Impact of foreign aid on domestic saving (case study in Ethiopia)

Workneh, Migbaru Alamirew

Addsi Ababa University

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IMPACT OF FOREIGN AID ON DOMESTIC SAVING[1]

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BY

MIGBARU ALAMIREW

ADVISOR: DR. TASSEW W/HANNA

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ABSTRACT

The study has examined the impact of foreign aid (by disaggregating into bilateral and multilateral aid) on domestic saving in Ethiopia over the period 1981 to 2011 (from 1973 to 2003 Ethiopian Fiscal Year) using multivariate cointegration analysis. The empirical result shows that multilateral aid has a significant positive impact on domestic saving in the long run. On the other hand, bilateral aid has a negative influence on domestic saving. Foreign multilateral aid is effective in enhancing economic growth through domestic saving. However, the foreign bilateral aid has produced a significant negative effect on growth through a decrease in domestic saving which shows that there is crowding out effect which exists when the Government borrowing increases and the fund does not allocate on productive sectors especially when it is spent for consumption purpose.

Keywords: foreign bilateral aid, foreign multilateral aid, domestic saving, cointegration, VECM, Ethiopia.

CHAPTER ONE

1. Introduction

1.1 Background of the Study

Ethiopia is found in the Horn of Africa with a population size of more than 84 million (as of 2011 World Bank report) accounting for a total area of 1.11 million hectares. The country is one of the Least Developed Countries (LDCs) in the globe, which the 2010 United Nations Human Development Index categorized the country as a least developed nation and gave a rank of 157th out of 169 countries of the world. The per capita GDP of the country has reached USD 392 according to the annual GTP report of 2010/2011. About 83 percent of its population lives in rural areas and the country's poverty headcount rate (poverty rate) was 38.7 percent in 2004/05 according to the official statistics and 29.6 percent as of the annual GTP report of 2010/2011considering the growth rate and the development assumption.

The Ethiopian economy is predominantly agricultural. As a result, agriculture is considered as the backbone of the economy. The production in this sector accounts for 41 percent of the Ethiopia's Gross Domestic Product (GDP) giving up for the first time the highest share to service sector that accounted 46 percent of the GDP in the year 2011. Industry comes at the third place contributing 13 percent of the GDP. The agricultural sector also accounts for 85 per cent of the total employment. From the total export of the country, about 62 percent is covered by agricultural products. The major foreign currency earning is generated from Coffee export, providing approximately 30.6% of Ethiopia's foreign exchange earnings in 2010-2011, down from 65% a decade ago because of the increase in other exports. Other traditional major agricultural exports are finished leather goods, pulses, oilseeds, and the traditional "chat," a leafy narcotic that is chewed. Cut flowers and gold exports have become major export items in recent years. Gold was Ethiopia's second-largest export in 2010-2011, earning 17% of export proceeds. Ethiopia's high-quality coffee is a major cash crop that covers about 62 per cent of total agricultural exports.

Manufacturing, trade, mining, tourism, construction and services also contribute to the GDP of the country.

Despite the fact that the history of the growth performance was poor in the past; the country has experienced strong economic growth in the current time (especially, since 2003/04). According to the 2003 Ethiopian fiscal year report of Ministry of Finance and Economic Development, the growth rate of GDP averaged 11.4 % per annum during the2003/04 and 2010/11 period, placing Ethiopia among the top performing economies in sub-Saharan Africa. This growth performance is well in excess of the population growth rate of 2.6 percent (as MOFED 2011/12 report) and the7 percent economic growth rate required for attaining the MDG goal of halving poverty by 2015. However, there are a number of challenges to sustain the current trend of economic growth. The high dependency of economic growth on timely and adequate rainfall and the country's vulnerability to terms of trade and similar external shocks are structural constraints facing the economy (Tasew, 2011). There is a strong correlation between weather condition and economic performance in Ethiopia. Alemayehu (2001) argued that in explaining the growth in Ethiopia it will be necessary to examine the agricultural sector, its linkage with the other sectors and household behaviour in rural Ethiopia.

The other important factor in explaining the growth in Ethiopia is the external environment. The high dependence on imported inputs such as fertilizers, raw materials and the like which are highly sensitive to the availability of foreign exchange has an important implication for the functioning of the economy. The country is dependent on coffee as the main means of foreign exchange earnings while non-coffee export's contribution to the foreign exchange earnings is quite weak. As a result, the country remains a victim of foreign exchange constraint and adverse terms of trade. Moreover, if exogenous shocks are supported by poor policies (institutional, economic and political)-which remained detrimental to Ethiopia's growth-they have the tendency to deteriorate economic growth.

The other most important permanent feature of the Ethiopian economy is the presence of resource (financial) gap. The resource gap can be explained as the presence of the savings-investment gap, foreign exchange gap and fiscal gap. In recent years the savings-investment gaps been widening from an average of 1.1% of GDP during the Imperial period (1960-74) to 6%of the GDP during

the Derg period (1974-91) to 11.7% of the GDP in the EPRDF (1991/92-2007/08). The presence of a resource gap (gross domestic investment-gross domestic savings) forces the country to rely on an inflow of foreign finance (specifically foreign aid) to bridge the gap.

The dependence on exports of primary agricultural commodities (notably coffee) makes the country to be a victim of foreign exchange constraints or foreign exchange gap. For instance, in2001/02 the exports of goods and non-factor services amounted to 15.5%of GDP while the imports of goods and non-factor services amounted to 35.2% of GDP and resulted in 19.7%foreign exchange gap and in 2010 the exports of goods and non-factor services amounted to 13.62 % of GDP while the imports of goods and non-factor services amounted to 32.99 % of GDP (World Bank Report, 2010). While this has an important bearing for diversification and promotion of exports, it also calls for foreign finance to supplement the limited foreign exchange earnings to import capital goods along with other commodities.

In Ethiopia, the government is the main source of the budget deficit. The inadequacy of the domestic economy to expand domestic revenue sources to finance the deficit by itself also makes inflows of foreign capital an important source to mitigate the challenge. Thus, the presence of these resource gaps in one way or other shows that the domestic economy is not capable of generating enough finance to close these gaps and make the country's reliance on foreign capital inflow compulsory.

Being one of the developing countries, Ethiopia is experiencing very low domestic savings and foreign exchange earnings which results in low investments and growth. This has caused the country to experience low income per capita for many decades. Foreign aid has played a major role in filling the saving-investment gap, trade gap and fiscal gap by supplementing domestic savings required for investment.

1.2 Statement of the problem

Foreign capital inflows are receiving due attention because of their potential to finance investment and perceived to promote economic growth in the recipient country. The growing divergence in saving and investment rates, the export-import gap (foreign exchange constraints to import capital

goods) and budget deficits in developing countries make them depend highly on the inflow of foreign capital.

Poor countries lack sufficient domestic resources to finance investment and foreign exchange to import capital goods and technology. Aid to finance investment can directly fill the savings-investment gap and, as it is in the form of hard currency, aid can indirectly fill the foreign exchange gap. As official aid is issued to the government, it can also fund government spending and compensate for a small domestic tax base (Girma, Gomannee and Morrissey, 2005).

The scenario in Ethiopia is not different from other developing countries. The performance of Ethiopia in improving the level of investment and promotion of economic growth through domestic capital sources and private capital inflow alone is inadequate. This makes the importance of foreign aid unquestionable to the performance of the economy.

Alemu (2007) explained that foreign aid has played a major role in Ethiopia's development effort since the end of World War II. It has been instrumental in bridging the country's savings-investment and foreign exchange gaps. Its importance as a source of financing for the development of capacity building (human capital, administrative capacity, institutional building and policy reform) is also unquestionable. Thus increasing efforts were made to mobilize foreign aid in Ethiopia especially in the last two regimes.

Despite massive inflow of aid to developing countries and extensive empirical work for decades on the aid-growth link, the aid effectiveness literature remains controversial. An important objective of much Official Development Assistance ('foreign aid') to developing countries is the promotion of economic development and welfare, usually measured by its impact on economic growth. Yet, after decades of capital transfers to these countries, and numerous studies of the empirical relationship between aid and growth, the effectiveness of foreign aid in achieving these objectives remains questionable (Durbarry, Gemmel and Greenway, 1998).

An empirical investigation on the relationship between aid and growth by Gomannee, Girmaand Morrissey(2005) on 25 sub-Saharan Africa countries from 1970 to 1997 show that aid appears to be ineffective. According to this study, despite large aid inflows, Sub-Saharan African countries on average experienced only 0.6 per cent growth in real per capita GDP per annum over the period. On the face of it, this may appear to be a case of aid ineffectiveness. Taslim and Weliwita (2000)

also try to see the inverse relationship between foreign aid and saving based on the theory developing the nation's capacity to invest is limited by its entrepreneurial stock. But this does not imply that aid is ineffective in promoting growth at all.

However, other studies reject the aid ineffectiveness claim and prove that aid is effective in promoting development in recipient countries. Tarp (2009) argues that aid has been and remains an important tool for enhancing the development prospect of poor nations. A similar conclusion has been reached by Arndt, Jones and Tarp (2009) which showed that the average effect of aid on growth is positive. Both studies show that there emerges a consistent case for aid effectiveness.

In the growth literature, foreign aid influences growth through its impact on investment, i.e. foreign aid increases total savings which can be used to finance investment (a major determinant of economic growth). Michael P. Shields (2007) also tried to see the crowding out effect between foreign aid and domestic saving and confirm a positive relationship between foreign aid and domestic saving which implies foreign aid can increase domestic saving. Tolessa (2001) also tried to see the impact of foreign aid on domestic saving and investment by distinguishing foreign aid into foreign grant and foreign loan and conclude that foreign grant has a negative effect on domestic saving while foreign loan has a positive impact on domestic saving and investment. Foreign aid affects the level of domestic saving directly and indirectly and it also has an impact on foreign exchange earnings since the aid is transferred to the recipient country (Ethiopia) in original currency (Foreign currency) especially for programs and budget support. Past studies with the exception of a few have not distinguished foreign aid by sources of foreign aid (bilateral and multilateral sources). These different sources of aid are believed to have a well differencing impact on domestic saving. The separation of the impact of bilateral sources of foreign aid on domestic saving from multilateral aid sources has considered as one area in which further research is beneficial. Hence, this study is carried out to answer the question "how foreign aid affects the domestic saving in the short run and long run?" by disaggregating foreign aid into bilateral and multilateral sources.

1.3 Objectives of the Study

The main objective of this study is to identify factors that affect the domestic saving in enhancing investment and growth specifically to explore the impact of foreign aid on the domestic saving in Ethiopia. Thus the specific objectives of the study are analyzing:

1. The impact of foreign aid on domestic saving in the short run and long
2. The effect of sources of foreign aid (bilateral and multilateral) on domestic saving
3. Identify the sources of foreign aid that are more important for the domestic saving

1.4 Scope and Limitation of the Study

Data use for this study are for the period from 1981 to 2011 (from 1973 to 2003 Ethiopian Fiscal Year). There is a shortage of data especially for the major variables i.e for bilateral and multilateral aid. This will limit the study to analyzing a reasonably lengthy period. In addition to the data limitation; time is the major limitation for the study. But even if time and a shortage of data limit me to do the study, I tried to afford those limitations and to do better.

1.5 METHODOLOGIES

1.5.1 Data and Data Sources

The study is based on a country level macro-data covering the period from 1981 to 2011 (from 1973 to 2003 Ethiopian Fiscal year). The choice of the period is based on the availability of relevant data for the study. The relevant data were collected from various sources: Central Statistical Authority (CSA), Ministry of Finance and Economic Development (MoFED), Ethiopian Economic Association (EEA), National Bank of Ethiopia, World Bank and other sources which are perceived to be relevant and reliable. The data for domestic saving and value-added agriculture is in real terms based on the 2003 Ethiopian base year and the data for bilateral and multilateral aid are the net bilateral and multilateral aid flows which deduct debt service payment. As the data used is time series, various tests are performed including testing for stationarity (unit root test),

and co-integration test. The rank of co-integration is determined by using the Johansen maximum likelihood procedure method.

1.5.2 Description of Variables and Model specification

Much of the discussions of foreign aid in economic development have stressed its catalytic effect in promoting domestic saving from internal sources. This stimulus occurs as foreign aid operates as an autonomous investment and opens new opportunities and generate induced saving and investment. In other words, development aid is assumed to generate additional savings as a result of an increase in income directly and higher growth rate through aid multiplier effect that is presumed to induce (Todaro, 1989; White, 1992: as cited by Tolessa, 2001). In contrast to the idea considered above, many authors have adopted the hypothesis that an increase in foreign aid inflows reduces domestic saving. This admits the existence of a certain degree of substitutability between foreign aid and domestic saving. So the overall impact of foreign aid on domestic saving is an empirical question and this paper focuses on the impact of foreign aid on domestic saving by disaggregating foreign aid into Bilateral Aid and Multilateral Aid. As regards disaggregated measures of aid, the conventional wisdom suggests that bilateral aid is dictated by political and strategic considerations whilst multilateral aid is development-oriented and hence is bound to be more effective. There is, however, a considerable concern that the one-size-fits-all blanket policy prescriptions attached to multilateral aid undermine its efficacy or may even be inimical to the economic development of aid-receiving countries. On the other hand, bilateral aid comes with fewer policy strings attached to it. Besides, bilateral donors have historical ties with and knowledge about particular recipient countries and superior experience in specific fields of development (Cassen, 1994: as cited by Fisha, 2009).

