The Relation Ship between Import, Exports 
and Economic Growth in Ethiopia.

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Abstract: This study investigates the relationship between import, export and economic growth in Ethiopia. An econometric model has been developed and estimated in order to determine the direction of causality in both, short and long run. The annual time series used for the estimation cover the time period 1981 – 2014. The findings indicate that the income, exports, imports and relative prices are cointegrated. The long run bidirectional causality between the import, exports and income growth has been also proved. The study result indicates that the import-export promotion Policy contributes to the economic growth in Ethiopia.

Keywords: export; import; economic growth; Ethiopia; Granger causality; export led growth.

1. Introduction

Ethiopia is the second-most populous country in Sub-Saharan Africa with a population of 99.4 million, and population growth rate of 2.5% in 2015. One of the world’s oldest civilizations, Ethiopia is also one of the world’s poorest countries. The country’s per capita income of $590 is substantially lower than the regional average (Gross National Income, Atlas Method). The government aspires to reach lower-middle income status over the next decade.

The term import is a good brought into a jurisdiction, especially across a national border, from an external source. The party bringing in the good is called an importer. An import in the receiving country is an export from the sending country. Importation and exportation are the defining financial transactions of international trade. Export means shipping of the goods and services out of the jurisdiction of a country. The seller of such goods and services is referred to as an “exporter” and is based in the country of export whereas the overseas based buyer is referred to as an “importer”. In international trade, “exports” refers to selling goods and services produced in the home country to other markets.

2. Import, Export And Free Trade

The theory of comparative advantage materialized during the first quarter of the 19th century in the writings of ‘classical economists’. While David Ricardo is most credited with the development of the theory (in Chapter 7 of his Principles of Political Economy, 1817), James Mill and Robert Torrens produced similar ideas. The theory states that all parties maximize benefit in an environment of unrestricted trade, even if absolute advantages in production exist between the parties. In contrast to Mercantilism, the first systematic body of thought devoted to international trade, emerged during the 17th and 18th centuries in Europe. While most views surfacing from this school of thought differed, a commonly argued key objective of trade was to promote a “favorable” balance of trade, referring to a time when the value of domestic goods exported exceeds the value of foreign goods imported. The “favorable” balance in turn created a balance of trade surplus. Mercantilists advocated that government policy directly arrange the flow of commerce to conform to their beliefs. They sought a highly interventionist agenda, using taxes on trade to manipulate the balance of trade or commodity composition of trade in favor of the home country.

2.1. Advantages of importing

According to the World Trade Organization, the chief advantage to importing products is an increase in market choices. With the importation of products, local markets can improve the variety of their offerings, providing consumers with goods that are either not available locally or items that can serve as competition to locally produced goods.

2.2. Advantages of exporting

Ownership advantages are the firm’s specific assets, international experience, and the ability to develop either low-cost or differentiated products within the contacts of its value chain. The locational advantages of a particular market are a combination of market potential and investment risk. Internationalization advantages are the benefits of retaining a core competence within the company and threading it though the value chain.
rather than obtain to license, outsource, or sell it. In relation to the Eclectic paradigm, companies that have low levels of ownership advantages either do not enter foreign markets. If the company and its products are equipped with ownership advantage and internalization advantage, they enter through low-risk modes such as exporting. Exporting requires significantly lower level of investment than other modes of international expansion, such as FDI. As you might expect, the lower risk of export typically results in a lower rate of return on sales than possible though other modes of international business. In other words, the usual return on export sales may not be tremendous, but neither is the risk. Exporting allows managers to exercise operation control but does not provide them the option to exercise as much marketing control. An exporter usually resides far from the end consumer and often enlists various intermediaries to manage marketing activities. After two straight months of contraction, exports from India rose a whopping 11.64% at $25.83 billion in July 2013 against $23.14 billion in the same month of the previous year.

### 2.3. Disadvantages of importing

- Foreign goods are substituting the domestic goods’ markets so the domestic industries are eliminated.
- Trade deficit will cause the currency devaluation, inflation.
- The importing of important industries will lose the influence by importing country.

### 2.4. Disadvantages of exporting

- Financial management effort: To minimize the risk of exchange-rate fluctuation and transactions processes of export activity the financial management needs more capacity to cope the major effort.
- Customer demand: International customers demand more services from their vendor like installation and startup of equipment, maintenance or more delivery services.
- Communication technologies improvement: The improvement of communication technologies in recent years enable the customer to interact with more suppliers while receiving more information and cheaper communications cost at the same time like 20 years ago. This leads to more transparency. The vendor is in duty to follow the real-time demand and to submit all transaction details.

- Management mistakes: The management might tap in some of the organizational pitfalls, like poor selection of overseas agents or distributors or chaotic global organization.

This paper uses a theoretically consistent method to test validity of the export led growth (ELG) hypothesis for Ethiopia. The current discussion is focused on whether a developing country would be better served by trade policies oriented toward import substitution or export promotion (Irwin, 2002, Shafaeddin, Pizarro, 2007, Jayanthakumaran, 1994, etc).

The import substitution strategies seek to promote rapid industrialization of the local production in order to substitute the imports needed to further economic development. Therefore, the government involves import trade barriers as tariffs, import quotas, etc. On the other hand, outward-looking development (or export led growth – ETC) strategies involve strategies supporting manufacturing sectors with a potential comparative advantage. This framework argues that international trade promotes specialization in production of export products, which in turn boosts the productivity level (Helpman, Krugman, 1985, Boomstrom, 1986) and causes the general level of skills to rise in the export sector. Then, it leads to re-allocation of resources from the inefficient non-trade sector to the trade sector and disseminating of the new management styles and production techniques through the whole economy (Feder, 1982, Lucas, 1988, Edwards, 1992). Thus, the entire economy would benefit due to the dynamic spill over of the export sector growth (Giles, Williams, 2000a, 2000b). An increase in exports improves the balance of payment and enlarges the foreign monetary reserves, which consequently enables the increase of investment goods import and facilities necessary for the domestic production growth (Chenery, Strout, 1966). The empirical evidence tends to support the notion that those economies, which actively pursue export promotion policy, have been more successful than those that have pursued import substitution policies.

