (Yuan, 1992)

Such policies have indeed made a difference in the performance of export-led growth even in African countries. The relative successful export promotion in Mauritius and Zimbabwe demonstrate that African economies can respond to similar policies (Naya & McCheery 1993).

In Ethiopia, policy problems are responsible for the decline of export. Before 1974, private foreign investors were actively involved in export with good result. The military government nationalized such businesses and replaced them by government owned enterprises, which handled above 80% of total export by value (World Bank 1987). Private exports with better experience were driven out of the export sector. During the Derge regime, almost all the policies including the overvalued exchange rate and the low price paid to producers and the high tax imposed on export item were disincentives

for export development. The amount of tax imposed constituted about 11% of total government revenue in some years. Tax from coffee alone was about 37 up to 50% of the coffee export (FOB) price (World Bank 1987).

Currently, there is some indication of improvement of export industry. A new government body (EPA)[7] outside the Ministry of Trade was created in 1998, with the aim of enhancing the country's competitiveness in overseas market by undertaking and disseminating market studies on exportable products.

Before the above agency was established several measures have been introduced to encourage export. The following measures are some of them. First, devaluation of exchange rate was undertaken in 1992 from 2.07 to 5 Birr/dollar. This was done with the aim of increasing price received by exporters as well as producers. Second, measures were taken to rebate domestic tax on export duties levied on export goods except for coffee.

Third, measures were taken to reduce licensing fee in coffee export and allow duty draw back for exporters. In general, the sector is liberalized. Such policy measures have very created positive effect on the export activities. However, there are some major problems.

The duty draw back scheme, for instance, stated that materials on which duty is a drawn back are products that are re-exported in the same condition or after being processed. However, this scheme is rarely applicable since the natures of Ethiopia's exports are unprocessed and there is no need for the use of imported raw materials. Since Ethiopia's exports are mainly primary products, the duty draw back scheme

[7] *Export promotion agency. For detail see proclamation no 132/1998, Ethiopian export promotion agency. Establishment proclamation p.887*

doesn't sufficiently address this problem. In other words, they employ little imported inputs. As we can see from the table (App.1 table 7) most of the respondent are not beneficiaries of the implementation of duty draw back. The second problem of this scheme is that it does not extend to materials used in producing agricultural exports, such as fertilizer for coffee and materials for animal health care and so on.

Over 60% of the country's foreign exchange is obtained from coffee sales. However, the volume of coffee export has not changed much over the last three decades. Only when there is a coffee price boom the earning from coffee becomes very high. For example, in 1994/5 earning from coffee were 1,799,034. Though there is a quantity (volume) increase by about 20%, the total value earning was below the preceding year. What we observe is external factors, for instance; some coffee producing countries engulfs the market with inferior quality coffee at cheaper price, which can attract buyer's attention. In such case

Ethiopian coffee stands a lesser chance to be purchased in bulk. Beside the price of coffee in the world market by its nature is volatile and inconsistent. This intern creates uncertainty in production.

The government has the responsibility to protect exporters from the adverse effects of international market. In this regard, the government may not have enough resource to finance losses as a means of incentive. Secondly, subsidy may not be expected to create incentives in promoting the export. However, the government can reduce risks by providing better information services. Since Ethiopian coffee is tasty and preferable, continuous effort on Promotional work is expected to attract consumers.

4.2.2.1 Policies related to producers

Though the government involvement in coffee export may have some justification from national interest, the manner of intervention and the policy selection should be conducive for the coffee export. The existing policies do not allow direct transaction between producers and exporters. As a go between producers and exporters there are many agents involved. This type of policy, from the producer's point of view, doesn't benefit them sufficiently.

On the other hand, if there are no means of reflecting the increased in international market to the producer there will be no motive for producers to increase their supply through time. " ... An important consideration on the part of policy makers has been, in this case, that coffee farmers should benefit from competitive price offering by traders and consumers."(Tosheme,1979, pp.61). The participation of many parties between producer and exporters results in declining farm gate prices. Because if the benefits obtain from sales is distributed to many people, the share of the produce will get smaller, while when there is any problem (such as price fall or no market) the whole burden will fall on producers. This leads to a disincentive effect on production through time. Policy of government there fore, has to be focused at the source of production.

