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**Major Determinants of Economic Growth in Ethiopia from the Period
1974 to 2015**

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Abstract

The purpose of this study was to investigate the major determinants of economic growth in Ethiopia from the period 1974 to 2015. The study employed an Autoregressive Distributed Lag (ARDL) bound test model to co-integration in order to investigate the long run relationship and Error Correction Model (ECM) for short-run relationship between growth of real GDP and gross capital formation, human capital, export, foreign aid, external debt, inflation rate, labor force and financial sector development. The long-run empirical result using the bound test reveals that there was a stable long run relationship between growth of real GDP and its determinants. Gross capital formations (gross fixed investment), human capital (expenditures on education and health, inflation and labor force) had a positive significant impact on the growth of real GDP during the study period while external debt had a negative significant effect. However export and foreign aid had insignificant impact on the long-run with unexpected sign. The financial sector development (broad money supply (M2) as a percentage of GDP) was insignificant with expected sign. The short-run dynamic results showed that gross capital formation, human capital and inflation rate had also positive impact on the growth real GDP while foreign aid had negative significant effect. Finally the coefficients of equilibrating Error Term (ECM) suggested that the speed of adjustment (feedback effects towards the long run equilibrium) took few years for full adjustment when there was a shock in the system. In order to sustain long run growth the government or policy makers should design appropriate policies that results in the efficient use of resources contributing to economic growth and proper management of variables resulting to negative growth (external debt and foreign aid) in order to reverse their effect on output.

Key Words: Ethiopia, Economic Growth, ARDL, Bound test, ECM, Determinants

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1. Introduction

Finding the best way to boost the economic activity is the subject of intense debate in most of the countries in the world. A nation's ability to provide improving standards of living for its people depends crucially on its sustainable and long-run rate of economic growth. Hence economic growth is one of the most important issues that have received extensive attention in international political economy and

one of the major goals of all countries (Mostafa, 2010). It is conventionally measured with the percentage of increase in gross domestic product (GDP). Therefore, GDP shows the total market value or monetary value of all finished goods and services produced in a country borders in a specified time period and calculated on annual basis (Mankiw, 2010).

Ethiopia has passed through three politically distinct regimes with different policy reforms and various changes in economic growth since 1930: The imperial Government (1930-1974), The Derg Regime (1974-1991) and the existing government (1991-present). The GDP at constant factor cost has grown by 4.6%, 3.8% and 1.9% during 1953-59, 1960-65 and 1966-73 periods, respectively (Alemayehu, 2001).

During the Derg Regime, the general growth rate of GDP was 1.6%. During the period 1974-1978 the growth rate was 0.4 due to the civil war and the instability. In 1979-83 growth rate rose to 4.2% - a period characterized by relatively stable and good weather conditions. In 1984-85 growth plummeted to -5.3%. These were periods of severe drought. This rate picked up to 7.9% in 1986-87, only to decline back to 1% and the average per capital GDP growth rate is -2.3% in 1988-89. This was because of intensive internal war that took place in Ethiopia in order to overthrow the government and to retain power by the ruling government. However, Ethiopia experienced very high growth rate during the Derg regime between the periods of 1986-87 which was 7.9% per annum. This achievement was because of best rains season at the time (Alemayehu, 2001).

Ethiopia began to see accelerated economic progress in 1992 and it shifted to an even higher gear in 2004. Real GDP growth averaged 11.2% per annum during 2003/04 and 2008/09 period, placing Ethiopia among the top performing economies with a double digit in sub-Saharan Africa (SSA). It has experienced impressive growth performance over the last decade with average GDP growth rate of 11% which was about double of the average growth for SSA (NBE, 2013). More recently, Ethiopia has been one of the fastest growing non-oil dependent countries in Africa. It has made remarkable progress in its economic growth, with real GDP growth averaging 10.9% in 2004-2014 (WB, 2016). Notwithstanding the worst drought, Ethiopia registered 8.0% real GDP growth rate in 2015/16 which was much higher than 1.4% average for SSA. The economic growth was broad based with industry growing 20.6% service 8.7% and agriculture 2.3% (NBE, 2015/2016). However, Ethiopia needs to modernize the policy framework to further strengthen the foundations of its economy and to achieve its broader goal of becoming a lower middle income country by 2025.