The validity of the ELG hypothesis has not been proved uniformly. Giles and Williams (2000a) provide a comprehensive survey of more than 150 papers dealing with ELG. It should be noted that their list includes mostly developing countries.

In this paper, we provide a survey of the ELG hypothesis validity in conditions of the Ethiopia economy.
3. Model Specification

Cointegration modeling jointly considered with the Granger causality methodology are commonly used by ELG hypothesis testing. According to this methodology, all considered time series are assumed to be integrated of order 1. Then, the integration order is tested in the first step. If this assumption is statistically rejected, then the estimation of the long term equilibrium relations among the integrated time series is performed. Afterwards, the short run equations estimation according to the VECM theory is performed. In the final step of this analysis, the Granger causality test based on the multivariate framework is carrying out.

The short run system of equations is given as follows:

\[
\Delta \text{Exp}_t = \alpha + \sum_{i=1}^{n} \beta_i \Delta \text{Exp}_{t-i} + \sum_{i=1}^{m} \gamma_i \Delta \text{GDP}_t + \sum_{i=1}^{p} \delta_i \Delta \text{EC}_t + \epsilon_t
\]

\[
\Delta \text{GDP}_t = \alpha_1 + \sum_{i=1}^{n} \beta_{i1} \Delta \text{Exp}_{t-i} + \sum_{i=1}^{m} \gamma_{i1} \Delta \text{GDP}_t + \sum_{i=1}^{p} \delta_{i1} \Delta \text{EC}_t + \epsilon_t
\]

\[
\Delta \text{EC}_t = \alpha_2 + \sum_{i=1}^{n} \beta_{i2} \Delta \text{Exp}_{t-i} + \sum_{i=1}^{m} \gamma_{i2} \Delta \text{GDP}_t + \sum_{i=1}^{p} \delta_{i2} \Delta \text{EC}_t + \epsilon_t
\]

where the \( \text{Exp}_t \) denotes export, \( \text{GDP}_t \) denotes gross domestic product and varia \( \text{EC}_t \) is exchange rate in time \( t \). Coefficient \( \alpha \) measures the sensitivity of the endogenous variable with respect to the deviation from the long-term equilibrium (error) \( \epsilon_t \). If the estimated regression coefficients of the lagged export variable \( \beta_i \) are significant, then the alternative hypothesis meaning that export \( \text{Exp}_t \) causes economic growth is accepted. In other words, the ELG hypothesis supported. Furthermore, if the export is involved in the long-term cointegration relationship, the ELG hypothesis is supported only if the coefficient of the lag error-correction term \( \epsilon_t \) is significant. Then, change of an independent variable \( \beta_i \) be interpreted as representing the short-run causal impact while the error-correction term provides the adjustment of export and economic growth toward their respect long-run equilibrium. Thus, the VECM representation allows us to different between the short- and long-run dynamic relationships.

4. Data Source

The empirical analysis is conducted using annual observations of export, import, trade balance, destination, origin, economics complexity and economics complexity ranking in Ethiopia covering the period of 1995 – 2014. All data were obtained from http://atlas.media.mit.edu/en.

5. Estimation And Results

5.1. Export

Figure 1 summarizes the export of Ethiopia in 2014. In 2014 Ethiopia exported $5.56 billion, making it the 110th largest exporter in the world. The most recent exports are led by refined petroleum which represents 19.4% of the total exports of Ethiopia, followed by coffee, which account for 15.1%.

5.2. Import

In 2014 Ethiopia imported $16.4B, making the country 84th largest importer in the world. The most recent imports of Ethiopia are led by Refined petroleum which represents 20.7% of the total imports, followed by delivery trucks which account for 3.19%. See the summary in the figure 2 given below:

5.3. Trade Balance

As of 2014 Ethiopia has a negative trade balance of $10.8B in net imports. Figure 3 shows the comparison of the trade balance since 1995 to 2014.

5.4. Destinations

The top export destinations of Ethiopia are shown in figure 4 below:

5.5. Origins
The top imported origins of Ethiopia are as shown in figure 5 below:

![Fig. 5. Top imported origins of Ethiopia in 2014](image)

### 5.6. Economic complexity of Ethiopia ranking

The economic complexity ranking of Ethiopia has decreased by 51 places over the past 33 years from 79th in 1981 to 130th in 2014 as shown in figure 6 given below:

![Fig. 6. The economic complexity ranking of Ethiopia](image)

### 6. Conclusions And Policy Implication

#### 6.1. Conclusions

This study attempted to examine the contribution of import and exports to economic growth of Ethiopia using different econometric techniques like such as ELG Hypothesis. Data from different sources covering the period 1981-2014 are used for the analysis. From this data Ethiopia has a negative trade balance of $10.8B net imports. This indicates the country imported more goods and services than the amount exported.

#### 6.2. Policy Implications

Import - Export has a significant role for economic growth, therefore the country should strongly follow export led growth (ELG) hypothesis and an appropriate import policy. To do this the following measures should be taken:

- The tax burden on imports exports and imports of inputs should be lowered
- Extensive power generation
- Implementation of manufacturing
- Much emphasis should be given to infrastructural facilities development such as transport, communications and water supply facilities.

### References