The model used in the domestic saving equation is specified by disaggregating the foreign aid by sources (bilateral and multilateral). Accordingly, the model to be specified is:

$S_t = F\{BA_t, MA_t, AG_t\}$---(1.1)

$\qquad$ (+) $\quad$ (+) $\quad$ (+)

Where S = Gross domestic saving, BA = Net Bilateral Aid flows from DAC donors, MA = Net Multilateral Aid flows from multilateral institutions, AG = value added in agriculture, and t stands for time. And the expected sign of variables is identified.

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Specifying equation (1.1) in logarithmic form, we have an estimable model:

$LS_t = \beta_0 + \beta_1 LBA_t + \beta_2 LMA_t + \beta_3 LAG_t + U_t$-------------------------------- (1.2)

Where β_0 is the constant term, β_1, β_2, and β_3 are elasticity coefficients and U_t is the white noise error term.

Then after the model is specified; a brief description of the variables and relevant issues and concepts used in the saving equation is given below:

S: Gross domestic savings. Growth theories based on the Harrod-Domar model emphasize the role of savings in fostering investment and growth. Ensuring an adequate level of domestic savings is important as foreign savings can be volatile and is not easily predictable.

BA: Net Bilateral Aid flows from DAC donors. Net bilateral aid flows from DAC donors are the net disbursements of official development assistance (ODA) or official aid from the members of the Development Assistance Committee (DAC). Net disbursements are gross disbursements of grants and loans minus repayments of principal on earlier loans. ODA consists of loans made on concessional terms (with a grant element of at least 25 percent, calculated at a rate of discount of 10 percent) and grants made to promote economic development and welfare in countries and territories in the DAC list of ODA recipients. DAC members are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Republic of Korea, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, United States, and Commission of the European Communities.

MA: Net Multilateral Aid flows from multilateral institutions. Public and publicly guaranteed multilateral loans include loans and credits from the World Bank, regional development banks, and other multilateral and intergovernmental agencies. Net flows (or net lending or net disbursements) received by the borrower during the year are disbursements minus principal repayments.

AG: the value added in agriculture. It represents the dominance of agriculture. This is because the Ethiopian Economy is dominated by agricultural products.

1.5.3 Order of Integration and Co-integration

1.5.3.1 Identification of Order of Integration: Testing for Unit Root

Since the study uses time series economic data, testing the variables for stationarity in econometric analysis is becoming mandatory[2]. If variables entering a regression are nonstationary, then the results obtained using ordinary least squares (OLS) techniques would be spurious. That is the fact that the variables share common trends will tend to produce a significant relationship between the variables rather than the true causation [(Harris (1995), Maddala (1992)]. Therefore, the inference made using the standard statistical tests like the F distribution and t-distribution produce a misleading result.

Since most economic time series data are unlikely stationery, the first step is to test whether the variables are stationary i.e. checking for the presence of unit roots, to avoid the problem associated with spurious regression. Various mechanisms have been developed to transform non-stationary time series variables to attain stationarity. If a variable has a deterministic trend, including trend variable in the regression removes the trend component and makes it stationary[3]. Such a process is called trend stationery since the deviation from the trend is stationary.

However, most time series data have a characteristic of the stochastic trend. If a variable has a stochastic trend, it needs to be differenced in order to obtain stationarity. Such a process is called a difference stationary process (Gujarati, 2004). The number of unit roots a given variable possess determines how many times the variable should be differenced in order to make it stationary. In this paper unit, root test will be conducted using Dickey-Fuller (DF) and Augmented Dickey-Fuller (ADF) tests.

The Dickey-Fuller test starts with the following first-order autoregressive model:

$$Y_t = \Phi Y_{t-1} + U_t \text{-- (1.3)}$$

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[2] *A process is said to be stationary (weakly or covariance stationary) if the mean variance and auto-covariance i.e. the first two moments of distribution are time invariant. That is there exists stationary process if it generates constant mean and variance and if the covariance depends only on the time lag used in the calculation(Enders,1996)*

[3] *A trend is said to be deterministic if it can be perfectly predictable rather than being variable (stochastic).*

Where Y_t is the nx1 vector of variables included in the domestic saving equation (which is explained in the next section), Φ is the parameter and is U_t the error term.

Subtracting Yt-1 from both sides gives

$\Delta Yt = \gamma Yt\text{-}1 + Ut$--- (1.4)

Where $\gamma = (\Phi\text{-}1)$, $Ut \sim IID (0, \delta^2)$

Then the test for stationarity is conducted on the parameter γ. If $\gamma=0$ or $\Phi=1$ it implies that the variable Y is not stationary. The hypothesis to be tested is formulated as follows:

H0: $\gamma=0$ or $\Phi=1$

H1: $\gamma<0$ or $(\Phi<1)$

The use of equation (1.4) is appropriate only when the series Y_t has a zero mean and no trend term (Harris, 1995). If a variable has a zero mean, it implies that $Y_t=0$ when t=0-implying no constant term. A constant (drift) is included in the regression since it is difficult to know whether the true value of Y_0 is zero or not. Including a constant (α) to equation (1.4) gives:

$\Delta Yt=\alpha + \gamma Yt\text{-}1 + Ut$-- (1.5)

Also testing for stationarity using equation (1.5) is invalid if a series contains a deterministic trend. Because if $\gamma=0$, the null hypothesis will be accepted that the series contains a stochastic trend when there exists a deterministic trend. Thus to avoid such results, it is important to incorporate a time trend in the equation above:

$\Delta Yt= \alpha+\gamma Yt\text{-}1+\beta T + Ut$--- (1.6)

where T is the trend element.

For the above equations (equation 1.5 and 1.6), the parameter γ is used while testing for stationarity and the decision is made using τ-statistics[4]. (see Enders(1996) for details). If the calculated value τ is less than the critical value the null hypothesis is accepted and not if otherwise. Accepting the null hypothesis implies the presence of unit root-i.e. the series is non-stationary. If a variable that is not stationary appears to be stationary after nth difference then the variable is said to be integrated of order n-I(n). However, the DF test has a series of limitation in that it suffers from residual autocorrelation. To overcome this problem, the DF model is augmented with additional lagged first differences of the dependent variable. This is called the Augmented Dickey-

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[4] *There are three τ-statistics: τ, τu, and $\tau\tau$. The first one is used for the regression that is without drift and trend. The second one is used for the one that incorporates constant and the third one for both constant and trend.*

Fuller model (ADF). The advantage of using this model is that it avoids the autocorrelation among the residuals. Therefore incorporating lagged first differences of the dependent variable to the above three equations-equations 1.4, 1.5 and 1.6 gives the corresponding ADF model as follows:

$\Delta Y_t = \gamma Y_{t-1} + \sum_{i=1}^{k} \theta i \Delta Y_t + U_t$ -- (1.7)

$\Delta Y_t = \alpha + \gamma Y_{t-1} + \sum_{i=1}^{k} \theta i \Delta Y_t + U_t$ -- (1.8)

$\Delta Y_t = \alpha + \beta T + \gamma Y_{t-1} + \sum_{i=1}^{k} \theta i \Delta Y_t + U_t$ -- (1.9)

where α is a constant (drift), T is a trend element, k is the lag length and U_t is white noise.

1.5.3.2 Co-integration Analysis

Co-integration means that despite being individually non-stationary, a linear combination of two or more time series can be stationary. Co-integration among the variables reflects the presence of a long-run relationship among non-stationary variables in the system. Testing for co-integration is important because differencing the variables to attain stationarity generates a model that does not show long-run behaviour of the variables. Thus testing for co-integration is the same as testing for a long-run relationship. In general, if variables that are integrated of order 'd' produce a linear combination which is integrated of order less than 'd'-say 'b' then the variables are co-integrated and hence have long run relationship(Gujarati,2004).

To conduct a test for co-integration, the study applied the Johansen's (1988) maximum likelihood procedure. This method allows for testing the presence of more than one cointegrating vector. To conduct a test for cointegration in a multivariate framework using Johansen's maximum likelihood procedure, first, the general VAR (Vector Autoregressive) model of the relationship between the variables should have to be formulated. Thus a general VAR (p) of the following form is formulated:

$X_t = \Phi_1 X_{t-1} + \Phi_2 X_{t-2} + \ldots + \Phi_p X_{t-p} + \Psi D_t + \varepsilon_t$ --- (1.10)

Where X_t is a (mx1) vector of stochastic I(1) variables, D_t is a (qx1) vector of deterministic variables (for instance trend and dummy variables) and each $\Phi_i (i=1 \ldots p)$ and Ψ are (mxm) and(mxq) matrices of parameters. ε_t is a (mx1) vector of normally and independently distributed disturbances with zero mean and non-diagonal covariance matrix (vector of white noise

disturbance terms), and t=1….T (T is the number of observation). A VAR (p) formulation for the domestic saving equation is:

$S_t=\Phi_1 S_{t-1}+\Phi_2 S_{t-2}+\ldots+\Phi_p S_{t-p}+\Phi_{1b}BA_{t-1}+\Phi_{2b}BA_{t-2}+\ldots+\Phi_{pb}BA_{t-p}+\Phi_{1m}MA_{t-1}+\Phi_{2m}MA_{t-2}+\Phi_{pm}MA_{t-p}+\Phi_{1a}AG_{t-1}+\Phi_{2a}AG_{t-2}+\ldots+\Phi_{pa}AG_{t-p}+\varepsilon_t$, ------------- (1.11)

Where: the subscript under each coefficient is to identify the coefficient of one variable from the other.

Similarly, the above VAR formulation can be represented in a matrix form as follows:

$$\begin{pmatrix} S_t \\ BA_t \\ MA_t \\ AG_t \end{pmatrix} = \begin{pmatrix} \Phi_1\Phi_2 \ldots\ldots\ldots\ldots\Phi_p. \\ \Phi_{1b}\Phi_{2b}\ldots\ldots\ldots\ldots \Phi_{pb} \\ \Phi_{1m}\Phi_{2m}\ldots\ldots\ldots\ldots \Phi_{pm} \\ \Phi_{1a}\quad \Phi_{2a}\ldots\ldots\ldots\ldots\Phi_{pa} \end{pmatrix} \begin{pmatrix} S_{t-1}\,BA_{t-1}\,MA_{t-1}\,AG_{t-1} \\ S_{t-2}BA_{t-2}\,MA_{t-2}\,AG_{t-2} \\ .\quad .\quad .\quad\quad ..\,. \\ S_{t-p}\,BA_{t-p}\,MA_{t-p}\,AG_{t-p} \end{pmatrix} +$$

$$\begin{pmatrix} \varepsilon_1 \\ \varepsilon_2 \\ \varepsilon_t \end{pmatrix} \text{-------------------------------}(1.12)$$

Providing the variables are (at most) integrated of order one i.e. I(1) and co-integrated also has an equilibrium error correction representation that is observationally equivalent but which facilitates estimation and hypothesis testing, as all terms are stationary. The vector error correction model (VECM) is:

$\Delta X_t=\pi X_{t-p}+\Gamma_1\Delta X_{t-1}+\Gamma_2\Delta X_{t-2}+\ldots+\Gamma_{p-1}\Delta X_{t-p-1}+\varepsilon_t$--- (1.13)

Simplifying equation (4.13) gives

$\Delta Xt=\sum_{i=1}^{p-1}\Gamma i\quad \Delta Xt-i+\prod X_{t-p}+\varepsilon_t$-- (1.14)

Where i=1…..p-1, $\Gamma i=-[I-\sum_{j=t+1}^{p}\Phi j\ ]$, and

$$\pi=-[I-\sum_{j=1}^{p}\Phi j]$$

The long-run relationship among the variables is captured by the term πX_{t-p}. The Γ_i coefficients estimate the short-run effects of shocks on ΔX_t and thereby allow the short and long-run responses to differ. In the Johansen (1988) procedure, determining the rank of π (i.e. the maximum number of linearly independent stationary columns in π) provides the number of co-integrating vector

between the elements in x. In this connection, there are three cases worth mentioning. (i) If the rank of π is zero it points that the matrix is null which means that the variables are not cointegrated. In such case, the above model is used in first difference, with no long-run information, (ii) If the rank of π equals the number of variables in the system (say n)then π has full rank which implies that the vector process is stationary. Therefore the VAR can be tested in levels. (iii) If π has a reduced rank-i.e. $1 < r(\pi) < n$ it suggests that there exists $r < (n-1)$co-integrating vector where r is the number of co-integration in the system. The matrix π is given by$(\pi = \alpha \beta^T)$ where β coefficients show the long run relationship between the variables in the system(co-integration parameters) and α coefficients show the amount of changes in the variables to bring the system back to equilibrium i.e. it shows the speed with which disequilibrium from the long run path is adjusted. To identify the number of cointegrating vectors, the Johansen procedure provides n eigenvalues (λ)-characteristic roots whose magnitude measures the degree of correlation of the co-integration relations with the stationary elements in the model.