Generally, the Ethiopian economic growth is characterized by mixed, erratic and averagely poor performance exhibiting positive and negative real GDP growth rates. For example, it showed a negative growth rates seven times between 1981 and 2010 (WB 2011). This shows it has been moving back and forth owing to different factors. On the other hand, official report on growth poverty and inequality show that Ethiopia has registered a two digit rate of economic growth in the last decade and has made immense progress in poverty reduction (Zerayehu, 2013).

Added to the lowest living standard this stochastic growth is the main problem in Ethiopia. Unless solved, Ethiopia have no any guarantee not to encounter the problems that it has faced in the last three regimes as far as the growth of the economy is concerned. This premise is evidenced by the growth patterns that the nation came across in the last four decades. So, research is mandatory on what affects the Ethiopian economic performance over the past periods and what was injected to the promising that, the Ethiopian economy was performing well in the last decade as compared to the past. However, some argue that even this growth rate was not enough for small country like Ethiopia to achieve the intended objectives of joining middle income countries and above all lifting the society out of poverty.

There are a number of studies which have examined the determinants of economic growth in many countries around the world by using different methods of analysis at different time by using different determinants of economic growth.

With regard to Ethiopia several studies have been undertaken on economic growth. But these researches were done mostly on impact of one or two variables on economic growth in different time periods rather than examining potential determinants or source of economic growth as general. But Tewodros (2015), in his research model from 1974 to 2013, found that physical capital and human capital had a significant positive relationship with economic growth while external debt had a significant negative effect on it. He also found export of goods and service, foreign aid and inflation had insignificant effect on economic growth in the long run. However, in his study he did not include some determinants which were area of recent interests in Ethiopian economic growth like labour force and financial sector development. Therefore, the inclusion of such pertinent variables on the model will contribute to the theory. In addition to that much was not done on the determinants of economic growth in Ethiopia as compared to other parts of the world. This shows that there is lack of exhaustiveness in at least the main determinants on economic growth in Ethiopia. So, the researcher is going to

analyse the main macroeconomic determinants of economic growth by being exhaustive as much as possible and including the basic factors believed to affect growth like labour force and financial sector development by mixing with the variables used in the past research.

The main objective of this study was to investigate the determinants of economic growth in Ethiopia from 1974 to 2015 and to determine the existence of long run and short run relationships between economic growth and its determinants.

2. Research Methodology

The study employs an explanatory or causal research design in order to achieve its objectives. The data used for this study was a quantitative data type which was based on some measurement of characteristics. It employed secondary data that were collected from National bank of Ethiopia (NBE), Ministry of Finance and Economic Development (MOFED), Ethiopian Economic Association (EEA), International Monetary Fund (IMF), World Development Indicator (WDI), World Bank (WB) dataset.

Model Specification

The Neo-classical Solow Growth Model explains economic growth as resulting from the combination of two elements namely capital and labor. However, Lucas extended the Solow Growth Model by including one more variable that explains economic growth, which is human capital. Apart from capital and labor, Solow decomposes the growth in output into three components capital, labor and total factor productivity (Solow residual).

Lucas used the Cobb-Douglas production function like Solow and he started from his simple growth equation and specified the model as;

$$Y_t = F(A, L_t, K_t, HC_t) \dots\dots\dots (10)$$

Where Y_t is real GDP at time t , L_t is labor force at time t , A total factor productivity /efficiency of factors, K_t is physical capital accumulation at time t , HC_t is human capital at time t

However, macroeconomic theory has identified various factors that influence the growth of a country from the classical, neoclassical and the new growth theories in addition to labor force, physical capital accumulation and human capital. These factors include natural resources, innovation, technology, economic policies, governmental factors, foreign aid, trade openness, institutional framework FDI, political factors, socio-cultural factors, geography, demography and any others. In

order to examine the empirical evidence of the macroeconomic determinants of economic growth in Ethiopia the study will consider most of these factors.

Studies like Patrick Enu et al. (2013), Biswas and Kumar (2014), Pitia (2015) and Tewodros (2015) applied similar economic function to analyse macroeconomic determinants of economic growth in Ghana, India, Sudan and Ethiopia respectively. They preferred these variables based on their relevance and data availabilities.

According to Tewodros (2015) the relationship between real GDP and its major macroeconomic determinant in Ethiopia is expressed as follows:

$$Y_t = F(GCF_t, EHE_t, EXT_t, AID_t, EXD_t, INF_t) \text{ ----- (11)}$$

Where Y_t represents real GDP at a time t , GCF_t represents for physical capital (formally gross investment) at a time t , EHE_t represents for human capital proxies by expenditure to health and education, EXT_t stands for total export, AID_t represents for foreign aid, EXD_t is for external debt and INF_t for the general inflation rate at time t .