CHAPTER FIVE

5. CONCLUSIONS AND RECOMMENDATION

5.1. Conclusion

In this paper an econometric analysis and a firm level survey has been made to examine Ethiopia's export performance in the international market. The export determination function in relation to the influence of world demand, exchange rate, domestic demand pressure, relative price of export and tax rate were examined among others.

An important observation of the result is that the low growth of world demand could become a series constraint on the expansion of export from Ethiopia. On the internal side, increase in birr earning for one dollar obtained from export sale enhances supply. Price competitiveness of export leads to an increase in export performance. The negative and significant coefficient of the relative price indicates that the relative increase in domestic price level in relation to international value of the export commodities makes export activities non competitive, both in short run and long run. The domestic consumption pressure negatively affects the performance of export. This can be ascribed to the absence of demand management policy. The study also showed that lack of overall economic growth could adversely affect the efforts aimed at export. Such as, diversification, quality improvement delivery on time.

Ethiopia's export share in world market is very small in the sense that it cannot affect world market. Our supply capacity is also small, implying that supply response is not strong in the face of high demand pressure. It is not only characterized by weak short run supply response but also long run export response is stagnant. The latter is due to the low level of demand for our export as well as inappropriate policy environment.

Despite the declining market for the agricultural products in the world market, The absence of any alternative opportunity to acquire foreign exchange has forced the country continuously rely on export of the same products. Inadequate skill of Ethiopian exporters in penetrating existing world market and lack of promotional work has also contributed for poor performance. Additionally, policy-induced disincentive during the Derge and the absence an enabling environment under current government contributed for low export results. Therefore, the problem is not only low demand condition but also inability to use existing sources effectively.

5.2. Policy Recommendation

The above conclusion suggests that the country needs to diversify its export base or reduce its reliance on primary export. The diversification should focus not only on export products but also on export market.

One important, indeed pressing, requirement is that of diversifying our exports and reducing reliance on few or single commodity especially coffee exports. However, diversification requires investment and therefore poses a problem on how to utilize available resources for the necessary investment. Obviously, mobilizing existing sources should be accorded much more attention. Ideally, the strategy should concentrate on improving productive efficiency in these sectors with comparative advantages.

A promotional campaign on our advantage, the first policy measures that has to be taken. Some of our products are differentiable from other competing countries. One existing problem is no sound promotional activities for our products in the international trade market. This implies, that if buyers (consumers) have no information about the difference of our products

from other similar products, they have no reason to purchase our products, even if it is better. Shigetomi described this idea as follows: -

> *When the buyer does not have information about the quality of goods, he cannot make accurate decisions about transactions. Therefore, information needed for transacting goods has to be exchanged between the transacting parties. (Shigetomi, 1995, p.)*

Conversely, promotional work allows producers to adjust their products according to the buyers need. Linking up our products with the quality needs of our export clients is expected to bring better value added on our export efforts.

Ethiopian producers do not have enough access to information about buyers. They might have the impression buyers demand only lower prices. As a result, efforts to improve quality have never been a major concern of producers. The policy implication then is to have a means of producers' active participant on transaction. This may be achieved by allowing producers to establish their own associations, which represented on transaction activities.

In general, therefore: -

- A positive strategy for export expansion derived by long-term policy with a fairly active role of government has to be devised.
- The long run strategy has to be targeted on reducing the share of unprocessed primary commodity through time.
- The government should approach the issue of incentive as a powerful mechanism. (eg. giving export incentives on promoting selective exports.)

- Establishing transaction related institutions to provide trade information's to exporters as well as to producers, and undertake researches on products, which are advantageous for export. Based on resource endowments, less recession porn... this can be done by the new established institution (EPA) if appropriately organized.

- Right domestic policy by itself may not be sufficient to boost export. It there fore, to follow the right direction with respect to world market condition. There fore, flexible nature of policy following world market condition and continuous negotiation to establish relation with trade organization to reduce international trade obstacles, thereby creating market for our product, is very important.