λtrace test statistics are used to test the number of cointegrating vectors, based on the characteristic roots. The statistics are calculated from the following formula:

$$\lambda_{\text{trace}} = -T\sum_{i=r+1}^{n} \ln(1 - \hat{\lambda}i), \text{ r=0, 1,…n-1}\text{------------------------}(1.15)$$

Where T is the sample size,λ_i is the estimated eigenvalues.

λtrace tests the null that the number of co-integrating vectors is less than or equal to r against an alternative of (r+1). The distribution of test statistics follows a chi-square distribution.

1.5.3.3 Vector Error Correction Model (VECM)

VECM enables to capture the short-run dynamics of the model and formulated based on the identified long-run relationships. The VECM has co-integration relation built into the specification so that it restricts the long run behaviour of the endogenous variable to converge to their co-integrating relationships while allowing for short-run adjustment dynamics. The co-integrating term is known as the error correction term since the deviation from long-run equilibrium is corrected gradually through a series of partial short-run adjustments. Thus Co-integration implies the presence of error correcting representation and any deviation from equilibrium will revert back to its long-run path.

The existence of co-integration allows for the analysis of the short-run dynamic model that identifies an adjustment to the long run equilibrium relationship through the error correction model (ECM) representation. If the number of co-integrating vectors (s) is/are determined, it is possible to formulate a VECM. Using the variables of our interest in the model a system of equations is developed that portray the VECM. Hence, assuming that Yt is the endogenous variable(s) in the model, we can model Yt. The more convenient model setup of vector error correction model for co-integration analysis (as Luptkephol, 2004) is:

$\Delta X_t = \prod X_{t-1} + \Gamma_1 \Delta X_{t-1} + \ldots + \Gamma_{p-1} \Delta X_{t-p+1} + u_t$ ------------------------- (1.16)

Where X_t, $\prod$ and Γ are defined as section 1.5.3.2 above. The general VECM model for domestic saving is represented below using the respective variables used in the estimation of the long run equilibrium equation.

$\Delta lS_t = \prod X_{t-1} + \sum_{i=1}^{2} \Delta lS + \sum_{i=0}^{2} \Delta lMA + \sum_{i=0}^{2} \Delta lBA + \sum_{i=0}^{2} \Delta lAG$ ------------------ (1.17)

Where the lag length of two is determined by Akaike Information Criteria (AIC) and X_{t-1} is the vector of the included variables. The VECM for other prior variables can be represented in the same format as above if there is more than one co-integrating vector in the test statistics. Using the above VECM specifications, a short run dynamic equation is to being estimated for domestic saving. Dropping insignificant regressors from the specification (i.e. step-by-step elimination of insignificant regressors and lags from the general VECM model) following the general to specific modelling strategy, a parsimonious result for domestic saving will be estimated.

In the section followed, the results of the model specification and test statistics will be presented. All the estimation of the empirical results is made by the use of **JMULTI 4** software packages.

1.6 Organization of the Study

The paper has six Chapters and it organized as follows. Chapter one is the introduction part. Chapter two provides a review of theoretical and empirical studies on the relationship between foreign aid, domestic saving. Chapter three provides a discussion of sources of foreign aid in Ethiopia. Chapter four discusses the model specification and different tests for the series in order to make the data for appropriate analysis. The unit root test and cointegration test will undertake

in this chapter. Chapter five analyzes the sources of foreign aid and its impact on domestic savings. The results of the tests are also discussed in this chapter. Finally, chapter six concludes the study and provides the policy recommendations.

CHAPTER TWO

2. Theoretical and Empirical studies on Foreign Aid and Domestic Saving

2.1 Introduction

This chapter starts by defining aid and outlining the benefits and shortcomings of foreign aid in the aid recipient countries. Furthermore, the chapter presents a review of the literature on aid and domestic saving whereby some of the theoretical and empirical studies are presented and discussed. Regarding our topic, various literature have reflected their own ideas. Some of them show a negative impact of foreign aid on economic growth while others observe a positive impact. For example, Chenery and Strout (1966) support foreign aid with the view that it is important to fill the saving gap and the trade gap in developing countries, increasing their investment capacity and thus growth. On the other hand, Paul Mosley (1987) observed that there was a little correlation between aid flows and economic growth rates. Moreover, major theoretical and empirical models justifying the importance of foreign aid are presented and discussed. Among these models are the Harrod-Domar model and the two-gap model. In addition, the direct and indirect effects of foreign aid on domestic savings and growth and also the impact of debt servicing on domestic saving will be discussed in this Chapter. Furthermore, the sources of foreign aid will discuss in brief.

2.2 Theoretical Literature

2.2.1 Definition of Aid, Advantages and Disadvantages of Foreign Aid

2.2.1.1 Definition of Foreign Aid

"Foreign aid consists of all resources- physical goods, skills and technical know-how, financial grants (gifts), or loans (at concessional rates) transferred by donors to recipients'' (Riddell 2007:17). Also, the Development Assistance Committee (DAC) of the Organization for Economic Cooperation and Development (OECD) defines aid as Official Development Assistance (ODA). According to the DAC, aid qualifies as ODA on three criteria: it has to be undertaken by official agencies; it has to have the promotion of economic development and welfare as its main objectives

and it has to have a grant element of twenty-five percent or more. In most cases, foreign aid is provided in form of project aid, humanitarian aid including food aid, technical assistance and programme aid (balance of payments support and budget support). Also, the Non-Governmental Organizations (NGOs) provide aid in support of poverty reduction activities and emergency relief in aid recipient countries. This study uses the DAC definition of foreign aid. Moreover, different forms of foreign aid have varied effects on the recipient economy where they influence the macroeconomic variables positively and negatively.

2.2.1.2 Advantages of Foreign Aid

What motivates a country to seek and accept financial assistance from abroad? There are different motives that a country to seek and accept financial assistance from developed countries. Out of those motives the main reasons are discussed below:

2.2.1.2.1 Economic Reasons

Clearly, the most important reason why countries seek and accept aid is for the purpose of economic development. There are several economic reasons why countries have accepted aid: some of are:

- To improve the investment climate, develop human capital, promote entrepreneurship, as well as provide direct support in fostering trade
- To enable payment of interest on foreign debt
- To supplement the lack of domestic resources such as foreign exchange
- To enable infrastructure changes to be made to the economy such as dams and roads

Donors and recipients do not always agree about the purpose of aid. Donor countries have based their ideas of economic development on neo-classical models that prescribe investment in physical or human capital as a means of producing economic growth. For recipient countries, aid is a valuable source of foreign exchange with which to help reduce the balance of payments deficits worsened by debt servicing and poor terms of trade. In countries like Ethiopia with a large parallel economy and narrow tax base, foreign aid is also an important addition to government income.

There is therefore also disagreement about the amount and the conditions placed upon recipient country by the donor country that lends it. Recipient countries would prefer to have aided in the form of grants with no conditionality, such as the structural adjustment programmes of the World Bank, and not tied to a donor country's exports. Donor countries often argue that this results in resources being 'wasted' on military goods or supporting inefficient bureaucratic government enterprises, such as extravagant parliament buildings, or being corruptly appropriated by government officials.

2.2.1.2.2 Political reasons

In some cases, foreign aid is seen as being necessary in order to maintain power. Often foreign aid in the form of military goods provides the power base that suppresses opposition and maintains the existing government in power. The ending of the Cold War between NATO and the Soviet Union has contributed to the fall in Official Development Assistance (ODA) to the continent of Africa, while Israel and Egypt, for example, were the two major recipients of ODA in 2003.

2.2.1.2.3 Moral reasons

Many people within the Less Developed Countries (LDCs) and the More Developed Countries (MDCs) consider that the MDCs have a moral responsibility to provide development assistance for the poorer countries. This may be because of basic humanitarian reasons or a feeling that the colonial powers such as the UK that occupied countries such as Zambia have a responsibility to redistribute resources, having exploited so many of the resources of the LDCs during colonization.

2.2.1.3 Disadvantages of Foreign Aid

Project aid distorts spending patterns as aid recipient governments are supposed to cover the recurrent costs of the projects. Also, proliferation of numerous projects creates pressure on the already constrained capacity in developing countries. In addition, aid tying which is associated to project aid leads to the exploitation of foreign aid recipient country because it is obliged to procure items from the donor country (Riddell, 2007). Foreign aid may result in an appreciation of the real exchange rate of the recipient country resulting in rising domestic inflation. This is referred to as

the Dutch disease effects; whereby an inflow of foreign exchange (in form of export earnings, private capital inflows or foreign aid) puts upward pressure on the real exchange rate of the recipient country. Foreign aid may result in the appreciation of the exchange rate of the recipient country thus reducing the competitiveness of its export sector. Debt overhang has remained a major obstacle to development in most LDCs. Despite the Highly Indebted Poor Countries (HIPCs) initiative, these countries still face a debt burden. This may be attributed to high-interest rates on loans for which these countries have to use a large share of their budget for repayment. Foreign aid is fungible in recipient countries thus resulting in a limited impact on growth and poverty reduction (Pack and Pack, 1993). Foreign aid frees national resources for other purposes whereby the recipient government can use local taxes and other sources of income for military armaments, extended oppression and luxury consumption (Degnbol-Martinussen and Engberg- Pedersen, 2003:237-238).

2.2.1.4. Why Do Donor Countries Give Aid

Donor countries generally give aid because it is in their own interest to do so. Undoubtedly some aid is given with humanitarian motives in mind; however, most foreign aid is given for a variety of political, strategic and economic reasons that benefit the donor countries in the longer term.

2.2.1.4.1 Political reasons

Official Development Assistance (ODA) is often designed to achieve political objectives other than increasing prosperity in recipient countries. In the United States, national security considerations often influence foreign-aid decisions. During the 1980s, Cold War considerations caused a sharp escalation in U.S. aid to Central America and the Caribbean even, as an aid to Africa declined. More recently concern over Middle East instability has made Israel, Egypt, and Jordan the largest recipients of U.S. foreign aid. Other donors have their own objectives. For many years Sweden targeted aid toward 'progressive' societies. In France, governments have sought to promote the maintenance and spread of French culture and the French language as well as the preservation of French influence. In Japan, aid has historically flowed disproportionately to neighbouring Asian nations in which Japan has the greatest commercial interests, and has often been tied to purchases of Japanese products.

2.2.1.4.2 Economic reasons

Providing aid to Less Developed Countries (LDCs) ensures that the savings gap and the foreign exchange gap are filled. For domestic investment to take place domestic savings must also occur. If these are absent then a flow of development assistance can help finance investment projects. Likewise, there should also be technical assistance to ensure that the capital is efficiently used. For some economists, development is synonymous with the creation of a sizable, modern manufacturing sector, as opposed to reliance on exports of primary products. The international product life cycle theory suggests that as countries industrialize they off-load more labour-intensive industries to countries in earlier stages of industrialization. This theory provides some support for the notion that the development of manufacturing industries frequently accompanies increasing prosperity in the developing world. However, others argue that aid for capital investment can be anti-developmental as more capital intensive production in countries may contribute to increasing levels of unemployed and consequential poverty.

An inflow of foreign exchange may also enable least developed countries to import foreign capital considered necessary for economic growth and development. In these countries, where there have been considerable shortages of foreign exchange earnings due to falling commodity prices and debt servicing, inflows of foreign exchange through aid have enabled the capital investment needed to maintain the copper industry. It should also be mentioned however, that debt relief would be more effective than aid in reducing the foreign exchange gap.

2.2.1.4.3 Self Interest of Donor Countries

Less and less development assistance is given in the form of outright grants and increasingly interest is being charged albeit at concessionary rates. Tied aid is also becoming more prevalent. Tied aid occurs where conditions are placed by the donor upon the recipient about what they use the aid assistance for. Usually, the recipients are required to purchase the exports of the donors. This may be a more expensive option than purchasing the capital from sources other than the donors. Tied aid may help fill savings and foreign exchange gaps; however, it may not always be in the best interests of the recipient country.