But theoretical and empirical studies show that these are not the only determinants of economic growth. There are also other factors such as labour force and financial development. Therefore, this study incorporates these additional variables on the above model. The new model representation is expressed as:

$$Y_t = F(A, GCF_t, HC_t, EXT_t, FAID_t, EXD_t, INF_t, LF_t, FD_t) \text{ (12)}$$

Where Y_t stands for real GDP at time t , A for factor productivity which is constant, GCF_t for gross fixed capital formation at time t , HC_t for human capital at time t , EXT_t for real export at time t , $FAID_t$ for foreign aid by using EXD_t for external debt, INF_t for general inflation rate at time t , LF_t labor force of the country at time t and FD_t financial sector development at time t and proxied by broad money supply ($M2$) as a percentage of real GDP ratio at time t .

Since it is a Cobb- Douglass production function it is specified as:

$$Y_t = F(A, GCF_t^{B1}, HC_t^{B2}, EXT_t^{B3}, FAID_t^{B4}, EXD_t^{B5}, INF_t^{B6}, LF_t^{B7}, FDI_t^{B8}) \text{ (13)}$$

Taking the logarithms on both sides of the above equation, it is reformulated as follows:

$$LY_t = B_0 + B_1 LGCF_t + B_2 LHC_t + B_3 LEXT_t + B_4 LFAID_t + B_5 LEXD_t + B_6 LINF_t + B_7 LLLF_t + B_8 LFD_t + E_t \text{ (14)}$$

Where:-

LY_t = Logarithm of real GDP at time t

E_t = error term at time t

$B's$ = are parameters to be estimated and others are logarithms of explanatory variables which are defined in the above consecutive equations.

Note that since inflation rate and financial development themselves are expressed in percentages no need of taking log form for them. The equation (14) above is expressed in a log-linear form. Thus the interpretation shows elasticities.

The Autoregressive Distributed Lag Model (ARDL)

In order to estimate the long run and short run relationship between real GDP and Physical capital, human capital, Export, foreign aid, external debt, inflation rate, labor force and financial development, the study applied the recently developed Autoregressive Distributed Lag (ARDL) model to co-integration and error correction. ARDL deals single co-integration and introduced by Pesaran and Shin (1999) and further extended by Pesaran et al. (2001). This method has certain econometric advantages in comparison to other single co-integration procedures. First ARDL can be applied irrespective of whether the underlying regressors are purely $I(0)$, purely $I(1)$ or mutually co-integrated (Pesaran and Shin 1999). The second advantage of using the bounds test approach to co-integration is that it performs better than Engle and Granger (1987), Johansen (1991) co-integration and Phillips and Hansen (1990) co-integration tests in small samples as the case in this study. Thirdly with ARDL approach it is possible that different variables have different optimal number of lags, while in Johansen type models this is not permitted. Fourthly, in ARDL estimation the long run and short run parameters are estimated simultaneously. Finally, by applying ARDL technique we can obtain unbiased and efficient estimator of the model (Narayan, 2005).

3. Results and Discussion

Stationarity test and model diagnostic tests should be tested. Based on Augmented Dickey- fuller (ADF) test and Phillips Peron test (PP) inflation and foreign aid are stationary at level and all other variables used in the model are stationary at their first level. To check the verifiability of the estimated long run model some diagnostic tests are undertaken. These includes serial correlation test (Brush and Godfray LM test), functional form (Ramsey's RESET) test, normality (Jaque-Berra test) and heteroscedasticity (Breusch-Pagan-Godfrey). The results indicate that the long run ARDL model estimated in the study pass all the diagnostic tests. This is because the p-values associated with both the LM version and the F version of the statistic was unable to reject the null hypothesis specified for each test.

The F-test through the Wald test (Bound test) is also performed to check the joint significance of the coefficients specified in equation (14) since computed F-stastic value is higher than both lower bound and upper bound critical values. This implies that we reject the null hypothesis of $\beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = \beta_7 = \beta_8 = 0$ (there is no long run relationships the dependent and explanatory variables) and we should accept the alternative hypothesis of $\beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = \beta_7 = \beta_8 \neq 0$ (there is long run relationships).