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APPENDICES

APPENDIX I

Table 1.
Composition and Growth rate by industrial sector to GDP

	1981/82-1991/2	1991/92	1992/3	1993/4	1994/5	1995/6	1996/7	1997/8	1998/9	1992/3-1998/9	1981/2-1998/9
Real GDP	1	10534.57	11798.74	11999.35	12644.3	13990.3	14767.8	14834.5	16081.9		
Growth rate	1.32	-3.69	12.3	1.7	5.3	10.6	5.5	0.45	8.41	6.3	3.23
Agricultural GDP 1/		5947.56	6308.26	6077.99	6284	7206.2	7453.9	6887.4	7445.4		
% to GDP		56.5	53.4	50.6	49.7	51.5	50.47	46.4	46.3		
Growth rate	1.4	-2.7	6.06	-3.6	3.38	14.6	3.4	7.6	8.1	5.6	2.29
Industrial GDP		951.2	1221.9	1307.1	1412.5	1492.1	1609.2	1785	1945.31		
% to GDP		9.02	10.3	10.89	11.17	10.6	10.9	12	12.1		
Growth rate	-0.18	-7.1	28.4	6.97	8.05	5.6	7.8	10.9	8.9	10.9	5.46
of which manufacturing		306	456.2	514.1	562.4	606.2	640.9	707.7	767.1		
% to GDP		2.9	3.86	4.28	4.4	4.3	4.3	4.7	4.7		
Growth rate	-1.37	-9	49.02	12.7	9.4	7.78	5.7	10.4	8.4	14.7	4.91
Service GDP		3635	4268.5	4614.2	4947.8	5292	5704.7	6162.1	6691.2		
% to GDP		34.5	36.2	38.4	39.1	37.8	38.6	41.5	41.6		
Growth rate	3.9	-4.3	17.4	8.1	7.23	6.95	7.79	8.02	8.58	9.1	7.4

Source: Ministry of economic planing and cooperation
1/ in million of Birr

Table 2
Import and export as % GDP

YEAR	EXPORT (FOB) AS % OF GDP	IMPORT (CIF) AS % OF GDP	VALUE OF EXPORT INTERMS OF IMPORT
1965	8.9	11.5	77.4
1966	8.18	11.95	68.4
1967	7.01	9.9	70.8
1968	6.93	11.2	61.6
1969	7.3	9.5	76.8
1970	6.8	9.6	70.8
1971	6.6	9.9	66.6
1972	8.1	9.2	88.0
1973	10.0	8.9	112.3
1974	10.0	10.5	95.2
1975	9.0	11.1	81.0
1976	10.0	12.2	81.9
1977	10.5	11.8	88.9
1978	8.8	14.8	59.4
1979	10.7	14.5	73.7
1980	10.3	17.5	58.8
1981	7.9	15.1	52.8
1982	7.8	15.2	51.3
1983	7.0	15.4	45.5
1984	7.8	17.7	44.0
1985	5.3	15.7	33.7
1986	7.0	16.7	41.9
1987	5.3	15.8	33.5
1988	5.8	15.0	38.6
1989	5.9	12.5	47.2
1990	3.6	13.3	27.0
1991	2.0	5.0	40.0
1992	2.1	12.5	16.8
1993	3.7	14.7	25.1
1994	7.2	19.9	36.2
1995	7.6	20.8	36.5
1996	6.9	23.5	29.4
1997	9.5	19.7	48
1998	8.77	25.1	34.9
Annual average	7.4	13.5	58.5