2.2.2 The Macroeconomic Rationale for Aid

As of Finn Trap and Peter Hjertholm (2002), the gap models of the 1950s and 1960s had in common the Harrod-Domar tradition of stressing physical capital formation as a central driving force of economic growth. In the Harrod-Domar model, output depends upon the investment rate, and on the productivity of that investment. Investment is financed by savings, and in an open economy, total savings equal the sum of domestic and foreign savings. A savings gap is said to arise if domestic savings alone are insufficient to finance the investment required to attain a target rate of growth. It should be stressed that the idea of a gap only makes sense given an exogenously determined target growth rate. A distinction is thus made between the *ex-ante* savings gap (the difference between desired investment and domestic savings) and the *ex-post* savings gap (the difference between actual investment and domestic savings). In addition to the savings gap, there is also a trade gap, based on the further assumption that not all investment goods can be produced domestically. A certain level of imports is required to attain desired investment (i.e. once again the investment required to achieve the target growth rate). The import bill is financed either from export earnings or foreign capital inflows (e.g. aid). If exports are not sufficient to cover the whole bill, the availability of foreign exchange (forex) to purchase imported capital goods (rather than the supply of domestic savings) may become the binding constraint on growth. Once again a distinction is made between the *ex-ante* trade gap (the difference between desired imports and exports), and the *ex-post* gap (the difference between actual imports and exports). Critics of the approach argue that this difference between *ex-ante* and *ex-post* can only emerge if markets are suppressed through a fixed exchange rate regime: if the exchange rate is flexible there can be no gap. This argument misses the point that the gap is defined with reference to a target growth rate, in which case a gap may be present even if markets are liberalized (though the 'gap' may be less if controls held back exports). The trade gap formed the basis of much of the planning work carried out by the United Nations in the 1950s. The two gaps are combined in the two-gap model, put forward by Chenery and Strout (1966) and others. Growth will be constrained by the larger of the two *ex-ante* gaps. If aid is insufficient to fill the larger of these gaps the desired growth rate cannot be attained. That is, the gaps are not additive: aid simultaneously fills both gaps (by paying for imported capital equipment, a single aid dollar relaxes both the savings and the forex constraint).

If the larger gap is filled then the non-binding gap is 'overfilled' (the *ex-post* gap exceeds the *ex-ante* one). The Harrod-Domar and The Two Gap model will discuss below:

2.2.2.1 Harrod-Domar Model

The Harrod-Domar model points out that output depends on the investment rate and the productivity of that investment. In an open economy, investment is financed by savings which is a sum of domestic and foreign savings. This model explains economic growth in terms of a savings ratio and capital-output coefficient. The model (as cited in Easterly W, 2003: 31) is expressed as follows,

$g = (I/Y) /\mu$ ……….. (2.1) and

$I/Y = A/Y + S/Y$ …………. (2.2)

where I is required investments, Y is output; g is target GDP growth, A is an aid, S is domestic saving and μ the incremental capital-output ratio (ICOR). The ICOR gives how many units of additional capital are required to yield a unit of additional output, thus the ICOR is the ratio of investment ratio to the growth rate. The incremental capital-output ratio (ICOR) is thought to range between 2 and 5. A high ICOR is often taken as a measure of the poor quality of investment. Using the idea of ICOR, the Harrod-Domar model was the base for the first national development plans in Less Developed Countries (LDC) (de Silver, 1984). This made possible to estimate the capital investments and aid needs for a given target rate of growth as it provided the simple framework used for quantitative planning techniques. However, the stable linear relationship between investment and growth over the short to medium term is doubtful. For example, the endogenous growth models of growth stress the multitude of inputs besides physical capital such as technology, human capital, intermediate new goods, organizational capital, social capital and institutional design. Despite this argument, savings, especially domestic savings play a major role in providing resources for investment and thus boosting growth. Thus for developing countries to minimize their dependence on foreign aid, they need to increase their saving propensities which will increase funds required for investments.

2.2.2.2 The Two Gap Model

The standard model used to justify aid was the 'two-gap model' of Chenery and Strout (1966) which has been already referred to in the previous sections. In this model, the first gap is between the amount of investment necessary to attain a certain rate of growth and the available domestic savings (the saving gap). The second gap is the trade gap or foreign exchange gap. This occurs when there is a gap between import requirements for a given level of production and foreign exchange earnings. Even though the saving-investment gap would be small, a larger trade gap would undermine productive investment due to limited imports of capital goods needed for investment. It is argued that at any moment in time one gap is binding in aid recipient countries thus foreign aid is required to fill that gap. The 'two-gap model' supports the hypothesis of investment-limited growth based on the Harrod- Domar model which assumes a specific amount of investment to increase growth. However, the assumption that FA fills these gaps will hold true only if the investment is constrained by liquidity but the incentives to invest are favourable. If the cause of low investment is the poor incentives to invest, then aid will not increase investments as it will finance consumption rather than investment. Furthermore, the effectiveness of FA in filling these gaps will depend on the productivity of the investments made (White, 1992). In addition, aid dependency by developing countries has been sustained due to other factors which constrain growth in these countries apart from the two gap models discussed above. Some of these factors include political instability (in some countries), low technology, low education, poor economic and social infrastructure, rapid population growth and interest payments on foreign debts.

2.3 Empirical Studies on Foreign Aid and Domestic Saving

The economic impact of foreign aid has been widely studied in the literature. One strand of this literature examines the growth impact of foreign aid in recipient countries. Some studies find evidence of a positive effect, while other studies find evidence of a negative effect. For instance, an influential study by Burnside and Dollar (2000) finds that foreign aid only increases economic growth in the presence of a good policy environment. In sharp contrast, Easterly, Levine, and Roodman (2003) find no evidence to support the results from Burnside and Dollar (2000).

Taslim and Weliwita(2000) also try to see the inverse relationship between foreign aid and saving based on the theory developing the nation's capacity to invest is limited by its entrepreneurial stock. A lack of sufficient investment, in turn, may restrict domestic saving should *ex ante* saving exceed investment. Hence, a more intense saving effort alone is unlikely to raise the level of gainful investment and saving. They use the model:

$GDS = a_0 + b_0 GDP_t + c_0 Aid_t + k_0 GDI_t + u_t$ ……………… (2.3)

Where *GDS*= gross domestic saving, *GDP* = gross domestic product, *GDI* = gross domestic investment, *Aid* = foreign aid disbursement, *u* is a random error term and *t* is the time subscript. If the hypothesis advanced above is correct, the expected sign of b_0 and k_0 is positive while that of c_0 negative for a country with limited entrepreneurial stock. But they test the hypothesis indirectly which is very suggestive since entrepreneurship is not an observable variable. One could perhaps construct some proxies, such as the educational qualifications of the entrepreneurs or their business experience, but these would be open to analytical criticisms and also run into data problems. They also suffer a shortage of data. Hence this estimation can't show the real relationship between foreign aid and domestic saving.

In other studies, Hansen and Tarp (2001) show that foreign aid still increases growth without the policy conditionality, and Easterly (2003) finds that results obtained by Burnside and Dollar (2000) are not robust when different measures of foreign aid, policies, and growth are used. Even before the Burnside and Dollar (2000) study, there was no consensus about the effect of foreign aid on growth, with some studies such as Boone (1994, 1996) showing that aid had no positive impact on growth and others such as Hadjimichael et al. (1995) finding the opposite. In the growth literature, foreign aid influences growth through its impact on investment (an excellent survey of this literature is provided by Hansen and Tarp, 2000), i.e. foreign aid increases total savings which can be used to finance investment (a major determinant of economic growth). In other words, foreign aid affects investment through an income effect (i.e. transfer of purchasing power). However, the trade literature has shown that foreign aid also affects the commodity terms of trade of recipient nations, and this, in turn, can endogenously affect investment in the recipient nations.

Michael P. Shields (2007) also tried to see the crowding out effect between foreign aid and domestic saving by using value added in agriculture as percentage of Gross Domestic Product,

labor force and foreign aid as an explanatory variable and gross domestic saving as a percentage of Gross National income in 119 countries and confirm a positive relationship between foreign aid and domestic saving which implies foreign aid can increase domestic saving. Tolessa (2001) also tried to see the impact of foreign aid on domestic saving and investment by distinguishing foreign aid into foreign grant and foreign loan and conclude that foreign grant has a negative effect on domestic saving while foreign loan has a positive impact on domestic saving and investment.

Investment, the most important transmission mechanism, is often omitted from aid growth regressions. As a result, estimated aid coefficients in typical growth regressions may suffer from omitted variable bias. Aid has been beneficial to African countries, but more needs to be done to ensure that these benefits lead to sustained growth (Girma, Gomannee and Morrissey, 2005). Foreign aid had also contributing impact on the growth of aggregate domestic savings in the long run and short run but debt service payment have a negative impact on saving in short run and long run in Nigeria (P.B. Eregha and I.R. Irugha, 2009).

Tasew (2011) also argues that Aid contributes positively to economic growth in the long run when entered alone but its short run effect appeared insignificant in Ethiopia. On the contrary, when aid interacts with policy, the growth impact of aid is negative implying the deleterious impact of bad policies on growth in the long run. The growth impact of aid is negative due to the presence of a poor policy environment in the country. Increasing foreign aid flows to Ethiopia, despite contributing less due to unfavourable policies, to enhance investment and growth. However, in the long run, rather than merely filling gaps, aid should help close gaps in Ethiopia, since reliance on future aid and foreign borrowing is thus diminished (Tasew Tadesse 2011).

2.4 Effects of Foreign Aid on Savings, Investment and Growth

As Mosley pointed out, there are various determinants which influence aid effectiveness. Some of these include the marginal productivity of public and private capital; the share of aid allocated to the recurrent budget and development expenditure and the extent to which aid crowds out or supports private sector investment (Mosley 1987). In connection with these arguments, the subsections that follow explain the impact of foreign aid on savings, investment and growth in the public and private sectors.

2.4.1 Direct Impact of Aid on Domestic Savings, Investment and Growth (public sector)

Most of the government investments in developing countries are constrained by the lack of sufficient domestic resources from domestic saving; as a result, most of the development expenditures are financed by aid money. For example, project aid permit governments to finance a higher level of investment than it could be made possible from domestic saving. However, donor-funded projects require the recipient country to take full responsibility for the recurrent financing cost of the investments. This cost component on aid-funded project, shared by aid recipient country, leads to an increase in government consumption and hence decline in government saving. However, the programming aid in form of budget support augments public investments in human capital through the provision of education and health services. Investment in human capital increases productivity and thus increasing investments and national savings. Furthermore, Trygve Haavelmo as cited in Gupta K. L, (1983: 39) proposed an interesting hypothesis:

$$I(t) = a\,[Y(t) + H(t)]\text{.........................} (2.4)$$

Where, I stand for gross investments, Y for the gross national product, H for capital inflows. This equation implies that investment is a function of income including what the developing countries get from abroad and he stated the possible implications that "domestic savings could be negative if H is large enough. Rahman concluded from his study that it was quite likely that foreign capital was used not only for augmenting investments but also as a substitute for domestic savings. From this conclusion, he advanced the behavioristic hypothesis that the governments in developing countries may voluntarily relax domestic savings efforts when more foreign aid is available than otherwise. Although the traditional macroeconomic rationale for foreign aid emphasizes its ability to supplement domestic savings, foreign exchange and government revenue thus contributing to higher economic growth, there is a need to consider the factors complicating the macroeconomic reality of foreign aid in aid recipient countries. Some of these factors include the effects of aid on government fiscal behaviour (aid fungibility), the problem of foreign debt and the Dutch disease effects. Fungibility may or may not involve diversion of funds, but it refers to funding an activity that would have happened in the absence of aid thus aid frees up resources to be used elsewhere. The adverse impact of fungibility is that the expenditure for which aid is intended does not rise by exactly the amount of aid inflow.

In addition, the foreign aid inflow may result in the Dutch disease effect. The Dutch disease concept refers to a situation where an inflow of foreign exchange (in form of export earnings, private capital inflows or foreign aid) puts upward pressure on the real exchange rate of the recipient country resulting in rising domestic inflation. Foreign aid may result in the appreciation of the exchange rate of the recipient country thus reducing the competitiveness of its export sector. In addition; Dacy (1975: 551) argued that the government can increase consumption in different ways as a result of receiving foreign aid. Such government consumption expenditures include increasing the size of the army, increased pay of government employees (particularly teachers and policemen), and expensive buildings and automobiles for officials. The negative impact of increased government consumption is that the country will be stuck with such behaviour even when the foreign aid has been terminated. To maintain this consumption trend, the government will consume a large share of the budget at the expense of government saving and investments hence hampering growth.

2.4.2 Indirect Impact of Aid on Domestic Savings, Investment and Growth (private sector)

The private sector is affected by the receipt of foreign aid both positively and negatively. The private sector benefits (crowding in effect) when the government uses foreign aid to invest in public infrastructure for which the private sector has no incentive to do so. Government investment in economic infrastructure (roads, power and communication) and social infrastructure (education, health and water) promotes private sector investment and thus growth. In addition, increased public spending (resulting from foreign aid) can have a positive impact on the private sector by stimulating aggregate demand and thus motivating private investments. Furthermore, aid money can be directly channelled to the private sector through development banks or through agricultural finance corporations thus increasing the capacity of the private sector to invest. It is argued that at the microeconomic level, foreign aid would be expected to affect the labour-leisure decision of individuals and thus domestic saving efforts. On average, aid makes it possible for individuals to maintain a given level of income and consumption without being forced to offer the same numbers of hours of work as before the inflow of aid. As work efforts decreases, income out of own labour supply falls and thus lowering savings and investment and thus growth. Moreover, foreign aid can

put upward pressure on the real exchange rate of the recipient country thus resulting in rising domestic inflation. The appreciation of the real exchange rate of the foreign aid recipient country reduces the competitiveness of its export sector hence affecting the private sector producers.