ARDL Long Run Model Estimation result

The estimated long run ARDL model is presented in table 4.1 below.

Table 4.6 Estimated Long Run Coefficients Using ARDL(1,0,0,0,1,0,1,1,0)

Dependent variable(LRGDP)

Regressors	Coefficients	Standard Error	T-ratio
LGCF	0.28***	0.073	3.816
LHC	0.15**	0.066	2.346
LEXT	-0.01	0.026	-0.312
LFAID	-0.05	0.043	-1.271
LEXD	-0.04**	0.018	-2.147
INF	0.01***	0.002	3.812
LLF	0.66**	0.240	2.725
FD	0.01	0.003	1.354
CONS	6.78	0.725	9.344

Source: Model result

Note: *** and **, * represents the significance of coefficients at 1% and 5% and 10% significance levels, respectively.

As we see from table (6) above the estimated coefficients of gross capital formation, human capital, external debt, labor force and financial development have the expected signs while export, foreign aid and inflation have unexpected signs.

The long run model result indicates that gross capital formation (proxied by gross investment) is statistically significant at 1% significance level. Thus, holding other things constant a 1% increase in gross capital formation brought a 0.28% increase in real GDP. Therefore, it is the most significant variable that positively affects the growth of real output. The result is consistent with Tewodros (2015), Basamini and Scarpeta (2001), Nadmibri et al. (2012), Adhiambo and Were (2015), Mamoudou (2011), Patrick Enu et al. (2013).

Next to gross capital formation human capital (proxied by expenditure in health and education) has significant long run impact on the Ethiopian economy. Citreous

paribus, a 1% increase in expenditure of education and health has resulted 0.15% increase in real GDP. The findings of this research is consistent with the endogenous growth theories (mainly, advocated and/or developed by Lucas (1988), Romer (1992)) other studies like Basamini and Scarpeta (2001) and Tewodros (2015).

External debt has a negative significant impact to the Ethiopian economy in the long run. This is due to the costs incurred for interest and loan repayments. From this finding a 1% increase in external debt the real GDP has decreased by 0.04 %. The result is also in line with Teklu et al. (2014) and Mulugeta (2014) had investigated that external debt had a negative significant impact in the long run on economic growth and negative insignificant impact in the short run on in Ethiopia due to debt overhang and crowding effect while Tewodros (2015) and Wessene (2014) had investigated that external debt has A negative significant impact on economic growth in Ethiopia both in the short run and in the long run.

In this study, the researcher found that inflation rate has positive impact on the Ethiopian economy. Since our inflation is demand pull inflation, this excess demand will increase price under certain levels of supply. On the supply side, the increase of price will initiate producers to produce more. Regarding to theories that supports the positive impact of inflation on output, Phillips curve suggested that one could not achieve low level of unemployment unless maintaining high level of inflation, and Robert Lucas also developed an alternative theory of the Phillips Curve and the money driven business cycle under the assumption of rational expectation. He showed that a positive relationship between output and inflation due to the imperfect information regarding the aggregate level of price (Mankiw, 2010).

In connection with this Admasu (2014) had identified the threshold level of inflation in Ethiopia by using quarterly time series data from the period 1991-2003. The result confirmed that the threshold (moderate) inflation level is 10%. According to his findings inflation rate up to 10 % has a positive effect on economic growth while inflation rate above 10% had a negative effect on it. Millik and Chowdhury (2001 as cited in Admasu, 2014) found the positive long run relationship between inflation and economic growth for four Asian countries namely Bangladesh, India, Pakistan and Sirilanka, As the above result indicates the real GDP in Ethiopia has increased by 0.01 % as inflation increases by 1% other things remains constant.

The other most important variable which has a significant positive impact to the Ethiopian economy in the long run is labor force. As we observed from the above

table, model results other things remains constant as labor force increases by 1% real GDP has increased by 0.66% .This implies that labor force has important role in the growth of Ethiopian economy. The finding is in line with the Solow growth model which states that economic growth is a function of labor and capital and other studies like Mahmud (2014), Mamoudou (2011), Patrick Enu et al. (2013) and Mehrara and Rezaei (2015).