- *GDP is used at current price
- Source NBE and IMF

Table 3

BALANCE OF PAYMENTS

E.F YEAR	Trade Balance	Export (FOB)	Import (CIF)	Private transfer	Net &S	CA Balance	Public Transfer	Non monetary capital (net)	Net Error & omission	Over all balance	Financing	Monetary authority (net)	Arrears	Debt relief	Cancellation	Reschedule
1987/88	- 1486.6	788.1	- 2274.7	77.5	245.3	- 1163.8	388.7	549.7	- 157.9	- 383.3	383.3	383.3	0	0	0	0
19889/89	- 1192.2	918.2	- 2110.4	96.5	389.1	- 706.6	433	463.3	- 212.7	- 23	23	23	0	0	0	0
1989/90	- 1067.3	756.9	- 1824.2	89.2	354.6	- 623.5	335.4	237.6	- 498.7	- 549.2	549.2	- 151.3	390.8	7.1	7.1	0
1990/91	- 1558.2	572.1	- 2130.3	-62.0	413.6	- 1206.3	604.3	330.2	- 140.6	- 131.2	131.2	- 324.9	456.1	0	0	0
1991/92	- 1491.7	319.2	- 1810.9	27.4	653.7	- 810.6	893.5	-238.1	- 270.6	- 425.8	425.8	- 136.3	562.1	0	0	0
1992/93	- 2668..8	949.9	- 3618.7	-36.0	1057.9	- 1646.9	1708.7	-45.4	- 515.6	- 499.2	499.2	- 403.7	-372.1	1275.0	368.1	906.9
1993/94	- 3321.1	1419.2	- 9740.3	173.2	1434.3	- 1713.6	1447.7	1233.2	635.6	- 1602.9	-1602.9	- 2900.7	961.7	336.1	81.6	254.5
1994/95	- 3711.2	2835.1	- 6546.3	333	1944.9	- 1433.3	2560.2	186.6	- 275.2	1038.3	-1038.3	- 1942.0	536.3	367.4	148.8	218.6
1995/96	- 6255.5	2607.1	- 8862.6	415.0	1980.0	- 3860.5	2474.2	-30.1	1141.2	- 275.2	275.2	- 526.5	780.7	21	21	0
1996/97	- 3562.2	3891.5	- 7453.7	718.7	1671.6	- 1171.9	1453.0	-785.3	- 881.6	- 1385.8	1385.8	- 610.4	762.9	12.5	12.5	0
1997/98	- 4226.7	4141.6	- 8368.3	699.3	2186.5	- 134.0	1793.0	751.2	- 1357.9	- 154.7	154.7	- 205.1	359.8	0	0	0
1998/99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Source: National Bank of Ethiopia annual report.

Table 4.

