Economy Wide Impact of Currency Devaluation in Ethiopia: A Recursive Dynamic Computable General Equilibrium Analysis

Takele Abdisa and Derese Getachew

Abstract
This study analyzes the economy wide impact of currency devaluation on Ethiopian economy using Dynamic Computable General Equilibrium (DCGE) model. It utilized the updated 2009/10 Ethiopian Social Accounting Matrix (SAM) from 2005/06 developed by Ethiopian Development Research Institute (EDRI). In order to investigate the impact of currency devaluation on Ethiopian economy different simulations were made turn by turn. First, an increase in exchange rate by 15% was introduced to see the impacts of currency devaluation on Ethiopian economy. Consequently, all macroeconomic variables show reduction from base case scenario except the consumer price index which shows increment, explaining the inflationary pressure of currency devaluation. On the second simulation decrease in export price by 15% introduced to see the impact of currency devaluation on economy. As a result decrease in export price failed to recovery the export from low performance because the structural problem from supply side is not sufficient to meet the increased demand for exports after devaluation. Similarly, increase in import price by 15% under the third scenario also deteriorated the overall economic performance since Ethiopian imports are strategic imports which are not amenable for reduction following the advised devaluation because, most input purchased from foreigners at expensive price which increases cost of domestic production. Lastly, there is welfare reduction resulted from poor economic performance and increase in price which result in deterioration of welfare of the society. Based on finding the best way to improve export performance would be to replace currency devaluation by the structural reform which is still the bottleneck for export performance.

Keywords: Currency, Devaluation, Export, Import, Performance

I. INTRODUCTION

A. Background of the Study
Exchange rate is one of the most important policy variables, which determines the trade flows, foreign direct investment, inflation, international reserve and remittance of an economy. As well, the exchange rate is one of the major economic variables with important implications on international competitiveness since its change affects both export and import prices [3]. The exchange rate (E) is the rate at which one currency exchanges for another. From a macroeconomic point of view, exchange rate changes can have strong effects on the economy, as they may affect the structure of output and investment, allocation of domestic absorption and external trade, influence labour market and prices, and alter external accounts.

In Ethiopia, the exchange rate policy has passed different regimes. Before 1992 the country was exercised a fixed exchange rate regime, when the rate is solely determined by the government. Since 1992 the country implemented an exchange rate policy which is more close to managed floating, where there is a government intervention whenever necessary to stabilize the foreign exchange market [1]. Maintaining exchange rate stability is considered as the principal policy objective of National Bank of Ethiopia so as to be competitive in the international trade and to use exchange rate intervention as policy tools for monetary policy to affect both foreign reserve position and domestic money supply [9]. When the exchange rate changed the currency may be devaluation or revaluation. Devaluation is referred to as an expenditure switching policy because it switches expenditure from imported products to domestic goods and services. Devaluation means a reduction in value of domestic currency in terms of other currencies [14]. The devaluation of the Ethiopian Birr (ETB) per US dollar officially began during the EPRDF regime. Previously the country used to have a fixed exchange rate with a rate of 2.07 Birr per US dollar. After the devaluation in 1992 the exchange rate is changed from fixed to flexible rate in order to control overvaluation through a gradual depreciation of domestic currency every year. However, during the fiscal year 2007/08 the rate of depreciation against other foreign currencies increased compared to the previous years.
In the 2009/10 the Ethiopian Birr was devaluated by 23.7% against the US dollar. This huge devaluation was expected to “decrease overvaluation and increase competitiveness” [8]; [11]. Again in October 2017 Ethiopian Birr devaluated by 15% and exchange 1 birr with 27.59 US dollar.

Countries devaluate their domestic currency to achieve different objectives such as decreasing trade deficits through increasing export revenue and decreasing import expenditure, attract foreign direct investment and tourist, increase domestic product demand in foreign market through make export cheaper and shift the domestic consumer from consumption of foreign products to domestic products, this encourage import substitution strategies to general market and institutions. Responses of policy and external conomy long run effects of currency devaluation, there is no common consensus and they are not alike. In both cases, there is an improvement in net exports, but the effects on domestic and external demand are quite different.

Thus, the aim of this study is to look macroeconomic impact of currency devaluation on Ethiopian economy by using the general equilibrium model particularly, dynamic CGE model to fill the gap identified in the previous literature and to capture the economy wide impact of currency devaluation.

