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**Sequencing Regional Trade Integration and WTO Accession
In Ethiopian International Trade Policy**

**BY
YONATHAN SHIFERAW**

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By

Yonathan Shiferaw G/Selassie

Approved by the Board of Examiners:

Sheil Singh
Advisor

Sheil Singh
Signature

C. Panda
Examiner

[Signature]
Signature

Eyed Hasan Dayed
Examiner

[Signature]
Signature



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Abstract

It is generally argued that trade encourages resource allocation based on comparative advantage, acts as an engine of economic growth and provides welfare gains. Though, economic competency and market access have determining roles, these benefits are expected to be earned if the nation is engaged in a multilateral trading arrangement. To these respect, developments in global trade arrangements and regional integration initiatives are dramatically changing the trading environment of the world in general and developing countries' trade policy in particular. Recent trends indicated that "domino effect" has become a persistent phenomenon. However, each and every nation should be careful into which pool it falls. In this respect Ethiopia is faced with different choices of which the prominent integrations are the World Trade Organization (WTO) and Common Market for East and Southern Africa (COMESA). Even though both of these have their pros and cons, it is economically viable to establish and maintain lucrative trade tie with at least one. Up until now, without full involvement in any of the two, the Ethiopian economy has witnessed an ever-increasing trade deficit with both arrangements. This phenomenon can be mitigated through fair trade agreements and of course by internally transforming the economy and its facilitating agents. In addressing trade negotiations, it is advisable for the country to get involved with one efficient-integration than being inactive member in several. Accordingly, this paper has reviewed problems and prospects of joining both economic arrangements and made empirical analysis using Johansen Estimation Procedure for estimating elasticity of trading with the groups. Consequently, it has reached to a finding that it is beneficial for Ethiopia to first integrate its economy with regional integration, i.e. COMESA and then accede with WTO than integrating the other way round.*

* This is the theory of Baldwin (1993) for the impulsive membership in neighboring trade arrangement.

PART I

1.1 Introduction

To date, there have been various unilateral, bilateral and multilateral trade agreements. Of these, the latter two involve deeper investigation of the terms and conditions of the agreements between parties. Further, between the two, multilateral agreements need a much deeper scrutiny in making the deal as it involves reciprocal arrangement between number of countries. The outcome of such arrangement to harness the benefit from trade is also magnanimous. More recently, the typical forms of such kind of arrangements are the World Trade Organization (WTO), i.e. descendant of the General Trade Agreement on Tariff and Trade (GATT), and Regional Trade Agreements (COMESA - in this particular case)¹.

The GATT was first concluded at the dawn of the World War II, in 1947. The agreement was made with the intention of free and fair trade through the elimination of tariff and non-tariff barriers. It operates on the basis of non discriminatory, multilateralism, and application of the principles of Most Favored Nations (MFN), expansion of trade through the reduction of tariffs and unconditional reciprocity between members. The goal of the agreement was to establish universal rules to the conduct of commerce (Gilpin, R. 1997). However, the outcome of this act has been criticized for skewing benefits to the developed nations.

In response to this, there have been several multilateral agreements made between nations. Africa alone is a home to some 30 Regional Trade Arrangements (RTAs) of which many countries are part of deeper regional integration schemes and on average each belongs to four RTAs (World

¹ The rationale for choosing COMESA as a representative arrangement is stated in sections 3.1.3.

Bank, 2004). As indicated by same reference, in recent years there has been a renewed push to broader and deeper preferential trade arrangements in Africa. Some of the previously defunct regional arrangements (e.g., the East African Community) have also been revived, while continental institutions—namely, the African Economic Community (AEC), the African Union, and the New Partnership for Africa’s Development (NEPAD)—have been launched under the support of the Organization of African Unity (OAU). In addition, African countries are preparing to negotiate Free Trade Areas (FTAs) with the European Union (EU) under the Economic Partnership Agreements (EPAs). The Southern African Customs Union (SACU) is also negotiating an FTA with the United States. Last but not least, South Africa, the largest African economy, has already signed an FTA with the EU.

Indeed, no country in recent decades has achieved economic success, in terms of substantial increases in living standards for its people, without being open to the rest of the world. Opening up economies to the globe has been essential in enabling many developing countries to have competitive advantages in the production of certain outputs. Considerable evidences also prove that more outward-oriented countries tend consistently to grow faster than ones that are inward-looking (IMF, May 1997).

Aspiring for development, Ethiopia has made various multilateral agreements and is a member of more than one Regional Trade Agreements (RTAs). The country is also a founding member for some (ECA, 2004). Lately, the country has also made a paradigm shift in policy design from inward looking to outward oriented trade policies, implemented the Structural Adjustment Program, lowered the tariff rate, minimized the non tariff barriers, promoted export, and is trying to attract Investments (DTIS, 2004).

In order to reap larger benefit, the country has also been doing its homework for greater integration into the world trading system. By making the country more open through the removal of present barriers to trade-behind the border, at the border and beyond in importing countries, Ethiopia is availing itself for additional opportunities to promote growth and reduce poverty. A major step forward is the getting of preferential market access through the Everything But Arms (EBA) agreement with the European Union (EU) and the American Growth and Opportunity Act (AGOA) agreement with U.S.A. Moreover, looking forward the future global trade prospect, the country has taken an observer seat in the WTO and recently making an assessment for its accession.

However, getting in full involvement in both kinds of integrations (i.e. both regional integration and WTO accession) have its own prospects and problems. In this regards, the dilemma into which economic communities to integrate with the constrained national resources and time is a question yet to be resolved. It is in turn, in this respect that the nation has to make a systematic entry into committing with the integrations so as to optimize the expected benefit.

1.2 Statement of the problem

Ethiopia is member of African Regional Economic Integrations (REIs) and an observer compromising for WTO accession. However, as there are ample benefits from these, there are also strong shortcomings in spite of various agreements and actions taken to integrate its trade to the rest of the world. For instance;

- According to IMF (November, 2001), average tariff protection of developed nations on agricultural produce is about nine times higher than in manufacturing. This will force the country's primary exports face suppressed price and lose the expected comparative advantage from agriculture.
- Not only this, but exports are further subject to non-tariff barriers (NTB) like sanitary and phytosanitary requirements that are costly to meet when technically possible. This represents a serious problem for Ethiopian exports, since it is directed towards agriculture and livestock related products, which are the nation's primary export (DTIS, 2004).
- Moreover, Ethiopia is facing higher tariffs, in both developing and developed countries, on its export bundle. In a sample of 114 countries 87 countries impose a higher tariff on products exported by Ethiopia than on products exported by other countries in the sample. This is not expected to lower significantly regardless its membership in either of the integrations.
- The evidence of African REIs is that most of it lack initial conditions for success because of limited intra regional trade, weak complementarities in resource endowments, and inadequate transport infrastructure and local capacity. Current experiences of some members from COMESA FTA also indicate that the integration is suffering from informal barriers like cumbersome bureaucracy and discrimination. The design is generally poor particularly with respect to the general tariffs, non tariff barriers, and trade facilitation. For virtually all African RTAs, implementation has been weak, often with delays, which

partly results from overlapping membership (Liyousew G., June 2005). This will make Ethiopia forgo some proportion of earning from tariff for undetermined benefit from intra regional income.

In order to mitigate loss from such conditions Ethiopia has to be cautious in the degree and direction of integration. Before taking major steps the country should assess the demand and supply elasticity of its exports and imports, its industrial capacity, institutional setups, the integration arrangements and agreements, and the like.

To date, researches mainly emphasized in analyzing the growth impact of openness². However, studies in prioritizing between the global and regional arrangements are not exhaustively addressed via different methodologies, especially for the case of Ethiopia. Hence, this study is designed to make its contribution in this regards.

1.3 Objectives

Given the aforementioned economic circumstances and the resulting dilemma into which way to accelerate the economic integration, this thesis have a general objective of analyzing;

- *Whether Ethiopia has to join the regional economic integration first and then go for WTO accession, or has to do the other way round*

With specifically investigating:

- *Problems and prospects that exist in WTO and COMESA; and problems expected to persist even after Ethiopia integrate its economy with the communities*

² Evidences in this respect are sighted and discussed in the Literature Review – Empirical Evidence part

- *Empirically compare the elasticity in integrating the Ethiopian economy with COMESA and integrating with WTO;*

1.4 Hypotheses

Developing nations, including Ethiopia, have been playing a marginal role in the wholeness of the WTO. Due to some facts like shortage of skill, capacity, technical knowledge, and other complementary facilities the writer hypothesizes that;

- *regardless its shortcomings in execution, regional integration contributes more to the country's economic growth in the short run, and*
- *integrating with WTO further deteriorates the country's terms of trade*

1.5 Significance of the study

The paper will make empirical analysis to see benefits and costs of WTO and COMESA. The study will be made from Ethiopian perspective. Thus, it would have benefits in:-

- *triggering a look for different methodology, other than applied by the researcher, in addressing sequencing/prioritizing foreign trade partners*
- *raising the need to address the issue of "how to" and "how long" in joining the different groups*
- *indicating the initiations and activities taken by the country to join the larger trading system*
- *Adding to the existing knowledge*
- *Drawing possible policy implications based on the empirical findings that could further be referred for related issues*

1.6 Scope of the study

This study evaluates merchandise transactions with different trade partners, disregarding inter-governmental agreements, capital market integration, labor market integration, money integration and other related issues. Comparison between integrations is made between the two typical representatives, i.e. COMESA³ and the WTO. Furthermore, since the study emphasizes on liberal economic policy impact, the data will cover recent merchandise transactions (i.e. 1996-2005).

1.7 Organization of the Paper

In addressing these issues the paper will review theoretical developments in the area of trade and openness and its contribution to economic growth. In line with this the old and new way of approaches to linking openness and growth will be reviewed. Following, *Part Three* of the study will discuss regional integrations and WTO, and their prospects and problems especially from Ethiopia's standpoint. *Part Four* will discuss trade and trade facilitating reforms carried out by the country; and shows the outcome of merchandise transactions with the two arrangements using trend analysis. In its *Part Five* the study will employ econometric analysis for each of the arrangements and interprets its finding. The analysis will apply Johnson Procedure for making its statistical estimation using quarterly data between 1996 and 2005. Finally, it concludes by summarizing what is been grasped and puts possible policy implications to curb the situation.



³ The reason for proxying COMESA for regional economic integrations is discussed in part 3

PART II

Literature Review

2.1 Theories of Multilateral Arrangements

Trade policies of different nations have been taking various forms. Generally the theories behind the policies can be aggregated into two major paradigms, i.e. inward and outward oriented trade policies, generally forwarded by structuralists and classicals / neoclassicals, respectively.

Structuralists argue for inward oriented policy with the notion that free markets in developing countries can not be relied upon to allow full exploitation of the gains from trade (Greenaway and Morgan, 1998). This is because markets face manifold capital imperfection, production externalities, and a complete absence of some markets. The most influential sources of arguments for evading the freer international trade are infant industries, export instability and terms of trade decline.

The so-called infant industry argument first set forth in 1791 by Alexander Hamilton, further elaborated by Friedrich List (1856), and accepted by many classical and neo-classical economists as the major theoretically valid exception to the case for worldwide free trade for economic support of import substitution policies (Baldwin, 2003). Baldwin also raised John Stuart Mill's argument of the need for time for new producers to become educated to the level of those countries the processes are traditional and thus their unit minimum. The infant industry argument maintains that, during the temporary period when domestic costs in an industry are above the product's import price, a tariff is a socially desirable method of financing the investment in human resources needed to compete successfully with foreign producers. Soon after World War II, Raul Prebisch (1950) among others argued that the infant industry argument was applicable to

the entire manufacturing sector and not just to a single industry. According to Baldwin, Prebisch also claimed that an ongoing secular decline in the prices of primary products (the exports of the less developed countries) relative to the prices of manufactured goods (the exports of the developed countries) and the low elasticity of demand for primary products made expansion in the production of primary products unattractive. This fueled import substitution that most economic leaders of less developed countries looked favorably on the strategy of import substitution, though they often found themselves into the policy somewhat unconsciously (Baldwin, 2003).

However, import substitution strategy did not work out well for most developing countries. As pointed out by James Meade (1955), the existence of higher costs of production during the early period than foreign competitors, by itself, is an insufficient reason to justify tariff protection on economic efficiency grounds (Baldwin, 2003). Moreover, Meade said, the key argument on which the infant industry case must rest relates to technological externalities associated with the learning process.

Early proponents of aggressively protecting large segments of the manufacturing sector did not fully appreciate the implications of their policy suggestions. They also failed to realize the extent of the budget and inflationary pressures that would be generated by the development actions of governments and domestic producers. Indeed, it was the macroeconomic crises associated with unsustainable import deficits for central banks, unmanageable government budget deficits, runaway inflation, etc. that had the greater effect in finally turning most countries away from import substitution policies than a realization of the serious resource misallocation effects of these policies (Baldwin 2003).

Concurrently, the serious resource misallocation effects of these policies were argued from the perspective that the static gains from inter industry exchange being the standard deadweight gains associated with specialization and exchange. Plus, dynamic gains from inter industry exchange were the other gains associated with trade. Furthermore, a study conducted on public choice analysis in assessing interest group behavior in developing countries showed that economies which relied on direct controls create an incentive structure which generates rents (Bhagwati *et.al*, 1984).

Contrary to the inward looking, classical economists argued that capital accumulation and technological progress could lead to expansion in international trade and those international trades could improve the commodities for economic growth. The feedback effects of trade on economic growth were recognized to operate through a number of channels including importation of imputes to domestic manufacturers, international diffusion of new production techniques and new consumption possibilities, and wider extension of the division of labor promoting increased economies of scale (UNCTAD, 2004).

Views of Multinational Institutions, such as the International Monetary Fund (IMF), World Bank (WB) and Organization for Economic Cooperation and Development (OECD), also hold that openness generates predictable and positive consequences for growth. The latter institution once published that: “More open and outward oriented economies consistently outperform countries with restrictive [foreign] trade and investment regimes”⁴, which this view has also spread amongst economics profession as well (Rodriguez and Rodrik 1999).

⁴ OECD, (1998) *Open Markets Matter: The Benefit of Trade and Investment Liberalization*, Paris, No. 36

But, trade liberalization by itself is ambiguous even at conceptual level. In the simple 2 X2 X 2 trade model one may think of it as tariff liberalization. In more sophisticated setting with instruments affecting the domestic prices of both importable and exportable, one can visualize it as a move towards relative price neutrality. Others also think of it as a substitution of tariffs for quotas. This is reflected on the range of empirical measurement (Greenaway, Morgan and Wright, 2002)

Some writers claimed that, generally, nominal tariffs convergence leads to relative price neutrality changing in the degree of anti-export bias and combining information of changes in a range of trade policy measures are used to compute some kind of index of liberalization. This does not, however, guarantee a definitive result. For example, in using the nominal tariff, a substitutive instrument may be used by reforming the trade policy. Moreover, depending on the pattern of tariff reduction, average effective protection can increase at the same time as nominal tariff decline.

The goal-frame of liberalization can also be viewed from short run and long run objectives. The distinguishing assumptions between the two are, in the short run;

- some countries neither significantly reduce tariff barriers of agricultural and other produces nor abolish their extensive export promotion program,
- some countries will go on subsidizing some of their sectors like agriculture,
- less developed countries could hardly meet the sanitary and phytosanitary standards of the developed world,

- the application of different specifications and its consequent side effects of the rules of origin will not be neutralized
- factor market movement will not be free
- there will be factor price inequality
- some forms of trade distortions, like discriminatory/preferential trade policies, and the like will still exist.

But, in the long run there would not be any of such kind of distortions.

2.2 Theories on Regional Integration

According to Winters (1996), regional integration is “any policy designed to reduce trade barriers between a subset of countries regardless of whether those countries are actually contiguous or even close to each other” (Liyousew, 2005). It is concerned at abolishing discrimination between local and foreign goods, services and factors of a block. It first creates free trade area and gradually grows to customs union, common market and eventually to economic union.

The allocating or efficiency gains of economic integration depend on whether the products produced by members of the RTA are in direct competition with, or complementary to, each other. This makes the arrangement to have trade creating or trade diverting nature. There is no doubt on the benefit from trade creation than trade diversion. But, the compensating argument for trade diversion is *by reducing its demand for imports from and supply of exports to the rest of the world, improvement can be made on the collective members' terms of trade*. Any customs union, by acting as a single party can have much more bargaining power than its entire member separately. The dynamic benefit of regional integration is increased competition between each

other, economies of scale, stimulus to investment, and better utilization of resources. Moreover, it spurs outsiders to set up production facilities within the customs union to avoid trade barriers imposed on the non-union produces.

There are some costs as there are benefits to regionalism. The vanguard problem is loss of revenue which is counter argued by domestic producers' increased profit. The threat of benefit polarization and harm on third parties created due to "gang effect" which leaves the outlying country no other option than joining is also raised. Same is also addressed by the "*domino effect*" theory of Baldwin (1993).

Regionalism is also labeled as old and new type based on degrees of integration. Quoting different sources, Liyousew (2005) stated, degrees of integration range from "shallow" to "deep". While the former goes as far as the reduction of barriers to commodity trade the latter incorporates harmonization of national policies and free mobility of factors. The major difference between the two types of regionalisms is the policy environment. The old type, mostly applied in developing countries, involves an inward looking and protectionist (state-led import substitution) strategy. In contrast, the new regionalism involves the characteristics of the deepest form of integration amongst which are establishment of investment protocols and protections, harmonizing macroeconomic policies including fiscal and monetary policies, improved regional communication levels and establishing regional institutions such as development banks, harmonization of legal regulations and monetary unions.

2.3 The old view of Trade and Economic Growth

According to Ghatak and Utukulu (1996), the old view of trade and economic growth has the following way of derivation. In the traditional analysis, exports(x) are usually determined by domestic price at time t (P_{dt}), foreign price (P_{ft}), or some other measure of competitiveness like the purchasing power parity (PPP) times the nominal exchange rates and foreign demand, usually proxy by foreign income (Y_f). The functional relation can thus be written as:

$$X_t = P_{dt}^{\gamma} P_{ft}^{\phi} Y_f^{\delta} \quad (2.3.1)$$

Taking the logarithmic form of both sides then gives us the proportional growth rate as:

$$\chi_t = \gamma p_{dt} + \phi p_{ft} + \delta Y_f \quad (2.3.2)$$

Assuming that P_{dt} is endogenous, it is equated to

$$P_{dt} = \left(\frac{W}{R} \right)_t (M_t) \quad (2.3.3)$$

Where M_t is the percentage markup calculable over produces, R_t is the average productivity of labor and W_t is money wage. Once again, allowing the lower case letters to stand for the rates of change of variables and assuming the labor productivity growth is a function of output growth (the so called Verdoorn's law); equation (2.3.3) will transform into;

$$p_{dt} = w_t - r_t + m_t \quad (2.3.4)$$

$$r_t = r_{at} + \mu(g_t) \quad (2.3.5)$$

μ captures the Verdoorn's law and it is greater than zero. r_{at} is the rate of autonomous productivity growth and (g_t) represents the out growth rate. Here, the linkage between exports and growth is made through productivity growth and price. The rapid expansion of exports entails a faster growth rate of output, and the quicker growth rate of output also implies a rapid

growth rate of exports as goods are sold at more competitive price due to productivity growth.

Collecting terms from equations (2.3.5), (2.3.4), (2.3.2) and (2.3.1) and postulating;

$$g_t = \alpha(x_t); \quad (2.3.6)$$

$$g_t = \frac{\alpha[\gamma(w_t - r_{at} + m_t) + \phi(p_{ft}) + \delta(y_{ft})]}{1 + \alpha\gamma\mu} \quad (2.3.7)$$

Further, assuming no change in the relative prices, the foregoing equation simplifies to:

$$g_t = \alpha\delta(y_{ft}) \quad (2.3.8)$$

For an economy with a balanced foreign trade, i.e. with exports being equal to imports, m_t = growth rate of imports, and assuming $\alpha = 1$, we have:

$$g_t\pi = \delta(y_{ft}) \quad (2.3.9)$$

where π = the income elasticity of the demand for imports. Hence;

$$g_t / (y_{ft}) = \delta / \pi \quad (2.3.10)$$

This tells that the relative growth rates depend on the ratio of income elasticity of demand of a country's exports and imports. In this theory, however, two critical issues can be reviewed. One is lack of direct linkage between trade and growth. Representation of trade with such variables distorts findings since goods of developed and developing nations do not have the same level of elasticity as their economic environment is faced with different imperfections. Hence, using this model for evaluating North-South and South-South trade may casts shadow on the finding. The second issue is the inconsideration of human factor. Such forgone variable squashes the huge benefit of learning by doing that result from trading.

2.4 The New view of Trade and Economic Growth

The modern theory of trade policy, as it applies to a small economy, can be summarized in the following three propositions: (Rodriguez and Rodrik, 1999)

- *Trade restriction reduces the level of real GDP at world prices in a situation of no market imperfections and other pre-existing distortions. But, with the existence of imperfections, trade restrictions may increase real GDP; although they are hardly ever the first-best means of doing so.*
- *In standard models with exogenous technological change and diminishing returns to reproducible factors of production; regardless the existence of market imperfections, a trade restriction has no effect on the long run rate of growth of output. However, there may be positive or negative growth effect depending on the long-run level of output during the transition to the steady state.*
- *In models of endogenous growth generated by non-diminishing returns to reproducible factors of production or by learning-by-doing and other forms of endogenous technological change, the presumption is that lower trade restrictions boost output growth in the world economy as a whole. But a subset of countries may experience diminished growth depending on their initial factor endowments and levels of technological development.*

According to Rodriguez and Rodrik, (1999), these points imply that there should be no theoretical presumption in favor of finding an unambiguous, negative relationship between trade barriers and growth rates. Concurrently, a twin complication is also faced. First, in the presence

of certain market failures, such as positive production externalities in import-competing sectors, the long-run levels of GDP (measured at world prices) can be higher with trade restrictions than without. In such cases, data sets covering relatively short time spans will reveal a positive (partial) association between trade restrictions and the growth of output along the path of convergence to the new steady state. Second, under conditions of endogenous growth, trade restrictions may also be associated with higher growth rates of output whenever the restrictions promote technologically more dynamic sectors over others. In dynamic models, moreover, an increase in the growth rate of output is neither a necessary nor a sufficient condition for an improvement in welfare.

2.4.1 Arguments about Trade and Growth

The twentieth-century development in respect to trade and growth is the Heckscher and Ohlin (HO) “*factor abundance*” theory that was further formalized using general equilibrium by Paul Samuelson in 1950s. Though some authors do not use the HO model as their framework, it has been adopted to specific sector (SS) platform to overcome the significant shortfalls of the baseline assumptions (Harrison, 2005). In this framework, unlike HO model, unrealistic assumptions like the complete mobility of factors was replaced by workers or machines “attached” to a specific sector or industries not relocating easily. The specific sector model suggests that workers may gain from globalization depending on which sectors (import-competing or exporting) they are attached to.

In a similar notion, the Stolper-Samuelson theorem, argued that that abundant factors faces an increase in its real income when a country opens up to trade. If the abundant factor in developing countries is unskilled labor, then this framework suggests that the poor (unskilled) in developing countries have the most to gain from trade. This insight is used to affirm that trade reforms in

developing countries should be pro-poor, since these countries are most likely to have a comparative advantage in producing goods made by unskilled labor. From this perspective, it is perceived that expanding trade opportunities should cut poverty and reduce inequality within poor countries (Harrison, 2005).

However, same writer quoted Davis and Mishra for saying “*Stolper-Samuelson is dead*” on the theoretical linkages between trade and poverty*. The core of their axiom is ‘expecting liberalization to raise the wages of the unskilled in unskilled-abundant countries is far from reality’. The argument focused on the narrow interpretation of the theorem’s premise. In particular, assuming all countries produce all goods, goods imported from abroad and produced domestically are close substitutes, and comparative advantage can be fixed vis-à-vis all trading partners, is far from reality in a world that is faced by many factors and produce, and different market failures. Their refined theorem was that if imports and domestic goods (produced by the poor) are non-competing, then the first order effect of a trade reform would be to raise real incomes of the poor. Clearly, the poor gain from tariff reductions on goods that they buy. If globalization rises the prices of goods produced by the poor—such as agricultural products marketed by farmers—then poverty is also likely to decline.

William Easterly was also quoted in same paper for his exploration of the theoretical linkages between globalization and poverty. Easterly shows that globalization could affect the incomes of the poor in two opposite ways. If productivity levels are similar but endowments are different, globalization should raise the incomes of the poor. Globalization, by relaxing constraints on the

* Davis, Don and Prachi Mishra (2004), “*Stolper-Samuelson is Dead and Other Crimes of Both Theory and Data*”, forthcoming in Ann Harrison, editor, *Globalization and Poverty*, University of Chicago Press for NBER.

movement of goods and factors, will allow factor returns to equalize across countries. This is the “factor endowment” view. If poor countries are more endowed with (unskilled) labor, then relaxing constraints on global trade or factor flows will lead capital to flow to poor countries and per capita incomes there should rise. A second possibility is the “productivity” view. Differences in per capita incomes may stem from exogenous productivity differences across countries, rather than differences in endowments. This second possibility implies that globalization will either have no impact on poverty or could exacerbate poverty, as capital is drawn away from low productivity towards high productivity regions.

Generally, the emphasis is that globalization could raise the incomes of the poor by increasing long run growth. In reconciling the aforementioned works, trade or capital flows could increase incomes of the poor by raising their productivity or through the accumulation of capital. Imports of new goods embody new technology, which in turn raises productivity, while incoming foreign investment provides the possibility for technology transfer. If the income effects are fairly uniform, then the increase in aggregate income resulting from globalization-induced productivity gains should improve the incomes of the poor.

2.4.2 Methodologies Linking Trade and Growth

Various methodological approaches have been applied in pursuit of getting the appropriate theoretical linkage between trade and growth. The neoclassical school of thought’s endogenous growth model is the frontline theory that reads as; *the return from simultaneous contribution of capital and human resource increases growth as an economy develops*. In line with this theory, Romer (1986) forwarded an illustration which assumes a competitive equilibrium with external

scale economies (Bown, et al. 1998, p.585). The motivation of the model is the idea that private knowledge is an intangible capital input in the production process of any firm thus benefiting from stock of knowledge due to an external spillover effect.

In endogenous model, knowledge is separated into private knowledge, the public stock of knowledge and an international knowledge. Keeping this in mind, the original Cobb-Douglas production function was transformed to give growth empirics of positive effects of investment share of GDP and human capital. Concurrently, the negative influence of growth rate of population was taken into consideration. In addition, it is considered that countries with a relatively developed financial market grow relatively faster. In the analysis, a robust positive correlation between growth and share of investment in GDP, and a robust positive correlation between investment share and the ratio of international trade was detected. In general, this leads to finding a link between growth and the degree of openness. The hypothesized channel through which this happens is the transfer of technology enhancing the allocation and accumulation of resources.