Finally, the long run estimated model is presented as follows with figures in the parenthesis indicating the calculated t-value.

$$\text{LRGD}=6.78+0.28\text{LGCF}+0.15\text{LHC}-0.01\text{LEXT}-0.05\text{LFAID}-0.04\text{LEXD}+0.01\text{INF}+0.66\text{LLF}+ 0.01\text{FD}$$

$$(9.34) \quad (3.82) \quad (2.35) \quad (-0.31) \quad (-1.27) \quad (-2.15) \quad (3.81)$$

$$(2.73) \quad (1.35)$$

Short Run Error Correction Model (ECM)

After the acceptance of long run coefficients of the growth equation the short run Error Correction Model (ECM) is estimated. ECM indicates the speed of adjustment to restore equilibrium in the dynamic model. It is one lagged period residual obtained from the estimated dynamic long run model. The coefficient of error correction term indicates how quickly variables converge to equilibrium. Moreover, it should have a negative sign and statistically significant at standard significant level. (I.e. p- value should less than 0.05).

Table 4.2 Error Correction Representation for the Selected ARDL

Dependant variable D(LRGDP)			
Regressors	Coefficient	Standard Error	t-Statistic
D(LGCF)	0.17***	0.035	4.839
D(LHC)	0.10**	0.047	2.011
D(LEXT)	-0.01	0.016	-0.312
D(LEXAID)	-0.07***	0.025	-2.969
D(LEXD)	-0.02*	0.012	-1.921
D(INF)	0.002***	0.001	3.970
D(LLF)	0.07	0.189	0.355
D(FD)	0.003	0.002	1.177
Cointeq(-1)	-0.61***	0.109	-5.645

$$\text{Cointeq} = \text{LRGDP} - (0.28*\text{LGCF} + 0.15*\text{LHC} - 0.01*\text{LEXT} - 0.05*\text{LFAID} - 0.04*\text{LEXD} + 0.01*\text{INF} + 0.66*\text{LLF} + 0.01*\text{FD} + 6.78)$$

R-squared	0.9986
Adjusted R-squared	0.9980
F-statistics	1695.514
Prob(F-statistics)	0.000

Source: Model Result

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Note: the sign ***, ** and* denotes the coefficients are statistically significant at 1 %, 5% and 10% respectively.

The error correction coefficient, estimated at -0.61 is highly significant and has the correct negative sign. This shows that there is a very high speed of adjustment to equilibrium. The highly significant error correction term further confirms the existence of a stable long run relationship (Tewodros, 2015). The coefficient of the error term implies that the deviation from long run equilibrium level of real GDP in the current period is corrected by 61 % in the next period to bring back equilibrium when there is a shock to a steady state relationship. In other sense approximately 61 percent of the disequilibrium from the previous year's shock converges back to the long run equilibrium in the current year.

The coefficient of determination (Adjusted R-squared) is high explaining that about 99.80% of the variation in the real GDP is attributed or explained by the variations of the variables that are used in the model. In addition the F-statistics is significant that shows the model is good to explain the relationship between the variables in the short run.

As we seen from the above table (7) result similar to the long run gross capital formation in the short run is statistically significant even at 1% significance level. Other things remains constant a 1% increase in gross capital formation or fixed gross investment leads a 0.17% increase in real GDP in the short run. This result is consistent with the classical and neo-classical foundations in the theory of economic growth. Other empirical studies like Biswas and Kumar (2014) and Tewodros (2015).

Investment in human capital is also very significant factor in Ethiopian economy even in the short run. Other things being constant a one percent increase in human capital will lead a 0.10 percent increase in real output.

Foreign aid is also negative like in the long run but statistically significant in the short run even though its sign is unexpected. The negative sign of foreign aid may come because it creates dependency on foreign donors rather than working hard. The foreign country donors is not simply giving the aid they can get better opportunity and use their aid away of strengthening their relationships and try to gain some precious natural resources. Most foreign donor countries have the principle of give and take away. The other reason is the mismanagement or the use of foreign aid for unintended purpose rather than putting it into the economy by government officials. As the model result indicates that a one percent increase in Foreign aid will result a 0.07 percent decrease in real output of the economy. Some economists like Friedman (1958) and Bauer (1972) called end in aid, arguing that it

is not the necessary requirement for economic growth of the country rather it may actually undermine it. Both Friedman and Bauer assert that foreign assistance to governments is dangerous because it increases the powers of elite in the receipt governments, leads to corruption and hinders economic growth. It also discourages private sector investments by encouraging public sector led-growth (Haile, 2015). Mallik (2008), examined the effectiveness of foreign aid on economic growth from 1965-2005 in the six poorest highly aid dependent African countries namely Central Africa Republic, Malawi, Mali, Niger, Sierra Leone and Togo. His estimated result shows that five out of six countries foreign aid is a significant negative effect on economic growth exception of Togo due to its relatively proper management of aid. The finding is also similar with Nadmibri et al (2012) for SSA countries.