2.5 The Impact of Debt Servicing on Domestic Savings and   Growth

In the decades before the 1990s, most of the developing countries had received very large amounts of loans, in most cases at highly concessional interest rates. However, the repayments of the net present value of the obligations were likely to severely constrain the economic performance of the debtor countries. In the second half of the 1990s, high external indebtedness of developing countries received increased attention from policymakers and public opinion around the world. It was thought to be one of the main factors limiting the development of many poor countries. This resulted in the implementation of the Heavily Indebted Poor Countries (HIPC) initiative from 1996 by the multilateral and bilateral creditors. The HIPIC initiative provides conditional assistance to countries that meet specific policy and performance criteria but the problem is that the fiscal burden placed on government budgets from debt servicing is not sufficiently addressed. There are various reasons which explain why large levels of accumulated debt stocks lead to lower growth. Some of these reasons include the following: Firstly, where political economy considerations lead to over-borrowing and low growth, it may lead to capital flight if the costs of high taxes to service the debt are not internalized. Secondly, the debt overhang theory argues that if there is some likelihood that in the future debt will be larger than the country's repayment ability, then expected debt service will be an increasing function of the country's output level. The returns from investing in the country, therefore, face a high marginal tax by the external creditors, and new domestic and foreign investment is discouraged. This implies that large debt stocks would lower growth through the channel of reduced investment. Finally, the debts may have negative effects on economic performance because of the uncertainty about what portion of the debt will actually be serviced with the countries own resources. It may not be clear at what terms debt will be rescheduled, whether there would be additional lending and what change in government policies the rescheduling will entail. With such uncertain debt environment, investments are likely to be in trading activities with quick returns, rather than long-term, high-risk, irreversible investment. This misallocation of investment, in turn, will lower the efficiency of overall capital accumulation, thus

suggesting that high levels of debt and associated uncertainty might affect growth also via investment efficiency and productivity. The continued borrowing and poor export performance of developing countries led to very high accumulated debt stocks that have likely created uncertainty and debt overhang effects. Apart from the explained indirect effects of accumulated debt stock on private investment, debt servicing consumes government resources which would be used for investments and thus reducing growth.

2.6 Sources of Foreign Aid

There are two major sources of foreign aid; multilateral and bilateral sources. Bilateral foreign aid is given to the recipient countries especially for developing countries based on the agreements and negotiations undertaken through the donor and the recipient country. On the other hand multilateral foreign aid is given to the developing countries by multilateral organizations such as World Bank, United Nation Agencies, African Development Bank e.tc.

2.6.1 Bilateral Aid

Bilateral cooperation is the development cooperation between individual countries. The main task of the bilateral cooperation is to mobilize resources (bilateral aids) through grant or loan to development endeavours. It has followed different procedures and systems. The mobilization process is mainly influenced by the donors' policies and procedures. Each donor has its own policy and procedures.

Bilateral means "two sides". This type of aid is from one country to another. Quite often bilateral aid is also tied Aid (When bilateral aid is given, there are usually conditions or 'strings' attached). Bilateral aid has many advantages. Countries are often well placed to assist others with which they have long-standing relationships. They have specific technical skills often developed in, or because of association with, the countries concerned. They often, as is the case with imperialist/colony relationships or other historical ties, have linguistic and personal similarities which may make them better suited to provide specific aid. Their institutional structures are often derived one from the other as well (Seb and Pete).

The main disadvantage of Bilateral aid is that the country receiving the aid will often "owe" the Donating country something in return, be it money at a later date (possibly with interest) or resources. A great deal of aid money has been wasted due to corruption and inefficiency. Some people argue that aid has not made a difference to development in Africa and point to trade reform as a better alternative (Seb and Pete).

Bilateral development assistance (aid) has been criticised heavily for well over 40 years, and especially during the Cold War years. To many, bilateral aid was just plain ugly. Bilateral donors were not so concerned with the developmental impact of aid or ensuring that it was allocated equitably, according to the relative needs of recipient countries. Instead, they were more concerned about whether their aid generated commercial export opportunities, propped-up governments and promoting stability in strategically important countries, ensured support in international forums, could be used to induce the desired behaviour from recipient countries and so on. There was of course diversity among bilateral donors: not all were plain ugly. But recognising that no bilateral aid agency can ignore broader foreign policy interests some were simply bad or approaching good. Unfortunately, these agencies often administered small aid programs, so that bilateral aid was on balance plain ugly. Since bilateral aid constituted the majority of aid flows, some attributed the ambiguity over the overall developmental effectiveness of aid - whether it increased growth and by implication reduced poverty – to the overall ugliness of bilateral flows (M. McGillivray, S. Feeny and H. White, 2004).

Ethiopia's Diplomatic Relation has started as far as 100 years back. However, the development cooperation started in the 1950s. The first country signed the bilateral development relation is Canada (1950) and followed by the USA (1951), France (1966) and the UK (1967). Currently, Ethiopia has established bilateral cooperation with 33 countries, among them 19 are classified as main donors while the rest (14) are emerging ones.

2.6.2 Multilateral Aid

Multilateral aid is run by multilateral organizations (an international organization whose membership is made up of member governments, who collectively govern the organization and are its primary source of funds) such as the World Bank and "United Nations (UN) is given from a contributing country to a developing country. Many governments distribute money, food and

water, building pipelines and homes to countries that really need help." It has provided a lot of effective ways to solve the problem of poverty and develop the world.

Multilateral agencies were able to more easily pursue purely developmental criteria and allocate aid more equitably among recipient countries. Multilateral aid was thought to be more effective, and there were widespread calls for the share of multilateral aid in total aid to increase – donor governments were pressured to provide more aid via multilateral agencies. This is not to say that multilateral agencies were exempt from criticism. Some were accused of ideological bias, World Bank projects were often criticised and World Bank and IMF supported structural adjustment was in many circles roundly condemned. So while the activities of some multilateral development agencies were considered bad, on balance multilateral aid was thought to be quite good. Compared with bilateral aid, it was considered to be unambiguously good (M. McGillivray, S. Feeny and H. White, 2004).

Multilateral agencies give aid to Ethiopia since the 1950s. The United Nation Agencies (United Nations Development Program (UNDP), United Nations Population Fund (UNFPA) World Food Program (WFP), and United Nations Children's Fund (UNICEF)), the European Union, World Bank, African Development Bank, Bank of Arab for African Development(BADEA) and International Monetary Fund (IMF) are major multilateral agencies which supports Ethiopia in loan and grant.

The economic impact of foreign aid has been widely studied in the literature. One strand of this literature examines the growth impact of foreign aid in recipient countries. Some studies find evidence of a positive effect, while other studies find evidence of a negative effect. For instance, Burnside and Dollar (2000) finds that foreign aid only increases economic growth in the presence of a good policy environment. On the other hand, Tolessa (2001) also tried to see the impact of foreign aid on domestic saving and investment by distinguishing foreign aid into foreign grant and foreign loan and conclude that foreign grant has a negative effect on domestic saving while foreign loan has a positive impact on domestic saving and investment. Past studies with the exception of a few have not distinguished foreign aid by sources of foreign aid (bilateral and multilateral sources). These different sources of aid are believed to have a well differencing impact on domestic

saving. The separation of the impact of bilateral sources of foreign aid on domestic saving from multilateral aid sources has considered as one area in which further research is beneficial. And also the impact of value-added agriculture in accordance with the impact of sources of foreign aid on the domestic saving is not that much explained. Hence, this study is carried out to answer the question "how foreign aid affects the domestic saving in the short run and long run?" by disaggregating foreign aid into bilateral and multilateral sources.

CHAPTER THREE

BILATERAL AND MULTILATERAL FOREIGN AID

3.1 Bilateral Aid

Bilateral means "two sides". This type of aid is from one country to another. Quite often bilateral aid is also tied Aid. This is the most common type of aid. Bilateral aid has many advantages. Countries are often well placed to assist others with which they have long-standing relationships. They have specific technical skills often developed in, or because of association with, the countries concerned. They often, as is the case with imperialist/colony relationships or other historical ties, have linguistic and personal similarities which may make them better suited to provide specific aid. Their institutional structures are often derived one from the other as well. The main disadvantage of Bilateral aid is that the country receiving the aid will often "owe" the Donating country something in return, be it money at a later date (possibly with interest) or resources. A great deal of aid money has been wasted due to corruption and inefficiency. Some people argue that aid has not made a difference to development in Africa and point to trade reform as a better alternative (Seb and Pete).

Donor governments often feel justified to reduce the balance of payments cost of their aid by requiring recipient countries to purchase aid financed well from the donor country, subject to some safeguards of appropriate quality and prices. It is believed that it is easier to maintain public and parliamentary support for aid programmes if immediate tangible benefits are seen to accrue to the national economy of the donor. Economists and multilateral institutions have argued; however, that aid tying is a potential source of economic distortions, especially in cases where the donor is overly concerned with the promotion of home exports (Finn Trap and Peter Hjertholm, 2000).

Bilateral development assistance (aid) has been criticised heavily for well over 40 years, and especially during the Cold War years. To many, bilateral aid was just plain ugly. Bilateral donors were not so concerned with the developmental impact of aid or ensuring that it was allocated equitably, according to the relative needs of recipient countries. Instead, they were more concerned about whether their aid generated commercial export opportunities, propped-up governments and

promoting stability in strategically important countries, ensured support in international forums, could be used to induce the desired behaviour from recipient countries and so on. There was of course diversity among bilateral donors: not all were plain ugly. But recognising that no bilateral aid agency can ignore broader foreign policy interests some were simply bad or approaching good. Unfortunately, these agencies often administered small aid programs, so that bilateral aid was on balance plain ugly(M. McGillivray, S. Feeny and H. White).

3.1.1 Bilateral Aid in Ethiopia

In Ethiopia context, bilateral cooperation is development cooperation between Ethiopia and an individual country. The main task of the bilateral cooperation is to mobilize resources through grant or loan to Ethiopia's development endeavours. It has followed different procedures and systems. The mobilization process is mainly influenced by the donor's policies and procedures. Each donor has its own policy and procedure so that we have obliged to follow it.

Ethiopia's Diplomatic Relation has started as far as 100 years back. However, the development cooperation started in the 1950s. The first country signed the bilateral development relation is Canada (1950) and followed by the USA (1951), France(1966) and the UK(1967. Currently, Ethiopia has established bilateral cooperation with more than 33 countries. More than 300 projects/programmes are supported by bilateral cooperation (MoFED, Bilateral Cooperation Directorate).

Since this paper focus on the net bilateral aid flows, the following table summarizes the net bilateral aid flows from DAC donors in the study years (1973 to 2003 Ethiopian Fiscal Year). Net bilateral aid flows from DAC donors are the net disbursements of official development assistance (ODA) or official aid from the members of the Development Assistance Committee (DAC). Net disbursements are gross disbursements of grants and loans minus repayments of principal on earlier loans. ODA consists of loans made on concessional terms (with a grant element of at least 25 percent, calculated at a rate of discount of 10 percent) and grants made to promote economic development and welfare of the country. DAC members are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Republic of Korea,

Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, United States, and Commission of the European Communities.

Table 3.1:-The Net Bilateral Aid Flows from DAC Donors from 1973-2003 EFY

Net bilateral aid flows from DAC donors in million USD				
Donor	1981-90	1991-2000	2001-2011	Total
Australia	88.48	57.6	48.6	**194.68**
Austria	23.09	28.9	99.53	**151.52**
Belgium	32.69	52	85.07	**169.76**
Canada	206.37	156.01	833.44	**1195.82**
Switzerland	49.37	58.61	46.88	**154.86**
Germany	272.06	754.29	819.01	**1845.36**
Denmark	18.49	50.5	79.79	**148.78**
Spain	7.57	17	276.78	**301.35**
Finland	86.17	71.48	150.89	**308.54**
France	75.49	108.7	194.69	**378.88**
United Kingdom	176.5	251.88	2368.28	**2796.66**
Greece	0	4.52	15.71	**20.23**
Ireland	1.69	98.42	499.77	**599.88**
Italy	986	457.88	552.27	**1996.15**
Japan	65.34	362.63	679.3	**1107.27**
S. Korea	0.05	4.62	42.78	**47.45**
Luxembourg	0.13	3.12	10.18	**13.43**
Netherlands	100.51	350.28	674.58	**1125.37**
Norway	111.45	240.42	366.7	**718.57**
New Zealand	0.04	1.11	5.41	**6.56**
Portugal	0	0	3.57	**3.57**
Sweden	300.41	350.68	447.57	**1098.66**
United States	406	846.4	5636.48	**6888.88**
Total	**3,007.90**	**4,327.05**	**13,937.28**	**21272.23**

Source: World Bank Data Base

As shown above, for the last three decades (1973-2003 Ethiopian Fiscal Years) a total of 21.27 billion USD has been disbursed from DAC donors to Ethiopia. Especially in the third decade, the amount of bilateral aid increased highly which covers 65.5% from the total. Out of the total bilateral aid in the three decades USAID constitutes 32.38% (6.89 billion USD), DFID constitutes 13.14% (2.796 billion USD) and Italy constitutes 9.38% (1.99 billion USD) which ranked first,

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second and third respectively. The amount of disbursement increases over time and it reaches 1.9 billion USD in 2011.

