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BIRRITU

**ESTIMATING POTENTIAL  
OUTPUT & OUTPUT  
GAP IN ETHIOPIA:  
STRUCTURAL  
& STATISTICAL  
APPROCHES**

# በኢትዮጵያ ውስጥ በሥራ ላይ ያሉ ባንክና መድን ተቋማት BANK AND INSURANCE INSTITUTION OPERATING IN ETHIOPIA

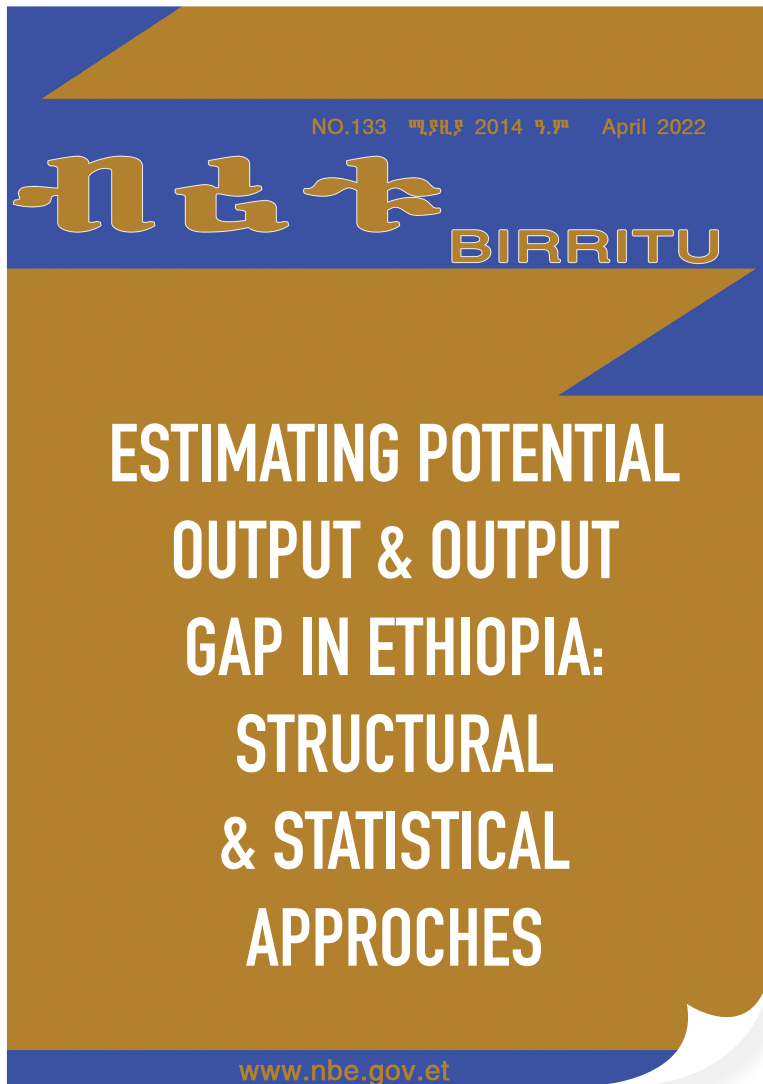
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National Bank of Ethiopia      Central Bank      Telephone      0111517430      Fax      0115-5-514588

## የባንኮች ስም ዝርዝርና አድራሻ / Banks Name & Address

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**Address:**

Birritu Editorial Office

**Tel**

+251 118 58 22 86

+251 115 53 00 40

**P.O.Box**

5550

[www.nbe.gov.et](http://www.nbe.gov.et)

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Dear esteemed readers, we are happy to meet you with the 133rd issue of Birritu which consist of relevant and timely topics.

On the News column there is news which is 'NBE SIGNS MOU WITH AFRESIMBANK'.

The topics selected for research article is "Estimating potential out put & Out Put Gap in Ethiopia: Structural & Statistical Approach".

On the Educational and Informative section there is article about Foreign Aid. Finally, on miscellany section there are views and a poem.

Dear readers, your feedbacks and comments are invaluable for enriching the next of Birritu. Please keep forwarding your comments and suggestions.

*Birritu Editorial office*

# NBE SIGNS MOU WITH AFREXIMBANK



The National Bank of Ethiopia (NBE) and African Export-Import Bank (Afreximbank) signed a Memorandum of Understanding (MoU) in a bid to support trade and investment activities in Ethiopia.

Dr. Yinager Dessie, Governor of National Bank of Ethiopia (NBE), and Professor Benedict Oramah, President and Chairman of Afreximbank, signed the MoU.

Upon the signing, held on February 8, 2022, at the Sheraton Addis Hotel, it was disclosed that the African Export-Import Bank (Afreximbank) will provide support to the trade and investment

of private and public sectors in the country in the form of line credits.

The MoU considers provision of line of credit to Ethiopian commercial banks, in support of trade activities (imports and exports) under the Afreximbank's African Trade and Facilitation Programme.

The Governor of the National Bank of Ethiopia (NBE) Dr. Yinager Dessie on the occasion said that, the MoU is important to help solve the country's foreign exchange shortage and stimulate the economy.





The Governor added. “Particularly at a critical time like now when the COVID-19 pandemic has affected the country’s socio-economic spectrums, which are critical elements for development, job creation and poverty reduction.”

“As a matter of fact” the Governor said, “the MoU aims at strengthening our bilateral cooperation, with in which creating a broad framework for collaboration in areas of common interest, particularly in the field of trade and investment.”

President and Chairman of Afreximbank, Professor Benedict Oramah, on his part expressed his bank’s commitment to support Ethiopia’s development and growth. He also praised the reform in Ethiopia that proved resilient economy during the pandemic.

“Even when major developing economies witnessed growth contraction at the height of the pandemic, Ethiopia proved its resilience by maintaining a robust growth trajectory posting a commendable 6.1 percent growth rate in 2020,” the Professor said citing to World Bank data.

Against this backdrop, Afreximbank has identified the enthusiasm and opportunities of trade and investment in Ethiopia, and decided to work with the National Bank of Ethiopia and other designated local banks of the country.

Professor Benedict Oramah underscored, “through this MoU, we affirm our collective determination to accelerate the ongoing collaboration and to strengthen the financial and corporate sectors, which are engines of sustainable development in this country.”

Ethiopia is member to the African Export-Import Bank, but the collaboration needs to be boosted hereafter.

Headquartered in Cairo, Egypt, African Export-Import Bank (Afreximbank) is a pan-African multilateral trade finance institution established in 1993 under the auspices of the African Development Bank (AfDB).

Executive and Senior Management members of the National Bank of Ethiopia (NBE), and presidents of all banks were also present at the signing ceremony.

# ESTIMATING POTENTIAL OUTPUT & OUTPUT GAP IN ETHIOPIA: STRUCTURAL & STATISITICAL APPROCHES



Anteneh Geremew

Chief Research Officer Monetary & Financial  
Analysis Directorate



*Different models applied in this study has clearly estimates potential output and output gap for the Ethiopia's economy. These estimates can have a great role for monetary as well as fiscal policy analysis so as to assess the economic growth potential, macroeconomic projection and forecasting of inflationary pressures in an attempt to determine the most appropriate policy mix in the economy.*

# ABSTRACT

*Estimating of the potential output and the output gap is an inevitable input for the formulation of the prudent fiscal and monetary policies. The paper attempt to provide potential output and output gap estimates for the Ethiopia's economy in the period 1975-2020 using different approaches combining the structural (Production Function & SVAR) with statistical (Split Time Trend, HP filter & State-Space) methods. The largest negative output gaps occurred in 1985, 1992 and 2003 consistent with the expected underlying story due to the droughts and war and they can be considered as a recession period. In the course of 2011-2020, however, the actual output growth was almost equal and above the corresponding average potential growth and hence, exhibited a mix of expansionary and close to potential output growth albeit, a contraction period occurred in 2020 due to the impact of COVID-19 pandemic. Besides, the production function framework growth decomposition shows that growth in Ethiopia during the last two decades was mainly driven by the accumulation of physical capital. Finally, for Ethiopia to achieve optimal growth with stable price, it is necessary to consider these potential output and the corresponding output gap estimates in taking both monetary and fiscal policy decisions.*

**Key Words:** Potential Output, Output GAP, Production Function



# ESTIMATING POTENTIAL OUTPUT & OUTPUT GAP IN ETHIOPIA: STRUCTURAL & STATISTICAL APPROCHES

## I. INTRODUCTION

Nowadays, assessing the level of potential output and output gap have received a great attentions as having a prominent role for the implementation of economic policies that intended to sustainable economic growth and macroeconomic performance as whole.

Potential output is defined as the maximum amount of goods and services that an economy can turn out when it is most efficient that is, at full capacity without giving any upside or downside pressures on inflation. As such, output gap is the deviation of actual output from its potential output and it measures the degree of inflation pressure on the economy. All else equal, if the output gap is positive over time, so that actual output is greater than potential output, prices will begin to rise in response to demand pressure in key markets. This happens when there is strong demand in the economy. This situation is often seen as a source of inflationary pressure and calls for appropriate policy response that involve reducing aggregate demand such as reduced government spending and tightening of monetary policy. Similarly, if actual output falls below potential output over time, prices will

begin to fall to reflect weak demand. This occurs due to weak demand and slack in the economy growth. In this case, price pressure will be weak and encourage disinflation and it may require easing of money conditions and other policies to stimulate demand (Okun,1962; De Masi, 1997; OECD, 2001; Jahan and Saber, 2013; Havik et al., 2014 and Andersson et al., 2018).

Nevertheless, potential output and thus the output gap are not directly observed, therefore estimations can be constructed using information from other economic aggregates which can be observed. A number of methods have been suggested so far by the literature in order to estimate potential output and output gap. These estimation techniques are classified into two broad categories; statistical methods, which decompose mechanically real gross domestic product (GDP) time series into its trend, cycle and irregular components; and structural methods, which use economic theory in the process of potential output computation. By considering this, it is believed that measuring potential output and output gap with some degree of accuracy is essential for the formulation of sound macroeconomic policies (Mishkin, 2007).



For many central banks, including National Bank of Ethiopia, ensuring price stability is the central policy goals. Since NBE follows monetary aggregate targeting framework, the bank has been target monetary growth (growth of money supply as intermediate target) in nominal terms and this growth target is the combination of controlling inflation and thus potential output growth. Consequently, the NBE's ultimately has to adjust money supply growth at a rate that supports the steady increase in output with stable and low inflation. As a result, the price stability depends heavily on the level of output consistent with stable, non-accelerating inflation i.e. potential output. For that reason, accurate and timely available potential output and the respective output gap estimates play a central role to set the right monetary targets and analyses future money demand. A positive output gap prompts the central bank to cool an overheating economy by raising policy rates or reducing money supply, whereas a negative output gap encourages for adding monetary stimulus.

All in all, despite the fact that these estimates has been crucial role for central bank so as to determine whether the economy needs more or less monetary stimulus, the NBE has not yet done the estimation of both potential output and output gap. Therefore, this paper attempt to provide estimates of the potential capacity and the output gap for the Ethiopian economy using different approaches combining the structural (production function approach & SVAR model) with statistical (split time trend, HP filter & state-space) methods.

Consequently, it is believed that the findings in this paper supposed to substantially contribute in two folds. First, it can provide information to look out insights on current macroeconomic performance and for the macroeconomic model

forecasting purpose. Second, the twin objective of achieving price stability and promoting economic growth requires the knowledge of not only the growth rate but also the country's potential output and the corresponding gap. Thus, it can serve as a guide or reference for appropriate decision-making process regarding monetary as well as fiscal policies.

## II. LITERATURE REVIEW

### 2.1 THE CONCEPT OF POTENTIAL OUTPUT AND OUTPUT GAP

Broadly speaking, there are two concept of the output gap, the Keynesian and Monetarist concept. The Keynesian concept was formulated by Okun in 1962. In his analysis proposed a concept of the GDP gap, which was obtained by distinguishing between potential and actual GNP. The scale of gap measurement was taken only positive values and that the value of the gap increased with the rate of unemployment and the gap concept was in word, 'mono-directional'. As Keynesian concept, monetary policy (e.g., behavior of bank deposits) not relevant to inflation; labor market critical instead. The purpose of Okun's work was not the stabilization of inflation at a law rate, instead its aim was to specify the appropriate fiscal policy for the maximization of employment, and subject to the constrained that inflation should not be excessive (Okun, 1962 and Congdon, 2008).

Later on, Friedman in 1968 originated the monetarist concept of the gap and this is still, by far, the most common notion in practical policy making. In this view, potential output was the production equivalent of the nonaccelerating inflation rate of unemployment (NAIRU). The scale of gap measurement had considered positive and negative values of the gap and taking the value of zero at natural

rate of output and positive with output above natural rate. Regarding the view on inflation as policy objective, he suggests that meeting inflation is paramount objective of policy and takes precedence over full employment. Two important advantages of the monetarist concept of the output gap were that it helped to quantify both the degree of demand restraint needed to curb inflation, and the likely consequences for unemployment and lost output. As the monetarist view, output gap most reliable guide to direction of inflation in short run, but relationship between money and prices holds in the long run, and short-run fluctuations in real money affect asset prices, demand and employment. In general, the monetarist concept of the output gap superseded the Keynesian and has now become dominant (Friedman, 1968, Congdon, 2008).

## 2.2 MEASURING POTENTIAL OUTPUT AND OUTPUT GAP

Given that the importance of the concept, the measurement of potential growth is not straightforward and, being unobservable, can only be derived from either a purely statistical approach or from a full model based econometric analysis. There are various approaches or methods to estimate both of them. There are two main approaches of measuring the potential output and output gap; statistical methods, which decompose mechanically real gross domestic product (GDP) time series into its trend, cycle and irregular components; and structural methods, which use economic theory in the process of potential output computation (Mishkin, 2007 and Garin et al., 2016).