External debt is still negative and significant at 10% significant level but insignificant in the standard level of significance (i.e. 5% significance level). So external debt is in the short run it has not that much negative influence. The grand cost comes in the long run but there may also short-term loan repayments in the short run.

Export is insignificant both in the short run and in the long run with unexpected sign. The insignificance of export is due to Ethiopia's export commodities nature. Since Ethiopia exports primary agricultural products and those primary products are dependent on natural shocks in one side and price inelastic in the foreign markets on the other. Due to these reasons export in Ethiopia is not help the GDP well.

Inflation is also positively significant in the short run. A one percent increase in inflation will result a 0.002 percent in real GDP by holding other things remaining fixed. Despite its positive impact the magnitude of increment in real GDP due to the changes in inflation is low.

Unlike the long run labor force, in the short run is positive and insignificant. This is because in Ethiopian case, there are more unemployed in the short run. The unemployed people are unproductive

Financial development proxied by broad money supply as a percentage of GDP has positive sign, but it is insignificant both in the short run and in the long run. This implies that the financial development is still not well developed.

4. Conclusion and Policy Recommendations

Conclusion

The main objective of this study was to investigate the determinants of economic growth in Ethiopia ranging the time from 1974 to 2015. The study have investigated the long run and short run relationships between real GDP and other economic variables such as gross capital formation, human capital, export, foreign aid, external debt, inflation, labor force and financial sector development by using Autoregressive Distributed Lag (ARDL) bound test approach to co-integration and error correction. The results of the model have shown that gross capital formation and human capital were statistically significant both in the short run and in the long run with their expected sign. Inflation was also statistically significant in both the short run and long run irrespective of its sign change. Export had also unexpected sign but it was insignificant. External debt and labor force were both significant in the long run with expected signs. Foreign aid was insignificant in the long run but statistically significant in the short run. The other variable which had no influences on real GDP both in the short run and in the long run was financial development even if it held its expected positive sign.

The short run error correction model (ECM) formulation reveals that there was convergence towards equilibrium in the long run and the adjustment was fairly strong(61%) per annum and statistically significant.

Policy Recommendation

Based on the finding of the study, the following policy recommendations have been made:

- Since gross capital formation or investment in physical asset is very significant factor for Ethiopian economy, the government of Ethiopia should give greater attention by continuing the current trend to investment on infrastructures such as roads, telecommunication, hydro powers, railways, and industries etc. which are the engines for economic growth.
- In order to enhance the contribution of human capital, the government of Ethiopia should allocate adequate finance in order to increase both the quantity and quality of education and to provide basic and improved health services to the society. This will bring the technological transfer innovation and efficiency since education and health are the two main complementary pillars for development.
- Export sector is not still helping the Ethiopian economy. So the government should give special emphasis and treatment on the sector to develop it from its infant stage and to save foreign currencies.

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- Regarding the foreign aid and external debt both have a negative effect on Ethiopian economy. But for developing countries like Ethiopia, where capital is scarce, it is inevitable to depend on alternative sources to finance its mega projects and to fill its resource and budget gaps. So the government and other concerning bodies should set a clear cut policy that will lead to the proper management of foreign aid and external debt received by allocating them to the intended purpose.
- The impact of inflation and its sign is unexpected for this research. But moderate or low inflation is important for economic growth because it increases or creates supply of goods and services. So the government should keep it low as much as possible or single digit. The researcher recommends the one who has the interest to do further research on the area in order to investigate the effect of inflation on economic growth in Ethiopia can include other relevant variables.
- Ethiopia is labor abundant and capital scarce country. So, in order to grow faster it should have used the abundant resources properly (uses labor intensive technology). In order to increase the contribution of labor to growth, the government should upgrade the knowledge and skills of labor force so as to increase their efficiency.
- Finally, the financial sector in Ethiopia is not properly playing its role. Finance is very important to facilitate either investment or the day to day activities as a whole. So, the government should have a proper expansionary monetary policy to increase broad money supply so as to facilitate business activities and enhance the economic growth by developing the financial sector.

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