C. Objectives of the Study

The general objective of the study is to examine the economy wide impact of currency devaluation. Specifically the study attempt:

- To examine the impact of currency devaluation on macroeconomic performance.
- To examine the impact of currency devaluation on factor utilization.
- To analyze the impact of currency devaluation on welfare of the society.

II. REVIEW OF EMPIRICAL STUDIES

[4] employed small open economy general equilibrium model to analysis the effects of devaluation on GDP. The model has been calibrated for the Spanish economy, which is a good example to show the impact of devaluation. The results show that significant positive effects of a fiscal devaluation on GDP and employment. However, although the effects in terms of GDP and employment are similar, the composition effects of fiscal and nominal devaluations are not alike. In both cases, there is an improvement in net exports, but the effects on domestic and external demand are quite different.

[15] examined exchange rate devaluation in Sudan using computable general equilibrium. The paper reports the impact of devaluation on several economic indicators considering domestic commodity markets, the factors market and institutions. Responses of specific economic variables such as prices, household demand, welfare and the balance of payment are used to describe the resulting equilibriums of the economy as a result of devaluations in the three scenarios. The results reveal that devaluation of the Sudanese pound will considerably increase most domestic commodity prices. This is desirable for producers who target the world market because their returns in the local devalued currency will tend to be higher. Accordingly, export oriented sectors, which have a larger share of exports in their total output, show the greatest
increases in output and exports compared to other sectors. He concludes that, devaluation of Sudan’s currency would increase domestic prices of tradable goods and encourage producers to export. However, domestic consumers are negatively affected because the increase in prices is unaccompanied by similar increases in household income.

Study done by [17] to analyses the effects of devaluation on GDP per capita growth in Ethiopia using time series data from 1980 to 2010. The study showed that devaluation has a negative effect on GDP per capita the same year whereas the coefficient for the one year lagged exchange-rate was significantly positive thus devaluation has a time varying effect. Similarly, [2] shown that devaluation doesn’t have a capacity to improve the nation’s trade balance. The researcher used the import and export demand models and empirically tested the significance of devaluation in changing the import and export trends of Ethiopia. The result show that even if devaluation enables the Ethiopian export to get improvement to some extent, since Ethiopia is importing very crucial commodities like manufacturing machineries, vehicles, petroleum and so on and exports agricultural outputs where both the import demand of Ethiopia and that of other countries for Ethiopian commodities are inelastic, the nation’s trade balance doesn’t change following the implementation of devaluation.

A. Conceptual Framework

To achieve the objectives of this study, relationship between currency devaluation and major microeconomic and macroeconomic variables were considered. Thus, the relationship between currency devaluation and its impact on microeconomic and macroeconomic variable are as follows:

![Figure 1. Conceptual framework of the study](source: Self extracted)

### III. RESEARCH METHODOLOGY

**A. Sources and Methods of Data Collection**

For the completion of the study data were collected from Ethiopian Research Development Institute (EDRI), Central Statistical Authority (CSA), Ministry of Finance and Economic Cooperation (MOFEC), National Bank of Ethiopia (NBE), International Food Policy Research Institute (IFPRI), Ministry of trade and human resources office. The study used secondary data collected from national social accounting matrix developed for Ethiopian economy in 2005/6 and updated for 2009/2010 Ethiopian economy EDRI, GDP and other macroeconomic data from MOFEC. Also production and productivity data from CSA, export and import data from ministry of trade, behavioural parameter from IFRI and employment data from human resource department.

**B. Social Accounting Matrix**

A social accounting matrix (SAM) is a comprehensive, economy wide data frame; typically representing the economy of a nation. More technically, a SAM is a square matrix in which each account is represented by a row and a column. Each cell shows the payment from the account of its column and row total equals to total expenditure (column total) [10].
Mostly the standard SAM has four key accounts. Firstly, activities account reviews production in the domestic economy. Secondly, commodities account, in its row, it represents demand for commodities and in the column side; it denotes supply of the commodities. Thirdly, factor account, the row side signifies the payment to factors from different sources (it could be from production sectors of the domestic economy and the rest of the world) whereas the column side signifies the distribution of factor incomes to various institutions. Fourthly, institutional account, all incomes and expenditures of institutions is shown in the institutions account. As a sub-account to this account the government, enterprises, household and the ROW account. When come to the ROW sub-account, the source of incomes could be the sale of imports and factors (this represents the outflow of foreign exchange). The inflow of foreign exchange could be expressed by the payment made for exports, factors, transfers (to households and government), and foreign savings.