The alternative instrument that provides considerable information about countries trade is the gravity model (Frankel and Romer, 1999)⁵. This model tries to provide trade's effect over growth without side effects of other government policies that may have a spillover effect on the income equation. For such reasons, it applied institutionally independent variables like country's distance from each other and their geographic characteristics. The two are assumed to determine international and within-country trade, respectively. The rationale to arrive at this conclusion is mainly the overhead cost of marketing and the market size. The concluding remark is that, if a

⁵ See the specification of the model in Annex I

country is closer to other nations then there tend to be more trade interaction than one that is not. Moreover, if a country has a wider surface area it will have a propensity to trade within itself than one that is smaller. With this notion, writers decompose a nation's income and examined trade's impact on different components.

This model could not be used for addressing the theme of this text. The reason behind this is regional trade transactions would be more favored than the case of multilateral arrangements due to inflated values of some variables emerging out of increased overhead costs like transportation.

There also other significant theoretical findings designed by prominent economists. Regardless the relative resemblance of their conclusions, the methodologies and approaches emanates from varying perspective. That is, some constructed alternative indicators of openness, some others tested robustness by using a wide range of measures of openness including subjective indicators, and still others used comparing convergence experience among groups of liberalized and non-liberalized countries (Rodriguez and Rodrik, 1999).

Of theories of growth and trade deduced from different premises, Dollar (1992) and Sachs and Warner (1995) are primarily discussed in Rodriguez and Rodrik, (1999). Dollar (1992) was exemplified because, by the writers count, it is the most heavily cited empirical paper in the link between openness and growth. Sachs and Warner (1995) was also referred because they have found it to be a close second and the index of openness constructed therein has now been widely used in the cross-national research on growth.

The principal contribution of Dollar's paper lies in the construction of two separate indices. The two indices are an "index of real exchange rate distortion" and an "index of real exchange rate variability". These indices relate to "outward orientation," as a combination of two factors: first, the level of protection, especially for inputs into the production process, is relatively low (resulting in a sustainable level of the real exchange rate that is favorable to exporters); and second, there is relatively little variability in the real exchange rate, so that incentives are consistent over time. Regarding price levels of different countries, if there were no non-tradable, cross-country variations could be taken directly as a measure of inward or outward orientation caused by trade policy. For instance, a country sustaining a high price level over many years would clearly have to be a country with a relatively large amount of protection (inward orientation).

This theory was checked against countries experiences and the result conveyed a congruent result. Use of this model is, however, more useful in comparing growth of countries under different regime and contrasting *ex-ante* with *ex-post* exchange rate regimes than explaining the instantaneous effect of a country's trade policy change after becoming outward oriented. Moreover, the today's trade distortion problems are far deeper than exchange rate making the efficiency of the measurement less effective. Nowadays, trade is hampered by tariffs and non tariff barriers, subsidies and unfair export promotion mechanisms that mystify measurements.

The following paper analyzed, i.e. "Economic Reform and the Process of Global Integration", was produced by Sachs and Warner (1995). This paper attempted to solve the measurement error problem in the literature by constructing an index of openness that combines information about

several aspects of trade policy. The Sachs-Warner (SW) openness indicator (OPEN) is a zero-one dummy, which takes the value 0 if the economy was closed according to five criterions⁶.

The problem with this deliberation is that the openness indicators are highly aggregated. Introducing such dummy will categorize two countries claiming extreme positions in one group leading to estimation bias. Moreover, unless it is needed to verify the goodness of outward orientation as in the preceding model, use of this model in a world that has involuntarily emancipated the idea of economic integration would be less significant.

Other citable paper for its different methodology is Sebastian Edward's (1998) work. Edwards's axiom is that, "*the difficulties in defining satisfactory summary indexes suggest that researchers should move away from this area and should instead concentrate on determining whether econometric results are robust to alternative indexes*" (Edwards, 1998 p. 386 as quoted by Rodriguez and Rodrik, 1999). To carry out this robustness analysis, Edwards runs regressions of total factor productivity growth on nine alternative indicators of openness*.

The parameters would give a wider viewing angle for a country to pin point policy variables since numerous explanatory are incorporated in the indices, and able to forward batch of corrective measures for a cross section of countries. However, those used variables are susceptible to autocorrelation.

⁶ The criteria are average tariff rates higher than 40% (TAR), non-tariff barriers covered on average more than 40% of imports (NTB), a socialist economic system (SOC), a state monopoly of major exports (MON), black market premium exceeded 20% during either the decade of the 1970s or the decade of the 1980s (BMP).

* These indicators are: (i) the Sachs-Warner openness index; (ii) the World Bank's subjective classification of trade strategies in World Development Report 1987; (iii) Edward Leamer's (1988) openness index, built on the basis of the average residuals from regressions of trade flows; (iv) the average black market premium; (v) the average import tariffs from UNCTAD via Barro and Lee (1994); (vi) the average coverage of non-tariff barriers, also from UNCTAD via Barro and Lee (1994); (vii) the subjective Heritage Foundation index of Distortions in International Trade; (viii) the ratio of total revenues on trade taxes (exports + imports) to total trade; and (ix) Holger Wolf's regression-based index of import distortions for 1985 (Rodriguez and Rodrik, 1999).

In addition to these two, Rodriguez and Rodrik, (1999) raised Dan Ben-David's (1993) paper, "*Equalizing Exchange: Trade Liberalization and Income Convergence*", as an alternate in viewing the theory of growth and trade from different perspective. The study assesses the effect of trade policies on income by asking whether trade liberalization leads to a reduction in the dispersion of income levels among liberalizing countries. A distinctive aspect of Ben-David's work is that it is non-parametric and not regression-based. The expectation that trade liberalization might lead to income convergence is grounded in the factor price equalization (FPE) theorem. According to trade theory, free trade in goods leads to the equalization of factor prices. As barriers to trade are relaxed, assuming differences in capital-labor ratios and labor-force participation ratios do not countervail, a tendency towards FPE can be set into motion, resulting in convergence in per capita incomes.

Indeed, in the long-run such outcome might come about as a result of trade liberalization. But in the short-run indicators might be misleading. For instance, subjective measures can hardly trace the impact of one policy variable vis-à-vis the other. The ultimate taste in measuring the instantaneous effect of multiple policy variables, without knowing the significance of each, would be living it and experience the outcome. For the writer of this thesis, such action is not only incorrect but also dangerous since segregation of degrees of several policy effects would be difficult.

Generally, the whole batches of theories are relatively straightforward to write a well-specified model, but yet lacking a direct linkage between trade and growth. The new developments in welding these two raise a point saying human development through spillover effect of learning by

doing brings about as much result as elasticity and capital accumulation. Nonetheless, free trade can be harmful to some countries' economic prospects, especially when these countries are lagging in economic development, have an initial comparative advantage only in "non-dynamic" sectors and are expected to compete in unfair environment. In such scenario; degrees, directions and acceleration of integration should fall under tough scrutiny. It is known that both developed and developing nations have been manipulating their trade strategies to varying degrees. Previously, efficiently protected economies (i.e. most of the current *developed nations*) have attained their objectives. However, the most recent trend of Far East Countries challenges this method to some degree. Though, in both cases there have been some forms of trade distorting mechanism.

What could be learnt here is the timing and intensity of restrictions determines the result. Roughly talking, there still exists some kind of harsh interventions* to date even by those who proclaim an open global economy. Moreover, these countries do not get carried away by the benefit of one mechanism. Rather, they are persisting on the dynamism of trade distorting instruments. The outcome of such non-impartial global trading policies forces the less fortunate nations to encumber lose. Furthermore, it has made them victim of their own reactive protective policies.

* For example, as per the Acting Managing Director of International Monetary Fund, Anne O. Krueger, ...The annual cost to consumers and taxpayers of 29 OECD members' support for agriculture and horticulture is so large that it could pay for each of the 56 million cows in the OECD dairy herd to enjoy a first class air ticket around the world. Each cow would also have \$1450 spending money to finance stopovers in the U.S., Europe and Asia. If the cows were willing to slum it in business class, they could have \$2800 spending money instead. And they could enjoy this luxury holiday every year. (Krueger, May 18, 2004).

2.5 Empirical Evidence

There are several studies conducted to analyze openness effect on growth. Some are made in proving the benefit of free trade while some are conducted to refute the positive implications of openness. In both cases country analysis have been presented to support the respective arguments. This section will thus highlight some of the two sides of empirical evidences.

2.5.1 Success Stories for the Case of Open Economy

It has been widely argued for a freer global trade in order to enhance welfare of societies. Indeed, a finding cross quoted in IMF (2001) states that the benefits of trade liberalization can exceed the costs by more than 10 fold. Other references therein were quoted for explaining India's, Vietnam's, and Uganda's faster growth experience and poverty reduction being the outcome of open economy. What have been said are, those developing countries that lowered tariffs sharply in the 1980s grew more quickly in the 1990s than those that did not. Overall, the outcome of trade liberalization resulted decline in inequality among countries since 1990, reflecting more rapid economic growth in developing countries (IMF, 2001).

Quoting Baysan and Biltzer (1991), Ghatak and Utukulu (1996), raised focus on Turkish development. The quoted writers identified four dates over this period when attempts to reduce trade and other distortions. In the first three cases the authors conclude that the liberalization was not sustained, and the reforms were not part of a planned program to establish a liberal trade regime. However, since 1980 liberalization took a fundamental turn. The reform started at 50% devaluation, an increase in direct export incentive, a demand for stabilization measures, and a declared intention gradually to liberalize the economy by dismantling quantity restriction, capital account liberalization, etc. There were also changes in the administrative system. This resulted a

stable, joint, long-run relationship among real GDP, measure of trade liberalization, and human and physical capital with 'endogenous' growth theory.

The following example of Ghatak and Utukulu (1996) was the case of Malaysia. Since independence in 1957, Malaysia has followed a relatively open economy, generally driven by Market forces. But, the government had played a role both as a producer and a regulator. It encouraged foreign investment in the export as sector, followed an open foreign exchange regime and reduced tariff rates to an average rate of 15% of prices on a trade weighted base. However, in the agricultural sector, there are an important tariff and non-tariff barriers to encourage domestic production. The result of this was shifting the country to the verge of becoming one of the upper middle income earning countries by the year 1990. A comprehensive work, further quoted from Ghatak et al. (1994), also showed a robust support for the export-led growth hypothesis. Though, the relation was found to be driven by manufacturing exports rather than by traditional exports.

They finally raised the case of India. Since 1984, India took action of liberalization in order to reduce poverty rapidly create adequate resource for the social program and modernize its infrastructure and manufacturing sector. In the late 1980s, especially, government successively relaxed some restrictions on trade and investment, while the other time boosting domestic demand through debt financing deficit spending. Exports of manufactures increased and concurrently GDP growth accelerated well over 5%. Even though, the government was caught up by higher macroeconomic imbalances the replacing administration that claimed office in 1991 replenished it to some extent in a year time. Beginning 1991, radical industrial trade and financial changes have made remarkable progress in starting to liberalize what was one of the most closed and regulated economies in the world.

The other study was made by Rodrik (1998). His study emphasized on outcomes of trade reforms in some African countries. The country specific studies showed that some like Botswana directly benefited while some like Uganda and Ghana recovered after long stretch of decline.

In reviewing the success stories, Botswana's distinctive performance is grounded in prudent fiscal and macroeconomic policies, relatively well human resources, and early demographic transition which reduce the dependency ratio. The bureaucracy of the country is also honest and competent, attaches great value to economic expertise, and has consistently produced sound macroeconomic policies, encouraged export and devalued its currency. The government has also been a member of the South African Customs Union (SACU), benefiting from economic integration.

Rodrik, (1998) has also raised the achievements of Mauritius. The country, in general, scored a political advantage of twin-track strategy. These are the creation of export promoting zone and import substitution groups. These two also attended a respective segment of female and male workers in which one did not cross the benefit of the other. Starting the early 1980s the government starts to dismantle most of the quantitative restrictions that had sheltered the non-export promoting zone part of the economy from foreign competition. By the early 1990s, there were significant tariff reforms as well. These reforms have given exports of the nation another boost.

2.5.2 Opening an Economy – as a malice to society

A commissioned expert group in econometrics was assigned by Christian Aid to work out what might have happened had trade not been liberalized (Christian Aid, 2005). The study used evidence on the impact of trade liberalization on imports and exports, and the effect of this on

national income, to estimate how much income was lost given the extent of liberalization. The overall result suggested that:

- *imports tend to rise faster than exports following trade liberalization*
- *this results in quantifiable losses in income for some of the poorest countries in the world.*

What the paper argues is that countries which liberalize do not grow or that some people in them do not become less poor – but says that without liberalization, growth could have been higher and poverty reduction faster. The following four paragraphs are findings of this study for the case of four African countries, i.e. Ghana, Malawi, Uganda and Mali.

Ghana began to liberalize trade in 1986. In 2000, its gross domestic product (GDP) was just under US\$5 billion. If Ghana had not liberalized, the model suggests that its GDP that year would have been nearly US\$850 million higher. Adding the loss every year from 1986 to 2001 gives a total loss of nearly US\$10 billion, or around ten per cent of Ghana's GDP over that period. In 2000, Ghana lost US\$43 for every one of its 20 million people. In the same year, Ghana received aid worth just US\$31 per person. Over the 15 years since trade was liberalized, Ghana's population has lost the equivalent of US\$510 per person – a huge sum, given that per capita GDP in 2000 was just US\$330. It is as if everyone in Ghana stopped working for one and a half years.

Malawi began to liberalize trade in 1989. In 2000, its GDP was just over US\$1.7 billion. If Malawi had not liberalized its GDP in 2000 would have been more than US\$1.9 billion – US\$200 million higher. Adding the loss every year from 1989 to 2001 gives a total loss of more than US\$2 billion, or eight per cent of Malawi's GDP over that period. In 2000, Malawi's population was 10.3 million and it lost more than US\$20 per person thanks to trade liberalization.

In the same year, Malawi received aid worth US\$43 per person. Over the 15 years since trade was liberalized, Malawi's population has lost US\$196 per person – a huge sum when you consider that per capita GDP in 2000 was US\$165. It's as if everyone in Malawi stopped working for 14 months.

Uganda began to liberalize trade in 1991. In 2000, its GDP was nearly US\$6 billion. If the country had not liberalized, our model suggests that its GDP in 2000 would have been over US\$735 million higher than it was – more than what Uganda spent on health and education combined that year. Adding the loss every year from 1986 to 2001 (the last year for which we have data), gives a total loss of almost US\$5 billion, or eight per cent of Uganda's GDP over that period. In 2000, Uganda lost US\$32 for every one of its 23.3 million people, thanks to trade liberalization. In the same year, the country received aid worth just US\$35 per person. Over the ten years since trade was liberalized, Uganda has lost US\$204 per person – compared with a per capita GDP in 2000 of US\$253. It's as if everyone in Uganda stopped working for ten months.

Mali began to liberalize its trade in 1991. In 2000, its GDP was US\$2.4 billion. The model suggests that, without trade liberalization, the country's GDP would have been US\$191 million higher in 2000 than it actually was – more than what Mali spent on healthcare during that year. Adding the loss over the ten years since Mali liberalized for which we have data, gives a total of US\$1.4 billion. In 2000, Mali's population was 10.8 million and it lost nearly US\$18 dollars per person from trade liberalization – more than half of the US\$33 per person they received in aid. Since the early 1990s, Mali has lost nearly US\$130 per person from trade liberalization – or half a year's income. It is as if everyone in Mali stopped working for six months.

2.5.3 Studies on Ethiopia

Assessment of factors affecting regional integration is very important for countries, like Ethiopia, preparing to join free trade area. Here are some findings about the impact of adopting liberalization.

To this respect Anteneh (2005) quoted Alemayehu et al. (2002) work that covered the growth history, sources and determinants of economic growth in Ethiopia. The study analyzed by setting out the growth history in Ethiopia and attempting to understand what have been the main sources of growth. According to the study, in the last four decades, the Ethiopian economy has changed from a liberalized economy until 1974 to a controlled one in 1974-1989/90 and again back to a liberalized one after 1991. Growth during the Derg period (1974/75-1989/90) averaged 2.3 percent (the per capita growth being -0 percent). During the post-Derg period (1990/91-1999/00), which witnessed a major policy shift from its immediate predecessor, real total and per capita GDP on average, grew by 3.7 percent and 0.7 percent per annum respectively. The study attributes post-Derg impressive achievement that the previous two regimes partly to liberalization and deepened series of reforms.

Mulat et.al. (2003) in their study examine the actual effects of the economic reform measures undertaken in the agricultural sector. They found that the overall short-run welfare effect of Ethiopia's accession to COMESA-FTA is positive. In other words, Ethiopia would benefit from association with the trading block. It is expected that the dynamic welfare effect resulting from trade partnership would even be higher than the short-run effects. The long-run welfare effects of regional economic arrangements include inflow of foreign direct investment, improved efficiency, economies of scale and other investment enhancing measures such as improved

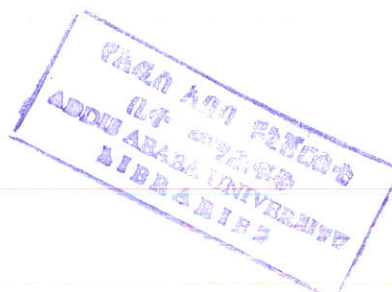
infrastructure that accompany regional integration arrangements. However, the dynamic welfare effect of regional economic integration depends upon the capacity of the country to attract and stimulate investment.

On the contrary, Zewde and Associates (2001)* analyzed the particular case of regional trade integration. The study was conducted over the outcomes of COMESA agreement by collecting data and information from both primary and secondary sources. One of the results obtained from the analysis is imports will rise resulting in increased loss of revenue forgone. The study indicated that trade diversion may occur and the calculated Ethiopia's revenue loss due to implementing COMESA FTA will be estimated at less than 1% of the GDP, in absolute terms not exceeding 31 million Birr per year.

Same reference raised Afro-consult and Trading's (2002) study over the impact of COMESA/FTA using average yearly data for the period 1999-2001 that showed losses of revenue. Using Simple Arithmetic and Compound Growth Rate for forecasting, the study states, if Ethiopia had implemented COMESA FTA it would have faced a loss of Birr 325 million in the period.

What can be deduced from this is that there is no absolute evidence that openness had contributed to growth. In fact, there have been some indications that during the time of economic openness growth rate of nations showed some improvement. But the actual argument is, countries would have been better off had their economies were not that open. Moreover, the benefit from trade is not evenly distributed between developed and developing economies and hence relative benefit of trade to developing nations is undermined.

* Quoted from Adam Gebreyesus (2004)



PART III

Ethiopia in Multilateral Arrangements

3.1 Ethiopia and Regional Communities of Africa

Ethiopia is one of those countries participating in more than one African Regional Trade Integrations. Of those integrations, typical economic integrations with a future prospect of emerging deeper economic community are the Common Market for Eastern and Southern Africa (COMESA) and Intergovernmental Authority on Development (IGAD) (World Bank, 2004).⁷

3.1.1 COMESA⁸

The COMESA treaty was signed in November 1993 and ratified in December 1994 when it was formed to replace the former Preferential Trade Area (PTA) which had existed from the earlier days of 1981. The process of economic integration has not been episodic but a systematic one. First, the preferential trade area was established and operated for over a decade, which was then transformed to a common market / Free Trade Area (FTA). The third phase will involve the eventual establishment of an Economic Community (www.comesa.org).

Same source has disclosed that, the objective of FTA is to create an integrated market for trade in goods and services and to increase the COMESA region's competitive advantage in the world market. The FTA promotes competition within the region prior to regional industries and firms face the inevitable competition brought about by global liberalization. It also serves as a channel for efficiency (www.comesa.org).

⁷ Ethiopia is also a member state in the Nile Basin Initiative (NBI) and New Partnership for African Development (NEPAD). These arrangements includes economic objective by eradicating poverty and placing African countries on a path of sustainable growth and development. However, the organizations and its activities are rather on an infant stage and have not dwelled much on economic integration

⁸ COMESA has 19 members including Angola, Burundi, Comoros, the Democratic Republic of the Congo, Djibouti, Egypt, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Seychelles, Sudan, Rwanda, Swaziland, Uganda, Zambia, and Zimbabwe

In the FTA, dealing is on the basis of reciprocity. Member states that are in the FTA trades on a duty free basis and member states not in the FTA are granted trade preferences by the FTA member states on the basis of the tariff reduction they have attained. Members that have not attained a reduction of tariff by 60% are not granted any preferential rate by the FTA members or by those that have reduced tariffs by the 60% tariff reduction rate (*www.comesa.org*).

The organization's website has also indicated that the integration has macroeconomic harmonization program. By the year 2024, it plans to become a full monetary union. In this regard, the target inflation rate of the community's convergence is set at 10%. It also targeted a regional budget deficit of 10% of the respective states GDP.

Regarding multilateral trade, the community has also designed its own rules of origin criteria to avoid cheating and free riding by any member. These criterions are: produces in member state should contain no more than 60% of imported inputs from non member countries, incorporate regional value added of at least 35%, be designed as particularly important to "economic development" and contain no less than 25% local value added, or be classified under new tariff heading after production (*www.comesa.org*).

Other objectives which will be met to assist in the achievement of trade promotion are trade liberalization and customs co-operation, including the introduction of a unified computerized customs network across the region, improving the administration of transport and communications to ease the movement of products and people between nations, creating and enabling environment and legal framework which will encourage the growth of the private sector, the establishment of a secure environment for investment, adoption of common sets of standard, and the harmonization of macro-economic and monetary policies throughout the region.

3.1.2 IGAD

IGAD is the transformed version of the Intergovernmental Authority on Drought and Development (IGADD) established in 1986. Although IGADD was originally conceived to coordinate the efforts of member states to combat drought and desertification, it became increasingly apparent that the Authority provided a regular forum where leaders of the Eastern African countries were able to tackle other political and socioeconomic issues in a regional context. Realizing this, in April 1995, the mandate of IGADD was stretched and made a declaration to revitalize IGADD and raise cooperation among member states. The refreshed IGADD was renamed the Intergovernmental Authority on Development (IGAD) (www.igad.org).

The broad Aims and Objectives of the Authority are to Promote joint development strategies and gradually harmonize macro-economic policies and programs in the social, technological and scientific fields; harmonize policies with regard to trade, customs, transport, communications, agriculture, and natural resources, and promote free movement of goods, services, and people; create an enabling environment for foreign, cross-border and domestic trade and investment; and others generally related to combating drought, developing natural resources and environment protection, increasing infrastructural network especially in transport and energy, promoting peace and stability, and promote and realize the objective of COMESA and African Economic Community (www.igad.org).

3.1.3 Choosing a Representative Community

Even though Ethiopia is a member nation in the aforementioned communities, choosing a representative economic integration that is relatively more efficient is proper for addressing the theme of this paper.

In doing so, COMESA is preferred since it exceeds IGAD on efficiency and performance. This primarily arises from its lifetime experience and activities taken in line with its objectives. In fact, COMESA grew from PTA and has these days established FTA between some of its members. As per the report presented on the fourteenth meeting of the COMESA Council of Ministers in 2002 the community has taken actions on issues like trade liberalization, customs co-operation, transport and communications, industry and energy, monetary issues, economic and social development, formation of complementary institutions like the COMESA court of justice, temporary balance of payment related safeguards, regional framework agreement for investment and a competition policy, harmonization of sanitary and phytosanitary standards using ISO standards, harmonization of its actions with WTO rules and so much more (COMESA, 2002).

On the contrary, IGAD has some shortcomings to be considered as a representative. For instance, the Secretariat has been kept fragile with only a minimum professional and administrative staff. Its output is constrained by the fact that some important positions have not been filled resulting in undue work overload to the current staff. Moreover, the Secretariat in the Member States has not functioned well since the Focal Points have not been fully institutionalized nor provided with the necessary resources. In addition, the coordination between the programs has faced difficulties due to the inadequate organizational structure of the Secretariat (www.igad.org).

3.1.4 COMESA's Achievements, Problems and Prospects

COMESA is by far the most successful scheme in implementing extreme trade facilitation and promotion programs. The FTA of COMESA was achieved on 31st October, 2000 when Djibouti, Egypt, Kenya, Madagascar, Malawi, Mauritius, Sudan, Zambia, and Zimbabwe abolished their

tariffs on COMESA origin products. Latter on, this group was joined by Burundi and Rwanda. This FTA has not only got rid of customs tariffs but has also involved the relaxation and eventual eradication of quantitative restrictions and other non tariff barriers (COMESA, 2002).

According to the report Djibouti, Ethiopia and Sudan claim that they have abolished all non-tariff barriers. On the contrary, Kenya is questioned for quantitative restrictions, import bans, charges, cumbersome duty drawbacks, road blocks, personnel integrity, and administrative charges. Similarly, Tanzania, Uganda and Zambia are blamed for technical, physical, procedural and immigration restrictions and barriers related to national policies and laws. To mitigate such kind of allegations, agreements are made for monitoring NTBs. Moreover, even though it is not yet operational formal dispute settlement mechanism in the form of a COMESA Court of Justice is provided. However, disputes in general have been successfully handled through an informal process of diplomatic consultation.

With respect to reforming the region's networking systems, the community has road transit changes in at least 10 countries since 1991, launched Automated System for Customs Data (ASYCUDA), applied the Yellow Card vehicle insurance system covering 3rd party liability and medical expenses in 12 countries, and implemented carrier license and transit plates in 9 countries (www.comesa.org).

In line with getting prepared for the future macroeconomic integration, only few countries have achieved the expected inflation target. According to same reference Djibouti, Ethiopia and Seychelles have managed to keep inflation below 5%. However, Zimbabwe, Sudan and Malawi have higher inflation. In achieving the fiscal deficit target, some independent countries like

Eritrea are far from satisfactory at 19% gap. But the group average is reported to be at a satisfactory -5.7%. In order to take the next step, i.e. the adoption of Common External Tariff (CET), COMESA is on the verge of applying an interim rate with zero tariffs on capital goods, 5% on intermediate goods and 15% on raw materials.

But this does not mean the arrangement has not faced problems. Perhaps due to a lack of political commitment in member countries, the COMESA FTA has been hampered by country level institutional changes and prevailing structural constraints. Eight of the nineteen members, including Ethiopia, have not yet joined the FTA. Among those that have joined, informal NTBs such as non-acceptance of rules of origin certificates, cumbersome bureaucratic procedures, and restrictive standards are some common problems. Some countries have also replaced tariffs with discriminatory excises. Little progress has been made on the issue of services liberalization, too (Khandelwal, 2004).