3.2 Multilateral Aid

Multilateral aid is run by multilateral organizations (an international organization whose membership is made up of member governments, who collectively govern the organization and are its primary source of funds) such as the World Bank and United Nations (UN), and is given from a contributing country to a developing country. Many governments distribute money, food and water, building pipelines and homes to countries that really need help. It has provided a lot of effective ways to solve the problem of poverty and develop the world. Although it helps many countries, it is necessary to know more about the negative aspects of multilateral aid, like the aid agencies donate money to the poor countries and operating through bad governments, it might not reach the person who wants the money. However, it also has some argument that strong countries, such as U.S and British, want to control of the small countries through multilateral aid, especially the United States, it hopes to intervene others politics and culture using its economic and military strength through multilateral aid. Otherwise, multilateral aid is a good way to develop the world (web.).

Multilateral agencies provide both humanitarian and development aid to the countries that lack money. Now, these organizations have made great strides in improving the way they work, they are going to focus efforts on strengthening areas of weakness, they give food to countries that need food supplies if they have just suffered a disaster or human event, also, they offer job opportunities and study chances by using their funding to people who really need them. These multilateral agencies have already helped thousands of countries to develop both economic and social culture or customs. The real needs of the receiving countries are focused on for the aid to target towards. Since this kind of aid is organized by the whole world, it is a way to enhance the relationship between nations. Rich countries help poor countries through multilateral aid organizations, it might reduce the misunderstanding between these two areas, also, and it can strengthen the communication in these countries, like economics and politics, or even culture. So, it has advantages   in   both   countries.

However, there have some problems that some countries try to control others with the help of multilateral aid. The United States use aid to influence the internal politics of other nations and support their weaker allies. Since the U.S is a powerful country, it accompanies most of these organizations, or perhaps it manipulates them, so it can control the funds and try to be the master of the world. So, most countries might not get the money they could receive, and the aid often does not reach the governments as the United States uses it for other purposes.

3.2.1 Advantages of Multilateral Aid

In the age of globalization, international cultures and economies are intertwined in a variety of ways. Any action that a country takes, including actions that impact their internal economies, have an impact on other countries. For many nations and governments, this makes working multilaterally on issues of mutual concern more important. This includes military action, trade agreements, disaster relief and general economic cooperation through international organizations.

Costs and Efficiency

An advantage of multilateral action is that different countries have different resources and areas of expertise. Nations working together can pool these resources and achieve more successful outcomes as well as cost savings. Additionally, in a multilateral operation, no one country will have to use all of its available resources on a single operation. In economic and environmental areas, a number of countries acting in concert can achieve greater results than each country acting alone. One example of this is the Kyoto Protocol, in which a number of countries agreed to simultaneously reduce their greenhouse gas emissions.

Diplomatic Respect

A final advantage of multilateralism, and perhaps the most important one is that it engenders goodwill and respect from other nations. When a country acts on its own, without regard to the impact on trade, investment and the economy of other nations, it can cause a chill in diplomatic relations and generally damage a nation's international reputation. This can make it more difficult for that nation to work with other countries in the future on other matters.

There are a number of reasons why donor countries such as Australia give aid through multilateral institutions:

- multilateral aid is generally seen as a less political form of aid than bilateral aid, encouraging international cooperation rather than strategic and commercial interests of respective donor countries;
- multilateral aid pools resources enabling the implementation of large-scale programs that are beyond the capacity of individual donor countries through bilateral aid;
- multilateral aid can help coordinate donors to address issues at regional and global levels and harmonise their efforts, thereby reducing donor burden in recipient countries.

One of the biggest problems with multilateral aid is the lack of accountability to the people aid is intended to assist. Furthermore, many donor countries favour certain multilateral organisations and funds over others. For example, Australia gives more money to multilateral development banks such as the World Bank and the Asian Development Bank, where voting is weighted according to financial contributions, and less to the United Nations agencies where voting is equal and less of the money is returned to the donor countries.

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Different Priorities

One disadvantage of multilateral actions is that it can make taking any action more difficult or at least slow things down. It may also mean that a government does not get everything that it wants or does not get what it wants in a timely manner. Different countries and governments will have different priorities and different ideas about what actions should be taken, in what order and with

what goals. Acting multilaterally can mean compromising on both the timeline and goals of a proposed action.

Organizational Issues

Another disadvantage of multilateralism is in conducting operations with other countries. While sharing resources can be beneficial to countries, it can also complicate matters. Many countries have strict rules in place for their armed forces, relief agencies and other workers. Different nations have different ways of doing things and varying chains of command, and some countries do not like their personnel to be under the command of another nation. This can lead to confusion, miscommunication and difficulty in making decisions and getting things done. In order to function in peacekeeping or military matter, chains of command must be discussed, negotiated and settled between countries. In some cases, one country may have to make a request of another country's forces rather than ordering them. In some situations, such as in the joint occupation of Afghanistan, this situation has been largely resolved by dividing up responsibility geographically, with different countries in charge of different regions.

3.2.3 Multilateral Aid in Ethiopia

Ethiopia has multilateral economic cooperation with different international organizations and institutions since the 1950s. World Bank, International Monetary Fund (IMF), African Development Bank, Bank of Arab for African Economic Development (BADEA), United Nation Agencies and European Union are the major institutions with which Ethiopia has multilateral economic cooperation. The next section will explain in brief the major multilateral institution and organization operating in Ethiopia.

3.2.3.1 United Nation Agencies

UN Agencies are among the front line of the different donors that are providing loan/ grant to Ethiopia. UN Agencies are known for providing grant and technical assistance for the implementation of different programs/ projects. Major United Nations Agencies operating in Ethiopia are:

I.   United Nations Development Program/UNDP/

United Nations Development Program (UNDP) founded in November 1965.   Poverty Reduction is the central pillar of UNDP's assistance. Currently, UNDP is working on the ground with 166 countries on their own solutions to global and national development challenges. In each country office, the UNDP Resident Representative normally also serves as the Resident Coordinator of development activities for the United Nations system as a whole.

UNDP starts its support for Ethiopia since 1967. It gives its support to maintain fast economic growth, to reduce unemployment, to strengthen the participation of the society in socio-economic activities, to develop the agriculture and industry sectors, and other infrastructures.

II.   United Nations Population Fund /UNFPA/

UNFPA, the United Nations Population Fund, began operations in 1969 as the United Nations Fund for Population Activities. UNFPA was originally administered by the United Nations Development Program (UNDP). In 1971, the United Nations General Assembly designated UNFPA to play a leading role in the UN system in promoting population programs. A year later, in recognition of the growth in its resources and scope of its operations, UNFPA was placed under the UN General Assembly's direct authority, raising it to the same status as UNDP and UNICEF. The UNDP Governing Council was named as its governing body, subject to overall policy guidance of the Economic and Social Council (ECOSOC), which provides policy guidance and ensures that the policies of the General Assembly are implemented. In 1987, the name of UNFPA was changed to the United Nations Population Fund, but the acronym, UNFPA, remained the same.

After the International Conference on Population and Development (ICPD) held in Cairo in 1994, UNFPA has designated the lead United Nations organization for the follow-up and implementation of the conference's Program of Action. In 1995, the General Assembly endorsed an agreement between UNDP and UNFPA to designate UNFPA resident country directors as UNFPA representatives.

UNFPA is a founding member of the United Nations Development Group (UNDG) created in 1996 to oversee the Reform Program of the UN Secretary-General. It is the World's largest internationally funded source of population assistance to developing countries. UNFPA extends assistance to developing countries, countries with economies in transition and other countries at their request to help them address reproductive health and population issues, and raises awareness of these issues in countries.

As part of the comprehensive reform package approved by the UN General Assembly in late 1997, UNFPA and its sister agencies have been working together to achieve full collaborative programming in program countries around the world through the preparation of Common Country Assessments (CCAs), designed to pinpoint critical concerns and challenges facing individual program countries. The CCA serves as a stepping-stone for the preparation of a common United Nations Development Assistance Framework (UNDAF), which seeks to harmonize the program cycles and activities of different UN agencies to promote synergies and maximize impact.

UNFPA began its support to Ethiopia in 1973, and since then it has supported five program cycles. The overall goal of the program is to contribute to national efforts to reduce poverty levels and to improve the health and well-being of the Ethiopian people by strengthening the implementation of policies and programs in the field of population and development, including reproductive health. The three thematic areas of the program are Reproductive health, Population and Development Strategies and Advocacy.

III.   World Food Program /WFP/

WFP was established on Nov. 24/1961 by the UN General Assembly and the 1961 conference of the food and Agricultural Organization (FAO) and started actual operation in 1963. It is the food aid arm of the United Nations System and is the largest multilateral food aid organization in the world.   Its task is to combat the hunger that afflicts one out of every seven people on earth.

Food aid is one of the many instruments that can help to promote food security, which is defined as access of all people at all times to the food needed for an active and healthy life. The organization is funded through voluntary contributions from the United Nations and FAO member countries and from inter-governmental bodies such as the European Union. The contribution comes in commodities, cash and services.

WFP has started its operation in Ethiopia in 1965 by giving support to chronically food insecure areas of Ethiopia. Originally its support was mainly focused on refuge feeding and emergency operation. It is only since the 1980's that WFP has become a major development partner, who really contributes to the country's development endeavour. Even then its focus was only on rehabilitation of degraded land and activities related to dairy development. However, from 1994 onwards, WFP has expanded its intervention to other sectors like education, urban development and recently to HIV/AIDS as well.

The different projects and programs that were undertaken and are being implemented as a result of WFP's assistance are witnessed to its contribution to the poverty reduction effort of the Government as they are highly related to rehabilitating degraded land, which is the major means of livelihood to the majority of the rural population of Ethiopia. In addition, the projects are in line with the different macro-economic and sectoral policies and development strategies of the country such as the Food Security Strategy, the Sustainable Development & Poverty Reduction Program (SDPRP), ESDP, the Health Sector Development Program (HSDP), etc.

In general, a number of positive results have been registered in terms of soil and water conservation, human resource development, and urban infrastructure development since the start of WFP's development assistance in the 1980s.To this end, stabilization of agricultural productivity in project areas; improved access to food and employment; prevention of abandonment of cultivation and community displacement; improved access to water for domestic uses; prevention of flood damages, improved enrolment rates particularly of girls, decreased dropout rates and improved nutritional status of students in the target areas are some of the impacts achieved through WFP's intervention.

IV.   United Nations Children's Fund /UNICEF/

The United Nations International Children's Emergency Fund (UNICEF) was established on 11 December 1946 to meet the emergency needs of children and women in Europe, who were seriously malnourished and deprived as a result of the Second World War.

By the end of 1950, when the recovery in Europe was underway, UNICEF shifted its emphasis to assist children and women of the world, especially of the developing countries, and its name was shortened to United Nations Children's Fund (UNICEF).

The Ethio-UNICEF Cooperation can be divided into three phases or periods. They are:

- Cooperation Period (phase) (1952–1980) - Humanitarian Assistance

- Country Program Cooperation (CPC) Period (1980–2006/2011) - Development Assistance and

- Bridging Program Period (occurred between two Country programs)

Other United Nations Agencies operating in Ethiopia are International Labour Organization /ILO/, United Nations Capital Development Fund /UNCDF/, United Nations Industrial Development Organization /UNIDO/, Global Environmental Facility /GEF/ and Food and Agriculture Organization /FAO/.

3.2.3.2 European Union

The European Union (EU) is a unification of 27 member states united to create a political and economic community throughout Europe. The precursor to the European Union was established after World War II in the late 1940s in an effort to unite the countries of Europe and end the period of wars between neighbouring countries. These nations began to officially unite in 1949 with the Council of Europe. In 1950 the creation of the European Coal and Steel Community expanded the cooperation. The six nations involved in this initial treaty were Belgium, France, Germany, Italy, Luxembourg, and the Netherlands. Today these countries are referred to as the "founding members."

During the 1950s, the Cold War, protests, and divisions between Eastern and Western Europe showed the need for further European unification. In order to do this, the Treaty of Rome was signed on March 25, 1957, thus creating the European Economic Community and allowing people and products to move throughout Europe. Throughout the decade's additional countries joined the community.

In order to further unify Europe, the Single European Act was signed in 1987 with the aim of eventually creating a "single market" for trade. Europe was further unified in 1989 with the elimination of the boundary between Eastern and Western Europe - the Berlin Wall.

European Union has economic cooperation all over the world since it established and it assists developing countries through a grant. EuropeAid implements programmes and projects around the world, wherever assistance is needed. It shapes its support to fit the region or country being helped. Programmes with a global reach allow the EU to provide similar support to countries facing similar problems.

European cooperation with Ethiopia dates back to 1975 when Ethiopia became a party to the Lomé Convention. EU assistance has contributed to improving the living conditions and economic infrastructure in Ethiopia. It is one of the major donor partners of Ethiopia, which contributes to about 203 million euro a year, representing 10% of the total Official Development Aid received by Ethiopia. Cooperation between the Eu and Ethiopia is carried out by means of grants through three main resources:

1. The European Development Fund (EDF), which is managed by the EU on behalf of the 27 EU member states, under the framework of the Cotonou Agreement (a partnership agreement between the EU and 79 countries in Sub-Saharan Africa, the Caribbean and the Pacific).
2. Thematic budget lines which focus on the areas of food security, environment, non-state actors and local authorities, human rights and other areas managed through calls for proposals.
3. The ECHO (the Humanitarian branch of EU) financing, related to humanitarian assistance.