The saving-investment (S-I) account, which summarizes the savings of different institutions (it could be from the government, households and foreign) in the row section, and expenditure for investment on capital goods in the column section. This studies uses the 2009/10 Ethiopia SAM which is produced by Ethiopian Development Research Institute in 2005/6 and updated for Ethiopian economy of 2009/10 [6]. The updated SAM is produced in different level of aggregations. It is disaggregated into 113 activities (with 77 agricultural activities by agro ecological zones, AEZs), 64 commodities, 16 factors (by AEZs except capital), and 13 institutions including 12 households. The SAM also has 17 different taxes, saving-investment, and rest of the world account show the interaction of different economic agents. It integrates regionally disaggregated agricultural production and income generation for the four main agro-ecological zones of Ethiopia (Humid, high land cereals, drought prone and pastoralist zones).

Furthermore, for the completion this study further aggregation of SAM has been done. Totally seventeenth aggregated activities (cereal, non-cereal, livestock, mining, agricultural processing, chemical and pharmacy, machine and vehicle, manufacturing electric and water (utility), construction, trade, hotels, administration. Education, health and other service activity and seventeenth commodities (cereal, non-cereal, livestock, mining, agricultural processing, chemical and pharmacy, machine and vehicle, manufacturing electric and water (utility), construction, trade, hotels, administration. Education, healthy and other service commodity, four factors of production (labor, capital, livestock, and land ), four type of household (rural poor ,rural non poor, urban poor, and urban non poor), enterprise, government, three tax category (direct tax, import tax and sales tax ), saving-investment balance and rest of the world.

C. Method of Data Analysis

To analyse the impact of currency devaluation on the microeconomic and macroeconomic variable for this study used dynamic computable general equilibrium model (DCGE). Mostly dynamic CGE models are grouped into two categories: inter temporal and sequential (recursive). Inter temporal dynamic model is based on optimal growth theory where the behaviour of economic agents is characterized by perfect foresight. In [10] words, “everybody knows,” in inter temporal models, “everything about the future”, and they use that information in making decisions. On the other hand, in the recursive models agents make their decisions on the basis of past and current information with no role for forward looking expectations that means the agents have myopic behaviour. In this study by taking Ethiopian economy into consideration a recursive dynamic CGE model is used.

1) Over View of the Model

The computable general equilibrium (CGE) model has played an important role on policy impact analysis. CGE model is widely used model for policy analysis both in developing and developed countries specifically, on the impact of tax reform. The advantage of using the DCGE model is that it models the whole economy explicitly, capture the market mechanism, interlinking between sectors and transactions between economic agents despite being under restrictive assumptions [5].

A clear microeconomic structure with links between micro and macro aspects of the economy works on basis of circular flow diagram in the economy which makes it the soundest tool for quantitative policy analysis. Figure 2 shows how CGE links all macro and microeconomic variables. According to the circular flow diagram, each sector in the economy is linked to each other as they interact to each other. For instances, government, firms, households and foreigners interact together at factor, product and financial market. Government get tax and borrowing from all household, firm and foreigners. On other hand government have expenditure to each of the institution in terms of subsidy and infrastructure development.

Firms and household can export and import from rest of the world. Additionally, firms and households trade together at product and factor market since firms are owners of finished goods and households are owners of factors of production. At financial market the four institutions also come together to withdraw or to save at the institution or to borrow or to repay.
Generally all actor in the economy are interdependent none the institution can perform better independently. So CGE uses this ideology and interconnection between the institutions for modelling the institutional behaviour to represent the real economic activity. Additionally, CGE models allow simulating behaviour responses and adjustments on several markets, while enabling some flexibility in setting macroeconomic rules to assess the impact of different government revenue allocation policies. The model explains the flows of payment recorded in the SAM.

Below figure show the diagrammatical representation of the circular flow of economic activity which is the bases for foundation of computable general equilibrium model. Production and consumption behaviours are captured by first order optimality condition; the system includes producers’ profit and consumers’ utility maximization subject to technology and income constraints respectively.