SHARE OF MAJOR EXPORTS IN TOTAL EXPORT VALUE AND GROWTH RATE

YEAR	COFFEE	Growth Rate	HIDE & SKIN	Growth Rate	OIL SEED	Growth Rate	PULSES	Growth Rate	CHAT	Growth Rate	Group total	Total Growth Rate
1973/4	27.7	-17.0	7.74	-12.7	15.14	48.4	19.4	169.4	0.81	38.0	72.79	10.5
1974/5	24.7	-29.3	7.82	-36.3	18.7	-1.8	15.5	-36.7	1.17	15.6	67.85	-10.5
1975/6	55.25	153.4	7.94	14.8	6.5	-60.3	9.67	-28.2	0.58	-43.9	79.94	16.6
1976/7	63.75	37.4	8.16	22.5	4.19	-24.0	7.45	-9.5	0.61	25.4	84.16	18.7
1977/8	78.9	25.8	8.88	10.9	1.83	-55.8	4.66	-35.6	0.49	-17.9	94.76	-8.03
1978/9	75.39	5.3	14.9	84.7	1.35	-19.3	2.48	-42.9	1.15	157.5	95.76	36.4
1979/80	66.46	16.7	14.59	29.5	1.45	43.8	2.60	40.9	2.03	133.5	95.27	1.7
1980/1	61.50	-17.0	10.88	-33.2	3.33	105.8	2.78	-4.4	2.60	15.5	87.13	-3.2
1981/2	67.10	-8.39	12.63	6.0	2.50	-31.2	3.96	30.3	2.70	-4.9	81.09	-8.6
1982/3	61.24	3.2	9.54	-21.4	1.89	-21.4	3.55	-6.7	4.59	75.0	88.62	3.9
1983/4	63.50	19.0	10.09	21.4	2.99	81.5	2.20	-28.4	3.10	-21.9	80.72	14.8
1984/5	62.6	-21.0	12.81	1.7	1.03	-43.9	2.26	-18.2	2.13	-45.2	80.97	-19.9
1985/6	71.96	42.5	12.93	252.0	0.83	-50.8	1.36	-25.1	0.91	-46.7	80.83	24.1
1986/7	65.93	-21.0	13.6	-9.3	1.23	27.4	1.06	-32.8	3.60	238.3	87.96	-13.9
1987/8	56.76	-16.0	17.19	22.8	2.84	124.8	2.08	89.7	2.75	-25.6	85.42	-2.7
1988/9	69.39	42.6	13.68	-7.1	1.22	-50.0	1.80	1.40	0.87	-63.0	81.62	16.7
1989/90	54.98	-35.3	18.19	7.9	1.13	-23.9	4.88	120.4	2.85	165.9	86.96	-18.4
1990/1	49.98	-33.7	16.99	-31.2	0.66	-56.7	2.89	-56.3	3.76	-2.8	82.03	-26.4
1991/2	60.35	-37.3	21.01	-36.4	0.13	-89.4	0.13	-97.5	1.81	-75.2	73.78	-48.5
1992/3	67.05	219.0	15.54	129.0	0.14	209.6	0.50	949.0	8.20	1195.	83.43	187.0
1993/4	57.96	33.7	16.43	51.4	3.56	3626.	2.23	584.0	8.71	64.0	88.89	54.6
1994/5	65.84	150.5	13.67	83.5	1.83	13.4	3.78	272.8	6.30	59.6	91.42	120.5
1995/6	67.89	-4.17	12.19	-17.1	1.65	-16.3	3.04	-25.2	6.87	1.2	91.64	-7.06
1996/7	66.19	33.8	10.67	20.2	2.12	77.0	2.52	13.7	5.72	14.4	87.22	37.3
1997/8	69.76	25.2	8.39	-6.6	7.59	323.8	2.48	17.2	6.57	36.5	94.79	18.8
1998/9												
Annual - average												
1973/4-97/8	61.3	22.7	12.65	21.8	3.8	165.4	4.2	73.6	2.13	75.5	85	15.7
1974/5-90/1	62.3	9.6	12.3	19.7	1.68	-3.2	4.2	-1.8	3.3	1.25	84	1.25
1991/2-98/9	65.0	60.1	13.98	32.0	3.40	591.9	2.09	244	6.31	185	87.3	51.8

Source: National bank of Ethiopia bulletin varies issue, but own calculation.

Table 5.
PERCENTAGE SHARE OF THE VALUE OF EXPORT OF ETHIOPIA BY MAJOR DESTINATIONS

YEAR	JOBOUT	GERMANY	ITALY	FRANCE	UK	USA	JAPAN	SOUDI ARABIA
1973	7.3	8.7	7.8	3.4	3.0	29.9	5.5	6.2
1974	6.9	11.4	6.7	3.2	3.2	19.5	9.1	8.9
1975	10.8	11.4	4.2	2.4	2.7	18.7	8.1	12.8
1976	8.5	6.0	6.9	3.5	3.1	32.6	6.9	7.4
1977	4.8	8.6	4.9	3.1	2.6	25.7	6.9	8.6
1978	1.3	11.8	5.9	2.5	2.3	31.0	5.8	11.2
1979	5.9	7.2	11.3	3.5	2.3	28.5	6.2	8.8
1980	11.4	8.5	10.1	6.6	2.1	18.2	6.4	7.6
1981	5.1	10.4	7.0	6.6	3.2	20.6	7.4	9.0
1982	9.3	16.0	5.3	5.3	2.0	25.8	7.4	6.7
1983	7.8	16.5	7.5	7.6	1.6	20.4	7.5	5.8
1984	6.9	18.0	7.4	5.1	2.3	19.4	7.5	4.2
1985	3.6	18.5	7.7	3.8	3.2	10.5	10.3	3.7
1986	4.1	31.9	6.2	3.6	1.5	15.5	7.8	5.8
1987	8.5	16.7	8.2	3.4	3.6	17.8	10.5	7.7
1988	9.9	22.2	6.5	2.8	1.7	9.3	11.5	6.6
1989	5.7	24.0	6.6	4.85	1.8	1.4	10.6	6.6
1990	11.9	17.4	7.5	2.7	2.9	10.7	14.7	10.9
1991	4.35	28.6	6.8	6.79	3.2	4.9	22.9	8.4
1992	7.09	9.7	6.5	1.0	16.3	3.9	21.5	20.1
1993	12.1	19.6	7.5	3.6	4.6	9.1	19.0	9.8
1994	7.4	31.7	8.0	4.9	3.4	6.4	14.5	5.3
1995	9.1	29.1	8.6	5.0	3.6	6.4	12.9	10.0
1996	8.29	29.7	7.4	3.38	3.1	6.1	12.0	10.6
1997	7.58	20.6	7.8	3.23	2.9	11.4	11.2	8.5
1998	7.36	24.8	7.9	3.24	2.5	8.8	10.1	8.7