The proposed feature of the COMESA Customs Union is also faced with complications. According to Khandelwal (2004), number of goods will still require member countries to maintain border controls within the customs union. Second, the dependence on trade taxes by member countries has led to an agreement that revenue would be kept by the country of final consumption. This allows countries to keep their import revenues—but will require enormous effort and cooperation on the part of customs administrations to track the country of final consumption. However, this has the potential to increase expenses of the regional customs administrations and erode efficiency gains from the customs union. It is worth pointing out that customs administration capacity will be similarly burdened due to overlapping membership between COMESA, SADC, and the EAC and the associated need to track qualifying

domestic/regional content for each of the arrangements. These problems will be further aggravated by other preferential agreements like AGOA and EBA. Overlapping membership will raise a problem of clear-cut classification and application of the rules of origin, too.

Other kinds of problems are product complementarities and loss of revenue. According to Tsikata (1999), a cross referred study of in the preceding source; there is a problem of product complementarities within member countries. The findings shows that while there is scope for Egypt and Kenya to export to the region, there is not much scope for other countries to do the same since there are few complementarities for their exports. The asymmetric product complementarities in favor of the more developed members raise a concern over possible polarization as investment may be attracted towards the larger and more industrially diversified economies in the region.

Regarding lose of revenue, same study has indicated that most members of COMESA earn its revenue from trade taxes (Mussie, 2005). Lowering of import duties will thus lead to significant fiscal gap. Moreover, as cross quoted from Chauvin and Gaulier (2002), regional integration may lead to changes in the structure of individual economies that could lead to a reconstruction of the previous import-substitution industries that were important sources of revenue. This shows that fiscal fragility will not be revoked in the presence of liberalization.

Generally speaking, COMESA has taken steps in creating free trade area, macroeconomic policy design for future integration and implementation of commitments individually and collectively. This has made it a promising economic society that will succeed in achieving its objectives. However, scheduled achievements are not moving at the expected pace due to institutional

incapacities, commitment failure (that resulted from inconsistencies with domestic policies in member nations), and overlapping membership.

3.2 Ethiopia and the WTO

From 1948 to 1994, GATT provided the rules for much of world trade. Though the agreement and organization was provisional it had led to a highest growth rate in international commerce by reducing tariff to a lower level (WTO, 2005).

However, economic recession of 1970's and early 1980's has driven the governments to devise other forms of protections for sectors facing increased foreign competition. High rates of unemployment and constant factory closure led governments in Western Europe and North America to seek bilateral markets sharing arrangements with competitors and to embark on a subsidies race to maintain their agricultural trade. These and other issues not covered by the rules resulted in lose of creditability and efficiency of the agreement. Consequently, members agreed to make a new effort to reinforce and extend the multilateral trade system. That effort resulted in the Uruguay round, the Marrakech Deceleration, and finally the creation of WTO in January 1995 (Anteneh, 2005).

WTO is a "rule based" trading system that governments give their consent to follow. The agreement covers trading in goods, services and intellectual properties. It enforces country's commitment to lower custom tariffs and other trade barriers on all tradable bundles. Generally, it promotes the principles of liberalization with permitted exceptions. The agreement establishing WTO launches and administers international rules that governs international trade in goods and services, serves as forum for the progressive liberalization of international trade, provide a means

for resolving disagreement between trading countries with regard to the rules, and is responsible for carrying out periodic review of trade policy of its member's countries (www.wto.org).

3.2.1 *WTO and Less Developed Countries*

More than two-third of WTO members is developing countries and almost all those seeking for accession are developing countries or economies in transition (WTO, 2005). Within the WTO agreements, developing countries are supposed to receive special and more favorable treatment in order to address their particular circumstances in international trade. The poorest of the developing countries, i.e. 49 countries on the UN list of least developed countries (LDCs), are provided with further additional more favorable treatment.

The Special and Differential Treatment provisions gives LDCs more flexibility in terms of trade policies, makes their exports charged at lower preferential tariff rates, gives longer periods to implement provisions contained in WTO agreements, facilitates the provision of technical assistance by developed countries to help them implement the commitments they have assumed and negotiates developed countries to implement their WTO commitments in a manner 'favorable' to developing countries interests (WTO, 2005).

3.2.2 *Fundamental Rules of WTO, Some Interpretation Complexities and Argument on Ethiopian Accession*

WTO agreement is lengthy and complex covering a wide range of activities such as agriculture, textile and clothing, banking, telecommunication, government purchase, industrial standards and product safety, food sanitation regulation, and intellectual property. But the simple fundamental manifestos that govern the entire document are the principle of most-favored-nation (MFN), freer

trade, predictability, and special and differential treatment for developing countries. In general, it operates on the basis of non discriminatory, multilateralism, unconditional reciprocity and application of the principles of Most Favored Nations (MFN) (Anteneh, 2005).

The organization's rule that extended to influencing new areas of domestic policy making critical to the development process are *trade agreements of agricultural produces, agreements on textile and clothing, trade in services subsidy and countervailing measures, antidumping measures, safeguarding industries, sanitary and phytosanitary measures, trade related investment measures, trade related intellectual property rights and technical barriers to trade* (EEA, 2004).⁹

The WTO rules have also extended its mandate over Regional Integrations and preferential treatments. In this respect, when a member state enters into regional agreements the organization requires the abidance of the non discriminatory regulations spelled under the GATT articles (for example *Article I & II*). The set of criteria to be met by RTAs can, generally, be summarized under the neutrality of trade restriction, substantial coverage, reasonable time, compensation, special and differential treatment for developing countries and notification requirements. Furthermore, in formation and operation of customs union and free trade area covering in trade in goods, rules like the *Enabling Clause* that refers to preferential trade arrangement in trade in goods between member developing countries, and the area of trade in services for both developed and developing nations should be referred. Non-generalized preferential schemes, for example non-reciprocal preferential agreements involving developing and developed countries, also require members to seek waiver from WTO rules by getting a vote of three quarter of extra associates (Anteneh, 2005).

⁹ *The briefly discussion of these issues is presented under Annex II*

The existence such extended jurisdiction over all trade agreements has, though, created problems of enforceability. In fact, the WTO rules have faced some controversies on interpretation and the existence of loophole on its rules has led to legislation of biased regulations. This has created opportunistic conduct amongst developed nations and adamant behavior to modify current policies. The disbelief in fair trade through WTO negotiations has eventually contributed for the birth of several RTAs (Yang and Gupta, 2005).

These interpretational gaps arise from the intertwined nature of different articles. To focus the argument, blurred issues related to RTAs are briefed as follows starting from the neutrality of trade policy. In this case, the Open Accession Clause that allows the adoption of the pre-customs union average tariff rate as a common external tariff could in real experience hamper the desired efficiency of neutrality by increasing the possibility of trade diversion and the dominance of a single country in RTAs. Moreover, the growing scope and importance of non-tariff measures covered by RTAs, such as anti-dumping, preferential rules of origin, technical standards, subsidies and countervailing measures also make it more difficult to evaluate damage to third countries when a customs union is formed or extended.

The substantial coverage requirement is also one of the unsettled issues in the rules of the WTO. Especially, there are two views on how to interpret “substantially all trade”. In this regard the quantitative view proposes a statistical threshold on proportion of trade covered. But, actually a one-size-fits-all approach may not have the flexibility to take case-by-case circumstance. On the other hand the qualitative view argues that no sector should be left out of intra-RTA trade liberalization. But, this approach further creates a definitional controversy of what a sector refers to.

The notification and examination rule set for RTAs is not far from questions, too. This issue can be analyzed from the notification time, amount of information and non-compliance. Regardless of the flexibility of timeframe of notification, the WTO Secretariat notes that large number of RTAs in force today is not notified to the organization (WTO, 2005). The reluctance may be due to the fact that the statuses of the previously reported arrangements are not known.

Aside from controversies in line with RTAs, there are other unaddressed issues in the WTO rules. The case of TRIMs can be raised as an example. Measures considered inconsistent with TRIMs are those procedures limiting to ratio of purchase/use of domestic goods relative to imported products to an amount of the volume or value of exportable product. Measures which restrict the volume or value of imported inputs to an enterprise as a proportion of local production or which limit the imported inputs of an enterprise to the amount of foreign exchange it earns from exports is also regarded as one of the inconsistencies.

However, with provision of different period for developing member countries, such and other unaddressed inconsistencies are expected to be resolved in the years to come through negotiations and experiences.

Regardless of these pitfalls, Ethiopia has applied for WTO accession in February 2003, after having been an observer for five years. The decision was taken after analyzing the possible benefits from becoming a member. As per EEA (2004/05), the argument for consent can be generalized as follows; (a) Ethiopia has already undertaken many trade reforms that have lowered its own barriers and the economy is more open now than in the preceding regime, which implies

the accession will help the country to reap larger benefits from its own trade reforms (b) Ethiopia can avail itself to a well established processes of impartial dispute settlement as a member (c) Attracting foreign direct investment (d) Lobbying of safeguarding inefficient enterprises at the expense of national interest will reduce (e) Addressing some of the remaining barriers to trade such as high tariffs in some sectors, opening some remaining sectors to foreign investment and adopting rules for contingent protection such as for anti-dumping, safeguards, subsidies and countervailing duties (f) Cooperating with countries of same interest; and last but not least (g) Exchanging information with future trading partners. Furthermore, it was argued that Ethiopia would not benefit from remaining outside the rule-based trading system. Concurrently, it is admitted that there will be no immediate benefit except to signal the international community that Ethiopia's trade regime is bound to international rules of the game. The intention is to make the country ready for a benefit in the medium to long term period.

In fact, even though, Ethiopia is not a member in the WTO it could still benefit through trade liberalization of others. Moreover, the bilateral and multilateral preferential trade agreements concluded is benefiting and will keep on running the economy. There is also an option of free riding between international trade agreements. However, accession to the WTO involves agreement to its basic rules and regulations. These include the multilateral agreements and their enforcement through consultation, transparency and dispute settlement mechanisms. This helps the country to promote design of policies to an international standard within its own context, and improve its institutional standard. This will also increase goodwill of the country in the eyes of foreign investors and welcomes international agreements that supports the economy.

However, on the contrary, meeting these obligations may be considered as “cost”. For example, if the country goes on acceding the competition will be against countries that protect and subsidize some of its activities (particularly the agriculture sector in which it is believed that Ethiopia has a comparative advantage), the huge loss expected by making agreements on the issue of services and trade related aspects of intellectual property rights, and the other form of NTB which is made through high sanitary and phytosanitary requirements of the developed nations and that the country barely affords.

In reviewing the above two integrations (i.e. COMESA and WTO) vis-à-vis their benefit to Ethiopian economy, though rule based trading agreement looks more inevitable, it seem to have immediate real costs regardless the waver from complete reciprocity of trade agreement enforcements. On the other hand, free riding look as if it works but its benefit alongside preferential treatments are not sustainable. Consequently, focusing on COMESA helps in strengthening the regional and then the individual countries economic strength through cooperation and competition, and also by increasing regional bargaining power in international dealings. However, this integration has shortcomings arising out of inconsistencies in domestic and regional economic policies, institutional weaknesses, and non complementarities of industries. This could most probably sluggish achievements from their schedule.

PART IV

Major Trade Aspects of Ethiopia

4.1 Trade and Trade Facilitating Policy Reforms in Ethiopia

Since the early 1990s, there have been significant policy changes made to convert the country's trade regime to outward-oriented. Key policy reforms include liberalization of foreign trade and exchange regimes, decontrol of domestic input and output prices, public sector reform, privatization of some enterprises, financial market reform and opening door to foreign investors.

Reforming trade policy has vital importance for transfer of technology, management know-how and for increasing efficiency of economy including the non-tradable sector through competition for resources. Major reform in promoting international trade activity is the reduction in tariff and non tariff barriers. Under tariff restructuring both tariff rates (the maximum) and dispersions (bands) have been reduced significantly from a maximum rate of 230% to 35% and from a 22 to 6, respectively. Quantitative import restrictions are also made to apply only for used clothes, harmful drugs and armaments for security reasons (*see Annex IV table 11*).

Concurrently, the exchange rate was first devalued by 142% (an adjustment from Birr 2.07 to 5.00 per USD) and then was subjected to be set through bidding for foreign currency. This has curbed the gap between the parallel exchange rate markets and mitigated the illegal cross border trade especially in coffee and live animals. Lately, the exchange rate is allowed to be determined according to demand and supply conditions in the foreign exchange market between commercial banks, with some intervention of the National Bank of Ethiopia to smooth out erratic fluctuations in the rate. Currently, as at July 2006, one USD is exchanged for around Birr 8.9. The exchange rate regime can be broadly categorized as a managed floating.

The export trade sector has also been under consistent modification. This was done to motivate private sector participation. Some of the actions are the dismantling of government monopoly in coffee trade and abolishing the mandatory approval requirement for export contracts by the NBE. A foreign exchange retention scheme was also introduced to allowing exporters to retain 10% of their proceeds for an indefinite period and of course use/sell the remaining within 28-days. All duties were also removed for other than coffee exports (DTIS, 2004).

In addition to these, an Export Promotion Council (EPC) consisting of high level government officials, exporters, and service providers led by the Prime Minister was set up in 1992 to design, implement and monitor export development policies. The EPC was transformed to Ethiopian Export Promotion Agency in 1999 to implement a wide-ranging export development agenda including conducting market research; facilitating participation of exporters in trade fairs, exhibitions and trade missions; and disseminating market information. The NBE has also established an Export Credit Guarantee Scheme to reduce the risk of export financing by commercial banks. Moreover, the Ministry of Foreign Affairs has taken some initiatives to promote Ethiopian exports through its commercial attaches in foreign diplomatic missions (DTIS, 2004). Though, cross quote therein from Berhanu *et. al.* (2002) has stated that exporters have not benefited much from these various government-sponsored export support services due to various financial, skill, capacity and institutional constraints.

Other activities have also been going on in respect to improving Ethiopia's market access through multilateral, regional and bilateral negotiations and agreements. At the regional level, there has been a considerable scrutiny to implementing full duty free access with COMESA members. At the multilateral level Ethiopia is compromising to join the WTO. And last but not least, the

country has also concluded agreements for preferential market accesses. In this respect, the EU offers duty free and quota free access for all Ethiopian export products under its Everything But Arms (EBA) initiative. The United States also offers duty free access for a large set of Ethiopian products under its Africa Growth and Opportunity Act (AGOA).

However, these are not immune from their respective deficiencies. For instance, Ethiopia as a member of COMESA was expected to adopt the Common External Tariff by 2004.¹⁰ However, this is not yet implemented. Thus, it provides no duty free access to other COMESA members and therefore does not enjoy any preferential access for its exports to date. With respect to WTO, there have been large controversies in implementing its rules, especially with those that have to do with activities that suppress LDC's comparative advantage. To date, i.e. until the latest round of the WTO meeting held in July 2006, no consensus has been reached to settle the infamous agricultural subsidy by the industrialized nations.

Other trade facilitation activities have also been carried out by the country. This mainly involves reforming and building its institutions and their capacities. In line with this, its Foreign Direct Investment (FDI) policy and institutional setup has been changing to the better. The present system has opened more sectors to foreign investors, except for some reserved for domestic private investors and the state. Moreover, the country has signed the World Bank's convention on the settlement of Investment Disputes for Nationals of Other States that safeguards equities of foreign investment. The facility offers incentives like full exemption from customs duties and import tariffs on all capital equipment, 15% on spare parts, exemption from export taxes, income tax holidays varying from one to five years (depending on the sector and region within Ethiopia),

¹⁰ www.comesa.org

taxes deductible from R&D expenditures and tax-exempt on capital remittance, use of any depreciation method on financial statement, full repatriation of capital and profits, and a guarantee against expropriation (DTIS, 2004).

The legal structure and content has also been reviewed. In this regard reforms such as inclusion of both local and foreign investors in the Investment Proclamation, access to land, reforming the legal framework, enforcement issues, import and export licensing, access to bank credit, issues of the incentive system and intellectual property rights has been taken (DTIS, 2004).

In summarizing the aforementioned activities, lot has been done in policy reforms and trade facilitations. These actions have generally shifted the country's attention towards export orientation. However, it is imperative that institutional reforms have to be carried on to increase efficiencies and policies that facilitate trade. In this respect, existing ones should be reviewed and new ones be designed in a way that promotes the countries external competency. In explicit statement, even though economic integrations have costs (*that are stated in Part III*), their minimization also comes out of policies that substitutes loses for incomes. For instance, foregoing of the marginal 5% tariff to benefit from COMESA FTA should be analyzed together with export promotion activities to these nations. Not only this, but other policies that increases commercialization of resources, for example land ownership and allowing local as well as foreign private investors to participate in the presently restricted activities compensates for loses that comes out of any form of economic integration to some degree.

4.2 Ethiopian Trade Performance

One of the major challenges of growth in developing countries is the external resource imbalance. Like any other less developed nations that transformed to open economy, the bulk of the industrial sector highly depends on imported inputs. In addition it has been observed that there has not been a significant increase in volume, diversity and market access of exports that makes the external sector deficit sustainable. Brief review of these markets is presented as follows.

4.2.1 The Export Sector

In spite of some progress in the second half of the 1990s, Ethiopia's export bundle remains relatively undiversified both in terms of products and markets. Moreover, products exported by Ethiopia have been experiencing declining prices in world markets. Even through, some exports have sometimes been able to grow in these declining markets by capturing larger market share.

In discussing some facts, between the years 1996-2005, the simple average quarterly contribution of Ethiopian exports to its nominal GDP at current market price was about 7.5%. In this period, the average quarterly growth of export earnings was about 4.7 %. In the same period and since long ago, Ethiopian exports were dominated by primary products. The major export products include coffee, chat, oilseeds, hides and skins, pulses, meat and meat products, fruits and vegetables, bee wax and gold. Between the years 1997 and 2004 alone, income from coffee export covered about 46% of the total earnings followed by chat, hides and skins, and oilseeds with an average share of 12%, 10% and 9%, respectively (*See Annex IV, Table2a and Annex III Fig. 1*).

From the preceding table it can be deduced that coffee has been playing significant role in generating foreign currency. However, this market has been susceptible to international coffee market price volatility and local production shocks. Viewing the trend of the percentage share of its contribution to the total exports for the period 1998 and 2004, its role has fallen from around 60% to around 40%, and in some years even less. This outcome was not due to greater diversification of the countries export, but as a result to falling international market price. At this time the export share of oilseeds has increased from around 8% to about 14%. Exports aggregated in other categories have also increased from 3% to 12%, trading off for the fall of coffee share. Within the range of the period, contribution of chat export to the total export earnings averaged around 13%, and was relatively consistent.

Total export earning also depended on the volume of exports. As depicted on table 2b of *Annex IV*, growth of the volume of exports exhibits some inconsistencies. The annual volume of exports for goods like pulses and chat in some periods erupts while for some shrinks. The recent trend in exports of meat and meat products as well as exports of live animals has shown some improvement. The volatility of volume of exports is attributed to varying weather conditions and removal of sanction levied by some Middle East countries on meat and meat products (NBE, 2004/05).

Though the volume of exports plays huge role in influencing the outcome of the foreign aggregate earnings, unit value of individual commodities at an international market also plays a determining function. In this respect the value of exports has experienced ups and downs depending on the volatility of the international market. The determining factor in setting prices can be viewed from two angles. One is the nature of the goods hindering the bargaining power,

and international competitiveness as challenged by subsidies. In this respect the nation's prime export commodity has experienced a suppressed price quotation at the international market. Similarly, other exportable items have also experienced some negative shocks (*See Annex IV-table 2c*).

Ethiopian exports have also been suffering from lack of destination diversity. In this respect, the country's major trading partners are not far from 20.¹¹ On average, these countries take around 84% of the total exports of the country. Adding another twenty trading partners that rank next to the first ones will only improve the market share to 93%, as indicated in the first table of *Annex IV*.

In accordance to the theme of this thesis, export destinations are discussed by their economic integrations. In categorizing these nations in different economic groupings, it is assumed that all COMESA members are not members of the WTO, leaving aside the fact that fourteen out of nineteen COMESA countries are members of the WTO and of which some of them are found to be major trading partners of Ethiopia¹². Aside geographical proximity that allows a relatively inexpensive transaction, the rationales for this assumption is that economies of COMESA members are more "*relatively compatible*" and thus tend to trade with each other, leading to the abundance of its regional trade rules than the global. Moreover, rules that grew from within are more welcomed to implement and enforce than the ones that are adopted, regardless of the challenge and the risk involved.

¹¹ Belgium, China, Djibouti, Egypt, France, Germany, India, Indonesia, Israel, Italy, Japan, Netherlands, Saudi Arabia, Sweden, Switzerland, United Arab Emirates, United Kingdom, United States, Yemen and rest of the world in general

¹² Angola, Burundi, Congo, Djibouti, Egypt, Kenya, Madagascar, Malawi, Mauritius, Rwanda Swaziland, Uganda, Zambia and Zimbabwe, out of which Djibouti, Egypt, Kenya and Sudan trade with Ethiopia at a relatively greater amount

This is also assumed due to the fact that, on the rules and regulations of the WTO, countries with prior regional integrity are allowed to proceed with their commitment unless the integration further alienates other outsiders (by creating preferential trade partners for members only) and its existence promotes trade blockade. Any regional partnership can exist and even new ones can be formed unless it does not trespass basic rules of the WTO.¹³ What is more is all COMESA members are less developed nations hence can practice non-reciprocal trade agreements for a limited period of time through their special and differential treatment. This gives some room to exercise COMESA rules to a wider degree and apply preferential treatment to each other.

Accordingly, the aforementioned countries are segregated and Djibouti and Egypt were found to be representing COMESA members while the remaining, except Saudi Arabia and Yemen, represented WTO members. For improving the approximation, another 20 countries are added on the bases of better volume of transaction and proximity to Ethiopia. This increases the simple average of the total export share to 93% with the average respective share of exports to COMESA, WTO and ROW becoming 14%, 66% and 20% (*See the names and value of exports to these countries on Annex IV- table 1*).

Table 3 of same *Annex* indicates that exports to COMESA countries are dominated by Djibouti, Egypt, Sudan, Swaziland and Kenya. These countries have been taking more than 95% of the country's exports to COMESA countries for the period 2002-2005. Sometimes the aggregate value reaches as high as 99%. Of these nations, the exemplary trading partner in turn is Djibouti which most of the times has been sharing over 60% of the exports to COMESA member nations,

¹³ *Cross refer Section 3.2.2*

on crude average. It can also be calculated from the preceding table that export to this country is still one of the highest as compared with the rest of trading partners, i.e. averaging more than 11% for the period 1997-2004.

From the other category, out of the prominent members of the WTO, Germany, Italy Japan, Switzerland and the United states have been consuming Ethiopian exports on annual average percentage of 15.8, 7.1, 10.3, 5.9 and 5.8 for the period 1997-2004. The average quarterly exports to these countries for the period 2002 to 2005 ranged between 1.2% to more than 3% of the total annual exports of the country.

In the peripheral market, same table reveals that exports to non-members countries in either of the arrangements is estimated around 23% for the period 1997 to 2004, of which Saudi Arabia takes the lion share of 33% from their total share.

4.2.2 The Import Sector

Ethiopian imports has been very much greater than its exports and the gap between the two shows an increasing trend. For the period 1996-2005 expenditure on import has been increasing at a quarterly average of 8%. For each quarter, the country has been spending over 26% of its nominal GDP at current market price, on average (*see Annex IV- table4*).

Ethiopian imports are petroleum, fertilizers, chemicals, medical and pharmaceutical products, soap and polish, rubber products, paper and paper manufactory, food and live animals, tobacco, beverages, textile, clothing, glass and glass ware, metal and metal manufactory, machinery and

aircraft, road motor vehicles, electrical materials, telecom apparatus and others. Out of this list petroleum, machinery and aircraft, metal and metal manufactory, road motor vehicles, electrical materials and grain takes a significant portion of total spending for imports with their respective share of 15.5%, 12.5%, 9.9%, 11%, 8.2% and 5.3% (see *Annex IV - table5*).

The transaction history of those 10 years indicates that total spending on import of major commodity groups is increasing. As the aforementioned and other imported goods are of mostly manufactory and fuel products the country would face challenges if attempted to substitute it locally. Thus the inevitability of increased spending has become a reality. This increased expenses emerged from both the increase of the quantity and unit values of the products. For instance, for the period 1995/96-2004/05, volume of imports of petroleum products, chemicals, medical and pharmaceutical products, metal and metal manufacturing, machinery and aircrafts, road motor vehicles, and electrical material have been increasing at a quarterly rate of 7%, 11%, 18%, 15%, 12%, 23% and 27%, respectively, even after normalizing the huge volume of imports for petroleum, chemicals and metal. The respective increase of unit value of these products were 72%, 30%, 14%, 22%*, 15%, 14% and 14%. For the same period, volume of fertilizer import has also been increasing at an annual rate of 65% with an increasing unit value of 5% (see *Annex IV- tables 6 and 7*).

In addition to these goods, the above tables indicate that the country imports high volume of grain. This is due to the fact that the country is not food self sufficient and food production is susceptible to natural calamities. In the years 1995/96 to 2004/05, the country has imported

* Normalizing the abnormal price increase of 2003/04 (third quarter) reduces the average quarterly increase of the unit price to 2.5%.

3,757,060 metric tones of grain, which is equivalent to a crude quarterly average of 95 thousand metric tones. And for the period 1999/00 to 2004/05 alone, the rate of import has also been increasing at about 28% quarterly.

A simplified version of analyzing these transactions is labeling types of imports into groups. By categorizing the imported items into raw materials, semi-finished, fuel, capital goods and consumer goods, the proportion of total spending for the last nine years, between 1996/97-2004/05, was found to be 1.6%, 16.6%, 16.8%, 32.3% and 29%, respectively (*see Annex IV table8*).

In analyzing the share of imports by country of origin, 4% of the countries imports were from COMESA member countries, while 73% and 23% of the imports were from WTO members and ROW.¹⁴

Out of the total imports from COMESA member countries, Djibouti, Egypt and Kenya represents over 80% on annual simple average for the last four years, i.e. 2002-2005. Inclusion of Sudan and Swaziland pushes up this import coverage to over 95%. Same as the export market, outstanding import transaction have been made with Djibouti. On average, Ethiopia has been importing about 46% of its trade in from this country (i.e. out of the total imports from COMESA countries) in the aforesaid period. Unlike the export share, import from Kenya has been found to be at a grater simple average of 14% for those four years. Trading with Egypt also stands at 22% per annum (*Annex IV- table 9*).

¹⁴ Note that the same 40 counters are used as the case for exports and the import from these countries averaged about 90% of the total quarterly imports for the period under review.

In trading with the WTO member nations the country highly imports from Italy, Japan, China, German, United States, United Kingdom and India with around 5% to more than 10% of the annual average procurement for the years 1997-2004. Imports from non-member nations to either of the arrangement are also huge. As Ethiopia is major exporter to Saudi Arabia it is also the major importer from this country, i.e. around 11% from the total imports and about 48% of imports from non-member nations to neither groups originates from Saudi. Yemen is also another partner sharing 2.7% of the total spending on imports (*see Annex IV- table 10*).