The most common univariate statistical approach often used is linear time trend techniques to decompose actual output into

demand and supply components. It is often assumed that the productive potential of the economy grew at a fairly steady state, and thus simple time trends were used to estimate the growth rate of potential output. This implies that the level of potential output growth is constant, and all the movements in output about the time trend are interpreted as demand shocks. However, as various scholars argued that, as long as this linear trend model assumes that the potential output grows at a constant rate, it is not appropriate (Claus & Scott, 2000, ECB, 2000).

Another approach which has become increasingly popular because of its flexibility in tracking the characteristics of the fluctuations in trend output is the HP-filter. The HP-filter method attempts to overcome the above mentioned shortcoming of the linear time trend method and has become a popular de-trending technique. As with the linear time trend method, the idea behind the HP-filter is to decompose a series into a trend component and cyclical component and utilizes a long run, symmetric, moving average technique to achieve the decomposition. This is achieved by finding a trend output estimate that simultaneously minimizes a weighted average of the gap between output and trend output, at any point in time, and the rate of change in trend output at that point in time. While this method is relatively simple to apply, as it requires only actual observations of real GDP, the arbitrary choice of the weighting factor  $\lambda$  determines the variance of the trend output estimate. It also has the end point problem, which partly reflects the fitting of a trend line symmetrically through the data. Furthermore, the method takes no account of either information contained in other series which may help to identify the trend-cycle breakdown or economic theory (Hodrick & Prescott, 1997 and Harvey, 1993).

Unobserved components model (UCM) or state space model is also an advanced estimation method. Similar to other decomposing techniques, it also lies in decomposing and estimating unobserved components (variables) such as potential output, output gap, natural rate of unemployment, etc. by using actual output. In UC models, the underlying economic structure is formulated in state-space form, and the unobserved component can be derived by using a Kalman filter. The advantage of this method is that unlike the HP filter, unobserved components models can provide a measure of the uncertainty with which potential output is measured in the form of confidence intervals and can easily generate forecasts that can be used in-sample to check goodness of fit or out-of-sample to produce policy advice. A drawback of this model is its complexity and difficulty to operationalize within the framework of macroeconomic policy model (Watson 1986 and ECB, 2000).

Now a day, the production function approach is one of the most common structural methods of estimation. The production function approach makes assumptions based on economic theory. This approach focuses on the supply potential of an economy and has the advantage of giving a more direct link to economic theory. Potential output is then calculated as the level of output that results when the rate of capacity utilization are 'normal', when labor input is consistent with the natural rate of unemployment, and when total factor productivity (TFP) is at its trend level. This approach has a number of advantages over univariate techniques. It allows explicit accounting for growth in terms of the contribution of labor, capital and total factor productivity. Though, this approach is the most desirable on theoretical grounds, there are two considerable disadvantages. First, the data for the inputs (typically capital, labor, a measure

of productivity, and sometimes intermediate inputs) are often of poor quality, are infrequently measured, or may even be non-existent. Second, real output deviates systematically from the level given by factor inputs, and the difference is usually attributed to total factor productivity growth. Since total factor productivity is not directly observable, estimating its trend poses challenges (De Masi, 1997 and ECB, 2000). The production function approach is widely used by international organizations such as the OECD and the IMF, to derive estimates of potential output.

An alternative approach used to estimate potential output based on economic modeling relies on structural vector autoregressive models (SVAR). A relative sophisticated and quite often used method of estimation potential output and output is gap is structural VAR model or SVAR. These models, first introduced by economists Blanchard & Quah (1989), contain not only robust statistical framework but some economic restrictions that help to explain the course of output gap more precisely. The basic assumption is a division of real output into three components: deterministic trend, shocks which influence supply side of economy and transitory shocks who influence demand side of economy. Deterministic trend and shocks that influence supply side of economy represent potential product while transitory shocks represent cyclical component, output gap. The SVAR approach has many advantages such as the components of output that the SVAR approach identifies can be given an economic interpretation, it does not require the imposition of an arbitrary smoothing parameter and gives a measure of uncertainty (Blanchard & Quah, 1989; Shapiro & Watson, 1988; and DeSerres et al., 1995).

## 2.3 EMPIRICAL LITERATURES

Most of the existing empirical literatures show that estimation of potential output and output gap rely on a number of approaches instead of on a single measure. Artus (1977) conducted the first IMF research study to adopt the production function method to estimate potential output. A Cobb-Douglas production function with constant share parameters for labor and capital was used as a theoretical basis in estimating consistent potential output series in the manufacturing sector for eight industrial countries for the period 1955-1975. Technical progress was treated as a residual in the production equation. An indirect method was used to measure the deviation of the intensity of use of labor and capital from their long-run normal levels. The natural rate of unemployment was estimated by fitting a log linear trend between successive peaks in labor force use. The results were sensitive to how short-term variations in the intensity of use of labor and capital were specified over the business cycle. In addition, the lack of reliable capital stock data and the treatment of technical progress as a residual also limited the precision of these estimates.

Coe and McDermott (1997) estimated potential output for 13 Asian countries<sup>1</sup> to examine whether the gap model works in developing, newly industrializing, and industrial economies with the data coverage 1960 to 1994. They applied a univariate de-trending technique was chosen over the production function approach because considerably less data were required and implementation was much simpler and given the limited availability of data in many of these countries. In addition, the focus of the study was to explore the relationship between

the output gap and inflation. The results of the study indicated that the output gap was a significant determinant of the change in inflation in 11 of the 13 countries examined. In China and Thailand, however, no evidence was found that the estimate of the output gap explained changes in inflation.

Willman (2002) conduct a study on euro area production function and potential output using a supply side system approach conditional on two alternative functional forms of the production function, i.e. on the Cobb-Douglas and the CES cases. The model has been applied to euro area data from 1970 to 1997. All estimations are carried out under the assumption of constant returns to scale with technological progress alternatively signified by a linear trend or HP-filter. Estimation results support the Cobb-Douglas case and the estimated supply-side model accounts satisfactorily for the stylized features of the data, i.e. the hump shape in the labor income share coupled with the relatively stable capital-to-labor income ratio and a noticeable change in profit margins and sectoral production shares. He also produced estimates of potential output and the output gap conditional on estimated production functions and examines the sensitivity of output gap estimates with respect to the alternative parameterization of the production function.

Angelica et al. (2005) have estimated the potential output and output gap for the Kenya's monetary and fiscal policies purpose. Several alternative statistical techniques and structural methods such as HP filter, unobserved component model and SVAR were applied. The estimation of potential output and output gap using these different techniques showed varied results. Although various methods have

<sup>1</sup> The countries included are; Australia, China, Hong Kong, India, Indonesia, Japan, Korea, Malaysia, New Zealand, Philippines, Singapore, Taiwan, Province of China and Thailand.

produced varied results, they however provided a broad consensus on the over-all trend and performance of the Kenyan economy. The authors suggested that their study tends to favour the results derived from the HP method, as they are better reflection of the reality. Moreover, since there is less data used and fewer assumptions made using this method, the study believes that there are fewer errors in the HP results.

Lian and Shahrier (2014) assess several output gap estimation methods for the Malaysia economy which include; univariate methods (linear trend, univariate state space and HP filter models), multivariate methods (multivariate Kalman filter (MVKF) and macro model-based multivariate filter (MVF)) and structural methods (SVAR). The data spans from 1995 to 2014. Based on these findings, they conclude that the estimation of the output gap from the various methods remain useful in the formulation of demand and supply policies. The findings showed that all the three methods have produced similar quarterly time profiles.

Kigabo R. and Irankunda (2014) estimate the potential output and output gap for Rwanda using four statistical methodologies; the linear time trend method, the Hodrick-Prescott (HP) filter, the Beveridge-Nelson decomposition technique and a linear state space model. The study applied a quarterly data from 1999Q1 to 2012Q3. They also examine the relationship between output gap and inflation to gauge the extent of slack in the economy. The results of the estimation indicate that HP filter and linear time trend methods give almost identical estimates while there were variations in the estimates obtained from the other methods.

Very little empirical research has been done to estimate Ethiopia's output gap. Osman (2008) estimated the potential output and output gap of four East Africa countries, namely, Kenya, Ethiopia, Tanzania and Uganda, using Hodrick-Prescott filter, the frequency domain filter and the unobserved components model with annual data from 1975-2004. The results show that the estimations of the output gaps of these countries are generally in agreement about the historical boom bust cycles of the countries, and demonstrate that the business cycles display sharp turning points.

Abebaw (2020) conduct a study on the output gap determinants in Ethiopia using the yearly data over the period 1990-2018. The study estimated the potential output and output gap using HP filtering and production function approaches. Accordingly, both approaches indicated that the output gap has been fluctuating over the study period indicating the actual output inconsistently and frequently deviating from its potential level. Mainly, in 1996 and 2003, the actual output showed the highest positive and negative deviations from its potential, respectively. The gap of this study is that he used only two approaches with short time span.

In general, as it is identified from the above literatures, there is uncertainty surrounding the measurement of potential output and the output gap that calls for greater diversity and sophistication in the estimation approaches. There is no one particular estimation model to estimate both the potential and output gap. Hence, it is very important to use several estimation methods rather than one single estimation method as each method has strengths and weaknesses.

### III. METHODOLOGY

#### 3.1 DATA SOURCE AND VARIABLES

To estimate the potential output and output gap, variables such as real Gross Domestic Product (GDP), inflation, investment, labor force and depreciation rate, in annual basis ranging from 1975-2020 have been employed. All the data except labor and depreciation rate were obtained from NBE and MoF. Labor force and depreciation rate data are extracted from version 10.0 of the Penn World Table (PWT).

#### 3.2 MODEL SPECIFICATION

As it is discussed in the literature, there is no single estimation method to estimate the potential output and output gap. Accordingly, this paper presents the estimation of potential output and the output gap using statistical and structural approaches specifically split time trend model, Hodrick-Prescott (HP) filter, unobserved components or state space method, SVAR model and PF approach.

##### 3.2.1 SPLIT TIME TREND MODEL

This is a statistical approach uses time trends to model potential output but loosens the restriction of a constant potential output growth rate by imposing discrete structural breaks in the trend line fitted to the plot of GDP. However, this requires the choice of structural break points. In this study, two break points are identified using the chow-break point test result. Based on the chow test, the break points 1993 and 2004 were chosen. Thus, the regression equation becomes as follow:

$$\ln Y_t = \alpha + \beta_1 d_{1t} + \beta_2 d_{2t} + \beta_3 d_{3t} + u_t \dots \dots \dots (1)$$

Where  $\ln Y_t$  refers log of real GDP,  $\alpha$  is constant,  $\beta$  is coefficient of time trend component and  $u_t$  residual. Furthermore, the trend component refers as:

$$\begin{aligned} \text{Thus, } d_{1t} &= T \\ d_{2t} &= 0 \text{ if } T \leq a, \quad d_{3t} = 0 \text{ if } T \leq b, \\ d_{2t} &= T - a \text{ if } a < T, \quad d_{3t} = T - b \text{ if } b < T \end{aligned}$$

With the chosen break points as 1993 and 2004,  $a=19$  and  $b=30$ . The regression was estimated based on the above model specification as to impose variation in the potential growth rate.

Thus, potential output in this equation is given by the trend component  $(\alpha + \beta_1 d_{1t} + \beta_2 d_{2t} + \beta_3 d_{3t})$ . Whereas, the residuals  $(u_t)$  from the regression equation provide a measure of the output gap.

##### 3.2.2 HP FILTER APPROACH

The HP filter is a commonly used smoothing procedure to estimate potential output that simultaneously minimizes a weighted average of the gap between actual output and potential output, at any point in time, and the rate of change in potential output at that point in time.

In this model, the real output is the sum of a trend (potential output) and cyclical component (output gap) as follow:

$$Y_t = Y_t^* + C_t \dots \dots \dots (2)$$

Where  $Y_t$  is real GDP

$Y_t^*$  is potential output

$C_t$  is output gap

Thus, to find the value of potential output, that minimizes the loss function that is the deviation between actual output and its potential subject to a constraint on the extent to which potential output growth can vary.

$$\text{Min}L = \sum_{t=1}^T C_t^2 + \lambda \sum_{t=2}^T (\Delta y_t^* - \Delta y_{t-1}^*)^2$$

Since  $C_t = Y_t - Y_t^*$ , the above minimization formula will be:

$$\text{Min}L = \sum_{t=1}^T (y_t - y_t^*)^2 + \lambda \sum_{t=2}^T (\Delta y_t^* - \Delta y_{t-1}^*)^2$$



Though the HP filter method has several advantages, it is difficult to choose  $\lambda$ , the smoothing parameter and usually it is arbitrary. In this paper as the observation is annual, the standard value for  $\lambda = 100$  is used<sup>2</sup>.

### 3.2.3 UNOBSERVED COMPONENTS (STATE-SPACE) MODEL

The unobserved components method or state space model assumes a relationship between an observed variable and certain unobserved components such as the output gap. This requires a specification of the time series process underlying the unobservable variable. Both the unobservable and observed variables are then modeled and estimated with "maximum likelihood" using the Kalman filter.