Figure 2: Circular Flow of the Economy

Source: Montclair State University: On line available
https://msuweb.montclair.edu/~lebelp/CircularFlow Diagram.jpg

IV. RESULTS AND DISCUSSIONS

In this part present the impact of currency on the economy of Ethiopia. To look the impact state different scenarios that is used to assess the impacts of policy shocks on macroeconomic performance in Ethiopia and the experiment results. In the CGE modelling framework, it is essential to establish a baseline scenario that is counterfactual for comparing against the outcome of a policy shock. Hence, begin with the baseline simulation, the impact of each simulation on major macroeconomic variables, factors utilization, production level and the welfare of the consumer is assessed. Therefore, to obtain this objective following simulations are considered.

1st The base case scenario is established to serve as a reference in the absence of any policy shock and services as a benchmark for policy evaluation. Thus, in this scenario, all macroeconomic variables show their value without any policy shock to the economy. Therefore, the base line simulation is used as the benchmark value so as to compare the values of different variables after the policy shocks.

2nd exchange rate shock by 15% is introduced to look the impact on overall economic performance including the export sector.

3rd reduction in world export price by 15% introduced following currency devaluation to look whether the designed policy really represent the intended objective.

4th increase in world import price by15% following introduction of currency devaluation is introduced to look their impact. Therefore, the last three simulations had been introduced to capture the impact of the policy shocks at national level and different stage of economic sector impact had revealed by using the SAM calibration and simulation. The result from all scenarios is presented below.
A. Macroeconomic impact of currency devaluation on major macroeconomic variables

In this part look at the impact of currency devaluation on all macroeconomic variables as whole for each simulation in turn. Accordingly table 1 below shows the summary of the results the three simulation focusing on absorption, private consumption, fixed investment, government consumption, export, and import, gross domestic product at market price, net indirect tax, and real GDP at factor cost (GDPFC). According to the table below all macroeconomic variables show reduction from the base case scenario which shows increase in exchange rate (currency devaluation) had no positive contribution. From the table one can observe that absorption reduced by 0.12 percent compared to base case scenario when currency devalued by 15%. Following currency devaluation import price increase by 15%, the amount of absorption reduced by 1.19%. When look the private consumption it is decreased by 0.13% on 1st and 2nd scenarios and further deteriorated on the 3rd scenarios when import price increase by 15%. This shows that currency devaluation initiate inflation directly and affects the purchasing capacity of citizen. The third scenario increases import price makes price of import expensive which affect the purchasing power parity of money then private consumptions. When devaluation had been introduced it is expected that domestic output would increase by further investment. But apart predetermined expectation investment reduced by 0.11% from base case scenario which is because of since most our investment depend on imported intermediate input increase import price reduce capacity of investment by 1.3% due to increase cost of production. Government consumption also showed 0.04 on the 1st and 2nd scenario and 0.26 on the 3rd scenario.

The main objectives of currency devaluation were to enhance the export sector of Ethiopia through boosting domestic production and making cheap the product of Ethiopia over rest of the world that makes competitive but the intended objectives were not achieved since export after devaluation again revealed reduction by 0.16% on first and second scenarios, and 1.35% on third scenarios. This is because the natures of products which export are price inelastic and the country no capacity to supply the increased demand due to supply side rigidity even though Ethiopia product became cheap to international market. When compare import with export reduction in import is less than in export which implies even though import price is expensive the country are obliged to import at high price since not enough to substitute for foreign products. Positive impact of devaluation had been expected in improving domestic economy. But contrary to this output decreased in the three scenarios where the third scenarios were highly affecting one. This is because of increase in exchange rate affect domestic economy through inflation and Purchasing Power Parity (PPP) of intermediate input from rest of the world which result in domestic economic contraction.