The aggregate result of both import and export is a higher and ever increasing deficit. Calculating from the export and import tables, what can be deduced is significant portion of the deficit (i.e. around 70% of the total quarterly deficit) emerges from only trading with fourteen countries.¹⁵ Out of these countries, Ethiopia have a higher proportion of deficit with China, Saudi Arabia, United States, India, Italy and United Arab Emirates with a respective percentage of 11.2%, 13%, 11%, 7.4%, 7.4% and 6%. In turn, of all trading partners having grater transactions with Ethiopia it is only with Djibouti and Switzerland that the country has a positive balance. However, the margin with these countries is too low to compensate for the total deficit.

From the same tables, evaluating deficit by economic integrations indicates that 5% of the total deficit resulted due to trading with COMESA members. Most of this deficit has in turn occurred from trading with Egypt, followed by Kenya. Significant proportion of the nation's trade deficit occurred as a result of trading with WTO members. The remaining 25% of the total trade deficit grew from trading with countries that are neither member states of COMESA nor WTO. Generally,

¹⁵ *Belgium, China, Egypt, Germany, India, Italy, Japan, Kenya, Saudi Arabia, Sudan, United Arab Emirates, United Kingdom, United States and Yemen.*

these figures indicate that the country is faced with increasing deficit in its terms of trade (TOT) as it is defined as the ratio of the price of a country's export commodity to its import commodity (and is alternatively called net barter terms of trade) (Bowen *et al.*, 1998). In this respect, as the trade deficit escalates the Ethiopia's TOT has been deteriorating from time to time. For the last ten years alone, i.e. 1996 to 2005, this value has dropped from 0.37 to 0.19 which is a fall by about 47 %.

The reason behind this could be rationalized from the type of traded commodities. As indicated above, Ethiopia mostly imports intermediate and manufactory products while its exports are primary goods. This has made the country face dearer goods with relatively elastic prices for import, and inelastic prices that at times encountered by declining prices and stiff competition on its exports.

This problem can, however, be mitigated in two different ways. One is through local production of those goods that are significantly contributing for the runoff of foreign exchange. This in other words leads to a relatively closed economy that would introduce comparatively disadvantageous practices into its economy. Plainly speaking, this action is inadvisable since establishing such kind of industries have high overheads with lower returns. On the contrary, negotiations and trade agreements able the country utilizes its comparatively advantageous sector. For instance, trade integrations are agreements that increase revenue, collective bargaining power and open a relatively fairer trading environment. In doing so, the country should evaluate which particular integration contributes more to its economy. Thus, even though committing to both integrations is plausible it is more advisable for the country to focus on concretizing its tie with either of the arrangements in order to be cost effective and/or optimize its benefit.

In the mean time, this has to be supported by lifting up domestic institutional standards and designing trade facilitation policies that go hand in hand with investors' expectation. Such actions increase the velocity of transaction and fuel up economic activities like investment complimented by compatible saving. For example, in this particular issue, the average quarterly saving rate was 4.3 % vis-à-vis a 24% gross capital formation which is far below what is demanded in the last ten years, i.e. between years 1996 to 2005. As a result the country was forced to finance this measurable resource gap from external sources (*NBE, 2004/05, EEA 2004/05 and Equar, 2001*). The general implication of this fact is that there still awaits a serious work to mitigate such failures.

PART V

Empirical Investigation of the Trade Arrangements

5.1 Data type and source

The data set that is plausible for analyzing the objective of this paper is one that lies under the period of liberalization. However, tracing the precise dataset is difficult since liberalizing policy reforms are carried out gradually. To this effect, what is suggested is considering the time at which moves toward greater market freedom occurred. The three key measures to identify a move to liberalism: to use the statement of intent such as the date when a World Bank structural adjustment loan (SAL) is agreed; time of reference in reforming tariffs, quotas, export impediments and promotions and exchange rate misalignments; and using criteria like non-tariff barrier coverage, average tariffs, black-market exchange rate premium, whether the economy is socialist or not and whether state monopoly exists over major exports (Greenway, et al. 2002). The data set that is coherent to these criteria for the case of Ethiopia is the one after the year 1992. However, appropriate data handling, like export by destination and import by country of origin, has been made lately. Therefore, the researcher used quarterly data between years 1996 and 2005.

The data inputs are exports (X) and imports (M) by destination and country of origin, GDP at current market price (Y), Gross Domestic Saving (GDS), Gross Capital Formation (GCF) as a proxy to level of investment and proportionate capital import to total import. These data are collected from Ethiopian Customs Authority and NBE.

5.2 Model Specification and Research Methodology

5.2.1 Model Specification

Even though, the above literature review have not arrived at a conclusive result that openness contributes for economic growth, the analysis of this writing begins with the premise that research findings arguing for its positive contribution to growth is true. For the case of Ethiopia, this premise can be supported from two angles. One is openness, as it is represented by the ratio of exports plus imports to GDP (Ghatak and Utukuku, 1996), can bring the growth of the nation. Here, shifting from inward oriented to export oriented policies makes producers focus on tradable goods. These able qualified customers earn attractive profits. Consequently, those business owners begin to pay more for their employees in order to boost up production through motivation. This pools workers towards such sectors that earning is relatively attractive. Hence, for Ethiopian economy with volumes of unskilled workers and where almost total exports are primary produces, opening an economy by promoting export industries increases the per-capita income of the actors in that field. This, keeping the per-capita consumption fixed at some level, would eventually improve the marginal propensity to save (MPS) which in turn would be available for further gross capital formation (GCF), i.e. investment. At this moment, what has to be reminded is that, producers who are getting attractive profits will also be tempted to produce more and this time by using technologically improved machineries by reinvesting part of their earnings. After these machineries are fixed, they are run by current employees who are trained and then progressively improve their skill through learning by doing with it.

Hence, in conjunction to these or separately, capital imports of Ethiopia that roughly averaged 30% of the total imports for the last decade is expected to contribute for skill development through the learning by doing process. Here, assuming a better pay for an improved skill, workers

would tend to look for a better salary either from their current employer or a new one. If the employee is retained at the current work place by increasing the income level, then the employer would benefit from retained capacity and increased productivity fueled by the employee motivation. On the contrary, if the worker moved to a new work place the new employer and colleagues will benefit from knowledge spillover over and increased productivity. At this time, employers who forgone skilled employee would not lose much since by the time the worker was on duty coworkers have learnt some talents through knowledge spillover. On behalf of the employee, either ways, he/she will benefit from an increased income that in turn increases the MPS and thus contributing for GCF (on the basis of the aforementioned assumption).

The general implication here is that, output/growth of a nation will not be subject to diminishing marginal returns from capital. Rather, growth will be unbounded because of the return to investment in broad capital (i.e. both human and physical capital). Thus the theory to be adopted in the model formulation and which explains such phenomenon satisfactorily is the neoclassical endogenous growth model, particularly the AK model.

Endogenous growth models are contributions of Romer (1986) and Lucas (1988) (Bowen, *et. al.* 1998). The models share the property that *“economic growth is an endogenous outcome of economic system, not the result of forces that impinge from outside forces”*. Here, growth is expected to be derived from growth of human capital and technological progress. The basic ingredients of endogenous growth model can be illustrated by a simple AK model. In the most rudimentary form, the AK model eliminates (raw) labor from the production function altogether and assumes constant returns to scale on a broader measure of capital by getting rid of the assumption of diminishing marginal returns to capital accumulation that was used in the Solow (1956) model.

To begin with, let the first functional relationship of the growth model be declared as;

$$Y_{jt} = A(E)_t f(K_{jt}, H_{jt}(e)) , \quad 0 < \alpha < 1 \quad \dots\dots\dots(5.1)$$

Where K is physical capital, H is the human capital, e is the knowledge level of one particular country embodied in the human capital, E is global knowledge, A(.) is technical efficiency, j is the country, t is time, and Y is aggregate output. Due to the neoclassical basic assumptions that factors, produces and information flow freely it is implied that e is assumed to be equivalent and increase one-for-one with E. Within this framework, international openness will affect an economy's rate of growth, in-so-far as the barriers to the free movement of goods, ideas and factors of production affect incentives to innovate (i.e. knowledge spillover effect) , the underlying productivity of that innovation or the dissemination of research discoveries (i.e. the technical efficiency) across national boundaries (Gavin et. al., 1999). It is also true that there is dual benefit from opening an economy. One is nations obtain technical efficiency from the physical goods transacted or services rendered while in the second case some of those goods and services may possess intangible knowledge embodied within itself contributing for the development of human capital of the nation through knowledge spillover effect. This implies that openness' contributes to growth can be represented through improvement of technical efficiency brought about by the total volume of transaction as proxied by A(.), and human capital development from some of the transacted goods and services that embodied knowledge for human capital development, H(.). From these, the production function for a country can be rewritten as;

$$Y_t = A(\tau)_t f(K_t, H_t(e)) , \quad 0 < \alpha < 1 \quad \dots\dots\dots(5.2)$$



Neoclassical production function, both in the case of exogenous and endogenous growth models, adopts the Cobb-Douglas production function to determine the level of output. Thus the production function is set as;

$$Y_t = A(\tau)_t K_t^\alpha H_t(e)^{1-\alpha}, \quad \dots\dots\dots(5.3)$$

Accordingly, the growth rate is determined by taking the logs and derivatives of both sides and is stated as* ;

$$\frac{\dot{Y}_t}{Y_t} = \frac{\dot{A}(\tau)_t}{A(\tau)_t} + \alpha \frac{\dot{K}_t}{K_t} + (1-\alpha) \frac{\dot{H}_t}{H_t} \quad \dots\dots\dots(5.4)$$

In viewing the accumulation of each factor of production;

$$\dot{K}_t = I_t - \delta K_t \quad \dots\dots\dots(5.5)$$

Where I_t is the level of capital investment made in period t , which can be represented by Gross Fixed Capital Formation (GFCF) of that country. Here too, the neoclassical assumption states that at equilibrium the level of GFCF is equivalent to the Gross Domestic Saving and this saving is portion of the total income of the country. Thus the finding is that

$$K_t = S_k Y_t - \delta K_t \quad \dots\dots\dots(5.6)$$

where S_k is the marginal propensity to save from an income.

In similar context, the human capital is accumulated as;

$$\dot{H}_t = S_h Y_t - \delta H_t \quad \dots\dots\dots(5.7)$$

The S_h represents the marginal propensity to invest on the development of human capital from the total income. The human capital of a nation, in the context of this model, is acquired from the knowledge spillover and the learning by doing activities of the agents. Residents of a country are

* From this point onwards $H_t(e)$ is represented by H_t .

assumed to obtain this knowledge through the exposure to capital items. Hence, the degree of learning by doing (or the investment on human capital, which is assumed to be equal to the savings made for the investment) is calculated from the proportion of the capital imported to total imports. Moreover, the learning factor is assumed different from the technical efficiency that is to be obtained from trade ($A(\tau)$) due to the fact that, unlike the later, regardless the degree of openness of trade to the rest of the world the country imports a given level of capital items to facilitate its production process and keep the economy running.

What has to be noted here is that the depreciation rate of both capitals is assumed to be equal. Though, the depreciation rates of both factors differ in actual case, here it is assumed that they are equal only for mathematical simplicity (Bowen, 1998).

Now, before proceeding to seeing the growth rate of $A(\tau)$, let the growth rate of the above factors be calculated. This is done by dividing both sides of the equations by the respective capital.

$$\frac{\dot{K}}{K} = \frac{S_k Y}{K} - \delta \quad \text{and} \dots\dots\dots(5.8a)$$

$$\frac{\dot{H}}{H} = \frac{S_h Y}{H} - \delta \dots\dots\dots(5.8b)$$

To simplify these, let the respective capital to output ratio be assigned by x_k and x_h , which

consecutively gives $\frac{\dot{K}}{K} = \frac{S_k}{x_k} - \delta$ and $\frac{\dot{H}}{H} = \frac{S_h}{x_h} - \delta$. At this point, to derive the growth rate of the

technical productivity the capital ratios are inserted in the original production function as,

$$Y = A(x_k Y)^\alpha (x_h Y)^{1-\alpha} \dots\dots\dots(5.9)$$

Dividing this equation throughout by Y gives;

$$1 = A(x_k)^\alpha (x_h)^{1-\alpha} \dots\dots\dots(5.10)$$

Taking logs and derivatives, then arranging of the equation gives;

$$\frac{\dot{A}}{A} = -\alpha \frac{\dot{x}_k}{x_k} - (1-\alpha) \frac{\dot{x}_h}{x_h} \dots\dots\dots(5.11)$$

This implies that positive steady-state growth is only possible if the weighted average of the growth rates of the capital-output ratios was negative. However, the falling values of the x_k and x_h would imply exploding values for the growth rates of K and H , which is contrary to the steady-state growth rate. Therefore, to maintain the growth rate on the steady-state the change in $A(.)$ is assumed to be zero. This assumption corresponds to the original $A(\tau)$ in that the global knowledge will not change without new innovation, which is an exogenous determinant of production function. This keeps the technical efficiency of the global production function at a constant and thus production functions of individual countries. Hence, the result is technical efficiency of production for every nation faces a static level.

Further implication of this proposition is that equations 5.8a and 5.8b would grow with constant growth of K and H featuring both x_k and x_h to be constant along the steady-state growth rate of output. This entails:

$$\frac{\dot{K}}{K} = \frac{S_k}{x_k} - \delta = \frac{S_h}{x_h} - \delta = \frac{\dot{H}}{H} \dots\dots\dots(5.12)$$

$$\frac{S_k}{x_k} = \frac{S_h}{x_h} \Rightarrow \frac{x_h}{x_k} = \frac{S_h}{S_k} \Rightarrow \frac{H}{K} = \frac{S_h}{S_k} \Rightarrow H = \frac{S_h}{S_k} K \dots\dots\dots(5.13)$$

This indicates that human capital is represented in the form of capital item. This can be embodied in the original production function that disposed the diminishing marginal returns from the Cobb-Douglas production function and produces

$$Y_t = A(\tau)_t K_t^\alpha H_t^{1-\alpha} \dots\dots\dots(5.14)$$

$$Y_t = A(\tau)_t K_t^\alpha \left(\frac{S_h}{S_k} K_t \right)^{1-\alpha} \dots\dots\dots(5.15)$$

$$Y_t = A(\tau)_t \left(\frac{S_h}{S_k} \right)^{1-\alpha} K_t \dots\dots\dots(5.16)$$

To put this in a linear functional form, the equation is throughout multiplied by *ln*,

$$\ln Y_t = \ln A(\tau)_t + \alpha \ln(S_k) + (1 - \alpha) \ln(S_h) + \ln K_t \dots\dots\dots(5.17)$$

This model specifies that output is linearly determined by the level of technical efficiency acquired through trading (and that is represented by the ratio of total exports plus imports to the GDP of the country), the saving rate (which is mainly represented by Gross Domestic Saving), human skill developed as a result of the learning by doing process that is acquired through exposure on capital goods imported and total value of capital investment (Gross Capital Formation) – all at time *t*.

According to the proponents of trade liberalization, the theoretical and mathematical a priories anticipate that all exogenous variables do have a positive influence on the dependant variable. However, opponents of economic openness argue that coefficient of trade liberalization has negative impact on the output of the nation. In both cases, the mathematical a priory further expects that saving rate for investment and human skill parameters have elasticity between zero and one.

5.2.2 Research Methodology

In addressing the main objective of this paper, which is to compare the robustness of trade relationship between COMESA and WTO, two separate econometric regression analysis is employed simultaneously, i.e. one for each integration. This is done in the light of the growth theory outlined in the preceding section by examining the multivariate co-integration and causality issues among the variables considered. A necessary precondition to causality testing is to check the co-integrating properties of the variables under consideration since standard tests for causality are not valid if co-integration does not exist. Thus, co-integration analysis and error-correction models are recommended as an effective remedy. Error-correction models establish causality between two variables after reintroducing long-run information into the analysis. Note that if two variables are co-integrated, then the granger causality would run in at least one direction. In other words, co-integration implies causal effects (Ghatak and Utukul, 1996).

Accordingly, the following multivariate long-run relationship is analyzed;

$$Y = f(T, S_i, S_h, K) \dots\dots\dots(5.18)$$

Where Y , T , S_i , S_h , and k represents GDP at current market price, measure of trade liberalization measured as $(X+M)/Y$, Gross domestic saving for investments, proxy of savings made for investment on human capital (which is proportion of capital imports) and gross capital formation, respectively. Now, import the preceding logarithmic form of the equation and adopt it in econometric model.

$$lY_t = \alpha_0 + \alpha_1 lT_{ot} + \alpha_2 lS_{it} + \alpha_3 lS_{ht} + \alpha_4 lK_t + v_t \dots\dots\dots(5.19)$$

where:- l represents the natural logarithm form, and

:- T is trading; with one of its subscript "o" representing the respective integrations (openness), i.e. WTO or COMESA.

In addressing the econometric procedures, using Engle-Granger (EG) method, co-integration and error-correction mechanism (ECM) consists of two steps. *The first step* is to check for the co-integrating properties of original series using ordinary least square (OLS).

In applying this integration and co-integration analysis, a time series, say X_t , is said to be integrated of order d if after differencing d times it become stationary, and is denoted as $X \sim I(d)$. Moreover, two time-series, X_t and Y_t , are said to be co-integration of order d, b where $d > b > 0$, denoted as;

$$X_t, Y_t \sim I(d)$$

if: (a) both are $I(d)$

(b) and their linear combination $a_1 X_t + a_2 Y_t$ is $\sim CI(d-b)$; implying the residual of the long run regression should be stationary.

Note; a_1 and a_2 are the co-integrating vectors

In processing the first step, the Dickey-Fuller (DF) and Augmented Dickey-Fuller (ADF) residual based testes are used to determine the integration level and the possible co-integration (long-run stable relationship) among the variables.

The following/second step is to see if the error correction term is statistically significant or not, using the ECMODs. Note that the relevant error correction term is included in the standard Granger causality procedure if the variables have long-run relationship. Otherwise, the standard granger test is carried out without the error-correction term (using regression by differencing). Hence, the ECMOD is formulated as follows;

$$\begin{aligned}
DIY_t = & \beta_0 + \sum_{i=1}^m c_i DIY_{t-i} + \sum_{j=1}^n d_j DIT_{ot-j} + \sum_{k=1}^q f_k DIS_{i(t-k)} + \sum_r^p g_r DIS_{h(t-b)} \\
& + \sum_x^z w_x DIK_{(t-x)} + \beta_1 U_{t-1} + \varepsilon_t \dots\dots\dots(5.20)
\end{aligned}$$

where U_{t-1} is the lagged residual (i.e. error-correction term) obtained from the co-integrating regression of the preceding equation. The letter D represents the first differences. If incase β_1 is statistically significant, it is implied that trade liberalization, both kinds of savings and gross capital formation mutually Granger-cause GDP at market price. The ECMODs introduce an additional channel through which Granger causality could be detected. This is because if the variables are co-integrated, there should be causal relationship between them. This causal relationship among the variables provides the short run dynamics necessary to obtain long run equilibrium (Ghatak and Utukul, 1996). Thus, unlike the standard Granger test of causality, the ECMODs allow for the finding that trade liberalization Granger-cause output as along as the error-correction term, U_{t-1} , carries a significant coefficient. The interpretation that the changes of the lagged independent variables describe the short run causal impact and the error correction term captures the long run effect.

In processing the data using the EG approach, the first step is to check the level of integration and co-integration. This is done because most time serious data are not stationary at level and integration of non-stationary data, especially those with varying integration level, is difficult for analysis. Thus, unit root test is conducted using Dicky-Fuller (DF) testes. However, while applying the test the output suffered from positive autocorrelation as evidenced by lower Durbin-Watson (DW) statistics. Hence, the study applied the ADF test to correct for the auto-correlating

error terms. In pursuit of making the unit root test, AIC is employed for selecting the lag length. Consequently, the significant lag length is found to be one. Next, the test was made first without drift and trend then followed by a drift. The result came out to be non-stationary at level for all variables even at 5% significance and all in all stationary at their first difference at 1% significance for both economic integrations (See Annex V, Output 1).

Following equation (5.19), using the EG approach that assumes the uniqueness of co-integrating vector, the long run co-integration test was performed and found that there is a stable/genuine long run relationship (For example, see Output 6 of Annex V). However, as far as the EG regression results are concerned, it still faces problem of finding number of co-integrations involved and avoiding the adoption of the “probably” biased long run regression residual from getting involved in the short run error correction model. Hence, the Johansen method has to be employed to mitigate these problems.

In the Johansen procedure, there is no a priory categorization of variables as endogenous and exogenous. Econometrically, it is possible to represent the variables as a vector of an unrestricted autoregression (VAR) with k lags as follows.

$$Z_t = B_1 Z_{t-1} + B_2 Z_{t-2} + B_3 Z_{t-3} + \dots + B_k Z_{t-k} + U_t \dots\dots\dots(5.21)$$

where Z_t is an $(n \times 1)$ matrix, B_i is and $(n \times n)$ matrix of parameters, and U_t is independent and normally distributed with mean of null vector 0 and vector of variances Ω , i.e. $U_t \sim IN(0, \Omega)$.

This equation has vector error correction counter part specified as;

$$\Delta Z_t = \Gamma_1 \Delta Z_{t-1} + \dots + \Gamma_{k-1} \Delta Z_{t-k+1} + \Gamma_k \Delta Z_t + \Phi D_t + \Pi Z_{t-k} + U_t \dots\dots\dots(5.22)$$

The estimates of Γ_t represents the short run adjustments while the estimates of Π denote the long run information. The D_t represents the intercepts and predetermined exogenous variables.

In determining the rank ' r ' of a matrix, if there is full rank (i.e. $r=n$) where n is the number of variables entered in the co-integration space, it implies that each variable is co-integrated to itself, and hence each are $I(0)$ (stationary). If there is a reduced rank (i.e. $r < n$), it is possible to represent Π as $\alpha\beta'$ where β is $(n \times r)$ vector of long run parameters and the $(n \times r)$ α -matrix represents the speed of adjustment to the disequilibrium. Hence, ΠZ_{t-k} in the above equation is equivalent to $\alpha\beta' Z_{t-k}$ and $\beta' Z_{t-k}$ represents up to $(n-1)$ linear combinations (co-integrating vectors) that insure the convergence of the vector Z_t to their long run steady-state path. In such circumstances, $\alpha\beta' Z_{t-k}$ should be stationary ($I(0)$) so that the error term becomes white noise and testing this is equivalent to testing that the first r ($= n-1$) eigen values are nonzero while the remaining $n-r$ eigen values are zero. If the outcome is a rank of 0 then there is no co-integration, that is Π is a null matrix implying no long run relationship among the variables involved and estimating by differencing would be appropriate (Harris, 1995).

5.3 Empirical Results

Following this, and of course using the test of system reduction found in *PcFiml* software package for determining the appropriate autoregressive lag length, the first task done was determining the number of co-integrating vector. Accordingly, using general to specific approach that used lag length of four (for the reason that the data applied is quarterly) determining the significant lag length was proceeded and the length was found to be "two" for both regression analysis (i.e. for

WTO and COMESA). In the mean time test of number of co-integrating vector came out rejecting the case of no co-integration while the case of only one co-integrating vector is supported by the λ_{\max} and λ_{trace} statistics in both cases (See Annex V, Output 2a, 2b, 3a and 3b).

With the support of this finding, the parameters of the unique relationship is estimated and checked for any statistical problems. The preliminary result came out as follows with its diagnostic test having no serial correlation, normality, heterosedasticity and autoregressive conditional heterosedasticity problem for the respective regression analyses;

Long-run parameter estimates for WTO

IY_t	Ik_t	IS_{ht}	IS_{it}	$IT_{(WTO)t}$	Constant
1.0000	-0.96577	-0.35737	0.64813	0.65824	-3.2315(5.23)

Long-run parameter estimates for COMESA

IY_t	Ik_t	IS_{ht}	IS_{it}	$IT_{(COMESA)t}$	Constant
1.0000	-0.94239	-0.52748	-2.0497	0.57360	-6.5333(5.24)

In both cases all variables do have the expected signs and magnitudes, except for gross domestic saving (GDS) that is represented by IS_{it} . However, before suggesting any explanation towards this result it is better to put some zero-restrictions on β coefficients to check for its statistical significance. Simultaneously, α coefficients are also checked for weak exogeneity of the explanatory variables and the speed of adjustment of the dependant variable. The respective result appears stating that the GDS along with capital imports in the case of trading with WTO is not significant while for the case of COMESA only the GDS happen to be statistically insignificant. The restrictions imposed on the α coefficients also showed that all the explanatory variables are weakly exogenous (See Annex V, Output 4a and 4b).

A possible argument for the GDS to be statistically insignificant is that the country finances most of its investment from foreign resources like aids, loans and grants. During the time under consideration, Ethiopia had significant resource gap due to uneven increase in the aggregates of saving and investment as a ratio of GDP. The inadequacy in size of saving could also be witnessed from the higher level of consumption expenditure. The reason for this could also be either due to inadequate increase in production, a more than proportionate increase in population, or combination of both. Thus, this minimal resort of financing is found statistically insignificant to contribute for growth. The other variable, which is at the core of this analysis and found to be statistically insignificant in one of the regressions, is the proportion of capital import to total imports. In the preceding part of this paper it was seen that around 30% of the total imports is capital item. However, as it is seen in the regression analysis its contribution to growth is found to be statistically insignificant. This could be due to the data employed at the time of computation in that the proportions of capital import in both cases were taken similar. This has a tendency to make the knowledge spillover in the case of COMESA significant enough as its relative volume to the total trading with those nations become greater. But, by admitting the fact that imports from those nations' exports is not mostly capital items, it can be roughly suggested that volume of capital imports (and its consequent contribution in knowledge spillover) is not robust in both scenarios. This could mean that the level of import is not adequate enough to bring about significant change in GDP.

The remaining variables in the respective regressions were found to be highly statistically significant with signs and magnitudes inline with the theoretical and statistical a priories. The finding suggests that trading with WTO nations has a relatively higher negative impact on the

GDP than its counter part. Similarly, the volume of investment has a relatively higher positive impact for the case of trading with WTO.

The generalized implication of the above finding is that trading with countries operating under WTO rules has a higher cost than trading with those of the COMESA. This could be due to the higher negative terms of trade forgone in trading with those countries. The other variable believed to have positive effect on GDP, but not found to be so in the case of trading with WTO and expected to fail in the case of COMESA is the share of capital import. This could mean that the volume of capital import and thus knowledge spillover contributing to the growth of the country is too low to be significant in both cases.