Based on the most standard univariate unobserved model specification, this paper tries to decomposes the log of real GDP into its trend, cycle, and additive noise components. In this model specification the potential output assumed to follow a random walk with drift

and the output gap assumed to follow an AR(2) process following Harvey and Jaeger (1993):

$$\text{Signal equation } Y_t = Y_t^* + C_t \dots \dots \dots (3)$$

$$\text{State equations } Y_t^* = \mu^* + Y_{t-1}^* + \varepsilon_t^* \dots \dots \dots (4)$$

$$C_t = \phi_1 C_{t-1} + \phi_2 C_{t-2} + v_t \dots \dots \dots (5)$$

Where  $\mu^*$  is a drift term and assumed to be constant

$$\varepsilon_t^* \sim N(0, \delta_\varepsilon^2) \text{ and } v_t \sim N(0, \delta_v^2)$$

The above signal and state equations can be written in state-space matrix form as:

$$Y_t = Z\alpha_t + D_t + S\varepsilon_t \dots \dots \dots (6)$$

$$\alpha_t = T\alpha_{t-1} + d_t + \eta\varepsilon_t \dots \dots \dots (7)$$

Where,  $Z$  is a matrix of coefficients,  $D$  is a matrix of exogenous variables and is a vector of white-noise errors weighted by  $S$ . where  $T$  is a matrix of coefficients,  $c$  is a matrix of exogenous variables and  $\varepsilon$  is a vector of white-noise errors weighted by  $\eta$ . Furthermore, equation 6 and 7 can be written in the state-space form as follow:

$$\text{Signal equation } [Y_t] = [0 \quad 1 \quad 1 \quad 0] \begin{bmatrix} \mu_t^* \\ y_t^* \\ c_t \\ c_{t-1} \end{bmatrix} \dots \dots \dots (8)$$

$$\text{State equation } [\alpha_t] = \begin{bmatrix} \mu_t^* \\ y_t^* \\ c_t \\ c_{t-1} \end{bmatrix} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 1 & 1 & 0 & 0 \\ 0 & 0 & \phi_1 & \phi_2 \\ 0 & 0 & 1 & 0 \end{bmatrix} \begin{bmatrix} \mu_{t-1}^* \\ y_{t-1}^* \\ c_{t-1} \\ c_{t-2} \end{bmatrix} + \begin{bmatrix} 0 & 0 \\ 1 & 0 \\ 0 & 1 \\ 0 & 0 \end{bmatrix} \begin{bmatrix} \varepsilon_t^* \\ v_t \end{bmatrix} \dots \dots \dots (9)$$

Thus, estimates of the parameters of the model and the unobserved state variables can be obtained by maximizing the likelihood function using the Kalman filter:

$$\log \Lambda = -\frac{NS}{2} \log 2\pi - \frac{1}{2} \sum_{t=1}^S \log |F_t| - \frac{1}{2} \sum \psi_t' F_t^{-1} \psi_t$$

<sup>2</sup> Hodric and Prescott (1997) suggests the following values for  $\lambda = 100, 1,600$  and  $14,400$  for annual, quarterly and monthly data, respectively.

Where,  $N$  is the number of observed variables,  $S$  is the sample size,  $\psi$  is the prediction error matrix and  $F$  is the mean square error matrix for the prediction errors. The initial values for the estimation were obtained using the HP filter with  $\lambda = 100$  as annual data were used.

### 3.2.4 STRUCTURAL VECTOR AUTO REGRESSION APPROACH (SVAR)

Potential output can also be estimated from a structural vector autoregression (SVAR) model.

The SVAR model combines economic theory with statistical techniques to differentiate between permanent and temporary movements in output. The innovations in the SVAR are decomposed to recover structural shocks. In line with this SVAR framework, the assumption that movements in output are the result of cyclical shocks arising from demand-side developments and productivity shocks emanating from supply-side developments gives a set of identifying restrictions.

The SVAR representation is as follow:

$$\Gamma Y_t = \Gamma_0 + A_1 Y_{t-1} + A_2 Y_{t-2} + \dots + A_p Y_{t-p} + \varepsilon_t \dots \dots \dots (10)$$

Where:  $Y_t$  is a  $n \times 1$  vector of endogenous variables at time  $t$ , ( $n$  is number of variables)

$A_i$  is  $n \times n$  coefficient matrix of lagged endogenous variables for  $i = 1, 2, \dots, p$ ,

$\Gamma$  is a  $n \times n$  coefficient matrix of endogenous variables,

$\Gamma_0$  is a  $n \times 1$  vector of fixed constants and

$\varepsilon_t$  is a  $n \times 1$  multivariate white noise error process with the following properties

$$E(\varepsilon_t) = 0$$

$$E(\varepsilon_t \varepsilon_t') = \Sigma$$

SVAR model assumes that  $\varepsilon_t$  are orthogonal, where by the structural disturbance are uncorrelated or zero and the variance-covariance matrix  $\Sigma$  is constant and diagonal. Matrix  $\Gamma$  described in model (1) is normalized across the main diagonal so that each equation in the SVAR system has a designed dependent variable.

Then the SVAR model parameters are estimated in to two stages:

First stage is to obtain the reduced form equations, premultiplying model (1) both side by  $\Gamma^{-1}$  we get:

$$Y_t = \Gamma^{-1} \Gamma_0 + \Gamma^{-1} A_1 Y_{t-1} + \Gamma^{-1} A_2 Y_{t-2} + \dots + \Gamma^{-1} A_p Y_{t-p} + \Gamma^{-1} \varepsilon_t \dots \dots \dots (10.1)$$

$$Y_t = D + B_1 Y_{t-1} + B_2 Y_{t-2} + \dots + B_p Y_{t-p} + U_t \dots \dots \dots (10.2)$$

$$\dot{Y}_t = D + B(L)Y_t + \dot{U}_t \dots \dots \dots (10.3)$$

Where;  $B_i = \Gamma^{-1} A_i, i = 1, 2, \dots, p$

$$D = \Gamma^{-1} \Gamma_0 \text{ and } U_t = \Gamma^{-1} \varepsilon_t$$

Then this reduced form model can be appropriately estimated simply by OLS method.

$U_t$  is the innovation corresponding to the reduced form and has zero mean and constant variance

$$\begin{aligned} \text{i.e., } U_t &\sim N(0, \Omega) \text{ or} \\ E(U_t) &= 0 \\ E(U_t U_t') &= (\Gamma^{-1})(\varepsilon_t \varepsilon_t')(\Gamma^{-1})' \\ \Omega &= (\Gamma^{-1})\Sigma(\Gamma^{-1})' \end{aligned}$$

The second stage is identifying the matrix  $\Gamma$  and  $\Sigma$ . This is described in identification of restriction. In this paper, the vector autoregression methodology with long-run restrictions is employed to estimate potential output for Ethiopia.

The researcher assumes a two variables SVAR model, with real GDP ( $LnY_t$ ) and inflation ( $\text{inf}_t$ ):

$$\begin{bmatrix} 1 & \gamma_{12} \\ \gamma_{21} & 1 \end{bmatrix} \begin{bmatrix} LnY_t \\ \text{inf}_t \end{bmatrix} = \begin{bmatrix} \varepsilon_t^y \\ \varepsilon_t^{\text{inf}} \end{bmatrix} \dots\dots\dots(10.4)$$

Where,  $\varepsilon_t^y$  and  $\varepsilon_t^{\text{inf}}$  represents, output shock (supply shock) and inflation shock (demand shock), respectively. The researcher imposes restrictions that the demand shock cannot affect GDP permanently entails that  $\gamma_{12} = 0$ .

### 3.2.5 PRODUCTION FUNCTION APPROACH

The neoclassical growth model (Solow, 1956) is practical for the production function approach. The advantage of the production function (PF) method is its direct link to economic theory. This means that the method is more structural and comprehensive compared to other approaches. Hence, the PF approach allows for a more direct link to sources of structural information and for

an easier interpretation of the source of changes in the output gap or potential output. In this case, the production function uses the Cobb-Douglas<sup>3</sup> production function with two factors of input, namely, capital (K), labour (L) and technological progress or total factor productivity (A).

$$Y_t = A_t K_t^{1-\alpha} L_t^\alpha \dots\dots\dots(11)$$

$Y_t$  is output,  $A_t$  is total factor productivity (TFP),  $K_t$  is capital stock and  $L_t$  is labor ( the number of employees in the economy). While  $\alpha$  and  $(1-\alpha)$  are factor shares for labour and capital. For this study, following (Jungsuk, 2017) assigned a common labor share of 0.6 to calculate potential output. This choice is accepted on the fact that many developing countries like Ethiopia are more labor abundant and thus tend to adopt a labour-intensive method of production. However, there is no capital stock data in order to compute the TFP. Therefore, to estimate the capital stock at each period, perpetual inventory approach is applied. Following (Anthony and Oluwabunmi, 2016), the initial capital stock is then estimated from the Solow model steady state relationship. Consider the following equation;

$$K_0 = \frac{I_0}{(g + \delta)} \dots\dots\dots(11.1)$$

From the above equation  $K_0$  is the initial capital stock,  $I_0$  is the initial investment<sup>4</sup>,  $\delta$  is annual average depreciation rate (it is 3.8 percent<sup>5</sup>) and the average geometric growth rate of real investment 8.4 percent over the study period (1975-2019).

After estimating of the initial capital stock ( $K_0$ ), the level of capital stock at each period can be calculated using the following perpetual inventory approach.

<sup>3</sup> One of the big advantages of using Cobb-Douglas is its simplicity, in that it is easy to make sense out of the coefficients imposed.

<sup>4</sup> The year 1975 was considered as the initial investment period.

<sup>5</sup> Based on the data obtained from PWT 10, the annual average rate of depreciation was about 3.8 percent in 1975 to 2019.

$$K_t = I_t + (1 - \delta) * K_{t-1} \dots\dots\dots(11.2)$$

Thus, the estimation of potential output is done in three stages. First, the total factor productivity term is obtained as a Solow residual total factor productivity is derived as follow.

$$TFP_t = \frac{Y_t}{L_t^\alpha K_t^{(1-\alpha)}} \dots\dots\dots(11.3)$$

Second, the trends of capital and labour are generated using the HP filter. Whereas, the trend of total factor productivity is generated using the model estimation. To find the long-run growth rate, a simple econometric model is estimated. Given that there is evidence that TFP is trend stationary, the estimation is as follow:

$$\ln TFP_t^* = \phi_0 + \phi_1 t + \phi_2 TFP_{t-1} + \sum \beta D_{it} + \varepsilon_t \dots\dots\dots(11.4)$$

Where  $D_{it}$  is the  $i^{th}$  structural break point and  $t$  is the time trend.

$$\Delta \ln y_t^* = \Delta \ln A^* + (1 - \alpha) \Delta \ln k_t^* + \alpha \Delta \ln l_t^* \dots\dots\dots(14.7)$$

The above equation (14.6) can be used for the decomposition of output growth rate into the growth rates of capital, labor and TFP growth rate and written as follow:

$$g_y^* = g_A^* + (1 - \alpha) g_k^* + \alpha g_l^* \dots\dots\dots(14.8)$$

Where  $g_y^*$  is growth of potential GDP,  $g_A^*$  the growth rate of total factor productivity and  $g_k^*$  the growth rate of capital and  $g_l^*$  growth rate of labor.

In general, Eviews-10 software was employed for split time trend model, HP filter model, SVAR model and state-space (unobserved component) estimation, while MS-Excel was applied for production function approach.

In the third stage given the aforementioned potential capital, trend TFP and potential labor, potential output can be:

$$Y_t^* = A_t^* K_t^{*1-\alpha} L_t^{*\alpha} \dots\dots\dots(14.5)$$

$Y_t^*$  is potential output,  $A_t^*$  is potential total factor productivity ( $TFP_t^*$ ),  $K_t^*$  is potential capital stock and  $L_t^*$  is potential labour. Based on this, the output gap is estimated as:

$$PF\_outputgap_t = \frac{(ActualGDP_t - PotentialGDP_t)}{PotentialGDP_t} * 100 \dots\dots(14.6)$$

Furthermore, the production function framework allows us to estimate the contribution of each factor of production to potential GDP growth. Changes in these contributions can be assessed as a signal for structural changes in the Ethiopian economy. By taking the natural logarithm and differentiation of the above equation (14.5) can be written as follows;

## 4. ESTIMATION AND DISCUSSION

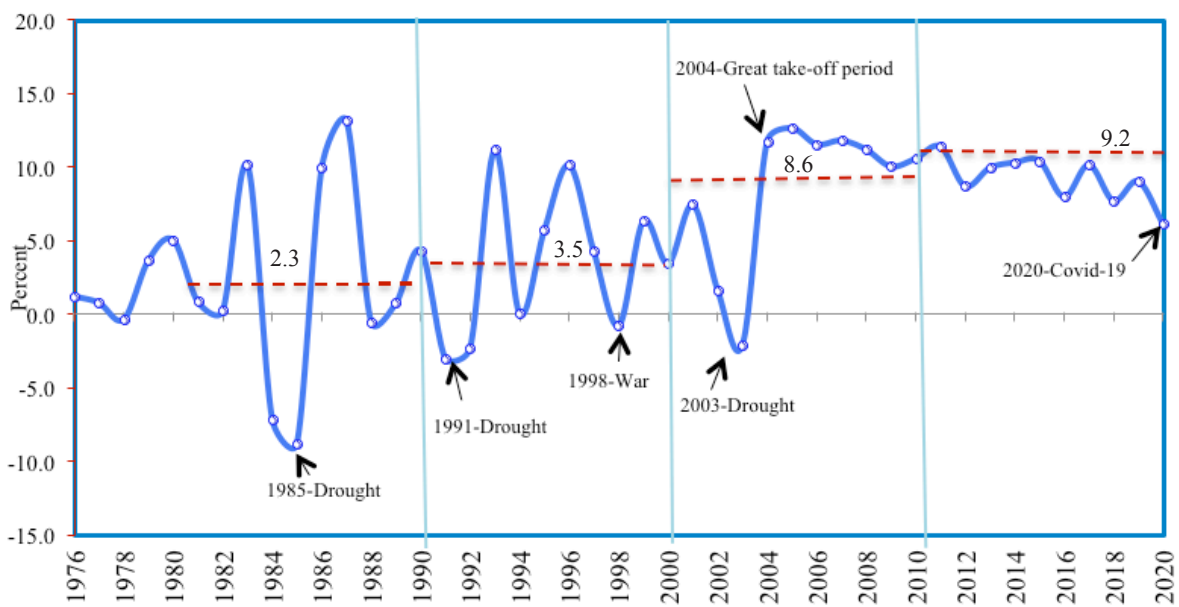
### 4.1 DESCRIPTIVE ANALYSIS

Before directly proceeding to potential output and output gap estimation, it is important to assess the stylized facts of the Ethiopia's economy. As it is mentioned in the coverage of the data, the time range for this study consists the past 45 years and span from 1975 to 2020. Thus, it is important to note that this data span encompasses a number of distinct episodes in the Ethiopian economic history.