Table 1: Macroeconomic impact of currency devaluation in Ethiopia

<table>
<thead>
<tr>
<th>Variables</th>
<th>Initial</th>
<th>Base</th>
<th>Exchange rate increase</th>
<th>Decrease in World Export Price</th>
<th>Increase World Import Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absorption</td>
<td>0.586624</td>
<td>7.229281</td>
<td>-0.1292</td>
<td>-0.1292</td>
<td>-1.19222</td>
</tr>
<tr>
<td>Private Consumption</td>
<td>0.402038</td>
<td>7.610983</td>
<td>-0.1386</td>
<td>-0.1386</td>
<td>-1.22012</td>
</tr>
<tr>
<td>Fixed Investment</td>
<td>0.140904</td>
<td>7.447072</td>
<td>-0.1141</td>
<td>-0.1141</td>
<td>-1.3403</td>
</tr>
<tr>
<td>Government Consumption</td>
<td>0.043682</td>
<td>1.082806</td>
<td>-0.04463</td>
<td>-0.04463</td>
<td>0.264068</td>
</tr>
<tr>
<td>Exports</td>
<td>0.085955</td>
<td>11.83134</td>
<td>-0.16997</td>
<td>-0.16997</td>
<td>-1.35781</td>
</tr>
<tr>
<td>Imports</td>
<td>-0.16249</td>
<td>8.302048</td>
<td>-0.1071</td>
<td>-0.1071</td>
<td>-1.04081</td>
</tr>
<tr>
<td>Consumer Price Index</td>
<td>0.612596</td>
<td>6.266473</td>
<td>1.342347</td>
<td>1.342347</td>
<td>1.27449</td>
</tr>
<tr>
<td>Output</td>
<td>0.66000</td>
<td>6.9700</td>
<td>-0.08000</td>
<td>-0.0800</td>
<td>-1.4700</td>
</tr>
<tr>
<td>GDP at market price</td>
<td>0.510089</td>
<td>7.872476</td>
<td>-0.14731</td>
<td>-0.14731</td>
<td>-1.28576</td>
</tr>
</tbody>
</table>

**Source:** Own computation from simulation result

The other important variable that sensitive to policy change is consumer price index. As result the policy shock consumer price index shows increment in the three scenarios, which confirm that currency devaluation press inflation which can be revealed by increase in price. Related to this price of export show reduction on average by 2% but world import price show an increment by 3% or the net effect from change in price due to change policy is +1. Generally, over all GDP at market price from expenditure and income side as well as GDP at factor cost showed
reduction in three scenarios, the third one highly deteriorated the overall economic performance of the economy (Table 1).

B. Impact of currency devaluation on major sectors

When observe the sectoral impact of currency devaluation all sectors shows decreasing in simulation 1 and 2 but show huge reduction in simulation 3. GDP decrease by 0.14%, in simulation 1 and 2 show 1.17 reductions in simulation 3. Agricultural sector decrease by 0.04% in simulation 1 and 2 and 2.01% in simulation 3. Industrial sector is highly affected sector by this policy shock since it reduced by 0.28% in simulation 1 and 2 and 0.65% in simulation 3. Similarly, service sector show some reduction in simulation 1 and 2 and highly affected in simulation 3. When compare the three sector industrial sector is highly affected by the policy followed by service and agricultural sector (Table 2).

Table 2: Sectoral Impact of currency devaluation
Percentage change from baseline

<table>
<thead>
<tr>
<th>Sectors</th>
<th>Base exchange rate</th>
<th>Increase exchange rate</th>
<th>Decrease in World Export Price</th>
<th>Increase World Import Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth rate of Agriculture</td>
<td>5.32349</td>
<td>-0.04961</td>
<td>-0.04961</td>
<td>-2.01406</td>
</tr>
<tr>
<td>Growth rate of Industry</td>
<td>12.36839</td>
<td>-0.28048</td>
<td>-0.28048</td>
<td>-0.65738</td>
</tr>
<tr>
<td>Growth rate of Service</td>
<td>5.475476</td>
<td>-0.07983</td>
<td>-0.07983</td>
<td>-1.31417</td>
</tr>
</tbody>
</table>

Source: Own computation from simulation result

C. Impact of currency devaluation on factor supply

The factor supply result from simulation show that no any improvement in factor supply due to the impact of currency devaluation in three simulations compared to base case scenarios. This is because of devaluation result in inflation and inability to import more the domestic output reduced since most intermediate input comes from rest of the world. When domestic output reduced demand for labor decrease the supply labor also decreased revealing that lower demand, lower labor supply and then lower factor utilization (Table 3).