So far, the existence of long run relationship is statistically assured and the parameters determined. To complete the analysis the error correction model still remains. The coefficient of the short run dynamics, the Γ_i 's in equation (5.22) have yet to be estimated. Once the cointegration vector is determined, the parameter vector error correction model (PVECM) using general to specific modeling approach can be estimated as;

$$\Delta Y_t = \sum_{i=1}^k \gamma_i \Delta Y_{t-i} + \sum_{i=0}^k \Gamma_k \Delta Z_{t-i} + \Phi D_t + \alpha (\hat{\beta}_1 \tilde{X}_{t-1} \hat{\beta}_2 \tilde{X}_{t-1} + \dots) + U_t \dots\dots\dots(5.25)$$

where the ΔY_t is change in the log of GDP, $i = 1, \dots, k$ is the number of lags, ΔZ_{t-i} is vector of differences of variables other than GDP, and $(\hat{\beta}_1 \tilde{X}_{t-1} \hat{\beta}_2 \tilde{X}_{t-1} + \dots)$ contains the error correction term(s)-cointegrating vector. In the procedure the residual represents the disequilibrium in the system and the logic of including it in its lag of one form is because disturbance of a contemporaneous period determines the direction of the dependant variable the next period (Harris, 1995).

As stated earlier, a case of one co-integrating vector is supported and variables other than IY were found to be weakly exogenous in both regressions. Hence, residuals from equation (5.23) and (5.24) are saved and VECM is estimated as in equation (5.25) for the respective mode of trade partners. Based on the above finding, OLS regression is applied with the assumption of single co-integration. The result showed that, in the case of trading with WTO nations only the contemporaneous GCF and openness happen to affect the GDP positively and negatively, respectively. The adjustment term also shows that disequilibrium adjusts towards the long run steady state (*See Annex V, Output 5a*).

The VECM for COMESA also has similar result with a difference in inclusion of one lag of GCF and current value of proportion of capital imports. Marginalizing the latter variable due to the above stated reasons as in the case of the long run, the result only accepts lag of GCF contributing positively for GDP. Here too, the error term is found to adjust towards the long run steady state (*See Annex V, Output 5b*).

In addressing the main theme of this thesis, the VECM also states that there is relative loss in trading with the WTO nations. Similar to the above reasoning, this has happened due to the increasing gap in trade deficit with those nations as compared to the other integration. The cause of this can also be traced back to imperfections in trade agreements, forms and terms of economic integrations, and all other internal and external pitfalls stated in earlier parts.

Part Six

Conclusion and Policy Implications

6.1 Conclusion

Joining alternative group(s) to maximize economic benefit from trading is not an easy road for any developing country. As one of those countries, Ethiopia has been facing challenges like higher tariffs on its export bundle in both developing and developed countries. On average, across the whole spectrum of countries, the tariff imposed on products exported by Ethiopia is 25 percent higher and in some double their average tariff. Not only this, but exports are further subject to non-tariff barriers like sanitary and phytosanitary requirements. Therefore, in order to mitigate loss from such conditions Ethiopia has to be vigilant in choosing terms and conditions of its trading partners.

As history of economies, there is no much contribution to growth from an inward oriented economy than there is from the outward. In proving this truth, there have been several theories developed. However, there is no clear-cut theory that linked the benefit of openness (trade) to growth. From such findings or implications that outward orientation brings around growth, countries have been opening up their door. Eventually, there have been some plausible results for some economy and the contrary for others.

In line with this, Ethiopia has been gradually transforming its economy towards an open economy. The country is participating in more than one African Regional Trade Integrations. Moreover, it has been an observer in the WTO for a while and currently undertaking some actions to join the arena.

But, even before these, the country has initiated itself and made significant trade policy changes. Key reforms include liberalization of foreign trade related to import and export, exchange rate regimes, decontrol of domestic input and output prices, public sector reform, privatization of some enterprises, financial market reform, opening the door to foreign investors and getting market access beyond its border. The facilitating and legal institutes have been also under restructuring. Yet, it is argued that all these reforms are not exhaustive.

But, regardless of these plausible actions, Ethiopia still runs an increasing trade deficit. This grew out of the country's undiversified export bundle both in terms of products and markets, i.e. intact to primary product exports vulnerable to price shocks and suffered from market accesses. On the contrary, its imports has been very much greater in volume having higher elastic prices.

With these premises, this study is made to sequence economic integration with COMESA and WTO. The study used two identical (parallel) regression equations that adopted neoclassical endogenous growth model. The model weighed the benefit of openness with both kinds of integrations with those variables that have trade implications.

The outcome has revealed that trading with WTO nations has a more negative impact on output than trading with COMESA nations. Moreover, knowledge spillover has not firmly expressed its contribution to the country's growth since its significance was not maintained in both cases. This could imply that, even though capital items import have its share of positive contribution to growth through knowledge spillover, the amount of imports of such items has not notably contributed for growth.

6.2 Policy Implications

The transformation of trade policy, participation in various trading arrangements, institutional reforms and export oriented trading activities is pulling Ethiopia to integrate with number of economic communities from different directions. But, in integrating the country's economic policy, Ethiopia could not afford to waste time in dealing with all the groups equally and at the same time. In fact "*one package fits for all*" kind of strategy is unrealizable from short and medium terms. Especially, in a situation of continuing erosion of preference and international trade rules becoming no more regulated by boundaries, selecting a community that has an optimum economic benefit is given emphasis. Such action not only helps in economizing resources but also states obligations and promotes courage in performing those realizable commitments.

Thus, this study forwards its policy implication by saying stronger integration should be facilitated with the COMESA member countries first in order to develop a stronger bargaining power in dealing with ROW and then join the WTO. This enables to lessen the degree of trade deficit and improve future prospects of enhancing intraregional trade, increase negotiation/bargaining powers with WTO, exhaustively benefit from preferential treatments, and boost up investors confidence engaged in production of tradable items.

The other thing that should be put to light is the enhancement of privileges to investors who are determined to involve in manufacturing sector. This would enable the nation to extract the benefit from knowledge spillover effect and through the learning by doing process. Moreover, this increases the transformation of the country's agricultural economy into an industrial one and develops output complementarily amongst member nations and ROW in general. In this respect,

the procedures should be designed being cautious of not forgoing excess benefit in the form of extended tax holidays, lobbying of safeguarding inefficient industries or subsidy. At the same time, the country should also design a remedy that mitigates loss of revenue resulting out of reduced tariff.

This does not, however, mean that Ethiopia should completely leave its activities on WTO accession. After all it should be noted that some COMESA members are also members of WTO and some including Ethiopia have applied for accession. Thus, collectively with nations of similar interest and at times individually, the country can challenge undesirable trade terms and reduce the beyond border hurdles that kept exports suppressed.

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ANNEX I

Gravity Model

From a methodological point of view, gravity model can be considered as a relational theory, which describes the degree of spatial interaction between two or more points in a manner analogous to physical phenomena (Paas, 2002). Classical gravity theory states that the attraction force a_{ij} between two entities i and j is proportional to their respective masses m_i and m_j and inversely proportional to the squared distance $(d_{ij})^2$ between these entities. Gravity has primarily centered on the importance of distance. And it has proven its importance in describing social phenomenon such as population migration, flow of goods, money, and information such as traffic movement, tourist travel political blocks, patent rights trading groups and various trade distortions (Paas, 2002; Cernat, 2003). For indicating the significance of trade ties between nations, various forms of decompositions can be followed*. In so doing, other representative economic instruments like GDP or per capita income can substitute the masses, and geographic distance or preferential trade factors can represent the $(d_{ij})^2$. Then, by taking logs of the equation, the econometric manipulation will follow.

The other form of approach begins from a **simple** three-equation model*. First, average income in country i is a function of economic interaction with other countries (“international trade”), economic interaction within (“within-country trade”) and other factors:

$$\ln Y_i = \alpha + \beta T_i + \gamma W_i + \varepsilon_i \quad (1)$$

Here Y_i is income per person, T_i is international trade, W_i within country trade and ε_i reflects other influences on income. As the vast literature on trade describes there are many channels through which trade can affect income – notably specialization through the comparative advantage, exploitation from increasing returns from larger markets, exchange of ideas through communication and travel, and spread of technology through investment and exposure to new goods. Because proximity promotes all these interactions, the approach cannot identify the specific mechanism through which trade affects income.

* *The approaches can be derived from Linnemann (1996) and Anderson (1997), as can be referred from Liyousew (2005)*

* *This section is quoted from Frankel and Romer (1999).*

The other two equations refer to the determinants of international and within-country trade. International trade is a function of a country's proximity to other countries, P_i , and other factors:

$$T_i = \psi + \phi P_i + \delta_i \quad (2)$$

Similarly, the within country trade can be denoted as:

$$W_i = \eta + \lambda S_i + v_i \quad (3)$$

where S_i is size of the country

The residuals in these equations, ε_i , δ_i , and v_i are likely to be correlated. For example, countries with good transaction system or with government policies that promote competition and reliance on markets to allocate resources are likely to have high international and within country trade given their geographic characteristics, and high income given their trade.

The key identifying assumption to our analysis is that countries' geographic characteristics are uncorrelated with residuals to equations (2) and (3). Proximity and size are not affected by income or by other factors, such as government policies that affect income.

Given the assumption that P and S are uncorrelated with ε , data on Y , T , W , P , and S would allow us to estimate equation (1) by instrumental variables: P and S are correlated with T and W [by (2) and (3)], and are uncorrelated with ε (by the identifying assumption). Unfortunately, obtaining data on within-country trade is difficult to find. Ideally we would want to measure the value of all goods and services among individuals within a country, both across and within firms. This measure would probably be many times GDP for most countries. But no such measure exists. Thus, to address this (3) is substituted into (1) to obtain;

$$\ln Y_i = \alpha + \beta T_i + \gamma (\eta + \lambda S_i + v_i) + \varepsilon_i \quad (4)$$

$$= (\alpha + \gamma \eta) + \beta T_i + \gamma \lambda S_i + (\gamma v_i + \varepsilon_i). \quad (5)$$

The identifying assumption implies that P_i and S_i are uncorrelated with the composition residual, $\gamma v_i + \varepsilon_i$. Thus (4) can be estimated by instrument variables, which P_i and S_i (and the constants) as the instruments.

Note that estimation of (4) yields an estimate not only of β international trade's impact in income, but also of $\gamma\lambda$, country's size and impact on income. Since the two components of this coefficient are not identified separately, one cannot obtain an estimate of γ , the effect of within-country trade on income. But as long as λ is positive, that is as long as larger countries have more within-country trade- the sign of γ is the same as the sign of $\gamma\lambda$. Thus although one can not estimate the impact of the within country trade on income, an evidence about its sign can be obtained.

As argued in the introduction part, P_i and S_i are negatively correlated; i.e. the larger the country is the farther its typical resident with other countries. Thus if one do not control for size in (4), P_i will be negatively correlated with the residual and thus will not be a valid instrument. Intuitively, smaller countries may engage in more trade with other countries simply because they engage less within county trade. Up to this point, the geographic variation in international trade cannot be used to identify trade's impact on income. Similarly, if we fail to control for T_i in (4) S_i will be negatively correlated with the residual. Thus the approach requires for the examination of the impact of both international trade and country size.

The result thus far provides no formation about the mechanisms through which trade raises income. Hence, different decompositions can be attempted to resolve this. One of the exemplary transformations is made by Frankel and Romer (1999), that followed Hall and Jones (1999) is stated as below.

Suppose output in country i is given by;

$$Y_i = k_i^\alpha \left[e^{\delta S_i} A_i N_i \right]^{1-\alpha} \quad (6)$$

Where K and N are capital and labor, S is worker's average yeas of schooling, $\Phi (\cdot)$ gives the effects of schooling, and A is a productivity term. Equation (6) could be used to decompose differences in output per worker into the contributions of capital per worker, schooling and productivity. As Hall and Jones noted, however, an increase in A will lead to a higher value of K for a give investment rate. Thus they transformed the equation to;

$$Y_i = (K_i/Y_i)^{\alpha/(1-\alpha)} e^{\phi(S_i)} A_i N_i \quad (7)$$

Dividing both sides by N_i and taking logs yields

$$\ln(Y_i / N_i) = \frac{\alpha}{1-\alpha} \ln(K_i / Y_i) + \phi(S_i) + \ln(A_i) \quad (8)$$

The foregoing equation entails the log of output per worker as the sum of the contributions of capital depth (reflecting such factors as investment and population growth), schooling, and productivity. Hall and Jones set $\alpha=1/3$ and let $\Phi(\cdot)$ be a piecewise linear function with coefficients based on microeconomics evidence. This allows them to measure each component of the last equation other than $\ln A_i$ directly from the data and capturing $\ln A_i$ as residual.

ANNEX II

New Areas of Domestic Policy Influenced by WTO Rules

Rules of the WTO is made far-reaching than the one under the rules of the GATT. Some of the fundamental issues yet to be resolved are highlighted earlier. Their brief description of those points is discussed as follows as quoted from (EEA, 2003/04).

a. Trade in agriculture. The agreement in this regard states that members should convert all non-tariff barriers into bounded tariffs that represent the ceiling to which they could be raised, and reduce and gradually eliminate existing tariffs over a six year time, from the year 1996. A special safeguard mechanism was also installed that allows countries to impose additional duty if either the volume of imports exceeds or the unit price falls below the triggered level.

Developing countries are allowed to apply different rates to tariff reduction and levels of domestic support. Such countries shall have the flexuosity to implement reduction commitments over a period up to ten years. Governments are allowed to provide assistance to encourage agriculture and rural development, investment and agricultural subsidies generally available to low-income or resource poor producers. These countries shall not be forced to undertake commitments with respect to the provision of subsidy to reduce marketing costs of agricultural exports including transaction and transport costs.

b. Textile and Clothing. The agreement on textile and clothing (ATC) was not included in the basic GATT rules because long-term bilateral agreements. However, since 1994 the multi-fiber agreement quota was planned to phase out step by step in ten years time, i.e. by January 2005. The agreement provide transitional safeguard measure if increase in import volumes cause or threatens serious damage to the local industry, and they can be maintained for an maximum of three years and invoked on a country by country basis. However, this can only be applied on products which have not yet been integrated into the mainstream WTO rules.

The ATC requires members to take into account exports of developing countries when applying the transitional safeguard provision and to accord more favorable treatment when setting economic criteria for imports from these countries. It also prohibits the use of the provision for developing country exports of cottage industry handlooms, traditional folk art textile and products.

c. Trade in Services. A service refers to a range of areas including transport, communication, education health and finance, among others, except those supplied by government. The agreement in this sector requires liberalization of trade and investment obstacles. The international delivery of the activity is regulated under cross-border supply, consumption broad (like tourism) foreign commercial presence, and presence of natural persons.

Member country has to provide a schedule with respect to the sectors chosen to liberalize or provide market access. The schedule includes items, limitations and conditions on market access that falls into aggregated program of liberalization. In accessing markets, developing countries should be given flexibility in liberalizing fewer types of transactions and in favorable timeframe. The participation of developing countries will be facilitated through specific negotiated commitments including strengthening domestic services through access to technology, improving access to distribution channels and information network, and liberalization of market access of export interest. LDCs shall be provided special priority in the implementation of trade in services. Members shall also give consideration to opportunities for LDCs in telecommunication services.

d. Subsidy and Countervailing Measures. In this article, aside from direct transfer of funds, equity infusion and unfetter loan guarantees, revenue forgone or not collected such as tax credit or provision of goods and services at lower price and purchase of goods at higher prices are considered as subsidies. Any member is not allowed to either grant or maintain subsidies upon export performance and upon the use of domestic over imported goods. However, assistance for research activities, grants to disadvantaged regions within the country and assistance to promote adaptation of existing facilities among all similar firms to new environmental requirements are excluded from such regulations.

This prohibition does not include developing countries with a per capita income of less than \$1000. Other developing countries are exempted for a period of eight years. A country may, however, apply for extension. These countries are also exempted from the prohibition of subsidies contingent upon the use of domestic over imported goods for five years.

e. Antidumping Measures. A product is considered as dumped if the price of the exported product is less than the normal value in the ordinary course of trade. In such cases a country may establish its anti-dumping duty that is not greater than the margin of dumping.

f. Safeguards. A safeguard mechanism is allowed to be implemented if the volume of import exceeds the volume of local production. The measure is applied upon investigation by a competent authority. Safeguard measures shall not be applied to products originating in developing countries whose share of imports does not exceed 3% and the collective import share of the concerned product does not account for not more than 9% of total imports. Developing countries shall have the right to extend the period of application of a safeguard measure for up to two years beyond the maximum period, which is eight years.

g. Sanitary and Phytosanitary Measures. This is a measure applied to protect human, animal and plant life or health arising from the entry, establishment or spread of pests, diseases, disease-carrying or causing organisms, additives, contaminations, toxins or disease causing organisms in food, beverages or foodstuffs. Sanitary measures include all relevant laws, regulations, requirements and procedures including end product criteria, processes and production methods, inspection certification and approval procedures. It also involves quarantine treatments, including the transport of animals and plants or the materials necessary for their survival during transport. It also includes provision of relevant statistical method, sampling procedures and methods of risk assessment.

This agreement is based on the condition that members need to have harmonized sanitary and phytosanitary measures. However, LDCs may delay application of the provision for a period of five years from the date of accession.

h. Trade Related Investment Measures (TRIMs). This article is not defined fully and is left to member countries to decide which activities are regarded illegal with the agreements on agricultural and industrial products.

Developing countries may deviate from this provision temporarily. They can apply quantitative restriction for balance of payment purpose in a manner which takes account of the continued high level of demand for imports likely to be generated by the programs of economic development.

i. Trade Related Intellectual Property Rights (TRIPS). The agreement relates to the reduction of distortions and impediments of intellectual trade. The subject includes copyrights, trademarks, geographical indicators, industrial design, patents, industrial design, lay-out design of intergraded circuits and protection of undisclosed information.

j. Technical Barriers to Trade (TBT). Members are expected to international technical regulations and standards of products set by an international standardizing body like ISO/IEC which otherwise could be barrier to trade. The regulation shall not be restrictive to trade, but fulfill a legitimate act of national security requirement, prevention of deceptive practices, and protecting health and safety of the habitat.

Annex IV - Tables

Ethiopian Exports by Destination (in millions of Birr)								
YEAR	AUSTRALIA	BELGIUM	CANADA	CHINA	DJIBOUTI	EGYPT	FRANCE	Germany
1996/1	1.57	21.41	4.41	15.78	108.67	4.35	14.17	101.48
1996/2	1.41	27.79	4.26	34.86	53.82	8.60	19.59	133.65
1996/3	1.85	21.23	3.27	17.90	82.89	7.95	16.15	61.95
1996/4	1.60	12.01	3.61	40.16	79.13	8.62	7.50	43.84
1997/1	2.13	29.03	5.97	21.39	147.31	5.89	19.21	137.56
1997/2	1.91	37.67	5.78	47.25	72.96	11.66	26.56	181.16
1997/3	2.51	28.78	4.44	24.26	112.36	10.77	21.90	83.97
1997/4	2.17	16.27	4.90	54.44	107.27	11.69	10.17	59.42
1998/1	2.14	29.21	6.01	21.52	148.25	5.93	19.34	138.44
1998/2	1.92	37.92	5.82	47.55	73.43	11.74	26.73	182.32
1998/3	2.52	28.96	4.47	24.41	113.07	10.84	22.04	84.51
1998/4	2.18	16.38	4.93	54.78	107.95	11.76	10.24	59.80
1999/1	1.92	26.17	5.38	19.28	132.81	5.31	17.32	124.02
1999/2	1.72	33.97	5.21	42.60	65.78	10.52	23.94	163.33
1999/3	2.26	25.95	4.00	21.87	101.30	9.71	19.74	75.71
1999/4	1.96	14.67	4.42	49.08	96.71	10.54	9.17	53.57
2000/1	1.92	26.20	5.39	19.31	132.98	5.32	17.34	124.18
2000/2	1.72	34.01	5.22	42.65	65.86	10.53	23.97	163.54
2000/3	2.26	25.98	4.01	21.90	101.43	9.73	19.77	75.81
2000/4	1.96	14.69	4.42	49.14	96.83	10.55	9.18	53.64
2001/1	3.00	40.99	8.43	30.20	208.02	8.32	27.13	194.25
2001/2	2.70	53.20	8.16	66.72	103.03	16.47	37.50	255.82
2001/3	3.54	40.64	6.27	34.26	158.66	15.21	30.92	118.58
2001/4	3.07	22.98	6.92	76.87	151.47	16.51	14.36	83.91
2002/1	3.47	22.40	4.54	4.43	147.90	10.19	27.55	154.49
2002/2	1.10	39.23	4.80	31.09	148.76	18.92	39.28	189.71
2002/3	1.75	55.57	5.35	24.81	141.91	11.42	39.96	78.14
2002/4	2.36	20.26	3.19	14.75	80.27	3.98	7.70	52.82
2003/1	2.84	35.24	3.83	10.91	466.07	4.02	17.55	126.70
2003/2	1.51	41.67	5.08	16.46	78.99	0.47	23.02	218.85
2003/3	2.59	30.88	4.49	16.95	278.91	8.68	24.68	126.36
2003/4	4.20	23.24	1.34	17.77	301.53	7.55	11.57	36.51
2004/1	1.83	56.09	6.72	37.03	69.97	6.55	30.17	167.11
2004/2	5.66	68.83	5.44	48.61	34.81	8.67	36.71	263.00
2004/3	3.17	36.00	3.99	23.40	42.58	3.76	20.47	127.84
2004/4	3.26	25.43	8.41	28.88	52.59	4.51	20.88	161.88
2005/1	3.57	55.07	22.43	87.15	86.20	12.58	32.77	364.76
2005/2	2.89	65.76	20.43	210.82	135.94	43.06	51.42	374.26
2005/3	7.83	30.88	12.37	83.68	141.17	43.26	34.36	146.43
2005/4	1.96	20.98	18.15	313.33	159.38	62.78	19.11	92.55
Sum	101.90	1,293.64	256.26	1,848.24	4,989.00	488.93	901.18	5,435.84
Average	2.55	32.34	6.41	46.21	124.73	12.22	22.53	135.90

Table 1

Source: Ethiopian Customs Authority

Appendix III

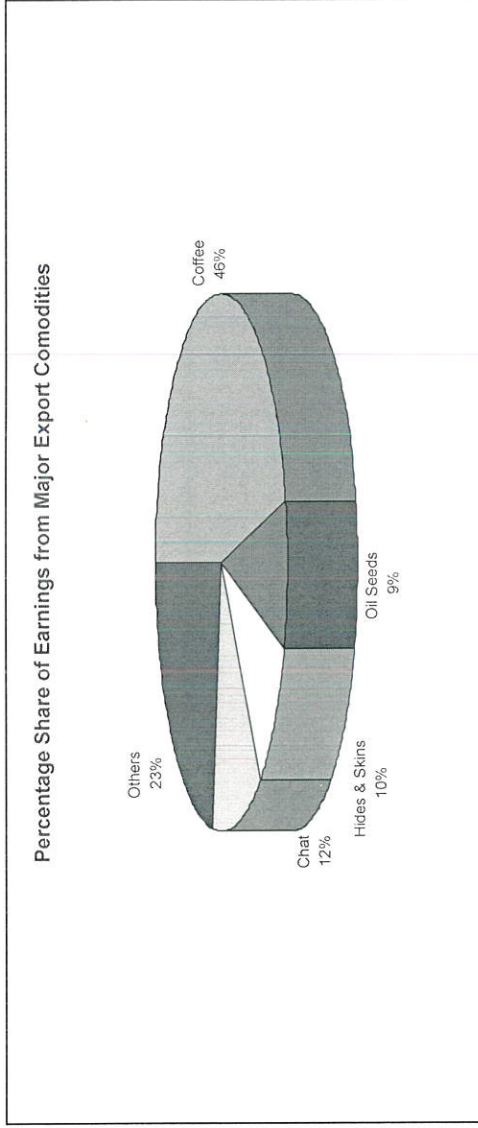


Fig.1

Table 1. (Continuation)

Ethiopian Exports by Destination (in millions of Birr)								
YEAR	GREECE	HUNGARY	INDIA	INDONE.	ISRAEL	ITALY	JAPAN	JORDAN
1996/1	8.54	0.31	13.06	1.46	25.10	46.50	44.68	5.97
1996/2	5.72	0.39	10.22	4.33	16.76	62.01	87.38	4.19
1996/3	3.03	0.34	9.67	2.71	25.56	41.33	68.82	6.03
1996/4	5.58	0.65	8.36	3.15	21.27	36.99	43.81	2.75
1997/1	11.58	0.41	17.71	1.98	34.02	63.03	60.57	8.09
1997/2	7.75	0.53	13.85	5.87	22.72	84.06	118.44	5.69
1997/3	4.10	0.46	13.10	3.67	34.65	56.03	93.28	8.18
1997/4	7.56	0.89	11.33	4.27	28.83	50.14	59.38	3.72
1998/1	11.65	0.42	17.82	1.99	34.24	63.43	60.95	8.14
1998/2	7.80	0.53	13.94	5.91	22.86	84.60	119.20	5.72
1998/3	4.13	0.47	13.19	3.69	34.87	56.39	93.88	8.23
1998/4	7.61	0.89	11.40	4.29	29.02	50.46	59.76	3.75
1999/1	10.44	0.37	15.96	1.78	30.67	56.83	54.61	7.30
1999/2	6.99	0.47	12.49	5.30	20.48	75.79	106.79	5.13
1999/3	3.70	0.42	11.81	3.31	31.24	50.51	84.10	7.37
1999/4	6.82	0.80	10.21	3.85	26.00	45.21	53.54	3.36
2000/1	10.45	0.37	15.99	1.78	30.71	56.90	54.68	7.31
2000/2	7.00	0.47	12.50	5.30	20.51	75.89	106.92	5.13
2000/3	3.71	0.42	11.83	3.31	31.28	50.58	84.21	7.38
2000/4	6.83	0.80	10.23	3.85	26.03	45.26	53.61	3.36
2001/1	16.35	0.58	25.01	2.79	48.04	89.01	85.53	11.43
2001/2	10.95	0.74	19.56	8.30	32.08	118.70	167.26	8.03
2001/3	5.80	0.65	18.50	5.18	48.93	79.12	131.73	11.55
2001/4	10.68	1.25	16.00	6.02	40.72	70.80	83.86	5.26
2002/1	13.58	0.58	22.52	1.04	33.61	93.53	44.82	2.60
2002/2	7.65	0.61	23.53	3.46	23.14	119.66	125.32	2.66
2002/3	9.07	0.20	36.45	9.45	64.67	101.00	112.20	6.11
2002/4	16.97	1.26	11.04	7.15	33.89	85.55	83.50	2.57
2003/1	12.70	0.12	24.44	6.32	37.39	84.16	53.13	21.16
2003/2	7.16	0.76	17.60	4.97	26.18	112.61	118.70	14.04
2003/3	3.65	1.04	7.54	1.11	26.96	76.22	128.45	6.81
2003/4	5.08	1.90	20.41	5.25	38.43	43.76	85.13	1.28
2004/1	19.55	1.08	31.06	2.99	66.03	90.68	119.88	12.75
2004/2	14.56	1.28	21.93	22.89	49.46	116.03	238.12	6.50
2004/3	4.30	0.83	15.38	4.14	45.29	70.44	145.75	15.08
2004/4	7.79	1.18	20.37	3.79	46.88	81.54	73.75	8.85
2005/1	19.89	0.55	18.97	0.00	57.76	74.97	143.55	8.79
2005/2	15.73	0.14	10.36	1.35	28.91	113.95	193.52	9.12
2005/3	4.67	0.54	6.45	4.67	52.90	48.38	133.51	21.20
2005/4	10.69	0.25	10.20	7.34	42.05	62.59	84.64	10.07
Sum	357.82	25.98	631.97	180.00	1,390.13	2,884.65	3,860.96	302.65
Average	8.95	0.65	15.80	4.50	34.75	72.12	96.52	7.57