From Figure 1 and Table 1, in general terms, the 1980s, and 1990s were a highly volatile (highest standard deviation) period for Ethiopia with a number of significant shocks, including the severe drought, political instability and conflict, impacting the economy. During the period 1981-1990, the real GDP growth averaged 2.3 percent range with (-8.8 percent: 1985) to (13.1 percent: 1987). Following the 1991 government change

and transition to a market-based economy (1991 to 2000), the economy showed recovery and the real GDP grew on average 3.5 percent per annum at lowest and higher growth rate of (-3.0 percent: 1991) and (11.2 percent: 1993), respectively. As a result, in the years 1985, 1998 and 1991 GDP growth witnessed sharp contractions, which coincide with a period of drought (1985 and 1991) and war (1998).

**Figure 1:** Actual Real GDP Growth Rate (1975/76-2019/20)



Source: MoF & Author Computation

**Table 1:** Statistical Summary

Sample Period	Mean	Max	Min	Standard Deviation
1981-1990	2.3%	13.1%	-8.8%	7.2%
1991-2000	3.5%	11.2%	-3.0%	5.0%
2000-2010	8.6%	12.6%	-2.1%	5.0%
2010-2020	9.2%	11.4%	6.1%	1.6%

Source: Author Computation

Nevertheless, the Ethiopia's economy has experienced growth acceleration since 2004 (great take-off period) and maintained a strong growth momentum. The real GDP growth on average 8.6 percent during 2001-2010 with a range of (-2.1 percent: 2003) to (12.6 percent: 2005). During this period, there was relative political stability and an absence of wars and conflicts. Furthermore, in this period, the government of Ethiopia introduces several policies programs such as Sustainable Development & Poverty Reduction Program (2002/03-2004/05), Plan for Accelerated and Sustained Development to End Poverty (2005/06-2009/10).

Likewise, Ethiopia's growth performance over the past decade has been remarkably rapid and stable. The standard deviation of growth rate also dropped sharply from 5.0 percent to 1.6 percent which suggests growth rate was more stable compared to the previous two sample periods (table 1). During 2011-2020, Real GDP growth averaged 9.2 percent with a lower growth performance of (6.1 percent: 2020) and a maximum growth of (11.4 percent: 2011). The impact of Covid-19 was attributed for the low performance growth of real GDP in 2020. In the course of this strong and stable growth trajectory, the government of Ethiopia implemented the first and second Growth & Transformation Plan (GTP-I & GTP-II).

Despite the economy has experienced expansion and sustainable rate of economic growth over the course of (2004-2018), the economy is facing headwinds from growing macroeconomic imbalances including foreign exchange imbalances (high demand for imports and poor export performance resulted in large current account deficits and significant FX shortages),

external debt burden (rapid increases in external debt in the context of poor project execution and export performance led to high risk of debt distress), limited private sector access to finance (expansionary fiscal policy appears to have crowded out private sector's access to finance) and high inflation (Homegrown Reform Agenda, 2019).

## 4.2 ESTIMATION RESULTS

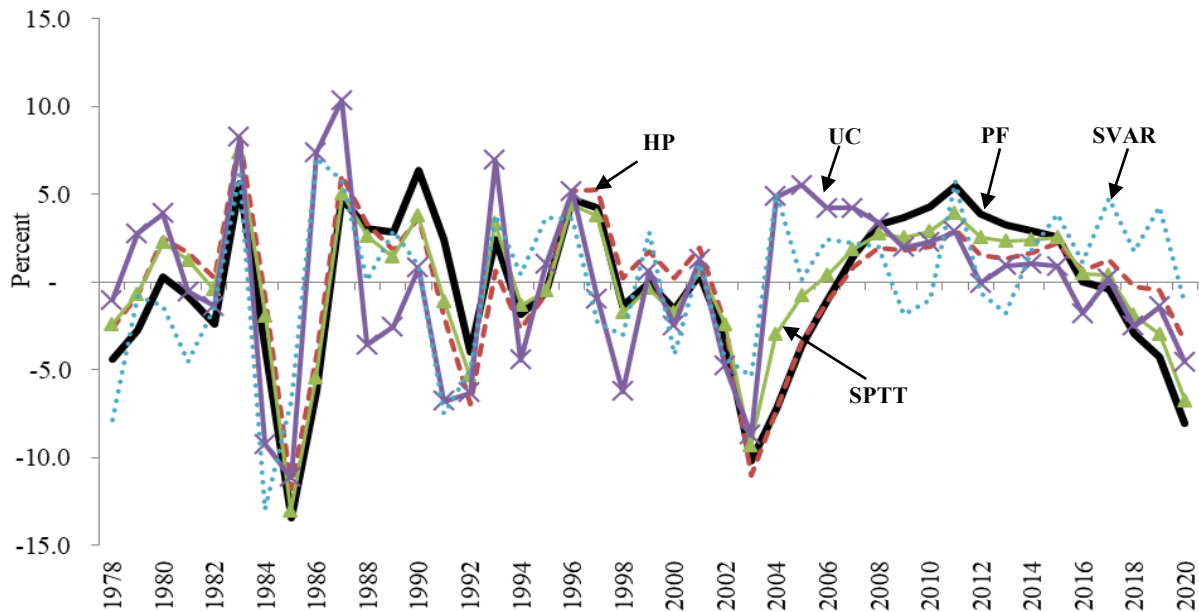
In this section, the empirical estimates of potential output and output gap results were explained using five methodologies such as Hodrick-Prescott filter, Unobserved Component, Production Function, Split Time Trend and Structural Vector Autoregressive Model specifying under section three.

### 4.2.1 ESTIMATES OF ETHIOPIA'S OUTPUT GAP

To come up with a good perception, the estimates of the output gap from different methods may be compared to the expected output gap in the Ethiopian economy with respect to the different important economic events. As it is mentioned in the descriptive analysis, these are the drought shocks that occurred in 1985, 1991, 2003 and a strong economic growth beginning from 2004. During the periods of war and drought, negative output gaps may be expected since these shocks would have lowered economic activity due to higher costs of production and lower revenues. Hence, actual output is lower than potential output. On the other hand, the periods of boom, may have increased aggregate demand due to expansion in economic activity or increased money supply in the economy. In these cases, positive output gap may be expected.



**Figure 2:** Estimates of Output Gap Based on Different Methods (In percent of potential GDP)



Source: Author Estimation

Note: HP: Hodrick-Prescot filter, UC: Unobserved Component Model, PF: Production Function Model, SPTT: Split Time Trend Model and SVAR: Structural Vector Autoregressive Model.

Figure 2, shows the different output gap measures. Although the various output gap estimates typically indicate a different level of the output gap at each point in time, there are periods of broad agreement. The production function (PF) model, HP filter model and split time trend (SPTT) model are very close to each other and yields smoother estimates of the output gap.

Furthermore, Tables 2 and 3 contain statistical summaries of the different output gaps for the period 1978 to 2020. Table 2 first compares some key properties of the gaps. One reasonable criterion is that the average value of the output

gap should be close to zero over time. This seems to be the case for all the output gaps. The standard deviation of the output gap gives an indication of the volatility of the business cycle. The unobserved component (UC) model leads to the most volatile output gap of the five and the split time trend (SPTT) model to the least volatile measure of the output gap. Table 3 shows the correlation coefficients between the different methods. As expected from looking at the figure 2, the correlation between the alternative output gaps is generally high, particularly between the HP filter, PF and SPTT model.

**Table 2:** Statistical Summary for Output Gap Using Different Methods

Methods	PF	HP	UC	SVAR	SPTT
Average	-0.4	-0.0	0.0	-0.0	-0.1
Standard Deviation	4.5	4.0	4.8	4.3	3.9
Lowest Value	-13.4	-11.8	-11.1	-12.9	-13.0
Maximum Value	6.4	8.2	10.3	7.1	7.3

**Table 3:** Correlation between Output Gaps Estimated by Different Methods

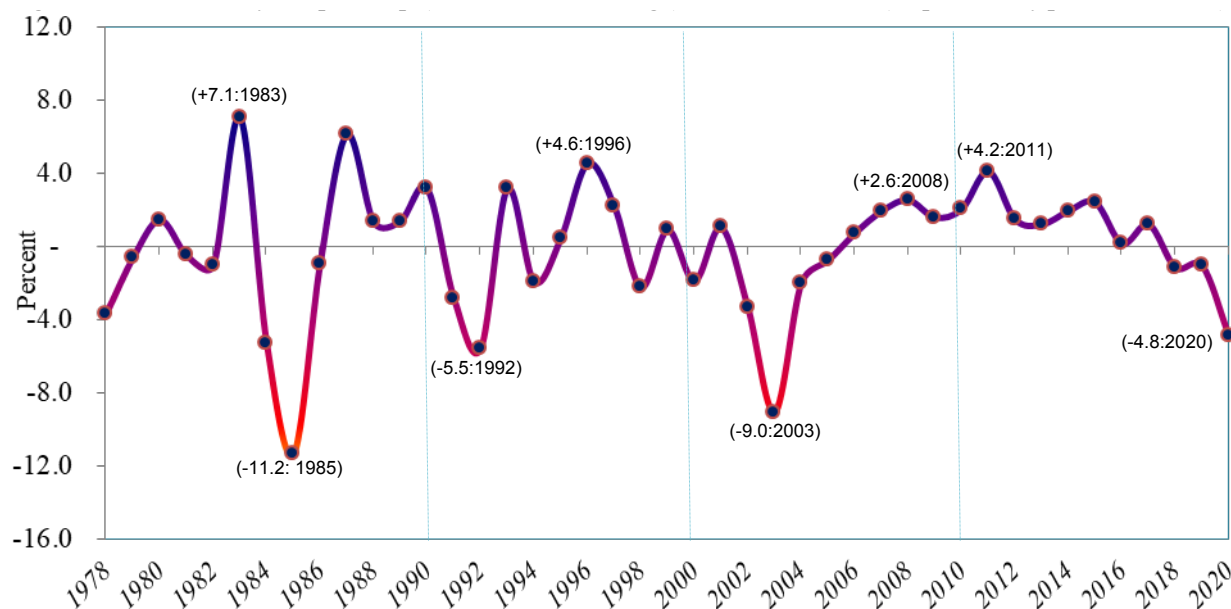
Method	HP	PF	UC	SVAR	SPTT
HP	1				
PF	0.891	1			
SPTT	0.927	0.947			1
UC	0.529	0.489	1		0.643
SVAR	0.320	0.277	0.783	1	0.385

Source: Author Computation

It is often found that combining estimates from different models allows improving the uncertainty from individual models. This is particularly relevant for estimating the output gap since the model estimates are characterized by both model uncertainty and parameter instability. Therefore, it is important to compute

model-averaged measures of the output gap. In this study a weighted average<sup>6</sup> was obtained using each of the five models and it takes into account the uncertainty in the estimation of the output gap. It gives higher weights to the models with smaller variances attached to the estimated output gaps and depicted on the Figure 3.

**Figure 3:** Estimates of Output Gap (Five-Model Average) (In percent of potential GDP)



Source: Author Computation

<sup>6</sup> A weighted average output gap estimates was obtained using each of the five models and the method is as follow.

$$W_t(l) = \frac{[V_t(Z_t^{(l)})]^{-1}}{\sum_{i=1}^5 [V_t(Z_t^{(i)})]^{-1}}$$

Where,

$W_t(l)$  : the weights given to model ( $l$ ) at time ( $t$ ),

$Z_t^{(l)}$  : the output gap for model ( $l$ ) at time ( $t$ ) and

$V_t(Z_t^{(l)})$  : the corresponding variance estimated for model ( $l$ ).

By taking into consideration Figure 3 output gap model-average estimates obtained from five methods, the smallest output gap level in 1981-1990 was about (-11.2 percent: 1985) and the highest positive value (+7.1 percent: 1983). During the 1991-2000, the average measure indicates a period of high volatility and experienced both expansion and contraction. In this period, the smallest out gap recorded in 1991 (-5.5 percent) and the maximum value in 1996 (+4.6 percent). Thus, the year 1985 and 1991 can be considered as a recession period, consistent with the expected underlying fact due to the droughts in Ethiopia history.

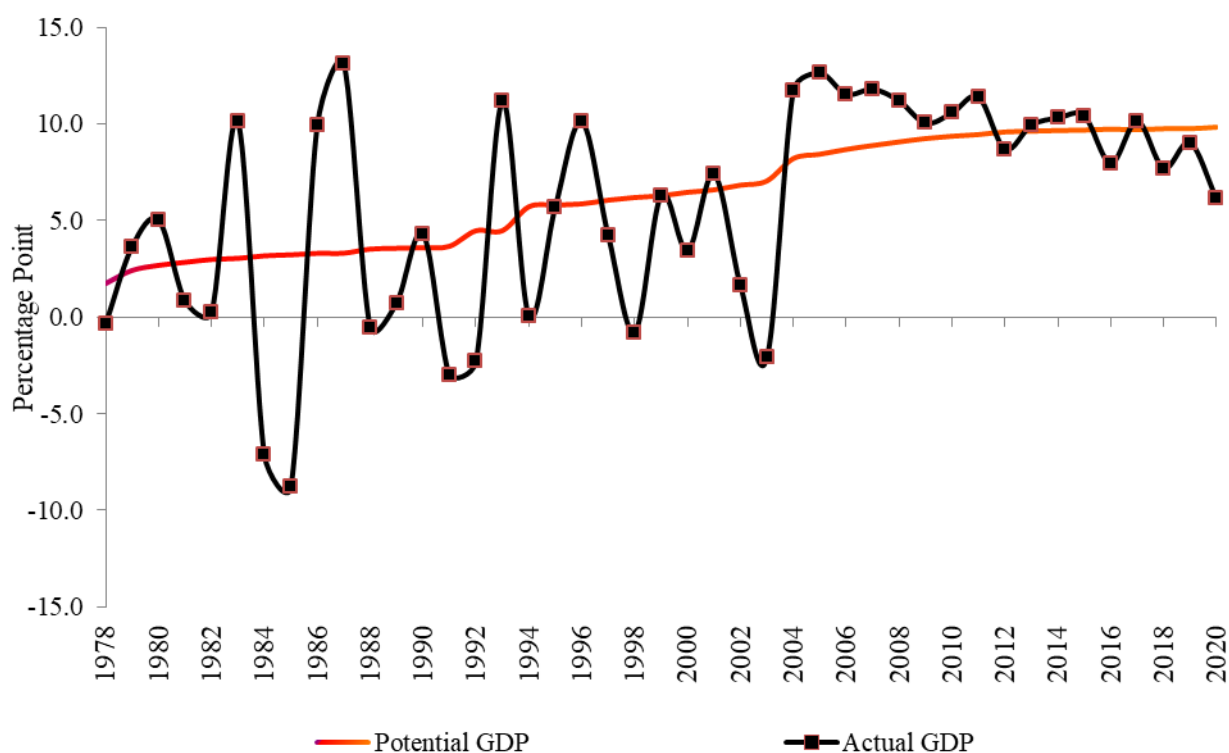
During the third sample period 2001-2010, the lowest output gap was registered in 2003 (-9.0 percent) and the highest in 2008 (+2.6 percent). This is also in line with the supply shock due to a second severe drought in 2003. On the other hand, more recently, during the 2011-2020, the

output gap witnessed the smallest value in 2020 (-4.8 percent) and maximum value in 2011 (+4.2 percent). The lowest output value -4.8 percent was attributed to the COVID-19 impact.