Source: various issue of national bank bulletins

Table. 6.
Calculated concentration coefficients

YEAR	Cif	Cit	INEX
1965	100	100	100
1966	87.3	98.4	94.9
1967	84.1	95.7	87.9
1968	89.2	96.4	91.1
1969	89.3	95.5	103.3
1970	92.4	95.5	104.1
1971	84.9	92.7	109.5
1972	72.7	91.1	133.1
1973	57.6	88.2	174.8
1974	42.1	82.4	191.5
1975	51.1	84.3	158.5
1976	81.7	88.2	210.7
1977	108.1	98.1	254.9
1978	122.8	109.6	217.1
1979	107.7	103	305.1
1980	96.4	91.1	310.3
1981	90.2	89.5	276.4
1982	91.9	88.1	295.3
1983	94.1	88.3	294.1
1984	95	88.4	304.7
1985	94	90	244.3
1986	113.4	98.9	339.6
1987	81.7	82.6	270.4
1988	96.6	92.1	307.9
1989	97.7	92.9	330.3
1990	66.4	81.7	216.8
1991	92.6	86.1	137.8
1992	76.2	76.3	184.9
1993	94.1	89.9	356.3
1994	95.3	98	728.6
1995	95.6	98.1	919.4
1996	92.3	97.4	936.5
1997	95.1	97.8	1392

C_{it} = *Represents concentration coefficient for the major four export items Coffee, Hide and skin, Oilseed and pulses.*

Cf_{it} = *Index of coffee concentration coefficient*

INEX = Index of total export earning

Tabl 7.

Summary table of the survey results*

Export Factor	coffee	Hide & Skin	Total
1.Constraintsin marketing and pricing			
Pricing policy	100	-	72
Purchasing policy	100	-	64
Lack of market demand	66	-*1	50
Un adequate supply	16	100	36
Production policy	-*2	-	-
2. Policy Incentives			
Centralized service	33	0	21
Duty draw back	0	25	-
Pre shipment credit	0	16	7
Post shipment credit	28	33	28
Tax relief	0	50	14
3.Financial and investment constraints			
Financial shortage	50	60	57
Excessive stock			35
Raising cost of production			28
Financing problem			14
High interest rate			14
High collateral			42
4. Other constraints			
Tariff barrier	-	21	21
Port facilities	16	-	30
Tax rate	66	-	28

Source: - Survey result

**Calculated by simple percentage ratio defined as X/Y x 100 Where X is the part and Y is the total. The % are used to describe share of proportion of a whole increase or decrease.*

**1 only if the material has defect*

**2 Exporters do not allow to produce*

DECLARATION

I, the undersigned, declare that this thesis is my original work and has not been presented in any university. All sources of materials for this thesis have been fully acknowledged.

NAME **BERHANE TESFAY**

Signature _____

Date **June, 2000**

Place **Addis Ababa**

Confirmed by the Advisor

Name _____

Signature _____