Source; Ethiopian Customs Authority

Table 1. (Continuation)

Ethiopian Exports by Destination (in millions of Birr)								
YEAR	KENYA	KOREA, REPUBLIC	KUWAIT	MALAYSIA	MOROCCO	NETHERLANDS	NORWAY	PAKISTAN
1996/1	1.20	1.22	0.12	2.25	1.69	15.25	0.73	9.07
1996/2	0.87	1.36	0.01	3.58	1.07	12.03	1.16	11.58
1996/3	1.06	0.65	0.04	5.60	1.11	13.74	0.61	7.14
1996/4	2.04	0.71	0.04	3.67	1.39	11.31	0.35	3.20
1997/1	1.63	1.65	0.17	3.05	2.29	20.67	0.98	12.29
1997/2	1.18	1.84	0.01	4.86	1.46	16.31	1.57	15.70
1997/3	1.43	0.89	0.06	7.59	1.50	18.62	0.83	9.68
1997/4	2.77	0.96	0.06	4.98	1.89	15.34	0.48	4.34
1998/1	1.64	1.66	0.17	3.07	2.30	20.80	0.99	12.37
1998/2	1.19	1.86	0.01	4.89	1.47	16.42	1.58	15.80
1998/3	1.44	0.89	0.06	7.63	1.51	18.74	0.84	9.74
1998/4	2.79	0.97	0.06	5.01	1.90	15.44	0.48	4.37
1999/1	1.47	1.49	0.15	2.75	2.06	18.63	0.89	11.08
1999/2	1.06	1.66	0.01	4.38	1.31	14.71	1.42	14.15
1999/3	1.29	0.80	0.05	6.84	1.35	16.79	0.75	8.73
1999/4	2.50	0.87	0.05	4.49	1.70	13.83	0.43	3.92
2000/1	1.47	1.49	0.15	2.76	2.07	18.66	0.89	11.10
2000/2	1.07	1.67	0.01	4.38	1.32	14.73	1.42	14.17
2000/3	1.29	0.80	0.05	6.85	1.35	16.81	0.75	8.74
2000/4	2.50	0.87	0.05	4.49	1.70	13.85	0.43	3.92
2001/1	2.30	2.33	0.24	4.31	3.23	29.18	1.39	17.36
2001/2	1.67	2.60	0.01	6.86	2.06	23.04	2.22	22.17
2001/3	2.02	1.25	0.08	10.71	2.12	26.29	1.18	13.67
2001/4	3.91	1.36	0.08	7.03	2.66	21.66	0.67	6.13
2002/1	0.18	0.60	0.00	1.13	3.20	8.74	0.35	45.12
2002/2	0.02	1.24	0.00	7.12	3.40	8.18	1.29	61.79
2002/3	0.00	1.16	0.00	19.88	4.05	15.62	1.66	30.60
2002/4	0.02	0.45	0.00	9.07	4.18	5.34	1.60	6.60
2003/1	4.40	2.79	0.22	7.14	6.28	13.01	0.00	0.54
2003/2	0.87	1.13	0.01	7.34	0.57	20.88	0.00	2.56
2003/3	1.66	0.75	0.00	1.26	0.52	9.12	0.00	4.52
2003/4	0.21	2.19	0.23	7.86	2.70	6.89	0.00	4.05
2004/1	0.38	4.36	0.03	5.72	1.89	45.85	1.77	4.96
2004/2	0.33	4.02	0.02	6.37	2.03	23.01	6.74	7.34
2004/3	2.77	0.01	0.28	11.94	1.82	57.80	0.00	8.25
2004/4	10.11	1.04	0.04	7.92	1.30	49.56	0.03	9.91
2005/1	4.88	1.64	0.87	3.13	0.22	60.70	4.41	9.58
2005/2	6.98	4.80	0.03	5.49	1.75	47.40	0.89	1.48
2005/3	4.63	3.53	0.05	6.31	1.33	24.87	3.40	4.23
2005/4	7.16	1.87	0.05	0.48	1.52	31.16	0.85	2.77
Sum	86.36	63.42	3.58	230.18	79.28	850.96	46.02	454.73
Average	2.16	1.59	0.09	5.75	1.98	21.27	1.15	11.37

Source: Ethiopian Customs Authority

Table 1. (Continuation)

Ethiopian Exports by Destination (in millions of Birr)									
YEAR	POLAND	ROMANIA	SAUDI ARABIA	SINGAPORE	SOMALIA	SPAIN	SUDAN	SWEDEN	SWITZERLAND
1996/1	1.27	1.97	38.90	2.56	16.98	3.22	8.04	3.65	55.43
1996/2	0.95	1.60	52.50	3.17	20.77	2.83	6.58	6.26	74.03
1996/3	0.74	1.33	50.93	2.94	33.55	2.44	8.95	2.00	38.96
1996/4	0.77	0.94	47.69	3.07	20.45	3.33	18.23	1.65	54.01
1997/1	1.72	2.68	52.73	3.46	23.02	4.36	10.89	4.95	75.14
1997/2	1.29	2.16	71.16	4.29	28.15	3.83	8.92	8.48	100.35
1997/3	1.00	1.81	69.03	3.98	45.48	3.30	12.13	2.72	52.81
1997/4	1.04	1.28	64.64	4.16	27.71	4.52	24.71	2.23	73.21
1998/1	1.73	2.69	53.06	3.49	23.17	4.39	10.96	4.98	75.62
1998/2	1.30	2.18	71.61	4.32	28.33	3.85	8.98	8.54	100.99
1998/3	1.01	1.82	69.47	4.01	45.77	3.32	12.21	2.73	53.15
1998/4	1.05	1.28	65.05	4.18	27.89	4.55	24.87	2.24	73.67
1999/1	1.55	2.41	47.54	3.12	20.75	3.93	9.82	4.46	67.75
1999/2	1.17	1.95	64.15	3.87	25.38	3.45	8.04	7.65	90.48
1999/3	0.91	1.63	62.24	3.59	41.01	2.98	10.94	2.45	47.61
1999/4	0.94	1.15	58.28	3.75	24.99	4.07	22.28	2.01	66.00
2000/1	1.55	2.42	47.60	3.13	20.78	3.93	9.83	4.47	67.83
2000/2	1.17	1.95	64.24	3.88	25.41	3.46	8.05	7.66	90.59
2000/3	0.91	1.63	62.32	3.60	41.06	2.98	10.95	2.45	47.68
2000/4	0.94	1.15	58.35	3.75	25.02	4.08	22.31	2.01	66.09
2001/1	2.43	3.78	74.46	4.89	32.51	6.15	15.38	6.99	106.11
2001/2	1.83	3.05	100.48	6.06	39.75	5.41	12.59	11.98	141.71
2001/3	1.42	2.55	97.48	5.63	64.23	4.66	17.13	3.83	74.58
2001/4	1.47	1.80	91.28	5.87	39.14	6.38	34.89	3.15	103.38
2002/1	0.00	8.23	52.59	3.69	49.93	10.41	0.79	3.83	88.27
2002/2	0.60	1.03	84.97	4.78	27.61	8.44	0.21	4.52	82.98
2002/3	0.00	2.10	62.73	3.03	0.50	6.37	20.09	1.31	52.24
2002/4	1.65	1.00	73.34	1.99	9.54	4.77	0.06	0.00	193.63
2003/1	6.11	2.43	71.68	1.35	60.33	1.84	4.12	2.55	33.59
2003/2	2.26	2.96	74.51	1.06	64.32	3.95	12.06	5.22	88.90
2003/3	4.20	4.01	86.86	4.86	118.95	5.39	1.33	5.09	84.86
2003/4	1.89	1.91	79.56	2.76	42.24	5.05	47.30	5.05	4.11
2004/1	2.20	2.18	79.69	6.92	0.00	4.30	11.62	8.90	170.87
2004/2	1.75	7.86	107.03	3.50	0.00	3.66	22.32	22.87	207.73
2004/3	0.77	3.25	113.99	4.28	0.44	2.70	39.24	2.28	115.81
2004/4	0.77	3.95	92.29	8.28	0.00	12.80	77.00	3.60	9.47
2005/1	1.11	0.00	97.86	8.71	1.43	6.93	58.03	15.13	142.87
2005/2	3.06	0.00	141.58	17.74	69.75	4.07	19.60	18.41	210.84
2005/3	0.40	0.00	135.79	11.93	162.64	2.73	4.63	7.64	34.47
2005/4	1.27	0.00	124.20	12.82	127.51	1.93	16.14	4.59	203.49
Sum	58.19	88.11	3,013.84	192.47	1,476.47	180.78	672.21	220.52	3,521.32
Average	1.45	2.20	75.35	4.81	36.91	4.52	16.81	5.51	88.03

Source; Ethiopian Customs Authority

Table 1. (Continuation)

Ethiopian Exports by Destination (in millions of Birr)									
YEAR	Taiwan, Province of China	THAILAND	TURKEY	UNITED ARAB EMIRATES	UNITED KINGDOM	United States	YEMEN	ROW	TOTAL
1996/1	0.72	0.82	20.06	10.13	26.22	41.89	16.49	53.43	750.76
1996/2	2.46	1.61	14.49	7.74	23.07	46.21	18.78	42.04	831.75
1996/3	0.64	2.55	8.03	12.73	27.08	30.97	15.62	29.97	670.07
1996/4	0.44	1.28	8.56	10.00	24.52	17.92	19.80	80.31	654.71
1997/1	0.97	1.11	27.20	13.72	35.54	56.78	22.35	72.43	1,017.65
1997/2	3.33	2.19	19.64	10.49	31.27	62.64	25.46	56.99	1,127.43
1997/3	0.87	3.45	10.89	17.26	36.70	41.98	21.17	40.63	908.28
1997/4	0.60	1.73	11.61	13.56	33.23	24.29	26.84	108.85	887.45
1998/1	0.98	1.12	27.37	13.81	35.77	57.14	22.50	72.89	1,024.15
1998/2	3.35	2.20	19.76	10.56	31.47	63.04	25.62	57.35	1,134.63
1998/3	0.88	3.47	10.95	17.37	36.94	42.25	21.31	40.89	914.08
1998/4	0.60	1.74	11.68	13.65	33.44	24.44	27.01	109.55	893.12
1999/1	0.88	1.00	24.52	12.37	32.04	51.19	20.15	65.30	917.50
1999/2	3.00	1.97	17.70	9.46	28.19	56.47	22.95	51.38	1,016.47
1999/3	0.79	3.11	9.81	15.56	33.09	37.85	19.09	36.63	818.89
1999/4	0.54	1.56	10.46	12.23	29.96	21.90	24.20	98.14	800.12
2000/1	0.88	1.00	24.55	12.39	32.08	51.26	20.18	65.39	918.68
2000/2	3.01	1.98	17.73	9.47	28.23	56.55	22.98	51.45	1,017.79
2000/3	0.79	3.12	9.83	15.58	33.13	37.90	19.11	36.68	819.95
2000/4	0.54	1.56	10.48	12.24	30.00	21.92	24.23	98.27	801.15
2001/1	1.37	1.57	38.41	19.38	50.18	80.18	31.56	102.28	1,437.04
2001/2	4.70	3.09	27.73	14.81	44.16	88.45	35.95	80.48	1,592.07
2001/3	1.23	4.87	15.37	24.37	51.83	59.29	29.90	57.37	1,282.60
2001/4	0.84	2.45	16.39	19.15	46.93	34.29	37.90	153.72	1,253.19
2002/1	1.66	1.21	6.57	12.89	47.17	52.06	17.61	72.24	1,075.70
2002/2	0.53	4.10	14.38	21.11	44.14	48.09	20.54	46.04	1,276.03
2002/3	0.26	4.64	16.09	36.02	45.66	44.46	19.31	48.86	1,134.71
2002/4	0.99	0.79	15.99	10.80	41.37	23.15	17.74	95.56	946.89
2003/1	0.67	2.08	22.19	41.10	42.56	73.80	35.01	138.71	1,481.07
2003/2	11.99	3.14	45.38	15.88	31.58	60.52	37.83	42.41	1,225.41
2003/3	1.82	2.40	14.93	21.98	33.49	42.26	26.51	47.85	1,269.94
2003/4	0.58	2.85	14.70	25.31	53.85	27.00	41.94	106.57	1,091.77
2004/1	1.21	2.47	93.36	16.62	57.03	74.84	44.17	82.73	1,443.56
2004/2	3.40	1.53	22.85	15.69	49.71	133.94	34.69	97.30	1,728.21
2004/3	1.26	9.32	15.22	28.84	60.24	88.57	24.25	43.77	1,199.53
2004/4	1.52	3.96	13.96	36.12	47.05	47.70	45.01	298.12	1,331.53
2005/1	1.94	0.08	38.84	0.00	50.84	131.55	29.37	110.91	1,770.06
2005/2	2.15	2.95	26.93	0.00	49.41	125.05	55.36	159.23	2,252.60
2005/3	1.78	2.52	13.03	0.00	70.69	62.99	55.30	94.68	1,481.88
2005/4	0.00	2.35	20.41	0.00	39.90	41.47	51.12	112.97	1,722.08
Sum	66.18	96.95	808.06	610.38	1,579.78	2,184.28	1,126.92	3,260.37	45,920.49
Average	1.65	2.42	20.20	15.26	39.49	54.61	28.17	81.51	1,148.01

Source; Ethiopian Customs Authority

e; ROW refers to rest of the world

Table 1. (Continuation)

Ethiopian Exports by Destination (in millions of Birr)								
YEAR	GDP at Current Mkt. Price	TOTAL Exports	Exp. To COMESA	COM. /TOT. EXP.	Exp.to WTO	WTO /TOT. Exp.	Exp.to ROW	ROW /TOT. Exp.
1996/1	8,730.15	750.76	122.26	16.28	501.98	66.86	126.52	16.85
1996/2	10,258.83	831.75	69.88	8.40	625.33	75.18	136.54	16.42
1996/3	9,109.94	670.07	100.85	15.05	438.51	65.44	130.72	19.51
1996/4	9,037.20	654.71	108.03	16.50	378.00	57.74	168.68	25.76
1997/1	13,439.03	1,017.65	165.72	16.28	680.43	66.86	171.50	16.85
1997/2	15,266.12	1,127.43	94.72	8.40	847.62	75.18	185.09	16.42
1997/3	11,599.08	908.28	136.70	15.05	594.40	65.44	177.19	19.51
1997/4	11,730.91	887.45	146.43	16.50	512.37	57.74	228.65	25.76
1998/1	12,149.52	1,024.15	166.78	16.28	684.77	66.86	172.60	16.85
1998/2	14,467.83	1,134.63	95.33	8.40	853.04	75.18	186.27	16.42
1998/3	12,234.67	914.08	137.57	15.05	598.19	65.44	178.32	19.51
1998/4	11,984.53	893.12	147.37	16.50	515.65	57.74	230.11	25.76
1999/1	13,738.74	917.50	149.41	16.28	613.46	66.86	154.62	16.85
1999/2	15,706.47	1,016.47	85.40	8.40	764.21	75.18	166.87	16.42
1999/3	14,626.80	818.89	123.24	15.05	535.90	65.44	159.75	19.51
1999/4	14,023.66	800.12	132.02	16.50	461.95	57.74	206.14	25.76
2000/1	15,516.57	918.68	149.60	16.28	614.25	66.86	154.82	16.85
2000/2	16,489.36	1,017.79	85.51	8.40	765.19	75.18	167.09	16.42
2000/3	14,671.39	819.95	123.40	15.05	536.59	65.44	159.95	19.51
2000/4	14,523.32	801.15	132.19	16.50	462.55	57.74	206.41	25.76
2001/1	15,558.82	1,437.04	234.02	16.28	960.85	66.86	242.18	16.85
2001/2	17,297.73	1,592.07	133.76	8.40	1,196.95	75.18	261.36	16.42
2001/3	13,469.08	1,282.60	193.03	15.05	839.36	65.44	250.21	19.51
2001/4	12,856.68	1,253.19	206.78	16.50	723.53	57.74	322.88	25.76
2002/1	14,778.52	1,075.70	159.07	14.79	722.61	67.18	194.02	18.04
2002/2	16,220.26	1,276.03	167.90	13.16	928.45	72.76	179.68	14.08
2002/3	15,378.43	1,134.71	173.43	15.28	829.63	73.11	131.66	11.60
2002/4	15,865.29	946.89	84.33	8.91	665.38	70.27	197.18	20.82
2003/1	16,009.80	1,481.07	478.61	32.32	696.05	47.00	306.41	20.69
2003/2	17,599.05	1,225.41	92.39	7.54	901.96	73.60	231.07	18.86
2003/3	19,249.83	1,269.94	290.58	22.88	697.36	54.91	282.00	22.21
2003/4	15,062.96	1,091.77	356.59	32.66	464.29	42.53	270.89	24.81
2004/1	19,004.29	1,443.56	88.51	6.13	1,147.26	79.47	207.79	14.39
2004/2	20,120.87	1,728.21	66.13	3.83	1,419.66	82.15	242.43	14.03
2004/3	17,614.35	1,199.53	88.35	7.37	927.47	77.32	183.71	15.32
2004/4	20,108.65	1,331.53	144.21	10.83	750.38	56.35	436.94	32.81
2005/1	19,270.93	1,770.06	161.70	9.14	1,366.85	77.22	241.51	13.64
2005/2	22,595.52	2,252.60	205.58	9.13	1,618.96	71.87	428.06	19.00
2005/3	20,443.43	1,481.88	193.69	13.07	838.01	56.55	450.18	30.38
2005/4	21,263.82	1,722.08	245.47	14.25	1,060.82	61.60	415.79	24.14
Sum	609,072.43	45,920.49		558.69		2655.23		786.08
Average	15,226.81	1,148.01		13.97		66.38		19.65

Source; Ethiopian Customs Authority

Note; ROW refers to rest of the world

Percentage Share of Earnings from Major Export Commodities to Total Exports										
Period	Coffee	Oil Seeds	Hides & Skins	Pulses	Meat & Meat Prodt.	Fruits & Veget.	Chat	Gold	Others	Grand Total
1997	70	8	8	2	1	1	7	0	3	100
1998	58	7	7	3	1	1	12	5	6	100
1999	54	6	7	2	1	1	16	7	6	100
2000	39	7	16	2	0	1	13	6	14	100
2001	36	7	12	7	0	2	11	8	16	100
2002	34	10	11	4	1	2	12	9	18	100
2003	37	14	7	4	1	2	15	8	11	100
2004	41	13	8	4	2	2	12	6	12	100

Table 2a

Source: NBE Annual Report (2004/05);

Volume of Exports, by Major Commodity Groups (In Metric Tons)											
Period	Coffee	Oil Seeds	Hides & Skins	Pulses	Meat & Meat Prodt.	Fruits & Veget.	Sugar	Live Animals	Chat	Bees Wax	Gold
1996/97	123166	14069	8648	30468	1716	21834	13150	1305	5031	314	5
1997/98	120050	66554	7852	30909	1529	17010	0	1324	5981	995	0
1998/99	101232	51366	5824	29833	2078	19394	6643	919	9702	350	0
1999/00	116558	43131	8604	23527	1977	20734	17209	1766	15684	217	3
2000/01	99134	55051	12409	26861	870	17030	57005	214	11928	311	5
2001/02	110347	76604	10334	109227	662	29696	58041	166	9377	285	5
2002/03	126128	82801	10545	66154	1722	25304	77000	607	6106	184	5
2003/04	156409	105945	9401	73280	4007	36844	16016	3141	43671	433	4
2004/05	161061	140737	15403	121653	7274	37906	15001	9126	19426	383	4

Table 2b

Source: NBE Annual Report (2004/05);



Unit Value of Exports by Major Commodity Groups (in Birr)									
Period	Coffee	Oil Seeds	Pulses	Chat	Hides & Skins	Fruits & Veget.	Meat & Meat Prodts.	Live Animals	Sugar
1996/97	18.73	5.28	2.88	39.66	43.04	2.1	14.08	8.58	
1997/98	24.07	4.73	3.33	45.54	44.28	1.85	19.18	7.98	
1998/99	20.87	5.28	3.41	45.87	41.73	2.09	15.23	6.23	0.19
1999/00	18.31	5.92	3.4	39.45	33.29	2.13	16.55	8	1.39
2000/01	15.33	4.9	2.71	42.8	51.07	2.68	16.52	7.03	1.2
2001/02	12.63	3.64	2.58	44.65	45.91	2.7	14.22	43.05	1.47
2002/03	11.25	4.78	2.59	81.54	42.49	3.25	12.07	6.8	2
2003/04	12.32	6.73	2.66	40.99	39.98	2.98	16.64	5.24	5.53
2004/05	18.02	6.29	2.52	44.51	37.66	3.67	17.36	12.15	0.35

Table 2c

Source: NBE Annual Report (2004/05);

Exports to COMESA Counties (in percentage)						
YEAR	Djibouti	Egypt	Kenya	Sudan	Swaziland	Sum
2002/3	24.88	1.71	0.03	0.13	0.67	27.42
2002/6	25.02	3.18	0.00	0.04	0.25	28.49
2002/9	23.87	1.92	0.00	3.38	0.07	29.24
2002/12	13.50	0.67	0.00	0.01	0.59	14.78
2003/3	37.74	0.33	0.36	0.33	0.27	39.02
2003/6	6.40	0.04	0.07	0.98	0.16	7.64
2003/9	22.58	0.70	0.13	0.11	0.48	24.01
2003/12	24.42	0.61	0.02	3.83	0.01	28.88
2004/3	15.52	1.45	0.08	2.58	0.32	19.96
2004/6	7.72	1.92	0.07	4.95	9.46	24.14
2004/9	9.45	0.83	0.61	8.71	0.00	19.60
2004/12	11.67	1.00	2.24	17.08	0.00	32.00
2005/3	10.33	1.51	0.59	6.96	0.55	19.94
2005/6	16.30	5.16	0.84	2.35	1.05	25.69
2005/9	16.92	5.19	0.56	0.55	0.34	23.56
2005/12	19.11	7.53	0.86	1.93	0.68	30.10

Table 3

Source; Ethiopian Customs Authority

Total Imports by Economic Grouping (in millions of Birr)										
YEAR	Total IMPORT	GDP at CMP	(M/Y) *100	Growth Rate of M.	M. from COMESA	M. from C/Tot. M	M. from WTO	M. from WTO / Tot. M	M from ROW	M. from ROW / Tot. M
1996/1	2,019.10	8,730.15	23.13	-	102.43	5.07	1,371.34	67.92	545.33	27.01
1996/2	2,152.17	10,258.83	20.98	6.59	107.40	4.99	1,469.79	68.29	574.98	26.72
1996/3	2,299.10	9,109.94	25.24	6.83	125.53	5.46	1,524.70	66.32	648.87	28.22
1996/4	2,707.43	9,037.20	29.96	17.76	137.90	5.09	2,290.76	84.61	278.77	10.30
1997/1	1,536.24	13,439.03	11.43	-43.26	43.70	2.84	1,264.07	82.28	228.47	14.87
1997/2	1,763.72	15,266.12	11.55	14.81	51.71	2.93	1,379.97	78.24	332.03	18.83
1997/3	1,894.24	11,599.08	16.33	7.40	61.24	3.23	1,445.07	76.29	387.93	20.48
1997/4	2,458.94	11,730.91	20.96	29.81	65.07	2.65	2,080.50	84.61	313.37	12.74
1998/1	2,400.48	12,149.52	19.76	-2.38	59.26	2.47	1,692.47	70.51	648.75	27.03
1998/2	2,755.93	14,467.83	19.05	14.81	68.16	2.47	1,671.46	60.65	1,016.32	36.88
1998/3	2,959.88	12,234.67	24.19	7.40	80.78	2.73	1,653.76	55.87	1,225.34	41.40
1998/4	3,842.27	11,984.53	32.06	29.81	89.32	2.32	2,850.04	74.18	902.91	23.50
1999/1	2,492.48	13,738.74	18.14	-35.13	64.86	2.60	1,953.83	78.39	473.79	19.01
1999/2	2,861.56	15,706.47	18.22	14.81	79.36	2.77	2,201.31	76.93	580.89	20.30
1999/3	3,073.33	14,626.80	21.01	7.40	95.83	3.12	2,282.00	74.25	695.50	22.63
1999/4	3,989.54	14,023.66	28.45	29.81	109.09	2.73	3,304.94	82.84	575.51	14.43
2000/1	2,397.73	15,516.57	15.45	-39.90	56.97	2.38	1,679.25	70.03	661.51	27.59
2000/2	2,752.77	16,489.36	16.69	14.81	70.05	2.54	1,933.44	70.24	749.28	27.22
2000/3	2,956.49	14,671.39	20.15	7.40	84.77	2.87	1,931.47	65.33	940.25	31.80
2000/4	3,837.87	14,523.32	26.43	29.81	97.11	2.53	3,014.85	78.56	725.91	18.91
2001/1	3,451.24	15,558.82	22.18	-10.07	80.43	2.33	2,539.44	73.58	831.37	24.09
2001/2	3,962.29	17,297.73	22.91	14.81	93.76	2.37	2,748.75	69.37	1,119.78	28.26
2001/3	4,255.51	13,469.08	31.59	7.40	112.47	2.64	2,786.86	65.49	1,356.18	31.87
2001/4	5,524.16	12,856.68	42.97	29.81	128.35	2.32	4,344.61	78.65	1,051.19	19.03
2002/1	2,989.76	14,778.52	20.23	-45.88	172.45	5.77	2,444.14	81.75	373.17	12.48
2002/2	3,344.21	16,220.26	20.62	11.86	169.90	5.08	2,254.59	67.42	919.73	27.50
2002/3	3,505.00	15,378.43	22.79	4.81	309.41	8.83	2,729.90	77.89	465.69	13.29
2002/4	3,891.39	15,865.29	24.53	11.02	190.20	4.89	3,122.70	80.25	578.49	14.87
2003/1	3,106.39	16,009.80	19.40	-20.17	202.76	6.53	2,422.50	77.98	481.12	15.49
2003/2	4,504.54	17,599.05	25.60	45.01	231.89	5.15	2,885.05	64.05	1,387.60	30.80
2003/3	4,584.45	19,249.83	23.82	1.77	215.49	4.70	2,942.81	64.19	1,426.14	31.11
2003/4	10,793.89	15,062.96	71.66	135.45	534.65	4.95	8,914.57	82.59	1,344.66	12.46
2004/1	6,030.63	19,004.29	31.73	-44.13	282.39	4.68	4,547.87	75.41	1,200.37	19.90
2004/2	6,069.69	20,120.87	30.17	0.65	358.18	5.90	4,491.50	74.00	1,220.02	20.10
2004/3	7,398.49	17,614.35	42.00	21.89	318.92	4.31	4,382.07	59.23	2,697.50	36.46
2004/4	6,848.95	20,108.65	34.06	-7.43	337.77	4.93	4,584.71	66.94	1,926.47	28.13
2005/1	7,208.11	19,270.93	37.40	5.24	408.84	5.67	4,617.86	64.06	2,181.41	30.26
2005/2	8,212.56	22,595.52	36.35	13.93	350.49	4.27	5,880.23	71.60	1,981.84	24.13
2005/3	8,295.89	20,443.43	40.58	1.01	348.67	4.20	5,585.33	67.33	2,361.89	28.47
2005/4	8,874.77	21,263.82	41.74	6.98	331.53	3.74	6,817.88	76.82	1,725.36	19.44