#### 4.2.2 ESTIMATES OF ETHIOPIA'S POTENTIAL OUTPUT

As it is mentioned in section two, potential output is the sum of the actual output and the output gap. Given the output gaps for the different methodologies computed in the previous section, we can obtain alternative measures of the potential output, and therefore measures of a time-varying potential output growth rate. Figure 4, depicted the potential and actual output trend development over the entire sample period 1978 to 2020. Furthermore, Tables 4 put in a nutshell the potential output growth of the average ten-year growth over the period 1981 to 2020 and specifically the last two consecutive years (2019 and 2020)<sup>7</sup>.

**Figure 4:** Estimates of Potential Output- Five Models Averaged (1978-2020)



Source: Author Estimation

<sup>7</sup>The estimates of potential output and output gap dataset are available upon request.

**Table 4:** Potential & Actual GDP Growth (Ten-year Average)

Periods/ Methods	Potential Output Growth (%)						Actual Output Growth (%)
	HP	PF	SPTT	UC	SVAR	Model Average	
1981-1990	Average	1.4	1.9	2.2	8.9	3.3	2.3
1991-2000	3.7	4.2	5.4	4.7	9.7	5.5	3.5
2001-2010	8.0	7.9	8.9	6.8	9.7	8.3	8.6
2011-2020	9.3	10.5	9.7	9.2	9.7	9.7	9.2
2019	8.9	10.5	9.7	10.1	9.7	9.8	9.0
2020	8.8	10.5	9.7	10.5	9.7	9.8	6.1

Source: Author Computation

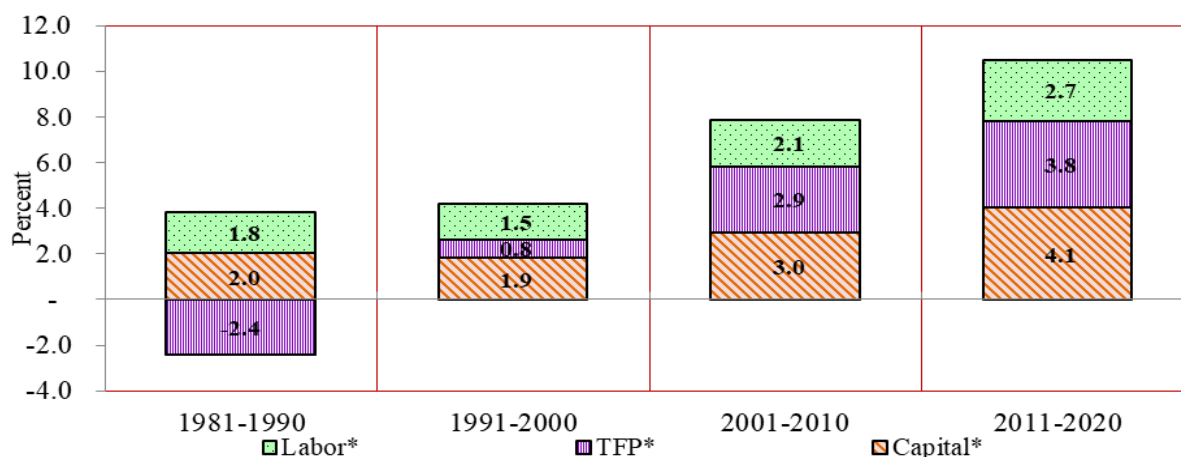
According to Table 4 potential output estimates, the average estimates of potential output growth for the first ten-year (1981-1990) gave an average of 3.3 percent with a range of (1.4 percent: PF) to (8.5 percent: SVAR). Likewise, the potential output growth for the second sub-sample of ten-year (1991-2000) estimate average was about 5.5 percent ranging from (3.7 percent: HP) to (9.7 percent: SVAR). Furthermore, estimates of potential output growth in the third sub-sample of ten-year (2001-2010) indicate an average of 8.3 percent with low growth rate of (6.8 percent: UC) and the high growth rate of (9.7 percent: SVAR). Similarly, during the recent ten-year (2011-2020), the potential output growth experienced an average of 9.7 percent ranging of (9.2 percent: UC) to (10.5 percent: HP). Estimates of potential output growth in 2020 grew at an average of 9.8 percent with the smallest growth rate of (8.8 percent: HP) and the highest growth rate of (10.5 percent: PF/UC).

When viewing from the performance of actual output compared to potential output development, the actual output grew an average of 2.3 and 3.5 percent in (1981-1990) and (1991-2000) while a potential growth rate was about 3.3 and 5.5 percent, respectively in the same period. This all reveals that the actual output

performance during the given two sub-periods was below potential output. However, in 2001-2010 and 2011-2020 the actual output growth was almost equal to the corresponding ten-year average potential growth. Consequently, it can be observed that, during the last 20 consecutive years, the Ethiopia's economy exhibited a mix of expansionary and closed to potential output growth. However, looking at the 2020 performance, the actual output grew by 6.1 percent while potential output was about 9.8 percent. As a result, in 2020 the actual GDP growth performance was lower compared to the corresponding average growth of potential output mainly due to the COVID-19 effect (Table 4).

#### 4.2.3 DRIVERS OF POTENTIAL OUTPUT GROWTH IN ETHIOPIA USING PRODUCTION FUNCTION

Identifying the drivers of the long-term growth or potential output growth is essential to assess a signal for structural changes in the Ethiopian economy. Thus, the production function framework allows us to estimate the contribution of each factor of production to potential output growth. Below, capital, labor and total factor production contributions are plotted with ten-year average for four respective samples.

**Figure 5:** Factors Contribution of Potential Growth (Ten-Year Average)<sup>8</sup>

Source: Author Computation

The average growth contribution of total factor productivity appears to have weakened during 1981-1990. However, the recovery of productivity seems to be evident after 1991 and steadily increased from (-2.4 percent: 1981-1990) to (3.8 percent: 2011-2020). Further evidence obtained that capital input growth made a significant contribution to the potential growth in 2001-2010 as well as in 2011-2020. The capital growth contribution to potential GDP growth depicted an increasing path, ranging from 1.9 percent to 4.1 percent. The contribution of labor to potential GDP growth had a relatively stable path over the time span and ranging from 1.5 and 2.7 percent in 1991-2000 and 2011-2020, respectively (Figure 5).

In general, Solow growth decomposition shows that growth in Ethiopia during the last two decades was mainly driven by the accumulation of physical capital. This is come with the fact that the accumulation of high capital stock for last two decades in Ethiopia tends to settle at its equilibrium level and therefore a sustained growth can only be achieved through technological innovations and knowledge such as increase productivity and institutional

efficiencies, introduce technology driven industries and etc.

## 5. CONCLUSION AND RECOMMENDATIONS

### 5.1 CONCLUSIONS

This study tried to estimate potential output and the output gap over the sample period 1975 to 2020. Various measures were examined due to the uncertainty associated with measuring potential output. Although the various output gap estimates typically indicate a different level of the output gap at each point in time, there are periods of common agreement. The results suggest, during the 1980s' and 1990s' the average output gap measure indicates a period of high volatility and experienced both expansion and contraction. The largest negative output gaps were occurred in 1985, 1992 and 2003 and can be considered as a recession period, consistent with the expected underlying story due to the droughts and war in Ethiopia history. During 2001-2020 the actual output growth was almost equal and above the corresponding average potential growth and hence, exhibited a mix of expansionary and closed to potential output growth albeit, a contraction period occurred in 2020 due to the impact of COVID-19 pandemic.

<sup>8</sup> Growth contributions are calculated as year-on-year percentage changes. Labor, Capital and TFP contributions sum up to potential GDP growth rates.

Finally, Solow growth decomposition shows that growth in Ethiopia during the last two decades was mainly driven by the accumulation of physical capital. This is come with the fact that the accumulation of high capital stock for last two decades tends to settle at its equilibrium level and therefore a sustained growth can only be achieved through technological innovations and knowledge such as increase productivity and institutional efficiencies, introduce technology driven industries and etc.

## **5.2 RECOMMENDATIONS**

The empirical findings suggest that, the different output gap measures applied in this study were clearly estimates the trajectory of economic fluctuations in Ethiopia's economy. Hence, these indicators play a relevant role for monetary as well as fiscal policy analysis to assess the economic growth potential, macroeconomic projections, evaluation & forecasting of inflationary pressures so as to determining the most appropriate policy mix in the economy. Therefore, to achieve optimal growth with stable prices, it is necessary to consider these potential output and the corresponding output gap estimates in taking both monetary and fiscal policy decisions.



## REFERENCES

- Adisu Abebaw (2020). 'Output gap determinants in Ethiopia', *Cogent Economics & Finance*
- Alain DeSerres, Alain Guay and Pierre St-Amant (2005). 'Estimating and projecting potential output using structural var methodology: The Case of the Mexican Economy' *Bank of Canada Working*
- Albulene Kastrati (2014). 'Estimating Potential Output and the Output Gap in Kosovo', *Central Bank of the Republic of Kosovo working paper*
- Alpo Willman (2002). 'Euro area production function and potential output: A supply side system approach', *European Central Bank Working Paper Series No.153*
- Angelica E. Njuguna, Stephen N. Karingi and Mwangi S. Kimenyi (2005). 'Measuring Potential Output and Output Gap and Macroeconomic Policy: The Case of Kenya, Working Paper
- Anthony, E., & Oluwabunmi, O. (2016). 'Determinants of Total Factor Productivity Growth in Nigeria' *Global Business Review*
- Artus, Jacques R., (1977). 'Measures of Potential Output in Manufacturing for Eight Industrial Countries', *Staff Papers-International Monetary Fund, Vol. 24*
- Blanchard, O.J. and D. Quah (1989). 'The Dynamic Effects of Aggregate Demand and Supply Disturbances' *American Economic Review* 79, 655-673
- Chuah Lay Lian & Nur Ain Shahrier (2014). 'Estimating Malaysia's Output Gap: Have We Closed the Gap?' *Bank Negara Malaysia Working Papers WP4/2014*
- Claus, I., Conway, P., & Scott, A. (2000). 'The Output Gap: Measurement, Comparisons and Assessment'
- Coe, David T., and C. John McDermott (1997). 'Does the Gap Model Work in Asia?' *IMF Staff Papers Vol. 44, No.1*
- European Central Bank (ECB) *Monthly Bulletin*, (2000), 'Potential output growth and output gaps: concept, uses and estimates'
- Friedman, M (1968). 'The role of monetary policy', *American Economic Review*, vol 58(1)
- Garin, J., Lester, R., & Sims, E. (2016). 'On the desirability of nominal GDP targeting', *Journal of Economic Dynamics and control*
- Giorno C., P. Richardson, D. Roseveare and P. van den Noord (1995). 'Potential Output, Output Gaps and Structural Budget Balances', *OECD Economic Studies*
- Harvey and Jaeger (1993). 'Detrending, Stylized Facts and the Business Cycle', *Journal of Applied Econometrics*, Vol. 8
- Jahan S. and Ahmed Saber M. (2013). 'What Is the Output Gap?', *IMF Finance and Development*. Vol. 50, No. 3

Jungsuk, K., & Jungsoo, P. (2017). 'The Role of Total Factor Productivity Growth in Middle Income Countries' Asian development bank economics working paper series

Karel Havik, Kieran Mc Morrow, Fabrice Orlandi, Christophe Planas, Rafal and Raciborski, Werner Roge (2014). 'The Production Function Methodology for Calculating Potential Growth Rates & Output Gaps, European Commission Economic Paper 535

Malin Andersson, Bela Szorfi, Mate Toth and Nico Zorell (2018). 'Potential output in the post-crisis period', ECB Economic Bulletin

Mark W. Watson (1986). 'Univariate defriending methods with stochastic trends', Journal of Monetary Economics 18

Mishkin, F.S. (2007). 'Estimating Potential Output', Address at the Conference of Price Measurement for Monetary Policy, Federal Reserve Bank of Dallas

Mohamed Osman (2008). 'Estimating Potential Output and Output Gap for East African Countries: An Eclectic Approach', European Journal of Economics

Okun, A (1962). 'Potential GNP, its measurement and significance', Cowles Foundation, Yale University

Paul G. Fisher, Lavan Mahadeva and John D. Whitley (1997). 'The output gap and inflation: experience at the Bank of England', Bank of England

Paula R. De Masi (1997). 'IMF estimates of potential output: theory and practice' IMF working paper

Robert J. Hodrick and Edward C. Prescott (1997). 'Postwar U.S. Business Cycles: An Empirical Investigation' Journal of Money, Credit and Banking, Vol. 29

Shapiro, M. D. and M. W. Watson. (1988). "Sources of Business Cycle Fluctuations" Working Paper 2589. National Bureau of Economic Research, Cambridge (MA)

The OECD Economic Outlook: Sources and Methods, 2001

Thomas Kigabo R. and Joy Irankunda, (2014). 'Estimating output gap model for Rwandan economy', National Bank of Rwanda Economic Review No. 006

Tim Congdon (2008). 'Two concepts of the output gap' World Economics Vol. 9, No. 1



# WHAT IS FOREIGN AID?

By Victoria Williams

*Foreign aid, the international transfer of capital, goods, or services from a country or international organization for the benefit of the recipient country or its population. Aid can be economic, military, or emergency humanitarian (e.g., aid given following natural disasters).*

## TYPES AND PURPOSES

Foreign aid can involve a transfer of financial resources or commodities (e.g., food or military equipment) or technical advice and training. The resources can take the form of grants or concessional credits (e.g., export credits). The most common type of foreign aid is official development assistance (ODA), which is assistance given to promote development and to combat poverty. The primary source of ODA—which for some countries represents only a small portion of their assistance—is bilateral grants from one country to another, though some of the aid is in the form of loans, and sometimes the aid is channeled through international organizations and nongovernmental organizations (NGOs). For example, the International Monetary Fund (IMF), the World Bank, and the United Nations International Emergency Children’s Fund (UNICEF) have provided significant amounts of aid to countries and to NGOs involved in assistance activities.