Table 3: Summary of Factor Supply (percentage change from base line simulation)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Initial</th>
<th>Base case</th>
<th>Exchange rate increase</th>
<th>Decrease in World Export Price</th>
<th>Increase World Import Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor</td>
<td>0.18</td>
<td>2.4</td>
<td>0</td>
<td>0</td>
<td>-2.4</td>
</tr>
<tr>
<td>Land</td>
<td>0.06</td>
<td>3.1</td>
<td>0</td>
<td>0</td>
<td>-3.1</td>
</tr>
<tr>
<td>Livestock</td>
<td>0.06</td>
<td>18.11</td>
<td>0.29</td>
<td>0.32</td>
<td>-0.14</td>
</tr>
<tr>
<td>Capital</td>
<td>0.86</td>
<td>15.66</td>
<td>0.31</td>
<td>0.27</td>
<td>-0.28</td>
</tr>
</tbody>
</table>

Source: Own computation from simulation result

D. Impact of currency devaluation on the welfare of households

The welfare of society can be indicated by using equivalent variation which is the most important indicators of the welfare effects of policy reform. Since policy shocks are usually followed by major price adjustments, the Equivalent of variation (EV) measures the level of income (in money terms) that the consumer needs to pay before the shock to leave him as well off at the equivalent level of utility changes after the price changes. The main objective of the government is to increase the welfare of the society but contrary to this currency devaluation made in Ethiopia since 2017 negatively affected the welfare of the society.

In table below summarize the impact of currency devaluation in three scenarios. The result in the table revealed that increase in exchange rate (currency devaluation) affect the welfare of the society negatively was the third scenario highly affected the welfare of the households. Among household category affect by the policy shock urban poor households are highly affected on the first and second scenarios followed by rural poor and rural non poor households and urban non poor is less affected by the policy shock compared to other household. On the third scenarios rural non poor and rural poor are affected by the currency devaluation followed by the urban poor and urban non poor household (Table 4).

Table 4: Impact of currency devaluation on the welfare of households

<table>
<thead>
<tr>
<th>Household</th>
<th>Initial</th>
<th>Base case</th>
<th>Increase in Exchange rate</th>
<th>Decrease in World Export Price</th>
<th>Increase World Import Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household rural poor</td>
<td>0.099839</td>
<td>8.814527</td>
<td>-0.28546</td>
<td>-0.28546</td>
<td>-3.6622</td>
</tr>
</tbody>
</table>
Household rural non-poor 0.180033 8.405226 -0.27036 -0.27036 -3.69169
Household urban poor 0.007879 9.163416 -0.30888 -0.30888 -3.5472
Household urban non-poor 0.114487 7.845777 -0.24277 -0.24277 -2.59727

Source: Own computation from simulation result

V. CONCLUSION AND RECOMMENDATIONS

A. Conclusion

The purpose of this paper is to examine economy wide impact of currency devaluation on major microeconomic and macroeconomic variable using a recursive dynamic CGE model. The study used an updated version of the 2009/10 EDRI data. In this study used different scenarios to evaluate economy wide impact such as devaluation of currency by 15% decrease in world export price by 15% and increase in import price by 15%. The analysis reveals that in simulation all macroeconomic variables have shown negative changes except CPI which show increment from base case scenario. Similarly, factor supply and factor income also show negative change as result of overall contraction economic performance which is witnessed by reduction in GDP at factor cost. In addition, the impact of devaluation on household welfare is considered. The result shows, there is welfare reduction resulted from poor economic performance and increase in price. Urban poor household is highly affected from the welfare loose because of currency devaluation result short term increase in price of products which decreases consumption urban poor and then deteriorates welfare of the society.

Generally Ethiopia is not successful in currency devaluation since it results in worst economic performance and it calls for additional comprehensive macroeconomic policies to bring desired objectives.

B. Recommendations

Based on the finding the researcher forwarded the following policy implications. Since currency is key element that can link microeconomic and macroeconomic aspect of the economy, a little beat modification on currency results in overall disturbance of the economy. So, deep and careful investigation should intensively and extensively conduct on short-run and long-run effect before conducting macroeconomic policy reform. In this analysis currency devaluation highly deteriorated overall economic performance and decrease in export price failed to improve economic performance compared to increase in exchange rate and import price. Since the currency devaluation negatively affected real GDP and other macroeconomic variables appropriate measure should be taken by the government of Ethiopia to improve export performance. Therefore, the best way to improve export performance would be to replace currency devaluation by the structural reform and solving supply side constraints. Furthermore, when a country decided to devaluate their currency to benefit from the reform should be considered the necessary condition full filled to benefit from the devaluation.

ACKNOWLEDGEMENTS

The authors would like to thank Ambo University for the financial grant to carry out the study.

REFERENCES