Table 4

Note; the shaded parts are in percentage

ROW refers to rest of the world

Source; Ethiopian Customs Authority, NBE 2004/05 and Equar 2001

Value of Imports, by Major Commodity Groups

(In Thousands of Birr)

Period	Food & Live Animals	Beverage	Tobacco	Petroleum Prod.	Chemicals	Fertilizers	Medical & Pharm. Prod.	Soap & Polish	Rubber Prod.	Paper & Paper Manfc.
1995/96	575,263	21,210	7,241	485,912	161,265	330,578	165,785	64,023	279,453	81,700
1996/97	37,222	8,590	93	1,427,200	47,021	173,813	77,317	55,593	188,170	78,351
1997/98	72,853	35,583	18,402	2,099,046	99,001	51,224	142,163	81,408	274,938	169,841
1998/99	558,422	37,405	26,393	1,306,707	142,008	377,582	315,940	100,718	345,274	199,440
1999/00	766,560	34,647	27,129	2,012,189	140,912	336,379	246,179	92,105	273,429	163,924
2000/01	641,597	34,628	28,561	2,151,326	153,782	126,860	293,784	140,236	408,838	217,050
2001/02	1,365,581	35,886	48,550	2,202,554	145,066	560,257	358,994	128,513	340,956	269,684
2002/03	1,697,566	33,509	35,614	2,463,917	165,902	462,662	352,193	145,207	376,787	218,152
2003/04	1,981,297	36,937	37,348	2,608,285	201,668	923,523	636,324	173,378	417,410	329,915
2004/05	1,566,093	52,090	52,034	5,736,666	250,951	1,055,294	671,524	240,863	536,827	434,417

Table 5

Table 5 (Continued)

Textiles	Clothings	Glass & Glass Ware	Metal & Metal Manfc.	Machinery & Aircraft	Road Motor Vehicles	Electrical Materials	Grain*	Telecomm. Appara.	Others	GRAND TOTAL
308,065	76,391	32,944	709,985	854,155	1,393,422	328,577	506,124	51,400	1,780,875	7,708,246
414,162	69,542	40,789	973,897	1,414,978	1,117,480	636,728	8,328	17,108	1,914,438	8,505,200
396,757	114,866	41,452	969,100	1,099,417	795,978	776,492	18,160	14,950	2,084,987	9,338,459
473,804	230,897	69,704	1,416,817	1,375,843	1,390,946	1,032,004	340,647	42,305	2,259,793	11,702,004
433,134	279,885	58,403	919,528	1,351,512	1,548,459	938,299	646,316	32,656	1,783,333	11,438,661
461,188	345,433	88,056	1,188,971	1,480,393	1,456,285	782,018	461,335	66,419	2,248,531	12,313,956
471,499	467,110	72,787	1,359,231	1,667,774	1,435,245	893,039	1,246,119	101,456	3,364,964	14,485,289
599,604	478,039	78,075	1,311,504	1,963,002	1,817,630	1,059,754	1,580,973	111,634	2,564,097	15,934,848
606,295	601,949	104,362	2,012,945	2,397,183	2,124,501	2,447,540	1,573,618	502,494	4,152,333	22,295,690
774,285	836,015	125,294	3,476,768	4,553,244	2,811,972	3,062,726	1,334,778	344,108	4,853,003	31,434,174

Source : National Bank of Ethiopia

* - Included in "Food & Live Animals".

Volume of Imports, by Major Commodity Groups								
(In Metric Tons)								
Period	Food & Live Animals	Beverages	Tobacco	Petroleum Prod.	Chemicals	Fertilizers	Medical & Pharm. Prod	Soap & Polish
1995/96	23777	45	473	111272	11978	2546	356	1859
Qtr.II	252882	512	6	20241	5784	11000	367	5273
Qtr.III	7539	157	3	82074	5044	24025	882	4597
Qtr.IV	38081	875	7	120044	11071	77806	504	5916
1996/97	2789	197	16	130792	3825	0	867	7576
Qtr.II	6171	216	0	3391	4791	75770	694	5986
Qtr.III	2091	183	217	2435	3202	25535	609	9695
Qtr.IV	2018	580	0	95652	3978	0	1493	7034
1997/98	2278	448	6	279629	4490	0	531	6276
Qtr.II	11034	522	5	124953	3552	24	284	4158
Qtr.III	2119	356	12	1108919	6137	19172	649	2332
Qtr.IV	15404	341	327	344147	2590	17030	703	5383
1998/99	82895	429	21	581410	2972	103311	1648	13051
Qtr.II	137990	2467	178	1910003	5035	47021	3336	6257
Qtr.III	10535	276	494	130808	113826	25110	1287	4953
Qtr.IV	57425	636	4	68977	8577	50877	1215	7103
1999/00	120041	534	81	410821	17415	82539	1420	4124
Qtr.II	193206	295	438	165979	6482	70290	1021	6755
Qtr.III	49219	1430	203	200030	3491	54992	375	4447
Qtr.IV	28813	359	212	318053	6848	26027	309	2991
2000/01	24035	191	4	236123	5037	74435	399	5683
Qtr.II	57458	453	342	142515	4140	68	930	6902
Qtr.III	128019	647	639	200593	4953	4646	577	4715
Qtr.IV	210927	455	20	370813	16164	376	914	11560
2001/02	176715	222	323	219864	6002	77622	962	6093
Qtr.II	376708	297	319	439023	4159	100096	989	5227
Qtr.III	111668	258	480	91071	3522	18505	1368	7630
QIV	73001	302	662	194963	5225	106187	817	6699
2002/03	144464.9	243.1	33.1	263139	3698.0	101582.6	912.6	7663.9
Qtr.II	140280.5	360.8	33.0	324657	3635.8	93131.2	977.6	8249.5
Qtr.III	334120.6	265.7	433.1	549970.0	4561.8	52438.8	774.3	4150.6
Qtr. IV	26275.5	383.0	225.2	323194.0	7681.9	5105.9	838.1	7783.3
2003/04	71742.6	280.8	32.7	177664	4862.6	4214.1	1280.8	7666.3
Qtr.II	242587.7	496.3	270.3	275164.0	7067.7	32574.4	1370.0	9560.7
Qtr.III	200861.2	396.1	282.8	346278.2	4832.1	158586.5	2476.2	7963.6
Qtr. IV	12861.7	259.9	152.6	234633	6352.3	187298.4	2992.0	8479.6
2004/05	15462.8	745.0	214.5	764858	4739.6	7617.4	1010.3	8536.3
Qtr.II	2241.9	293.5	188.1	292256	5105.4	100427.8	1691.3	10729.0
Qtr.III	69553.3	395.1	464.5	506976.2	7957.7	74330.2	825.5	11024.5
Qtr.IV	255141.0	372.0	52.5	259132.0	9533.9	169640.0	986.0	11203.0

Table 6

Table 6 (continued)

Volume of Imports, by Major Commodity Groups										
(In Metric Tons)										
Period	Rubber Prod.	Paper & Paper Manfc.	Textiles	Clothing	Glass & Glass Ware	Metal & Metal Manfc.	Machinery & Aircraft	Road Motor Vehicles	Electrical Materials	Grain*
1995/96	4589	2310	4000	443	1937	25157	18381	7393	1741	23505
Qtr.II	2943	1284	5667	2747	960	22038	5636	10051	3890	246918
Qtr.III	4245	2450	4068	632	1761	40655	15717	15524	2834	6885
Qtr.IV	2598	1791	2766	987	1221	31912	2571	8220	4023	35974
1996/97	4914	6331	19804	925	2220	42937	4904	9223	5351	1370
Qtr.II	4889	2001	6179	644	1294	58799	7095	9860	4501	916
Qtr.III	7305	10112	6591	4513	1346	38692	4391	8605	6557	728
Qtr.IV	5991	4363	9731	1418	1468	54322	7968	11249	30542	1006
1997/98	3465	5620	5874	960	1732	36754	4440	7083	4584	1242
Qtr.II	2907	6053	7701	1148	1009	37165	7027	4889	4832	9513
Qtr.III	4631	3369	7929	1433	1187	44076	8107	4050	4237	757
Qtr.IV	3797	5271	5177	1143	2243	45623	4541	4459	6872	11416
1998/99	2774	5657	4320	1659	3300	47802	4321	5864	6669	80180
Qtr.II	7561	9558	10347	2260	4020	60852	8322	14220	5157	131785
Qtr.III	4950	14697	24611	3577	2878	53093	16082	54004	25332	7811
Qtr.IV	5729	6051	24626	2308	2120	37701	16898	62041	9213	38181
1999/00	7192	8270	49389	3332	3163	44061	12073	23214	5858	113411
Qtr.II	3462	4557	8277	2289	2294	41682	5446	42856	4867	185232
Qtr.III	38727	41343	6260	2465	2402	61061	5335	8554	6226	39202
Qtr.IV	4085	359252	7077	2091	2627	51958	5963	5596	4419	22273
2000/01	5095	6887	4016	2677	3009	40855	4823	7409	3862	18151
Qtr.II	3916	77174	6395	9574	4478	78947	7866	43357	6401	44851
Qtr.III	6906	7162	5783	4297	3126	49039	7902	27595	5352	117249
Qtr.IV	6482	9079	4487	4014	4642	93002	6373	13424	8806	180067
2001/02	4954	11867	4786	4536	3689	54056	5839	19728	5380	170348
Qtr.II	5474	8465	9049	5567	3002	83895	6310	6633	6203	347727
Qtr.III	2656	5895	4917	5338	3194	70527	6463	10445	6368	104841
QIV	4499	5989	7878	3920	2016	64987	5350	11111	7256	70599
2002/03	3855.7	9959.0	7777.2	4221.1	3909.8	85528.2	6860.1	8713.9	6942.9	135692.9
Qtr.II	3783.8	4217.1	6184.6	4268.6	2906.2	58456.3	7562.3	7631.4	5096.9	129797.5
Qtr.III	4115.9	12673.8	12041.0	4935.1	3390.9	54434.3	8193.6	10435.9	6456.2	332469.0
Qtr. IV	6640.2	9075.9	7897.6	4800.7	3592.6	58571.0	6956.1	7566.8	10832.8	23040.2
2003/04	4320.2	12908.8	5963.8	9174.7	3803.5	55384.0	8134.1	9236.1	10268.7	65848.0
Qtr.II	6964.1	10054.4	12602.7	7501.0	4105.7	144268.0	11991.6	14565.4	11264.3	238596.1
Qtr.III	5742.3	9719.7	11500.5	8122.3	5883.1	9178.9	9164.5	10967.7	20334.0	160832.1
Qtr. IV	4227.1	13364.9	10551.7	6039.4	6300.4	84870.3	9362.9	6919.7	13053.2	163535.4
2004/05	5383.5	13388.9	6380.3	5690.4	4221.8	99831.4	8018.3	11259.8	9726.2	221465.7
Qtr.II	6554.5	11138.3	9360.2	6023.1	5774.1	94036.2	10324.5	10895.6	14667.3	10658.7
Qtr.III	7929.9	13860.4	65086.0	7841.9	5931.7	157855.3	16012.1	12836.8	14587.3	59430.7
Qtr.IV	6721.0	14424.0	9485.0	7362.0	6290.0	170469.0	18166.0	11013.0	18924.6	242469.0

Source; NBE. Annual Report 2004/05

*Grain is also included in Food and live animals

Unit value of Imports, by Major Commodity Groups
(In Thousands of Birr per Metric Tons)

Period	Food & Live Animals	Beverages	Tobacco	Petroleum Prod.	Chemicals	Fertilizers	Medical & Pharm. Prod	Soap & Polish	Rubber Prod.
1995/96	1.62	45.78	13.32	1.39	4.73	32.01	77.34	4.66	17.08
Qtr.II	1.60	25.93	67.67	1.71	6.25	0.25	128.27	3.07	21.66
Qtr.III	5.10	13.79	54.84	1.36	9.93	2.35	63.97	3.54	20.54
Qtr.IV	2.48	4.23	49.03	1.54	1.67	2.44	68.88	3.87	19.30
1996/97	5.66	15.60	3.97	1.02	6.82	0.00	45.12	4.22	18.53
Qtr.II	3.47	25.57	315.35	7.69	4.37	2.29	55.05	3.94	19.86
Qtr.III	4.12	16.83	16.71	5.32	6.92	1.60	50.22	3.70	12.66
Qtr.IV	4.55	5.26	40.00	1.48	7.07	0.00	24.54	2.89	6.99
1997/98	4.72	25.19	128.31	1.20	5.77	0.00	63.32	4.51	20.00
Qtr.II	1.88	19.19	104.57	1.33	5.85	10.71	103.94	3.97	21.12
Qtr.III	3.69	19.27	111.26	1.14	4.49	1.13	62.93	5.23	17.98
Qtr.IV	2.18	21.78	48.06	0.97	9.57	1.72	54.23	4.53	16.06
1998/99	1.65	19.76	135.18	0.95	8.12	1.57	29.54	1.07	21.04
Qtr.II	1.78	2.66	49.41	0.12	8.06	1.14	25.08	4.57	13.00
Qtr.III	8.45	34.17	28.39	2.70	0.46	3.62	76.91	5.92	19.32
Qtr.IV	1.52	20.35	162.03	2.56	2.90	1.39	69.66	4.06	16.22
1999/00	1.69	21.18	43.28	1.36	2.02	1.67	66.62	4.72	9.42
Qtr.II	2.09	26.99	25.76	1.55	6.12	1.17	80.86	5.08	21.41
Qtr.III	1.79	5.27	26.74	1.77	9.09	1.34	95.81	5.06	1.47
Qtr.IV	2.47	21.84	32.74	2.64	5.02	1.63	106.85	5.29	18.30
2000/01	1.90	23.00	212.62	1.88	6.80	1.52	166.24	4.60	17.19
Qtr.II	1.89	23.83	26.73	2.98	7.62	3.47	96.76	4.76	22.21
Qtr.III	1.67	14.55	25.00	2.44	8.37	1.55	135.41	5.93	16.24
Qtr.IV	1.30	22.00	124.22	2.14	2.88	17.28	64.94	4.61	18.84
2001/02	2.07	21.18	33.86	2.08	6.14	2.55	89.96	5.14	22.41
Qtr.II	1.70	39.54	21.82	2.05	9.97	1.66	98.17	6.39	17.74
Qtr.III	1.99	38.26	32.77	1.24	9.95	2.06	73.37	4.31	22.29
Qtr.IV	1.86	31.63	22.53	3.76	6.07	1.49	91.68	4.61	16.36
2002/03	2.09	32.43	144.47	1.95	9.35	2.04	78.18	4.63	21.61
Qtr.II	2.80	26.81	144.43	2.02	9.77	1.75	106.06	5.24	21.70
Qtr.III	1.54	33.15	31.69	1.35	8.40	1.53	91.89	5.35	21.71
Qtr.IV	18.55	18.66	54.79	1.70	7.48	2.21	126.50	5.69	18.37
2003/04	1.44	27.66	144.68	3.18	9.24	7.48	75.50	5.49	14.56
Qtr.II	2.64	20.27	58.86	2.25	8.31	2.07	99.90	5.07	19.66
Qtr.III	3.21	20.57	31.38	2.46	9.99	2.14	81.23	4.96	20.16
Qtr.IV	46.13	42.17	51.32	2.45	7.83	2.59	67.38	5.10	24.10
2004/05	42.01	17.12	68.34	2.63	13.44	2.80	112.85	5.48	20.92
Qtr.II	43.97	32.61	46.46	3.33	12.52	3.47	98.25	5.99	19.51
Qtr.III	3.38	33.57	44.68	3.48	8.06	2.83	234.38	5.75	19.36
Qtr.IV	2.28	44.35	150.25	3.80	6.21	2.80	200.68	5.92	21.25

Table 7

Source, NBE; Annual Report 2004/05

Table 7 (Continued)

Unit value of imports, by Major Commodity Groups
(In Thousands of Birr per Metric Tons)

Period	Paper & Paper Manfc.	Textiles	Clothing	Glass & Glass Ware	Metal & Metal Manfc.	Machinery & Aircraft	Road Motor Vehicles	Electrical Materials	Grain*
1995/96	9.45	22.48	37.40	3.57	8.13	10.13	47.70	50.70	0.10
Qtr.II	12.93	14.14	5.94	5.98	8.51	47.10	30.66	19.41	1.56
Qtr.III	10.91	19.03	31.78	7.56	4.37	16.02	28.95	28.67	4.96
Qtr.IV	9.24	21.92	23.75	5.72	4.40	58.60	34.45	20.77	2.33
1996/97	9.25	4.51	17.32	4.26	4.97	59.30	24.64	21.67	1.47
Qtr.II	9.88	17.42	23.61	10.03	4.82	35.31	28.20	32.45	2.89
Qtr.III	3.23	18.89	3.93	7.62	6.47	78.51	35.73	20.44	2.34
Qtr.IV	7.72	9.52	14.50	5.53	4.17	66.40	27.09	7.88	1.95
1997/98	7.67	15.60	25.41	5.72	6.85	57.64	35.26	32.92	2.40
Qtr.II	9.15	13.12	17.84	7.60	5.61	43.56	34.31	39.47	1.53
Qtr.III	8.14	13.54	26.07	9.74	5.16	36.03	53.43	41.69	0.18
Qtr.IV	8.33	18.69	28.52	5.49	6.17	54.02	36.33	37.58	0.04
1998/99	8.16	23.59	27.57	6.00	7.77	58.33	32.14	34.62	0.00
Qtr.II	6.82	11.74	25.28	5.83	6.67	44.79	19.48	44.35	1.60
Qtr.III	2.83	5.62	21.71	5.76	7.51	26.10	7.52	12.43	8.40
Qtr.IV	7.69	4.56	21.84	4.65	6.38	19.60	8.37	27.97	1.67
1999/00	5.66	2.04	24.11	5.22	6.52	35.80	20.47	55.44	1.58
Qtr.II	7.36	14.29	34.74	5.64	5.10	59.55	11.63	41.00	2.02
Qtr.III	0.98	20.43	24.90	6.80	3.84	62.01	36.31	33.07	1.40
Qtr.IV	0.12	12.15	28.03	4.81	3.57	44.30	47.26	47.09	1.66
2000/01	5.65	22.52	25.82	4.91	5.55	69.92	48.56	39.87	1.00
Qtr.II	0.57	19.56	9.92	6.55	3.41	37.68	7.96	26.48	1.76
Qtr.III	8.42	23.92	22.71	6.74	5.97	57.29	14.13	40.01	1.41
Qtr.IV	8.13	23.92	20.86	4.93	4.30	61.82	26.93	27.75	1.10
2001/02	8.47	20.59	29.73	5.27	5.47	79.79	17.42	36.46	1.85
Qtr.II	7.79	16.16	20.83	7.00	5.27	72.65	52.81	42.42	1.76
Qtr.III	8.49	20.90	19.42	6.03	4.56	67.89	36.73	39.34	1.84
QIV	8.87	15.73	28.73	6.48	4.62	56.96	32.19	25.26	1.78
2002/03	7.64	22.10	26.04	4.87	4.57	56.44	52.42	42.98	2.03
Qtr.II	8.58	18.88	27.29	5.40	4.88	67.52	55.27	41.19	2.67
Qtr.III	2.94	13.80	25.93	6.39	5.30	71.12	46.37	34.61	1.50
Qtr. IV	7.56	18.34	25.76	6.04	5.93	69.36	60.16	30.28	19.90
2003/04	6.80	16.17	12.72	5.33	5.04	50.81	55.25	30.52	1.67
Qtr.II	5.52	14.69	20.82	5.40	5.06	56.68	33.02	47.61	2.06
Qtr.III	7.74	16.65	21.45	5.53	51.81	75.23	62.09	47.42	2.89
Qtr. IV	8.34	12.63	25.64	4.66	6.23	65.66	65.35	48.54	3.10
2004/05	8.39	21.30	31.05	5.60	6.32	120.13	65.52	56.52	2.50
Qtr.II	8.23	20.50	33.92	6.00	8.62	76.06	66.96	53.49	6.86
Qtr.III	7.51	3.83	27.94	5.05	5.95	59.87	57.44	33.69	3.51
Qtr.IV	8.76	20.81	32.04	5.89	6.42	101.62	55.14	65.37	2.06

Source, NBE, Annual Report 2004/05

*Grain is also included in Food and live animal

Value of Imports by end use
In Millions of Birr

Description	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05
RAW MATERIALS	2.04	2.05	1.74	1.41	1.62	1.75	1.17	1.00	1.35
SEMI-FINISHED GOODS	19.15	16.35	16.80	14.59	16.00	17.00	14.80	16.82	18.29
FUES	18.43	24.45	11.37	17.81	17.71	15.79	15.49	12.01	18.41
CAPIOTAL GOODS	38.81	29.78	33.71	33.49	30.09	28.32	29.60	33.89	32.88
CONSUMER GOODS	20.61	19.69	28.10	30.33	31.66	34.62	35.25	34.62	27.14
Consumer Durables	9.73	8.41	9.84	9.63	10.31	9.03	9.89	11.39	9.28
Consumer non-durables	10.88	11.30	18.27	20.70	21.35	25.59	25.36	23.23	17.86
MISCELLANEOUS	0.96	7.68	8.28	2.38	2.94	2.52	3.68	1.66	1.80
TOTAL IMPORTS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 8

Source: NBE Annual Report 2004/05

Percentage IMPORT from COMESA Countries

Year	Countries					Sum	Annual (Sum)	Annual Dj.	Annual Eg.	Annual Kenya
	Djibouti	Egypt	Kenya	Sudan	Swaziland					
2002/3	12.22	2.16	3.62	0.48	0.80	19.27				
2002/6	10.92	3.30	3.85	0.14	0.54	18.74				
2002/9	23.22	5.87	3.97	0.08	0.13	33.28				
2002/12	9.30	6.45	4.57	0.05	3.07	23.45	94.73846	55.66	17.78	16.01
2003/3	11.27	2.47	2.77	0.07	0.64	17.21				
2003/6	10.68	4.34	3.84	0.09	0.36	19.31				
2003/9	8.82	3.84	4.55	0.40	0.25	17.86				
2003/12	25.06	9.62	4.92	4.10	0.50	44.19	98.56307	55.83	20.27	16.08
2004/3	10.49	5.91	2.92	0.76	0.65	20.74				
2004/6	15.05	4.78	3.69	1.96	0.40	25.88				
2004/9	8.41	6.66	4.69	2.92	0.82	23.50				
2004/12	9.60	6.04	3.56	4.83	0.82	24.84	94.96931	43.55	23.39	14.86
2005/3	5.25	5.15	1.71	14.64	0.89	27.64				
2005/6	6.77	7.61	1.98	6.59	0.59	23.53				
2005/9	8.13	7.71	2.60	4.37	1.10	23.92				
2005/12	10.59	7.95	2.64	0.52	1.15	22.85	97.93679	30.74	28.43	8.93
Average							96.55191	46.44375	22.46654	13.96766

Table 9

IMPORTS by Product Origin (in millions of Birr)

YEAR	AUSTRALIA	BELGIUM	CANADA	CHINA	DJIBOUTI	EGYPT	FRANCE	Germany	GREECE
1996/1	4.54	47.94	6.62	207.34	51.32	19.16	37.70	85.05	6.80
1996/2	6.02	44.09	12.56	211.22	55.79	24.47	37.90	100.39	5.49
1996/3	9.51	47.26	8.88	256.53	66.03	30.30	27.93	84.31	5.34
1996/4	10.80	56.04	11.39	296.32	68.25	37.77	70.61	114.74	21.46
1997/1	3.72	29.32	5.85	71.61	6.65	8.55	35.13	173.82	5.16
1997/2	4.93	26.96	11.11	72.95	7.23	10.92	35.31	205.18	4.16
1997/3	7.78	28.90	7.86	88.60	8.56	13.52	26.03	172.32	4.05
1997/4	8.83	34.26	10.08	102.35	8.84	16.85	65.79	234.50	16.27
1998/1	7.11	42.48	8.71	117.76	9.38	18.71	79.26	175.53	18.59
1998/2	9.43	39.07	16.54	119.96	10.19	23.89	79.68	207.21	15.01
1998/3	14.88	41.88	11.70	145.69	12.07	29.58	58.72	174.02	14.60
1998/4	16.90	49.66	15.00	168.30	12.47	36.87	148.45	236.81	58.65
1999/1	11.33	40.53	4.24	144.47	7.74	32.96	132.52	177.67	22.86
1999/2	15.02	37.27	8.05	147.17	8.41	42.10	133.22	209.73	18.46
1999/3	23.71	39.95	5.70	178.74	9.96	52.13	98.18	176.14	17.94
1999/4	26.93	47.37	7.30	206.47	10.29	64.96	248.20	239.70	72.10
2000/1	6.05	44.11	10.27	190.34	6.21	30.90	99.87	143.84	9.37
2000/2	8.02	40.56	19.50	193.90	6.76	39.47	100.39	169.80	7.56
2000/3	12.67	43.48	13.79	235.50	8.00	48.86	73.99	142.60	7.35
2000/4	14.39	51.55	17.68	272.03	8.26	60.90	187.04	194.06	29.55
2001/1	9.55	48.26	21.71	307.37	20.96	36.41	152.35	177.09	22.52
2001/2	12.66	44.38	41.21	313.12	22.79	46.50	153.15	209.04	18.19
2001/3	19.99	47.57	29.15	380.29	26.97	57.57	112.87	175.56	17.68
2001/4	22.70	56.41	37.38	439.28	27.88	71.75	285.34	238.91	71.05
2002/1	3.18	113.73	17.25	294.00	114.08	20.15	55.78	181.72	15.28
2002/2	23.73	67.26	12.68	292.31	101.95	30.77	41.14	191.34	12.26
2002/3	8.36	80.98	16.48	334.23	216.73	54.81	78.19	149.92	13.91
2002/4	25.91	88.90	19.32	320.82	86.82	60.25	45.62	198.84	97.75
2003/1	8.54	110.64	9.62	396.34	137.89	30.18	46.53	144.81	17.16
2003/2	4.18	113.61	9.85	429.91	130.71	53.11	54.32	198.19	13.75
2003/3	22.18	67.99	16.25	523.98	107.93	47.01	44.13	161.56	9.13
2003/4	48.74	152.04	60.03	847.88	306.62	117.70	402.37	305.20	27.67
2004/1	26.19	96.72	16.97	675.15	147.51	83.13	160.69	246.84	11.85
2004/2	15.24	97.89	17.12	614.04	211.62	67.18	78.04	348.37	19.24
2004/3	55.63	132.10	16.08	879.94	118.28	93.62	70.30	265.53	12.19
2004/4	8.37	126.02	4.22	752.07	134.91	84.94	172.52	279.64	18.20
2005/1	12.49	134.57	18.40	850.26	80.25	78.75	138.33	266.08	21.40
2005/2	4.45	184.48	113.16	937.39	103.38	116.22	267.14	259.98	5.65
2005/3	14.96	219.33	44.14	1,019.22	124.22	117.89	61.61	284.27	14.83
2005/4	12.41	213.54	25.62	1,315.28	161.81	121.52	110.81	379.21	11.10