Countries often provide foreign aid to enhance their own security. Thus, economic assistance may be used to prevent friendly governments from falling under the influence of unfriendly ones or as payment for the right to establish or use military bases on foreign soil. Foreign aid also may be used to achieve a country’s diplomatic goals, enabling it to gain diplomatic recognition, to garner support for its positions in international organizations, or to increase its diplomats’ access

to foreign officials. Other purposes of foreign aid include promoting a country’s exports (e.g., through programs that require the recipient country to use the aid to purchase the donor country’s agricultural products or manufactured goods) and spreading its language, culture, or religion. Countries also provide aid to relieve suffering caused by natural or man-made disasters such as famine, disease, and war, to promote economic development, to help establish or strengthen political institutions, and to address a variety of transnational problems including disease, terrorism and other crimes, and destruction of the environment. Because most foreign aid programs are designed to serve several of these purposes simultaneously, it is difficult to identify any one of them as most important.

## HISTORY

The earliest form of foreign aid was military assistance designed to help warring parties that were in some way considered strategically important. Its use in the modern era began in the 18th century, when Prussia subsidized some of its allies. European powers in the 19th and 20th centuries provided large amounts of money to their colonies, typically to improve infrastructure with the ultimate goal of increasing the colony’s economic output. The structure and scope of foreign aid today can be traced to two major developments following World War II: (1) the implementation of the Marshall

Plan, a U.S.-sponsored package to rehabilitate the economies of 17 western and southern European countries, and (2) the founding of significant international organizations, including the United Nations, IMF, and World Bank. These international organizations have played a major role in allocating international funds, determining the qualifications for the receipt of aid, and assessing the impact of foreign aid. Contemporary foreign aid is distinguished not only because it is sometimes humanitarian (with little or no self-interest by the donor country) but also by its size, amounting to trillions of dollars since the end of World War II, by the large number of governments providing it, and by the transparent nature of the transfers.

The level of foreign aid expenditures following World War II dwarfed prewar assistance. The postwar programs of the United Kingdom, France, and other European former colonial powers grew out of the assistance they had provided to their colonial possessions. More importantly, however, the United States and Soviet Union and their allies during the Cold War used foreign aid as a diplomatic tool to foster political alliances and strategic advantages; it was withheld to punish states that seemed too close to the other side. In addition to the Marshall Plan, in 1947 the United States provided assistance to Greece and Turkey to help those countries resist the spread of communism, and, following the death of Soviet leader Joseph Stalin in 1953, communist-bloc countries donated increasing amounts of foreign aid to less-developed countries and to close allies as a means of gaining influence as well as promoting economic development.

Several non-European governments also implemented their own aid programs after World War II. For example, Japan developed an extensive foreign aid program—an outgrowth of its reparations payments made following the

war—that provided assistance primarily to Asian countries. Much of Japan's aid came through procurement from Japanese companies, which helped fuel economic development in Japan. By the late 20th century, Japan had become one of the world's two leading donor countries, and its aid programs had extended to non-Asian countries, though much of the country's assistance was still directed toward Asia.

The vast majority of ODA comes from the countries of the Organisation for Economic Co-operation and Development (OECD), specifically the nearly two dozen countries that make up the OECD's Development Assistance Committee (DAC). The DAC includes western European countries, the United States, Canada, Japan, Australia, and New Zealand. Other providers of significant assistance include Brazil, China, Iceland, India, Kuwait, Poland, Qatar, Saudi Arabia, South Korea, Taiwan, Turkey, and the United Arab Emirates. In the 1970s the international community, through the United Nations, set 0.7 percent of a country's gross national income (GNI) as the benchmark for foreign aid. However, only a small number of countries (Denmark, Luxembourg, the Netherlands, Norway, and Sweden) reached that mark. Although the United States and Japan have been the world's two largest donors, their levels of foreign aid have fallen significantly short of the UN's goal.

Since the end of the Cold War, the United States has furnished foreign aid as part of peacemaking or peacekeeping initiatives in the Balkans, Northern Ireland, and parts of Africa. Foreign aid also has been used to promote smooth transitions to democracy and capitalism in former communist countries, most notably Russia.

Foreign assistance is still used to promote economic development. Although significant development occurred in much of Asia and

Latin America during the second half of the 20th century, many countries in Africa remained severely underdeveloped despite receiving relatively large amounts of foreign aid for long periods. Beginning in the late 20th century, humanitarian assistance to African countries was provided in increasing amounts to alleviate suffering from natural disasters, the HIV/AIDS epidemic, and destructive civil wars. Major initiatives to combat HIV/AIDS focused on the hardest-hit countries, most of which are in sub-Saharan Africa.

Foreign aid has been used, particularly in poorer countries, to fund or to monitor elections, to facilitate judicial reforms, and to assist the activities of human rights organizations and labour groups. In the post-Cold War era, when funding anticommunist governments became a less important criteria for the United States and its allies, promoting democracy was elevated as a criterion in foreign aid programs. Aid was provided to some countries as an incentive for initiating democratic reforms and was withheld from others as a punishment for resisting such reforms.

Foreign aid is also used to address transnational problems such as the production and export of illegal drugs and the battle against HIV/AIDS. For example, the International Narcotics Control program allocates U.S. funds to countries to battle drug production, and the Anti-Drug Abuse Acts of 1986 and 1988 make foreign aid and access to U.S. markets conditional upon recipient countries' actively combatting drug production and trafficking.

Since the 1990s many foreign aid sources, notably the IMF, have made aid conditional on market-oriented economic reforms, such as lowering trade barriers and privatization. Thus, foreign aid has been used as a tool by some institutions and countries to encourage the spread of capitalism.

In the last decade of the 20th century, private capital flows and remittances from migrant workers became the two largest sources of "aid" from wealthy countries to poor ones, surpassing the amount of ODA provided by those countries. However, this form of aid is heavily stratified; most direct foreign investment has gone to developing countries pursuing policies of trade and economic liberalization and those with large markets (e.g., Brazil, China, and India).

By the early 21st century, China had become a major provider of foreign aid, especially in Africa. Notably, beginning in 2013, China offered infrastructure loans to a large number of countries in East Asia, Africa, and South America as part of its massive Belt and Road Initiative.

## CRITICISM

Significant criticisms have been levelled at both the donors and the recipients of foreign aid. Some groups in recipient countries have viewed foreign aid suspiciously as nothing more than a tool of influence of donor countries. For example, critics of the IMF allege that the required structural adjustments are too politically difficult and too rigorous and that the debts incurred through IMF loans help to create poverty, as capital that could have been invested instead was channelled into debt repayment. The World Bank, which critics claimed in the 1970s and '80s was insensitive to local needs and often approved projects that did more harm than good, altered many of its policies and has generally endured less criticism. In general, opponents of the way that foreign aid programs have operated charge that foreign aid has been dominated by corporate interests, has created an unreasonable debt burden on developing countries, and has forced countries to avoid using strategies that might protect their economies from the open market.

In addition, many critics of U.S. aid illustrate the continued importance of political considerations over developmental ones, citing for example the increase in aid to countries allied with the United States in the fight against terrorism following the September 11 attacks in 2001, regardless of their commitment to democracy and human rights.

Meanwhile, some groups in donor countries have criticized foreign aid as ineffective and wasteful. In the United States, for example, public opinion polls consistently show that most Americans believe that foreign aid consumes 20 percent of the country's budget—the

actual figure is less than 1 percent—and that most recipients of foreign aid do not deserve it or do not use it wisely. Such criticisms have been bolstered by the generally disappointing results of foreign aid programs in sub-Saharan Africa, where many countries remain mired in poverty, corruption, and civil war despite the disbursement of significant foreign aid. With efforts to rebuild Iraq and Afghanistan, curtail drug production and trafficking, and battle HIV/AIDS, ODA—which had declined throughout the 1990s—increased in the early 21st century.

Source: <https://www.britannica.com/topic/foreign-aid>



# ጦርነትና ምጣኔ ሀብት

ሀብታሙ ወርቅነህ

በኢትዮጵያ ብሔራዊ ባንክ የውጭ ኢኮኖሚ ተገተና ከና ዓለም አቅፍ ግንኙነት ዳይሬክተር

## 1. መግቢያ

የዓለም ታሪክ እንደሚያስረዳውም ሆነ በተለያዩ ምሁራን እንደሚጠቀሰው የትኛውም አይነት ጦርነት ሊቀሰቀስ የሚችለው ጥቅምን ለማስከበር፣ በፍርሀት/በስጋት ወይም ከብርን ለማስጠበቅ በማሰብ ነው። ይህም ማለት አንድ ጦርነት ጥቅማቸው የተነካ በመሰላቸው አካላት ሊቀሰቀስ ይችላል፤ ወይም ፍርሃት/ስጋት ባደረገቸው አካላት የገመቱት ፍርሀታቸው እውን እንዳይሆን ቀድመው ጦርነት ሊቀሰቅሱ ይችላሉ። በተመሳሳይ ግለሰቦች ወይም ቡድኖች ከብራቸው የተነካ ሲመሰላቸው ከብራቸውን በጦርነት ለማስጠበቅ ወይም ለማስመለስ ወደ ጦርነት ሊገቡ ይችላሉ።

ከላይ ከተጠቀሱት መንስኤዎች በየትኛውም ምክንያት ይነሳ በምጣኔ ሀብት ምሁራን ዘንድ ጦርነት በአንድ ሀገር (አካባቢ) ላይ ሁለት ዋና ዋና ተጽእኖዎች አሉት። የመጀመሪያው በዜጎች ላይ የሚያሳድረው ሰብአዊ እና ስነ-ልቦናዊ ተጽእኖ ሲሆን፣ ሁለተኛው ምጣኔ ሀብታዊ ተጽእኖ ነው። ሰብአዊና ስነ-ልቦናዊ ተጽእኖ ሲባል ጦርነት በተሳታፊ አካላት ላይ የህይወት መስዋዕትነት ከማስከተሉ ባሻገር ጦርነቱ በሚካሄድበት አካባቢም ሆነ ጦርነቱ ይደርስበናል ብለው በሚያስቡ ማህበረሰቦች ዘንድ የአካል እና የስነ-ልቦና ጫናን ያሳድራል።

በሌላ በኩል ጦርነት በአንድ ሀገር ምጣኔ ሀብት ላይ ተጽእኖ የሚያሳድር ሲሆን ይህ ተጽእኖው ውስብስብ በመሆኑ ልዩ ትኩረት ይሻል። ስለሆነም ይህ ጽሁፍ በዋናነት የሚዳስሰው ሁለተኛውን ማለትም ምጣኔ ሀብታዊ ተጽእኖውን ከምጣኔ ሀብት ሳይንስ አኳያ መዳሰስ ይሆናል። ይህም በጦርነት ወቅት የምጣኔ ሀብት ባህሪን ለመረዳትና ምጣኔ ሀብታዊ ፖሊሲዎች በሚወሰዱበት ወቅት ፖሊሲዎችን ለመረዳት ይረዳ ዘንድ መነሻ ሀሳብ ለማቅረብ ታስቦ ነው።

እንደሚታወቀው የምጣኔ ሀብት ሳይንስ ከንድፈ-ሀሳብ (Theory) ባሻገር የተግባር (Applied) ሳይንስ በውስጡ አቅጣጫ የያዘ መስክ በመሆኑ ከተግባር ዘርፎች ውስጥ ፋይናንስ (Financial Economics)፣ ግብርና (Agricultural Economics)፣ ኢንዱስትሪ (Industrial Economics)፣ ስለሰው ጉልበትና እውቀት ግብይት (Labor Economics)፣ ትራንስፖርት (Transport Economics) እና ከባቢ አየር (Environmental Economics) በተግባራዊ የምጣኔ ሀብት ሳይንስ የሚጠኑ ዋና ዋና ንዑስ ዘርፎች ሲሆኑ ከሁለተኛው የዓለም ጦርነት በኋላ ማለትም እ.ኤ.አ

ከ1940ቹ ጀምሮ ደግሞ የጦርነት ምጣኔ ሀብት (War Economics) ከተግባር ንዑስ ዘርፎች ውስጥ በመካተት በዘርፉ ምሁራን እየተጠና የሚገኝ አንድ ንዑስ ዘርፍ ሆኗል።

የጦርነት ምጣኔ ሀብት (War Economics) ንዑስ ዘርፍ ከሌሎች የምጣኔ ሀብት ንዑስ ዘርፎች ለየት ያለ ባህሪ አለው። ይህም ማለት ሌሎች ንዑስ ዘርፎች በነጻ ፈቃድ ላይ የተመሰረተ ልውውጥ/ግብይት እና በመተባበር (Free will for exchnage and cooperation) ላይ የተመሰረተ ሲሆኑ የጦርነት ምጣኔ ሀብት ግን በተጽእኖና በግጭት (Use of force and conflict) ላይ የሚመሰረት ነው። ይህም ጦርነትን ከአንድ ሀገር ምጣኔ ሀብት አኳያ ለማጥናት ከተለመዱት ዘዴዎች የተለየ እራሱን የቻለ የአጠናን መንገድ እንደሚያስፈልግ ያመለክታል።