The EU cooperation program covers broad areas such as infrastructure, rural development, social services delivery, private sector development and trade, environment, water supply and sanitation, food security, rural energy, governance, demining and culture. Under the Lome Convention, that prevailed before the Cotonou Agreement Ethiopia received 2 billion euro between 1975 and 2000 from European Development Fund (EDF). Since the Cotonou Partnership Agreement, the aid allocated to Ethiopia is even bigger: up to 2013, 1.3 billion euro has already allocated to Ethiopia to support its development endeavours (National Authorizing Office, MOFED).

3.**2.3.3 World Bank**

The World Bank Group is established in 1944. Since inception in 1944, the World Bank has expanded from a single institution to a closely associated group of five development institutions; the International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), the International Finance Corporation (IFC), the Multilateral Guarantee Agency (MIGA), and the International Centre for the Settlement of Investment Disputes (ICSID). The two major institutions are discussed below:

IBRD

Founded in 1944 to help Europe recover from World War II, the International Bank for Reconstruction and Development (IBRD), better known as the World Bank, is one of five institutions that make up the World Bank Group. IBRD is the part of the World Bank that works with middle-income and creditworthy poorer countries to promote sustainable, equitable and job-creating growth, reduce poverty and address issues of regional and global importance.

Specifically, the IBRD:

- supports long-term human and social development needs that private creditors do not finance;
- preserves borrowers' financial strength by providing support in crisis periods, which is when poor people are most adversely affected;
- uses the leverage of financing to promote key policy and institutional reforms (such as safety net or anticorruption reforms);
- creates a favourable investment climate in order to catalyze the provision of private capital;
- Provides financial support (in the form of grants made available from the IBRD's net income) in areas that are critical to the well-being of poor people in all countries.

Middle-income countries, where 70 per cent of the world's poor live, have made profound improvements in economic management and governance over the past two decades and are rapidly increasing their demand for the strategic, intellectual and financial resources the World Bank has

to offer. The challenge facing the IBRD is to better manage and deliver its resources to best meet the needs of these countries.

To increase its impact in middle-income countries, IBRD is working closely with the International Finance Corporation (IFC), the Multilateral Investment Guarantee Agency (MIGA), the International Monetary Fund (IMF) and other multilateral development banks. In the course of its work, IBRD is also striving to capitalize on middle-income countries' own accumulated knowledge and development experiences and collaborates with foundations, civil society partners and donors in the development community.

Even if Ethiopia is one of the founders of IBRD, the country couldn't get the loan given by the IBRD as needed due to that Ethiopia is not legible to IBRD, since the loan that the bank lends is a commercial loan. Though, the bank provides a loan to Ethiopia since 1950 for the implementation of road projects, water supply projects, Fincha Hydro Power project, Telecommunication and for the Development Bank of Ethiopia.

International Development Association (IDA)

The International Development Association (IDA) is the part of the World Bank that helps the world's poorest countries. It is established in 1960, to give loans for those who can't get from IBRD since the interest of IBRD loan is high. It gives concessional loans through the concessional lending window. IDA aims to reduce poverty by providing loans (called "credits") and grants for programs that boost economic growth, reduce inequalities, and improve people's living conditions.

IDA is one of the largest sources of assistance for the world's 82 poorest countries, 40 of which are in Africa. It is the single largest source of donor funds for basic social services in these countries. IDA-financed operations deliver positive change for 2.5 billion people, the majority of whom survive on less than $2 a day. It lends money on concessional terms. This means that IDA charges little or no interest and repayments are stretched over 25 to 40 years, including a 5- to 10-year grace period. IDA also provides grants to countries at risk of debt distress.

Ethiopia joined the IDA in 1961, after one year that it was established. Due to political, economic and social problems, Ethiopia didn't get the support of this organization that much till 1991. After a change in government in 1991, IDA plays a crucial role for the development of the country.

The International Development Association (IDA) is Ethiopia's largest provider of official development assistance: it has committed over US$7 billion to more than 60 projects in Ethiopia since 1991, most notably for the protection of basic services, productive safety nets, energy and roads projects. IDA has worked to promote economic growth and address systemic poverty challenges across many sectors. Important results include a near two-fold increase in the number of children in primary school between 2001 and 2010, a reduction in child mortality from 204 in 1990 to 109 in 2010, increased rural access to safe water to 65.8 percent in 2010, from only 19 percent in 1990, all the while building local government capacity for service delivery and increased accountability (World Bank website).

3.2.3.4 African Development Bank

The African Development Bank Group (AfDB) is a multilateral development finance institution founded in 1964 to promote the economic development and social progress of African countries. It officially began operations in 1967 from its headquarters in Abidjan, Cote d'Ivoire. In 2003, the institution's board of governors decided to relocate the bank's headquarters temporarily to Tunisia, due to the political and security situation in Cote D'Ivoire at that time.

The bank group comprises the African Development Bank (ADB) and two concessional windows namely the African Development Fund (ADF) which established in 1972 and the Nigeria Trust Fund (NTF), established in 1976. The bank group is funded by its 54 African Regional Member Countries (RMCs) and 24 Non-Regional Member Countries.

The AfDB supports its RMCs by mobilizing and allocating resources for investment, as well as providing policy advice and technical assistance to support development efforts. Since 2006, the bank group's operations have focused on key strategic areas such as infrastructure development and regional integration; private sector development; economic governance reforms; and support to higher education, science and technology, and vocational training. Between 1967 and 2012, the bank group approved 96 billion USD grant and loan.

Ethiopia officially joined the AfDB on 10th September 1964. As of December 2012, the bank had approved 119 loans and grants. Bank Group approvals were distributed across its three windows, the non-concessional ADB window accounted for US$751.37 million (19.6%), the concessional ADF window accounted for US$2038.79 million (79.9%) and the NTF accounted for US$ 16.49 million (0.4%).

Today, the bank is shifting from many small projects to supporting fewer but larger projects that have higher development impacts, in line with the CSP principle of selectivity. The average project size currently stands at US$ 79.35 million, which is more than double the bank's overall average of US$ 31.21 million.

3.2.4 Net Multilateral Aid flows from Multilateral Institutions

Table 3.2 the net multilateral aid flows from 1973-2003 EFY from multilateral source:

Net multilateral aid from multilateral institutions in million USD				
Multilateral Institutions	1981-90	1991-2000	2001-2011	Total
UN agencies,, IAEA	0	0	4.76	**4.76**
UN agencies, IFAD	54.46	6.92	109.05	**170.43**
IMF concessional	-31.786	84.437	376.818	**429.469**
IMF nonconcessional	-35.181	-6.039	0	**-41.22**
IBRD	-63.157	-27.492	0	**-90.649**
IDA	506.718	1074.342	3262.288	**4843.35**
UN agencies, UNAIDS	0	0	10.78	**10.78**
UN agencies, UNICEF	155.96	182.22	332.44	**670.62**
UN agencies, UNHCR	342.88	271.88	83.29	**698.05**
UN agencies, UNDP	182.33	159.15	162.66	**504.14**
UN agencies, UNECE	0	0	0	**0**
UN agencies, UNFPA	12.81	29.55	50.34	**92.7**
UN agencies, UNPBF	0	0	0	**0**
UN agencies, UNRWA	0	0	0	**0**
UN agencies, UNTA	21.92	27.77	27.77	**77.46**
UN agencies, WFP	420.99	697.15	182.5	**1300.64**
UN agencies, WHO	0	0	2.88	**2.88**
European Union institutions	775.03	1194.86	2293.5	**4263.39**
RDB concessional	177.4	498.676	924.429	**1600.51**
RDB nonconcessional	49.08	118.034	-98.455	**68.659**
Total	**2,569.45**	**4,311.46**	**7,725.05**	**14606**

Source: World Bank database

The above table illustrates the net multilateral aid disbursements/flows made by the multilateral agencies and institutions to Ethiopia for the year 1973-2003 Ethiopian Fiscal Year (EFY). Net Multilateral aid flows from multilateral institutions are gross disbursements of grants and loans minus repayments of principal on earlier loans. These institutions borrow loans made on concessional terms (with a grant element of at least 25 percent, calculated at a rate of discount of 10 percent) and grants made to promote economic development and welfare in the country.

As the table above shows that for the last three decades (from 1973-2003 EFY) the amount of fund disbursed to Ethiopia from Multilateral organizations and institutions is 14.61 billion USD. For the third decade, the amount is higher than the previous two decades which covers 52.87% of the total fund. Out of the total 33.15% is from International Development Association (IDA) (4.84 billion USD), 29.15% is from European Union institutions (4.26 billion USD) and 15.61% is from Regional Development Banks (RDB)[5];(2.28 billion USD)which ranked first, second and third respectively. The negative sign in the above table indicates that the repayment of the debt or loan is greater than the loan given to the country in the given time. And it has a great impact on the economy of the country in general and in the domestic saving in particular. The detail data will be attached in the annexes.

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[5] Regional development banks are the African Development Bank, in Tunis, Tunisia, which serves all of Africa, including North Africa; the Asian Development Bank, in Manila, Philippines, which serves South and Central Asia and East Asia and Pacific; the European Bank for Reconstruction and Development, in London, United Kingdom, which serves Europe and Central Asia; and the Inter-American Development Bank, in Washington, D.C., which serves the Americas.

CHAPTER FOUR

4. Econometric Results

4.1 Order of Integration of the Variables: Unit Root Test Results

Before proceeding to estimate the long run equation explaining domestic saving in Ethiopia, it is necessary to investigate whether the data series is stationary in level, or stationary in differences in order to apply the correct methodology and at the same time to avoid any spurious inferences. Testing stationery of time series lead to the implementation of the econometric model using the appropriate methodology. Particularly in the context of this paper, all the variables of interest must be integrated of the same order (I (1)) to apply cointegration technique, which shows the long run equilibrium relationship between two or more nonstationary series.

The stationarity of the series is investigated by employing the Augmented Dickey-Fuller (ADF) unit root test. Since unit root tests are sensitive to the presence of deterministic regressors, three models are estimated. The most general model with a drift and time trend is estimated first and restrictive models i.e. with a constant and without a constant and trend, respectively, are estimated. Unit root tests for each variable is performed on both logarithm of levels and first differences. The ADF test results show that all the variables for domestic saving equation (in the logarithm of levels) are non-stationary (-contain a unit root) with the three different specifications. Furthermore, the first differences of the variables are investigated for a unit root and the test result proved that all of them are stationary with the two specifications (with a drift only and neither adrift nor a trend specifications) and all except domestic saving and value-added agriculture in the third specification (with a drift and trend specification) (Table 4.1).

Since all the variables are non-stationary in levels, a regression analysis using ordinary least squares (OLS) may produce spurious results. However, all of the series are stationary after first differencing and can be used in regression analysis. The drawback of this method (differencing) is the possibility of losing long-run information present in the variables (Mallik, 2008 as cited by Tassew, 2011). Such problems can be overcome by applying cointegration technique, which shows

the long-run relationship among the non-stationary series. After eliminating the non-stationary problem by first differencing, the short run relation between variables is explained by running the vector error correction model on the first difference.

Table 4.1 ADF unit root test result for Variables in the domestic saving Equation

Variables (in Log of Levels)		C & T	C	NCT
Log of domestic Saving (LS)		-1.1856	-1.5695	-0.2756
Log of Bilateral Aid (LBA)		-2.5505	-1.9717	1.7319
Log of Multilateral Aid (LMA)		-2.3844	-1.3844	0.7002
Log of Value Added Agriculture (LAG)		-2.2986	-1.1757	-1.0393
Variables in First Difference				
First difference of Log of domestic Saving (DLS)		-2.2809	-5.8075	-2.7643
The first difference of Log of Bilateral Aid (DLBA)		-5.2043	-5.2189	-4.6843
The first difference of Log of Multilateral Aid (DLMA)		-3.0264	-5.3894	-5.5636
First difference of Log of Value Added Agriculture (DLAG)		-2.2809	-3.9682	-3.9270
Critical Values	1%	-3.96	-3.43	-2.56
	5%	-3.41	-2.86	-1.94
	10%	-3.13	-2.57	-1.62

Note: C&T represent for both constant and neither trend, C for constant no trend, and NCT stands for neither constant nor trend is included in the model.

4.2 Johansen Co-integration (Log run Estimates) and VECM
4.2.1 Johansen Co-integration (Log run Estimates)

Once all the variables entered the domestic saving equation are integrated of a similar order (I (1)), the next step is testing for cointegration. The rank of the cointegrating vector is determined using the Johansen's maximum likelihood method. The test result (λ trace statistics) rejects the null hypothesis of no cointegration all at 10%, 5 % and 1 % significance level. In other words, the null of at most one cointegrating vector is not rejected at 5% and 1% level of significance. Hence, there exist two co-integrating vectors which make up the long run relationship among the variables in

the system since the likelihood ratio is less than the values at the three significance levels (Table 4.2).