Table 10
Source; Ethiopian Customs Authority

Table 10 (Continued)

IMPORTS by Product Origin (in millions of Birr)

YEAR	HUNGARY	INDIA	INDONESIA	ISRAEL	ITALY	JAPAN	JORDAN	KENYA	KOREA, REPUBLIC
1996/1	2.12	117.61	23.67	9.71	146.51	69.62	20.90	14.44	28.02
1996/2	0.94	112.63	30.99	19.70	120.49	66.93	42.46	17.33	23.81
1996/3	1.40	135.60	38.92	14.27	138.31	91.56	24.13	20.30	28.38
1996/4	1.50	194.35	37.35	17.99	205.40	169.04	29.24	20.33	36.34
1997/1	1.50	88.00	18.80	4.64	174.13	148.59	1.40	27.49	83.99
1997/2	0.67	84.27	24.61	9.42	143.20	142.84	2.85	32.99	71.38
1997/3	0.99	101.46	30.91	6.82	164.38	195.42	1.62	38.64	85.06
1997/4	1.06	145.42	29.66	8.60	244.12	360.79	1.96	38.70	108.93
1998/1	7.36	140.92	28.83	24.97	228.03	133.21	13.40	25.94	96.41
1998/2	3.27	134.95	37.74	50.64	187.52	128.06	27.22	31.14	81.93
1998/3	4.84	162.48	47.41	36.69	215.26	175.19	15.47	36.47	97.64
1998/4	5.21	232.87	45.49	46.26	319.67	323.45	18.74	36.53	125.03
1999/1	6.17	114.44	45.33	13.11	262.54	228.24	9.54	23.92	101.91
1999/2	2.74	109.59	59.34	26.60	215.91	219.42	19.38	28.71	86.61
1999/3	4.06	131.95	74.55	19.27	247.84	300.17	11.01	33.63	103.21
1999/4	4.36	189.11	71.54	24.29	368.06	554.20	13.34	33.68	132.16
2000/1	5.83	121.75	37.57	7.91	256.79	174.11	31.44	19.84	89.42
2000/2	2.59	116.59	49.19	16.05	211.18	167.38	63.89	23.82	76.00
2000/3	3.83	140.37	61.80	11.63	242.41	228.98	36.31	27.90	90.56
2000/4	4.13	201.18	59.30	14.66	360.00	422.76	43.99	27.94	115.97
2001/1	36.69	188.97	57.41	4.07	342.65	196.56	12.34	18.05	124.12
2001/2	16.29	180.96	75.17	8.26	281.79	188.96	25.07	21.67	105.48
2001/3	24.13	217.88	94.43	5.98	323.47	258.50	14.25	25.37	125.70
2001/4	25.97	312.27	90.61	7.54	480.37	477.27	17.26	25.41	160.96
2002/1	9.11	190.54	43.73	2.28	390.26	114.09	1.92	33.75	34.45
2002/2	4.07	170.55	48.11	4.26	228.75	96.20	47.02	35.91	43.08
2002/3	5.04	221.43	84.84	10.51	323.85	255.95	88.84	37.10	73.44
2002/4	4.68	219.27	46.54	7.75	263.26	503.14	3.15	42.69	33.04
2003/1	0.00	198.26	36.30	6.86	244.07	142.00	41.20	33.88	67.72
2003/2	0.00	250.01	62.43	12.90	264.70	144.53	4.07	46.98	54.36
2003/3	0.00	272.02	83.04	17.17	297.48	176.06	35.69	55.71	38.33
2003/4	0.00	757.43	105.45	35.94	1,106.86	345.02	36.09	60.18	130.25
2004/1	4.02	376.00	78.51	25.32	377.84	214.65	61.69	41.08	89.82
2004/2	1.11	350.04	116.03	47.56	300.08	213.59	326.16	51.82	56.58
2004/3	4.30	387.43	74.16	26.79	271.58	166.32	0.78	65.96	56.27
2004/4	4.31	432.91	66.50	92.80	286.45	319.38	282.49	50.00	78.66
2005/1	3.56	472.13	83.77	91.48	341.42	251.28	157.56	26.14	109.10
2005/2	2.34	407.56	93.91	192.59	422.06	253.24	82.26	30.26	88.92
2005/3	2.54	535.68	142.05	120.27	438.24	237.70	80.33	39.71	104.81
2005/4	4.89	630.89	188.34	71.43	369.21	322.72	7.20	40.28	155.76

Source; Ethiopian Customs Authority

Table 10 (Continued)

IMPORTS by Product Origin (in millions of Birr)

YEAR	KUWAIT	MALAYSIA	MOROCCO	NETHERLANDS	NORWAY	PAKISTAN	POLAND	ROMANIA	SAUDI ARABIA
1996/1	0.46	12.70	0.13	47.33	2.71	2.15	1.44	1.53	160.22
1996/2	25.84	15.19	0.21	38.04	4.61	2.88	2.57	0.89	295.16
1996/3	14.70	11.28	0.04	45.10	4.09	2.66	1.63	0.97	379.61
1996/4	0.64	19.63	9.90	71.45	3.23	5.92	2.21	2.12	225.16
1997/1	0.54	10.43	0.00	85.05	3.59	1.00	18.38	2.98	105.98
1997/2	30.18	12.47	0.00	68.36	6.11	1.34	32.85	1.73	195.23
1997/3	17.17	9.26	0.00	81.04	5.42	1.24	20.92	1.88	251.09
1997/4	0.74	16.12	0.16	128.40	4.28	2.76	28.27	4.14	148.93
1998/1	1.18	16.23	0.02	30.69	1.40	0.49	11.67	3.26	394.55
1998/2	66.16	19.41	0.03	24.67	2.38	0.65	20.86	1.89	726.82
1998/3	37.64	14.41	0.01	29.25	2.12	0.60	13.28	2.05	934.78
1998/4	1.63	25.09	1.26	46.34	1.67	1.34	17.95	4.52	554.46
1999/1	0.03	20.21	1.85	55.31	3.18	1.58	7.42	1.41	70.83
1999/2	1.66	24.18	2.94	44.46	5.41	2.12	13.27	0.82	130.48
1999/3	0.94	17.95	0.56	52.71	4.80	1.96	8.45	0.89	167.81
1999/4	0.04	31.26	135.98	83.51	3.79	4.36	11.42	1.95	99.54
2000/1	0.08	22.96	0.01	37.57	2.50	1.08	6.76	3.32	28.60
2000/2	4.41	27.47	0.02	30.20	4.26	1.45	12.09	1.92	52.68
2000/3	2.51	20.39	0.00	35.80	3.78	1.34	7.70	2.09	67.75
2000/4	0.11	35.50	1.05	56.72	2.98	2.98	10.40	4.60	40.19
2001/1	0.10	40.77	0.01	78.58	3.70	2.11	6.97	3.08	261.61
2001/2	5.66	48.77	0.02	63.16	6.30	2.83	12.46	1.79	481.92
2001/3	3.22	36.21	0.00	74.87	5.59	2.61	7.94	1.94	619.82
2001/4	0.14	63.04	0.94	118.63	4.42	5.81	10.73	4.28	367.64
2002/1	1.32	18.51	0.00	86.36	2.24	2.23	0.00	5.50	119.58
2002/2	0.87	16.58	0.02	54.34	1.49	4.47	0.00	1.45	555.65
2002/3	0.27	9.17	0.01	94.23	3.25	3.97	0.00	3.00	67.77
2002/4	0.02	18.44	58.71	99.04	2.65	17.37	0.00	7.39	209.01
2003/1	0.71	14.38	0.07	130.80	7.57	4.15	5.18	1.28	57.70
2003/2	252.34	37.32	0.56	99.75	1.62	7.60	7.72	2.69	974.50
2003/3	144.22	33.44	0.05	114.27	6.19	6.14	6.25	2.56	848.77
2003/4	2.10	76.07	0.02	301.98	15.97	15.87	10.32	7.02	359.35
2004/1	0.68	47.00	0.72	148.31	15.84	8.19	5.01	3.59	270.95
2004/2	1.55	30.64	1.24	96.21	10.67	5.99	6.95	1.66	468.12
2004/3	1.17	34.79	0.30	97.33	5.12	8.09	7.97	1.86	1,979.74
2004/4	2.88	54.13	0.00	101.13	8.71	7.35	7.61	1.46	914.68
2005/1	1.55	57.91	0.92	98.44	2.82	9.23	6.85	2.44	1,575.10
2005/2	5.30	85.59	0.67	150.97	46.41	12.15	16.91	3.30	913.07
2005/3	2.25	47.99	0.10	134.57	35.28	9.67	4.50	0.67	1,579.16
2005/4	2.46	60.32	1.25	226.67	6.19	11.27	7.33	0.86	1,061.33

Source; Ethiopian Customs Authority

Table 10 (Continued)

IMPORTS by Product Origin (in millions of Birr)

YEAR	SINGAPORE	SOMALIA	SPAIN	SUDAN	SWEDEN	SWITZERLAND	Taiwan, Province of China	THAILAND	TURKEY
1996/1	11.27	0.21	12.34	17.51	28.72	17.31	12.57	12.39	41.94
1996/2	14.26	0.90	8.21	9.80	54.74	12.20	11.12	8.85	59.33
1996/3	12.56	0.88	11.32	8.89	36.95	12.61	10.42	15.05	59.41
1996/4	16.15	1.24	10.21	11.55	44.43	14.30	13.29	16.11	73.81
1997/1	10.51	0.07	21.72	1.01	41.85	19.70	25.64	13.63	20.58
1997/2	13.29	0.30	14.44	0.57	79.76	13.88	22.69	9.73	29.12
1997/3	11.72	0.29	19.93	0.51	53.84	14.35	21.26	16.55	29.15
1997/4	15.06	0.41	17.97	0.67	64.73	16.27	27.11	17.71	36.22
1998/1	14.16	0.00	24.02	5.23	50.89	30.39	32.92	11.95	1.26
1998/2	17.91	0.01	15.97	2.93	96.98	21.41	29.13	8.53	1.79
1998/3	15.79	0.01	22.04	2.66	65.46	22.13	27.29	14.51	1.79
1998/4	20.29	0.01	19.87	3.45	78.71	25.10	34.81	15.53	2.23
1999/1	14.32	0.13	52.21	0.24	56.97	93.07	21.41	21.28	38.35
1999/2	18.12	0.56	34.72	0.14	108.58	65.57	18.95	15.19	54.26
1999/3	15.97	0.54	47.90	0.12	73.29	67.78	17.75	25.83	54.32
1999/4	20.53	0.76	43.18	0.16	88.13	76.86	22.64	27.65	67.49
2000/1	11.97	0.00	22.14	0.01	51.85	34.28	23.83	20.05	43.63
2000/2	15.15	0.01	14.72	0.01	98.83	24.15	21.08	14.31	61.72
2000/3	13.35	0.01	20.31	0.01	66.70	24.97	19.75	24.34	61.80
2000/4	17.15	0.02	18.31	0.01	80.21	28.31	25.19	26.06	76.79
2001/1	11.46	0.09	23.72	5.01	50.52	69.50	34.56	21.59	40.80
2001/2	14.50	0.38	15.77	2.81	96.28	48.97	30.58	15.42	57.72
2001/3	12.78	0.37	21.76	2.55	64.98	50.61	28.65	26.22	57.79
2001/4	16.42	0.52	19.62	3.31	78.14	57.40	36.54	28.06	71.80
2002/1	27.89	0.00	39.75	4.48	87.50	40.08	22.23	24.57	64.85
2002/2	30.36	0.00	8.11	1.27	62.71	30.59	12.24	23.61	66.57
2002/3	23.14	0.00	21.74	0.77	61.23	23.97	10.46	36.19	115.02
2002/4	18.17	0.00	11.13	0.44	47.00	19.77	10.73	37.98	54.18
2003/1	16.96	0.01	18.19	0.81	37.57	34.09	28.05	0.00	62.81
2003/2	24.43	0.00	20.01	1.09	55.34	27.70	28.14	0.00	57.63
2003/3	17.57	0.00	30.70	4.84	55.90	24.91	49.66	0.00	83.21
2003/4	68.46	0.00	52.38	50.16	134.52	38.40	74.15	0.00	292.29
2004/1	21.13	0.39	16.70	10.67	85.43	49.62	48.63	53.31	106.36
2004/2	35.29	0.05	35.62	27.56	131.50	29.63	47.82	26.21	224.59
2004/3	40.15	0.39	25.33	41.07	88.68	42.13	19.58	40.84	162.97
2004/4	38.05	13.35	13.98	67.92	75.76	37.02	22.68	46.93	265.44
2005/1	43.66	2.54	34.48	223.69	41.34	41.05	25.85	51.78	221.12
2005/2	52.16	12.75	24.88	100.63	387.55	24.69	29.87	37.22	325.28
2005/3	48.94	12.06	34.34	66.85	190.54	34.73	28.56	77.30	251.25
2005/4	42.09	1.12	27.01	7.92	235.07	55.89	30.14	80.57	177.14

Source; Ethiopian Customs Authority

Table 10 (Continued)

IMPORTS by Product Origin (in millions of Birr)

YEAR	UNITED ARAB EMIRATES	UNITED KINGDOM	United States	YEMEN	Sub total	ROW	TOTAL
1996/1	136.32	74.48	153.98	6.85	1,653.63	365.47	2,019.10
1996/2	151.42	83.21	151.76	7.40	1,891.77	260.40	2,152.17
1996/3	145.43	68.45	170.14	10.20	2,051.35	247.75	2,299.10
1996/4	163.67	95.33	469.10	6.45	2,674.80	32.62	2,707.43
1997/1	38.77	106.62	58.80	7.13	1,443.91	89.65	1,536.24
1997/2	43.06	119.11	57.95	7.70	1,651.85	106.11	1,763.72
1997/3	41.36	97.98	64.97	10.62	1,791.18	104.66	1,894.24
1997/4	46.55	136.46	179.13	6.71	2,335.57	130.20	2,458.94
1998/1	57.92	136.65	120.22	15.19	2,192.81	206.09	2,400.48
1998/2	64.33	152.65	118.48	16.41	2,508.61	243.94	2,755.93
1998/3	61.79	125.57	132.83	22.64	2,720.22	240.61	2,959.88
1998/4	69.54	174.89	366.24	14.31	3,546.96	299.32	3,842.27
1999/1	54.71	158.82	134.94	198.63	2,306.82	182.79	2,492.48
1999/2	60.77	177.42	132.99	214.55	2,639.04	216.37	2,861.56
1999/3	58.37	145.95	149.10	295.98	2,861.64	213.41	3,073.33
1999/4	65.69	203.27	411.09	187.08	3,731.37	265.48	3,989.54
2000/1	64.22	138.20	107.77	438.99	2,224.65	170.09	2,397.73
2000/2	71.33	154.39	106.22	474.18	2,545.03	201.33	2,752.77
2000/3	68.50	127.00	119.08	654.16	2,759.70	198.58	2,956.49
2000/4	77.10	176.88	328.33	413.48	3,598.45	247.04	3,837.87
2001/1	105.45	158.85	283.15	256.02	3,169.20	279.09	3,451.24
2001/2	117.12	177.45	279.07	276.54	3,625.61	330.36	3,962.29
2001/3	112.49	145.97	312.87	381.50	3,931.44	325.84	4,255.51
2001/4	126.60	203.31	862.63	241.14	5,126.31	405.35	5,524.16
2002/1	187.96	138.87	249.18	23.73	2,782.14	207.62	2,989.76
2002/2	327.05	190.32	153.30	22.59	3,014.96	329.25	3,344.21
2002/3	214.34	142.51	231.90	10.65	3,128.20	376.80	3,505.00
2002/4	251.11	156.16	445.61	9.34	3,541.98	349.41	3,891.39
2003/1	307.11	196.56	115.02	3.84	2,714.86	391.53	3,106.39
2003/2	323.18	209.99	140.38	10.59	4,130.18	374.36	4,504.54
2003/3	341.28	143.80	167.34	61.22	4,117.96	466.49	4,584.45
2003/4	438.42	342.30	2,757.48	21.60	9,904.32	889.56	10,793.89
2004/1	498.95	195.24	829.50	15.69	5,165.92	864.71	6,030.63
2004/2	361.35	205.41	685.91	14.77	5,380.44	689.25	6,069.69
2004/3	454.68	204.73	746.52	11.60	6,712.30	686.19	7,398.49
2004/4	455.33	237.99	306.37	15.76	5,888.95	960.00	6,848.95
2005/1	437.69	208.17	406.59	16.08	6,646.27	561.84	7,208.11
2005/2	469.37	178.36	744.32	18.17	7,204.57	1,007.99	8,212.56
2005/3	510.70	176.88	705.65	18.50	7,572.29	723.60	8,295.89
2005/4	544.09	203.78	1,317.50	19.33	8,261.34	613.43	8,874.77

Note: ROW refers to rest of the world
 Source: Ethiopian Customs Authority

Characteristics of Tariff Code in Ethiopia

NO.	Description	Before Aug.1993	Aug. 1993	Dec. 1996	Dec. 1997	Dec. 1998	1999 - 2000	Jan.2003 - to date
1	Number of tariff lines	1800	5332	5332	5332	5297	5426	5608
2	Lowest official tariff rate (percent)	5	5	5	5	5	5	5
3	Highest official tariff rate (percent)	230	80	60	5	40	40	35
4	No. of official tariff rate (percent)	24	9	8	7	7	7	6
5	Simple official tariff rates (including zero)	-	35	28.8	24.3	20	20	20
6	Weighted average tariff rate(percent)	-	29.6	24.6	23.6	19.5	19.5	17.5
7	Tariff dispersion (percent, i.e. line 3-2)	225	75	55	55	35	35	30
8	No. of duty free items	327	138	169	170	167	167	179
9	No. of items with specific tariffs	162	3	3	3	3	3	3

Table 11

Annex V List of Statistical Outputs

ADF test of Stationary

Variable		Without Drift & Trend	With drift	With Drift & Trend
lnY _t		1.0432	-1.8262	-2.463
lnT _{wt}		-0.78004	-2.6808	-3.187
lnT _{ct}		0.12820	-2.6820	-2.718
lnS _{kt}		-0.08068	-2.8605	-2.183
lnS _{ht}		-0.47051	-2.6566	-2.016
lnK _t		-0.38356	-2.8095	-2.800
dlnY _t		-7.7531	-8.4515	-3.929
dlnT _{wt}		-6.7947	-6.7370	-3.445
dlnT _{ct}		-8.3521	-8.237	-3.427
dlnS _{kt}		-6.2553	-6.1649	-3.832
dlnS _{ht}		-5.9046	-5.8075	-3.653
dlnK _t		-6.5633	-6.5287	-5.443
Critical value	1%	-2.624	-3.617	-3.629
	5%	-1.95	-2.942	-2.947

Output 1

The appropriate lag length for regression analysis of WTO members

system	SC	AIC
lag 1	-18.071	-19.999
lag 2	-17.206	-20.573
lag 3	-15.713	-19.520
Tests of system reduction		
lag 2 --> lag 1: F(25, 83) = 1.7566 [0.0303] *		

* Information dropped in reducing lag length (at 5% significance level)

Output 2a

The appropriate lag length for regression analysis of COMESA members

system	SC	AIC
lag 1	-17.367	-19.354
lag 2	-16.662	-19.137
lag 3	-15.713	-19.676
Lag 4	-15.568	-21.020
Tests of system reduction		
lag 2 --> lag 1: F(25, 79) = 1.9594 [0.0130] *		
lag 3 --> lag 1: F(50, 76) = 1.6367 [0.0258] *		
lag 4 --> lag 1: F(75, 56) = 1.7178 [0.0176] *		

* Information dropped in reducing lag length (at 5% significance level)

Output 2b

Test of number of cointegrating vectors for WTO and COMESA

Ho:rank=p	λ max (WTO)	λ max (WTO)	λ max (COMESA)	λ max (COMESA)
p == 0	49.57**	102.8**	51.83**	107.7**
p <= 1	21.03	53.16	26.44	52.92
p <= 2	20.13	32.17	16.3	29.49
p <= 3	7.789	12.03	8.922	13.18
p <= 4	4.242	4.242	4.261	4.261

* Existence of one cointegration at 5% significance level
 ** Existence of one cointegration at 1% significance level

Output 3

Long-run parameter estimates with zero-restrictions

	IY_t	IK_t	IS_{ht}	IS_{it}	IT_{Ot}
β (WTO)-coefficients	1.00	-0.97	-0.36	0.65	0.66
LR test: Chi ² (1)	9.6863	24.957	3.3406 (for both IS_{ht} & IS_{it})		12.4630
P-Value	[0.0019]**	[0.0000]**	[0.1882]		[0.0004]**
	IY_t	IK_t	IS_{ht}	IS_{it}	IT_{Ot}
β (COMESA)- coefficients	1.00	-0.94	-0.53	-2.05	0.57
LR test: Chi ² (1)	9.7919	21.289	6.0559	3.5057	15.360
P-Value	[0.0018]**	[0.0000]**	[0.0139]*	[0.0612]	[0.0000]**

* Significant at 5% significance level

** Significant at 1% significant level

Note: Significance of both kinds of savings were also taken separately and the coefficients have come out to be insignificant.

Output 4a

Ergogeneity test with zero-restrictions

	IY_t	IK_t	IS_{ht}	IS_{it}	IT_{Ot}
α (WTO)- coefficients	0.37	1.91	0.061	0.058	-0.65
LR test: Chi ² (1)	15.963	4.957	0.17457	3.1669	2.4630
P-Value	[0.0001]**	[0.0601]	[0.6761]	[0.0751]	[0.1914]
	IY_t	IK_t	IS_{ht}	IS_{it}	IT_{Ot}
α (COMESA)- coefficients	0.44	1.92	0.07	0.03	-0.89
LR test: Chi ² (1)	17.879	1.289	0.1769	0.53696	3.299
P-Value	[0.0000]**	[0.3584]	[0.6740]	[0.4637]	[0.1972]

* Significant at 5% significance level

** Significant at 1% significant level

Output 4b

VECM Regression Results for Trading with WTO

Variable	Coefficients	t-value	Diagnostic Test
Constant	2.81	3.90	AR 1-3 test: F(3,30) = 1.0361 [0.3907] ARCH 1-3 test: F(3,27) = 0.50671 [0.6809] Normality test: Chi ² (2) = 5.5134 [0.0635] hetero test: F(6,26) = 1.0376 [0.4240] hetero-X test: F(9,23) = 1.2096 [0.3362] RESET test: F(1,32) = 0.60345 [0.4430]
DLK _t	0.58	7.93	
DLT _{(WTO)t}	-0.18	-3.86	
VLY _{t-1}	-0.22	0.52	
R ²	0.82941		
F(3,33) =	53.48	[0.000]**	
DW	2.02		

** Significant at 1% significant level

Key; D- represents the change in variables

L- natural logarithm

VLY- natural log of the residual

Output 5a

VECM Regression Results for Trading with COMESA

Variable	Coefficients	t-value	Diagnostic Test
Constant	0.0178570	1.39	AR 1-3 test: F(3,27) = 2.6180 [0.0714] ARCH 1-3 test: F(3,24) = 0.91251 [0.4497] Normality test: Chi ² (2) = 2.9630 [0.2273] hetero test: F(12,17) = 0.90449 [0.5610] RESET test: F(1,29) = 0.0017159 [0.9672]
DLY _{t-1}	-0.567549	-1.51	
DLK _t	0.146293	3.94	
DLK _{t-1}	0.129330	3.27	
DLS _{ht}	0.129495	2.33	
DLT _(COMESA)	-0.141143	-3.49	
VLY _{t-1}	-0.446288	1.76	
R ²	0.748725		
F(6,30) =	14.9	[0.000]**	
DW	2.18		

** Significant at 1% significant level

Key; D- represents the change in variables

L- natural logarithm

VLY- natural log of the residual

Output 5b

EG approach output

Variable	Coefficients	t-value	Diagnostic Test
Constant	0.0178570	1.39	AR 1- 3 F(3, 30) = 1.4391 [0.2510] ARCH 3 F(3, 27) = 0.077233 [0.9718] Normality Chi ² (2)= 2.0391 [0.3608] Xi ² F(10, 22) = 0.64707 [0.7588] Xi*Xj F(20, 12) = 0.7789 [0.6998] RESET F(1, 32) = 0.36325 [0.5510]
lK _t	-0.567549	-1.51	
lS _{ht}	0.146293	3.94	
lS _{it}	0.129330	3.27	
lT _(OPEN)	0.129495	2.33	
lK _{t-1}	-0.141143	-3.49	
R ²	0.87		
DW	2.32		
Unit-root tests of residual for test of cointegration			
	t-adf	beta Y ₁	lag
Residuals	-3.7649**	-0.32801	2

* Significant at 5% significance level

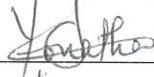
** Significant at 1% significant level

Output 6


Declaration

I, the undersigned, declare that this thesis is my own work and has never been presented in any other university. All source of materials used for this thesis have been duly acknowledged.

Declared by:

Name: Jonathan Shiferaw
Signature: 
Date: April 16, 2007

Confirmed by advisor:

Name: SHAIL SINGH
Signature: 
Date: April 16, 07

Place and date of submission: Addis Ababa University, February 2007