ይህን በመገንዘብም የዘርፉ ምሁራን የጦርነት እና የምጣኔ ሀብት ትስስርን ለብቻው ነጥሉ በማጥናት ላይ ይገኛሉ። ነገር ግን የዘርፉ ምሁራን ጥናት እንደሚያሳየው ጦርነት በአንድ ሀገር ምጣኔ ሀብት ላይ ስለሚኖረው አውንታዊም ሆነ አሉታዊ ተጽእኖ ስምምት ላይ መድረስ አልቻሉም። አንዳንድ ምሁራን ጦርነት በአንድ ሀገር ምጣኔ ሀብት ላይ አዎንታዊ ተጽእኖ እንዳለው በሰፊው ጽፈዋል። ለዚህም እንደሚሳየ የሚያነሱት አሜሪካ በሁለተኛው የዓለም ጦርነት ወቅት እንዴት ጦርነቱን ተጠቅሞ ከታለቁ የምጣኔ ሀብት ቀውስ (The Great Depression) ምጣኔ ሀብቷን እንዳወጣችና ምጣኔ ሀብታዊ እድገት እንዳስመዘገበች ነው።

በተጨማሪም አሜሪካ በኮሪያ፣ በቪትናም እና በመካከለኛው ምስራቅ (የገልፍ) ጦርነቶች ላይ በመሳተፍ የምጣኔ ሀብቷን እድገት አፋጥናለች የሚል መከራከሪያ ያቀርባሉ። እነዚህ ምሁራን እንደሚያብራሩት ከሆነ ከፍተኛ የሥራ አጥ ቁጥር (የሰው ሀይል) በተለይ ወጣቶች ባሉበት ሀገር እና ፍላጎት (Demand) ቀንሶ ጥቅም ላይ ያልዋለ የማምረት አቅም ካለ ይህን አቅም ሙሉ ለሙሉ ለመጠቀም (ማለትም የጦር መሳሪያዎችን እና ከጦርነት ጋር የተያያዙ ምርቶችን በማምረት) አንዳንድ ጦርነቶች አስፈላጊ ናቸው ይላሉ።

በአንጻሩ ሌሎች የምጣኔ ሀብት ምሁራን ጦርነቱ በሚካሄድበት አካባቢ የሚያስከትለውን ቀጥተኛ የሰውና የንብረት ውድመት በመጥቀስ ጦርነት የአንድ ሀገር ምጣኔ ሀብትን እንዴት እንደሚያሸመደምድ የተለያዩ ትንታኔዎችን ይሰጣሉ። ለዚህም እንደምክንያት የሚያቀርቡት ጦርነት አውዳሚ ስለሆነ ጦርነት በሚካሄድባቸው አካባቢዎች

መሰረተ ልማቶችን፣ አምራች የሰው ሀይልን እና የማምረቻ መሳሪያዎችን በማጥፋት ምጣኔ ሀብትን ያደቃል ይላሉ። ለዚህ መከራከሪያቸውም አሜሪካ ከላይ የተጠቀሱትን ጦርነቶች ከመሬቷ ውጭ በመካሄዱ ውድመቱ እምብዛም እንዳልጎዳት ይገልጻሉ።

## 2. ጦርነት በምጣኔ ሀብት ላይ የሚያሳድረው ተጽእኖ ሲፈተሽ መደሰስ የሚገባቸው ገዳዮች

ከላይ የቀረበውን ክርክር በሳይንሳዊ መንገድ ለመመርመር የምጣኔ ሀብት ምሁራን የሚያቀርቡት ሀሳብ ምንም እንኳን ከላይ እንደተጠቀሰው አንድ ጦርነት በሚካሄድበት አካባቢ እና ጦርነቱን በሚያካሂዱት አካላት ላይ በቀጥታ የሰውን ህይወትም ሆነ ቁስን የሚያወድም ቢሆንም አንድ ጦርነት በአንድ ሀገር ምጣኔ ሀብት ላይ በተለይ በማክሮኢኮኖሚ ላይ ያለውን አሉታዊም ሆነ አዎንታዊ ተጽዕኖ ለመመርመር፣ በአሉታዊ ተጽዕኖ ምክንያት የተከሰተን የጉዳት ጥልቀት ለመፈተሽ እና አስፈላጊውን የምጣኔ ሀብት ፖሊሲ ለመንደፍ አምስት ነገሮችን መዳሰስ አስፈላጊ መሆኑን ይጠቅሳሉ። እነዚህም የአንድ ሀገር ምጣኔ ሀብት ከጦርነት በፊት የነበረበት ሁኔታ፣ ጦርነት የሚካሄድበት ቦታ፣ ጦርነት የሚወስደው ጊዜ፣ ጦርነት ፋይናንስ የሚደረግበት ሥርዓት እና በጦርነት ወቅት የሰውና የቁስ አቅርቦት ሁኔታ ናቸው።

### 2.1. የምጣኔ ሀብት ሁኔታ ከጦርነት በፊት

የአንድ ሀገር ምጣኔ ሀብት ከጦርነቱ በፊት የነበረበት ሁኔታ ሲባል ጦርነቱ ከመጀመሩ በፊት ምጣኔ ሀብቱ በምን ሁኔታ ላይ ይገኝ ነበር? ማለትም የግለሰቦች ፍጆታ (Private Consumption) አስተማማኝ ካልነበረ፣ የኢንቨስትመንት ሁኔታ በተለይ የግሉ ዘርፍ ኢንቨስትመንት የተቀዛቀዘ ከነበረ እና የስራ አጥ ዜጎች ቁጥር ከፍተኛ ደረጃ ላይ በሚገኝበት ሁኔታ (ማለትም ከተፈጥሯዊ ስራ አጥ መጠን (Natural level of Unemployment) በላይ ከሆነ) በአንድ ሀገር ጦርነት ቢቀሰቀስ መንግስት ይህን ጦርነት በአሸናፊነት ለመወጣት ተጨማሪ በጀት በመመደብ የጦር መሳሪያ እና ተያያዥ ቁሶችን ለመሸመት ከግሉ ዘርፍ ጋር ውል ስለሚገባ የግሉ ዘርፍም እነዚህን ቁሶች ለማምረት አዳዲስ ኢንቨስትመንቶችን ስለሚያካሂዱና ነገሮቹን በሙሉ አቅም ለመጠቀም ተጨማሪ የሥራ እድል ስለሚፈጥር ምጣኔ ሀብቱ እንዲነቃቃ ሊያደርግ ይችላል።

እዚህ ላይ ልብ ሊባል የሚገባው ነገር ይህ ሁኔታ ማለትም ጦርነት ምጣኔ ሀብቱን ሊያነቃቃ የሚችለው ጦርነቱን የሚያካሂደው ሀገር/መንግስት የጦር መሳሪያውንም ሆነ ሌሎች ተያያዥ ምርቶችን በራሱ ማምረት የሚችል ከሆነ ብቻ ነው። ካልሆነ ግን ውጤቱ የተለየ ይሆናል ማለትም

ለጦርነቱ የሚያስፈልጉ መሳሪያዎችንና ቁሶችን ከውጭ የሚያስገባ ከሆነ የውጭ ንግድ ሚዛን ጉድለትን በማስከተል የማክሮኢኮኖሚ መዛባትን ሊያመጣ ይችላል። ሌላው ልብ ሊባል የሚገባው ነገር ምንም እንኳን መንግስታት ጦርነትን ለማካሄድ ተጨማሪ በጀት በመያዝ ምርትን በማነቃቃት የምጣኔ ሀብት እድገትን ማስመዘገብ ቢችሉም በዜጎች የኑሮ ደረጃ ላይ ተጽእኖ ማስከተልና አለማስከተሉ እንዲሁም ጦርነቱን በአሸናፊነት ለመወጣት ከጦርነቱ በፊት የዜጎች የነፍስ ወከፍ ገቢ (Per Capita Income) ሁኔታ ወሳኝነት አለው።

ማለትም የነፍስ ወከፍ ገቢ በንጽጽር ትልቅ በሆነበት ሀገር የሚካሄድ ጦርነት በዜጎች የኑሮ ደረጃ ላይ የሚኖረው ተጽእኖ አነስተኛ ነው። ይህም ሊሆን የሚችለው ዜጎች ከመሰረታዊ ፍጆታቸው ያለፈ ገንዘብ ስለሚኖራቸው ትርፉን ገንዘብ ጦርነቱን ፋይናንስ ለማድረግ በመንግስት ቢፈለግ ዜጎች ለረሀብና እርዛት አይጋለጡም። ሌላው የነፍስ ወከፍ ገቢ ትልቅ በሆነበት ሀገር የቴክኖሎጂ እና የኢንዱስትሪ እውቀት፣ የትራንስፖርት እና የንግድ ሁኔታ የጎለበተ ስለሚሆን ጦርነቱን በዘመናዊ መሳሪያ ለማካሄድና ከጦርነቱ ጋር ተያያዥነት ያላቸው ቁሶችን ከቦታ ቦታ በቀላሉ በማንቀሳቀስ የጦርነቱን ጊዜ ለማሳጠር እና በአሸናፊነት ለመወጣት ያግዛል። ይህ የሚያሳየው የነፍስ ወከፍ ገቢ ትልቅ በሆነበት ሀገር የሚካሄድ ጦርነት ከፍተኛ አቅም የሚፈጥር ሲሆን በአንጻሩ የነፍስ ወከፍ ገቢ ዝቅተኛ በሆነበት ሀገር ጦርነት ውስን ሀብትን እና የምርት መሳሪያዎችን ለብክነት በማጋለጥ የምጣኔ ሀብት መንኮታኮትን ያስከትላል።

ይህን በምሳሌ ለማሳየት በሁለተኛው የዓለም ጦርነት የተሳተፉ ሀገራትን ብንወስድ በህብረቱ (Allies) ጎራ የተሰለፉ ሀገራት አማካይ የነፍስ ወከፍ ገቢ 4,673 የአሜሪካ ዶላር የነበረ ሲሆን በአክሲስ (Axis) ጎራ የተሰለፉት ደግሞ 3,575 የአሜሪካ ዶላር ነበር። ከላይ እንደተጠቀሰው የነፍስ ወከፍ ገቢ ከፍተኛ የሆነባቸው ሀገራት ጦርነትን በከፍተኛ አቅም ታግዘው ስለሚያካሂዱ በህብረቱ (Allies) ጎራ የተሰለፉ ሀገራት ይህን ጦርነት በአሸናፊነት ሊወጡ ችለዋል። በሀገራት ደረጃም ስናየው አሜሪካ ከሌሎች የተሻለ የነፍስ ወከፍ ገቢ ስለነበራት ጦርነቱን በተሻለ የተቋቋመችው ሲሆን ሶቬየት ህብረት (USSR) ደግሞ ከሁሉም ያነሰ የነፍስ ወከፍ ገቢ ስለነበራት ከጦርነቱ በኋላ በቅድሚያ ምጣኔ ሀብቷ ሊንኮታኮት እና ሀገሪቱም ከቀዝቃዛው ጦርነት በኋላ ወደ ተለያዩ ሀገራት ልትከፋፈል ችላለች (ሠንጠረዥ 1)።

ሠንጠረዥ 1: በሁለተኛው የዓለም ጦርነት የተሳተፉ ሀገራት አማካይ የነፍስ ወከፍ ገቢ

ሀገር	የነፍስ ወከፍ ገቢ (1938) በ1990 የአሜሪካ ዶላር
<b>የህብረቱ (Allies) አባላት</b>	
አሜሪካ	6,134
እንግሊዝ	5,983
ፊረንሳይ	4,424
ሶቬት ህብረት (USSR)	2,150
<b>አማካይ</b>	<b>4,673</b>
<b>የአክሲስ (Axis) አባላት</b>	
ጀርመን	5,126
ጣልያን	3,244
ጃፓን	2,356
<b>አማካይ</b>	<b>3,575</b>

ምንጭ: Paul Poast, the Economics of War, McGraw-Hill (2006)

## 2.2. ጦርነት የሚካሄድበት ቦታ

ጦርነት በምጣኔ ሀብት ላይ የሚያሳድረው ተጽእኖ ሲፈተሽ በሁለተኛ ደረጃ መታየት ያለበት ጦርነቱ የሚካሄድበት ቦታ ነው። ጦርነቱ የሚካሄደው በአንድ ሀገር ወሳኝ አምራች በሆነ አካባቢ ከሆነ በምጣኔ ሀብቱ ላይ የሚያሳድረው ተጽእኖ ቀጥተኛ እና ከፍተኛ ነው የሚሆነው። ነገር ግን ጦርነቱ ከአምራች አካባቢዎች የሚርቅ ከሆነ ተጽእኖው በአንጻሩ አነስተኛና በተዘዋዋሪ ይሆናል። ተዘዋዋሪ ሲባልም ምንም እንኳን ጦርነቱ በቀጥታ የማምረትና የፍጆታ ሂደቶችን ባያስተጓጉልም የዜጎች የወደፊት እይታን (Expectation) ስለሚያዘባ ኢንቨስትመንት የኢንቨስትመንት እንዲሁም ዜጎች የፍጆታ (Consumption) ውሳኔያቸውን ሊለውጡ አልቻለም ሊቆሙ ይችላሉ። ይህም በተወሰነ ደረጃ የምጣኔ ሀብቱን እድገት ያቀጭጫል። ይህም እንዳይሆን መንግስትም ሆነ ማዕከላዊ ባንክ አስፈላጊውን የማክሮኢኮኖሚ ፖሊሲ በማውጣት የዜጎች የወደፊት እይታ ወደ ትክክለኛው መስመር ማስገባት ይጠበቅባቸዋል።