Table 4.2 Johansen's cointegration test

r_0	Likelihood Ratio	P value	90%	95%	99%
0	78.74*	0.000	50.50*	53.94*	60.82*
1	34.92*	0.0520	32.25*	35.07	40.78
2	17.63	0.1114	17.98	20.16	24.69
3	5.48	0.2432	7.60	9.14	12.53

Note: * denotes rejection at 10%, 5% and 1 % level. And the optimal lag length used to test for cointegration is determined at the lag length of four using Akaike Information Criteria (AIC).

The presence of one cointegrating vector points to estimate the long run equation along with associated coefficients (β) and adjustment parameters (α) which are important for further analysis. The corresponding β and α coefficient vector are reported below.

Table 4.3 Normalized Long run β Coefficients

Variables	Log of Domestic saving (LS)	Log of Bilateral Aid (LBA)	Log of Multilateral Aid (LMA)	Log of Value-Added Agriculture (LAG)
Estimated Coefficients	1	-5.411	7.235	-3.345

Source: own computation

Table 4.4 Adjustment (α) Coefficients

Variables	Adjustment Coefficients
Log of Domestic saving (LS)	-0.084
Log of Bilateral Aid (LBA)	-0.005
Log of Multilateral Aid (LMA)	-0.213
Log of Value-Added Agriculture (LAG)	-0.052

Source: own computation

The long-run estimates of inflation model are reported in table 4.5. The first column is showing the names of variables. Similarly, coefficients, standard errors and t-statistics are displayed in 2nd, 3rd and 4th columns. The 5th column concludes the significant and insignificant relationships of all the variables.

Table 4.5: Johansen Long run Results

Variables	Coefficients	Standard Errors	T-Statistics	Conclusion
Log of Domestic Saving (LS)	1	-	-	
Log of Bilateral Aid (LBA)	-5.411	0.578	-9.366	Significant
Log of Multilateral Aid (LMA)	7.235	0.668	10.831	Significant
Log of Value Added Agriculture (LAG)	-3.345	0.340	-9.847	Significant
Constant	6.952	1.806	3.850	Significant

Source: own computation

The results reveal that bilateral aid is found to be indirectly related to domestic saving. The coefficient having a negative sign is significant at 1 per cent level of significance suggesting that a 1 percent change in bilateral aid leads to -5.411 percent decrease in domestic saving on the average in the long run. The negative relation between domestic saving and bilateral aid is in favour of those who conclude foreign aid has a negative impact with domestic saving and as a result with economic growth like Taslim and Weliwita (2000). The result is also on the one hand with the theory of M. McGillivray, S. Feeny and H. White (2004) who argues that too many, bilateral aid was just plain ugly. Bilateral donors were not so concerned with the developmental impact of aid or ensuring that it was allocated equitably, according to the relative needs of recipient countries. Instead, they were more concerned about whether their aid generated commercial export opportunities, propped-up governments and promoting stability in strategically important countries, ensured support in international forums, could be used to induce the desired behaviour from recipient countries and so on. There was of course diversity among bilateral donors: not all were plain ugly. But recognizing that no bilateral aid agency can ignore broader foreign policy interests some were simply bad or approaching good. Unfortunately, these agencies often administered small aid programs, so that bilateral aid was on balance plain ugly.

Similarly, value added of agriculture affects the domestic saving negatively. The coefficient having a negative sign is significant at 1 percent level of significance suggesting that a 1 percent change in value-added agriculture leads to -3.345 percent decrease in domestic saving on the

average in the long run. This result is against the conclusion of Michael P. Shields who argues that agricultural intensity of production tending to enhance savings.

On the other hand, multilateral aid is found to be directly related to domestic saving. The coefficient having a positive sign is significant at 1 percent level of significance suggesting that a 1 percent change in bilateral aid leads to 7.235 percent increase in domestic saving on the average in the long run. The positive relation between domestic saving and multilateral aid is reconciled with the findings of M. McGillivray, S. Feeny and H. White (2004) who argues that multilateral aid was thought to be more effective, and there were widespread calls for the share of multilateral aid in total aid to increase – donor governments were pressured to provide more aid via multilateral agencies; so while the activities of some multilateral development agencies were considered bad, on balance multilateral aid was thought to be quite good and hence, Compared with bilateral aid, it was considered to be unambiguously good.

4.2.2 Vector Error Correction Model (VECM)

Since the variables in the domestic saving equation are found to be cointegrated, we proceed to estimate the vector error correction model which represents both the long run and short run adjustments among the variables under study. The log changes in the relevant variables represent short-run elasticity's (alternatively, short-run variation). Using the VECM specification (section 4.3.3), a short run dynamic equation is estimated for investment function. VECM has been used to find out the short run dynamics. The results of short-run dynamics of the variables are reported in table-5.6.

Table 4.6 discusses the short run results using the vector error correction model. Values without brackets are short-run coefficients, values in zigzag brackets are showing p-values and square brackets are denoting t – statistics. The most important thing in the short run results is the speed of adjustment term. It shows that how much time would be taken by the variable to reach a long-run equilibrium. The negative sign of speed of adjustment term shows that the economy will converge towards long-run equilibrium after taking 8.7 percent annually adjustments in the short run however the value of the coefficient is statistically insignificant.

Short run results of Vector error correction model (VECM) reveal that domestic saving, its first and third lags, first and third lags of multilateral aid, the third lag of bilateral aid, and second and third lags of value-added agriculture are found to be negatively related. While the first and second lags of bilateral aid, first and second lag of value-added agriculture, the second lag of multilateral aid and domestic saving have a negative relation with domestic saving in the short run. Even if this is the test statistics result, all the coefficients are insignificant. This shows that domestic saving is a long run phenomenon and it cannot be achieved in a short period of time.

Table 4.6: Vector Error Correction Short run results

	d(LDS)	d(LBA)	d(LMA)	d(LAG)
ec1(t-1)	-0.084	-0.005	-0.213	-0.052
	{0.297}	{0.868}	{0.000}	{0.068}
	[-1.043]	[-0.167]	[-7.612]	[-1.822]
d(LDS)(t-1)|	-0.114	-0.020	-0.101	0.009
|	{0.521}	{0.778}	{0.103}	{0.886}
|	[-0.642]	[-0.282]	[-1.629]	[0.143]
d(LBA)(t-1)|	0.395	-0.178	-0.730	0.071
|	{0.285}	{0.230}	{0.000}	{0.587}
|	[1.069]	[-1.199]	[-5.663]	[0.543]
d(LMA)(t-1)|	-0.249	0.027	0.642	0.077
|	{0.525}	{0.865}	{0.000}	{0.579}
|	[-0.635]	[0.170]	[4.697]	[0.554]
d(LAG)(t-1)|	0.293	0.037	-0.386	0.152
|	{0.613}	{0.874}	{0.055}	{0.459}
|	[0.506]	[0.158]	[-1.916]	[0.740]
d(LDS)(t-2)|	0.143	0.096	-0.327	0.006
|	{0.433}	{0.188}	{0.000}	{0.928}
|	[0.783]	[1.318]	[-5.156]	[0.091]
d(LBA)(t-2)|	0.144	-0.009	-0.560	0.008
|	{0.700}	{0.954}	{0.000}	{0.950}
|	[0.385]	[-0.057]	[-4.301]	[0.063]
d(LMA)(t-2)|	0.289	0.295	0.387	-0.065
|	{0.401}	{0.033}	{0.001}	{0.599}
|	[0.839]	[2.130]	[3.217]	[-0.526]
d(LAG)(t-2)|	-0.238	0.041	-0.046	-0.226
|	{0.664}	{0.851}	{0.812}	{0.246}
|	[-0.434]	[0.187]	[-0.238]	[-1.159]
d(LDS)(t-3)|	-0.207	-0.270	-0.273	-0.096
|	{0.388}	{0.005}	{0.001}	{0.259}
|	[-0.864]	[-2.801]	[-3.258]	[-1.128]
d(LBA)(t-3)|	-0.158	-0.009	-0.384	-0.217
|	{0.638}	{0.950}	{0.001}	{0.070}
|	[-0.470]	[-0.063]	[-3.273]	[-1.810]
d(LMA)(t-3)|	0.358	0.206	0.372	-0.023
|	{0.241}	{0.092}	{0.000}	{0.833}

		[1.173]	[1.683]	[3.500]	[-0.211]
d(LAG)(t-3)		-0.147	0.145	-0.509	-0.125
		{0.781}	{0.492}	{0.006}	{0.505}
		[-0.279]	[0.687]	[-2.768]	[-0.667]
Constant	6.952				
	{0.000}				
	[3.850]				

NB: And the optimal lag length used to test for cointegration is determined at lag length of four using Akaike Information Criteria (AIC).

CHAPTER FIVE

5. Conclusions and Policy Implications

5.1 Conclusions

Domestic saving is the most important factor in economic development. It is spent on developmental investments and will improve the economy of one country. The level of domestic saving, however, is not as much needed especially in developing countries like Ethiopia. The saving rate is very low (8% as of MoFED 2011 annual report) for Ethiopia. Since the investment gap is very high in Ethiopia, it is captured by the foreign aid (in form of bilateral and multilateral aid). Foreign aid remained an important source of finance for capital scarce (poor) countries and continued to play a multifaceted role in financing their development needs. Despite the massive literature on the subject, a consensus has not been reached by researchers regarding the growth impact of aid, rather the results are inconclusive. Thus one can find both success and failure stories.

Time series data from 1981 to 2011 (from 1973 to 2003 Ethiopian Fiscal Year) of relevant variables were used for empirical analysis to see the short run and long-run impact of foreign aid by disaggregating it into bilateral aid and multilateral aid. First of all, the stationarity of time series was checked by using the Augmented Dickey-Fuller (ADF) unit root test. All variables were integrated of order one I(1) as they became stationary at their first differences at 10%,5% and 1% level of significance. As the variables had the same order of integration, therefore Johansen co-integration was applied to find the long run relationships. Trace Statistics (λ *trace*) is used which confirmed the existence of co-integration and there is one of the co-integrating vectors.

The impact of all variables on domestic saving was negative and statistically significant except multilateral aid. The coefficients of bilateral aid and value-added agriculture had unexpected negative signs while the coefficient of Multilateral aid had expected positive sign. The results revealed that both bilateral and multilateral aid determined domestic saving in Ethiopia. The multilateral aid highly affects domestic saving (which is 7.235) positively in the long run and it indicates that multilateral aid is more important determinant compared with other variables

included in the domestic saving equation. While the bilateral aid and value-added agriculture affects domestic saving negatively (-5.411 and -3.345 respectively) in the long run as the test statistics indicates in table 4.5 above.

Vector Error Correction Model (VECM) had been used for the analysis of short-run dynamics. In the short run, even if the coefficients are insignificant; domestic saving, its first and third lags, first and third lags of multilateral aid, the third lag of bilateral aid, and second and third lags of value-added agriculture are found to be negatively related. While the first and second lags of bilateral aid, first and second lag of value-added agriculture, the second lag of multilateral aid and domestic saving have a negative relation with domestic saving. The negative value of the speed of adjustment coefficient, which is (-0.084), indicated the low speed of convergence towards equilibrium. Findings of the study show that multilateral aid has a dominant role in determining domestic saving both in the long run and a short run in Ethiopia.

5.2 Policy Implications

The empirical results found in this study have some important policy implications. Even though multilateral aid appeared to have a significant role in financing investment saving in the long run, bilateral aid affected investment negatively through domestic saving. Enhancing the domestic revenue raising capacity is at the heart of the mechanism to meet the capital required for investment in times of shortfalls relative to expectations. The other important mechanism is that stability in donor-recipient relationships, especially with multilateral institutions, is crucial in order to increase the volume of multilateral aid, which makes a prediction of future aid inflows easier. Such stable relationships with donors allow more investment, better fiscal planning and make long term development planning not difficult.

Therefore, the government is required to set a sound macroeconomic policy environment based on the guidelines of multilateral institutions, but keeping the benefit of the county at a primary issue, which increases the flow of aid from multilateral institutions and stimulates domestic saving that is adequate enough to finance investment and close the saving-investment gap in the long run. The overall result shows the importance of increasing multilateral foreign aid flows to Ethiopia to enhance investment and growth through domestic. However, in the long run, rather than merely

filling gaps, aid should help close gaps in Ethiopia, since reliance on future aid and foreign borrowing is thus diminished.

Though the finding points the negative impact of bilateral aid on domestic saving; the researcher believes that by making so many negotiations with donor countries and trying to decrease their interests like export interest, the impact of bilateral aid can be minimized. That is, since bilateral donors were not so concerned with the developmental impact of aid, or ensuring that it was allocated equitably, according to the relative needs of recipient countries; instead, they were more concerned about whether their aid generated commercial export opportunities, propped-up governments and promoting stability in strategically important countries, ensured support in international forums, could be used to induce desired behaviour from recipient countries and so on; the bilateral aid tied aid. So if these interests of donor countries reduced and the aid policy concerned more on the interest of receipt countries, the negative impact will decrease.

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