ሌላው ጦርነት የሚካሄድበት ቦታ ሲተነተን መታየት ያለበት ምንም እንኳን ጦርነቱ የሚካሄደው ከአንድ ሀገር ውጭ ቢሆንም ጦርነቱ የሚካሄድበት አካባቢ ከሀገሪቱ ምጣኔ ሀብት ጋር ያለው ትስስር በደንብ ሊተነተን ይገባል። ማለትም ሀገሪቱ ጦርነት ወደሚካሄድበት አካባቢ ምርት ትልካለች ወይ? ከላከችስ ምን ዓይነት ምርት? እንዲሁም ጦርነት ከሚካሄድበት አካባቢ የምታስገባው ምርት አለ ወይ? የሚሉት ጥያቄዎች በደንብ መተንተን አለባቸው።

አንድ ሀገር ወደ ሌላ ሀገር ለጦርነት ግብአት የማይውል መደበኛ/የሲቪል ምርት በመላክ ከፍተኛ የውጭ ምንዛሪ ከምታገኝበት ሀገር ጦርነት ቢቀሰቀስ ይህ ጦርነት የላኪዋን ሀገር ምጣኔ ሀብት ይጎዳል። በተለይ የሀገሪቱ ኢኮኖሚ በውጭ ንግድ ላይ የተጠበቀ ከሆነ ተጽእኖው ከፍተኛ ይሆናል። በአንጻሩ ሀገሪቱ ወደ ውጭ የምትልከው ምርት ከጦርነት ጋር የተያያዘ ከሆነ ማለትም ለጦርነቱ ግብአት የሚሆን አልቻልም የጦር መሳሪያ ለማምረት ግብአት የሚሆን ምርት የምትልክ ከሆነ ጦርነቱ በላኪዋ ሀገር ምጣኔ ሀብት ላይ አዎንታዊ ተጽዕኖ ይኖረዋል። በዚህ የተነሳም አንዳንድ ሀገራት የጦር መሳሪያ እና ተዛማጅ ሸቀጦችን በመሸጥ የውጭ ምንዛሪ ግኝታቸው እንዳይቋረጥ በማስብ በተቀባይ ሀገር (Importing country) የሚካሄድን ጦርነት እንዳይቆም የተለያዩ ዘዴዎችን ሲጠቀሙ ይስተዋላል።

በሌላ በኩል ሀገሪቱ ጦርነት ከሚካሄድበት አካባቢ ምን ዓይነት ምርት ታስገባለች? የሚለውም በተመሳሳይ መተንተን ይገባዋል። ለምሳሌ አንድ ሀገር ነዳጅ ከምታስገባበት ሀገር ጦርነት ቢነሳ የነዳጅ ተቀባይን ሀገር ምጣኔ ሀብት በአሉታዊ መንገድ ይጎዳል። እንደዚህ ያለ ሁኔታም በመካከለኛው ምስራቅ ጦርነት በሚቀሰቀስበት ወቅት የነዳጅ አቅርቦት ስለሚስተጓጎል በዓለም ምጣኔ ሀብት ላይ ከፍተኛ ተጽዕኖ እንደሚኖረው በተደጋጋሚ ታይቷል።

## 2.3. ጦርነት የሚወስደው ጊዜ

በምጣኔ ሀብት ላይ የጦርነት ተጽእኖ ሲተነተን መታየት ያለበት ሦስተኛ ነጥብ ጦርነቱ የሚወስደው ጊዜ ነው።



ጦርነት የቁስ እና የሰው ሀይል ውድመትን የሚያስከትል በመሆኑ በተራዘመ ቁጥር በምጣኔ ሀብቱ ላይ የሚያሳድረው ተጽዕኖ ከፍተኛ ይሆናል። ስለሆነም ጦርነት በአንድ ሀገር ምጣኔ ሀብት ላይ የሚያሳድረው ተጽዕኖ ሲተነተን ጦርነቱ የሚፈጀው ጊዜ መታየት ይኖርበታል። በአመዛኙ አጭር ጦርነት ከረጅም ጦርነት ያነሰ የምጣኔ ሀብት አሉታዊ ተጽዕኖ ያሳድራል።

#### 2.4. ጦርነት ፋይናንስ የሚደረግበት ሥርዓት

አራተኛው ነጥብ ጦርነቱ ፋይናንስ የሚደረግበት ሥርዓት ነው። በጦርነት ወቅት ከሚወድመው ቀጥተኛ የሰው እና የቁስ ሀብት በተጨማሪ የጦርነት ወጪው እንዴት ይሸፈናል? የሚለው በጥንቃቄ መታየት አለበት። አንድ ጦርነት ሲካሄድ ወጪው በተለያዩ መንገድ ፋይናንስ ሊደረግ ይችላል። ዋና ዋናዎቹ ፋይናንስ የማድረጊያ መንገዶችም ገንዘብ በማተም፣ መደበኛ በጀትን ወደ ጦርነት በማዞር፣ በብድር (ከሀገር ውስጥ ወይም ከውጭ)፣ ቀረጥ በመጨመር/በመጣል፣ ከሦስተኛ ወገን ከሚገኝ እርዳታ እና/ወይም ከጠላት ከሚገኝ ምርኮ እና ካሳ ናቸው።

እነዚህ ጦርነትን ፋይናንስ የማድረጊያ መንገዶች የራሳቸው አሉታዊ ተጽእኖ ይኖራቸዋል። ለምሳሌ አዲስ ገንዘብ ማተምን ብንወስድ አንድ መንግስት ጦርነትን ፋይናንስ ለማድረግ አዲስ ገንዘብ በሚያትምበት ጊዜ የገንዘብ አቅርቦት ይጨምራል። የመጠነ ገንዘብ ጽንሰ ሀሳብ (Quantity Theory of Money) እንደሚያስረዳው የገንዘብ አቅርቦት በጨመረ መጠን የዋጋ ንረት (Inflation) አብሮ ይጨምራል። ይህም ሊሆን የሚችለው አዲስ የሚቀርበው ገንዘብ ሌሎች የፍጆታ ምርቶችን ለማምረት ሳይሆን ለጦርነት ግብአት የሚውሉ ምርቶችን ለማምረት ወይም ለመሸመት የሚውል ስለሚሆን ተጨማሪ ፍላጎትን በመፍጠር የዋጋ ንረትን ያስከትላል።

በተመሳሳይ መደበኛ በጀትን ወደ ጦርነት በማዞር ጦርነትን ፋይናንስ ማድረግ በሰላም ጊዜ የተጀመሩ የልማት ፕሮጀክቶችን በማጠፍ/በማቆም የምጣኔ ሀብት እድገትን በማቀጨጭ ከፍተኛ የሆነ ሥራ አጥ ዜጎችን ይፈጥራል። በተጨማሪም ብድርን ብንወስድ ብድሩ ከሀገር ውስጥ የሚገኝ ከሆነ ለግሉ ዘርፍ ኢንቨስትመንት ይውል የነበረው ገንዘብ ስለሆነ ለጦርነቱ የሚውለው የግል ኢንቨስትመንትን በማዳከም (Crowding Out Effect) የምጣኔ ሀብት እድገትን ይቀንሳል።

በአንጻሩ በውጭ ብድር ፋይናንስ የሚደረግ ጦርነት የውጭ እዳ ጫናን በመጨመር የማክሮ ኢኮኖሚ መዛባትን ያስከትላል። ሌላው ማለትም ቀረጥን መጨመር/መጣል

ኢንቨስትመንትን እና ፍጆታን በማዳከም የምጣኔ ሀብት እድገትን ይጎዳል። ነገር ግን ከሦስተኛ ወገን ከሚገኝ እርዳታ እና/ወይም ከጠላት በሚገኝ ካሳና ምርኮ ጦርነትን ፋይናንስ ማድረግ ምጣኔ ሀብታዊ ተጽእኖቸው በአንጻራዊነት የተሻለ ነው። በአንጻራዊነት የተባለበት ምክንያትም ምንም እንኳን ገንዘቡ የተገኘው ከሌላ ወገን ቢሆንም ዞሮ ዞሮ ለጦርነት እንጅ ለልማት ስለማይውል ምጣኔ ሀብታዊ እድገትን አያመጣም።

ስለሆነም በአንድ ሀገር ጦርነት በሚካሄድበት ጊዜ በቀጥታ በጦርነቱ ከመሳተፍ ባልተናነሰ ጦርነቱን በዘላቂነት እና በመጠነኛ ተጽእኖ ፋይናንስ የማድረጊያ መንገድ መንደፍ ፈታኝ በመሆኑ በሚመለከተው መንግስታዊ ተቋም (ለምሳሌ በማዕከላዊ ባንክ እና በገንዘብ ሚኒስቴር ውስጥ) የሚሰሩ የምጣኔ ሀብት ሙያተኞች ከፍተኛ ሚና ሊጫወቱ ይገባል። ዜጎችም ጦርነትን ፋይናንስ ለማድረግ በመንግስት በሚወሰዱ የፖሊሲ እርምጃዎች ዙሪያ አስፈላጊውን ግንዛቤ በመጨበጥ ፖሊሲው በግለሰብም ሆነ በሀገር ላይ የሚያሳድረውን ተጽዕኖ ከግምት በማስገባት ግለሰባዊ የወጪ እና የበጀት አስተዳደርን ማስተካከል ያስፈልጋል።

ይህ ሲባልም ለምሳሌ ከላይ እንደተጠቀሰው የመንግስት ዋና ትኩረት ጦርነትን በአሸናፊነት ለመወጣት በተለያዩ ዘዴ ፋይናንስ ማድረግ ስለሚሆን፤ የመንግስት ቁጠባና ኢንቨስትመንት (Public saving and investment) ሊቀንስ ይችላል። ይህም ሀገራዊ ቁጠባና ኢንቨስትመንትን (National saving and investment) ሊያዳከም ስለሚችል የግሉ ዘርፍ ቁጠባና ኢንቨስትመንትን (Private saving and investment) ከተለመደው በላይ ማሳደግ ግድ ይላል።

ስለሆነም በጦርነት ወቅት ዜጎች ቁጠባን ከሰላሙ ጊዜ በተሻለ ማጎልበት ይጠበቅባቸዋል። እንዲሁም መንግስታዊ ተቋማት የታይታ ፍጆታዎችን (Conspicuous consumption) በመቀነስ በተጨማሪም የገቢ ሸቀጦችን በሀገር ውስጥ ምርቶች ተክቶ በመጠቀም በጦርነት ወቅት የሚመጣን ምጣኔ ሀብታዊ ጫናን መቀነስ ይቻላል። በተመሳሳይ መንግስታት በጦርነት ወቅት ድጎማን ሊያነሱ ወይም ሊቀንሱ ስለሚችሉ ለአንደዚህ አይነት የፖሊሲ ለውጦች ዜጎች ዝግጁ ሊሆኑ ይገባል። ለምሳሌ የአንድ ሀገር መንግስት ቀደም ሲል ያደርግ የነበረውን የነዳጅ ድጎማ ቢያነሳ፤ ግለሰቦች የትራንስፖርት አጠቃቀም ባህሪያቸው ላይ አስፈላጊውን ለውጥ ማድረግ (አጫጭር መንገዶችን በእግር በመጓዝ ወይም ከነፍስ ወከፍ ትራንስፖርት ወደ ህዝብ ትራንስፖርት በመቀየር ሊሆን ይችላል) ይጠበቅባቸዋል።

### 2.5. በጦርነት ወቅት የሰውና የቁስ አቅርቦት ሁኔታ

በአምስተኛነት የጦርነት ተጽእኖ በምጣኔ ሀብት ላይ ሲፈተሽ መተንተን ያለበት የሰውና የቁስ አቅርቦት ሁኔታ ነው። ጦርነት በሚቀሰቀሰበት ወቅት የምርት መሳሪያዎች ማለትም ካፒታል እና የማምረቻ ቦታዎች በቀጥታ ለጦር ግብአትነት ስለሚውሉ የተለመደው መደበኛ/የሲቪል የሆነው ምርት (ማለትም በፍላጎትና በአቅርቦት ላይ ተመስርቶ የሚመረት ምርት) ሊቀንስ ይችላል። ይህም ምጣኔ ሀብታዊ እድገትን ሊገታ ይችላል። ይህም ሊሆን የሚችለው ለግብርና፣ ለማኑፋክቸሪንግ ወይም ለአገልግሎት በቀጥታ ግብአት ሊሆኑ የሚችሉ መሳሪያዎችና ጥሬ እቃዎች ወደ ጦር መሳሪያ ማምረቻነት ስለሚቀየሩ የምርት መጠን ሊቀንስ ይችላል። ከዚህ ባሻገርም የምርት ግብአቶችን መደበኛ ሸቀጥ ከማምረት ወደ ጦር መሳሪያ ማምረት ሲዘሩ ቀጥተኛ ባልሆነ መንገድ ምጣኔ ሀብቱ ላይ አሉታዊ ተጽእኖ ሊያሳድር ይችላል። ይህም ሊሆን የሚችለው ምንም እንኳን ምጣኔ ሀብቱ ከጦርነቱ በፊት ጥቅም ላይ ያልዋለ አቅም የነበረው ቢሆንም በጦርነት ወቅት ይህን አቅም የጦር መሳሪያ ለማምረት በመጠቀም ምጣኔ ሀብቱን ለማሳደግ ቢሞክርም የሚመረተው የጦር መሳሪያ እንደ መደበኛ/የሲቪል ምርት ለምጣኔ ሀብቱ የሚጨምረው እሴት አናሳ ስለሚሆን ምጣኔ ሀብቱ በተፈለገው ደረጃ ላይ ይቆያል።

ለምሳሌ የጫማ እና የጥይት ምርቶችን ብንወስድ ጫማው በሚመረትበት ወቅት እሴት ይፈጥራል፤ ቀጥሎም አምራቹ ለአከፋፋዩ ሲሸጥ ሌላ እሴት ይፈጥራል፤ አከፋፋዩ ለቸርቻሪው በሚሸጥበት ወቅት ተጨማሪ እሴት ይፈጥራል፤ በመጨረሻም ቸርቻሪው ለተጠቃሚ በሚሸጥበት ወቅት ሌላ እሴት ይፈጥራል። ይህ የእሴት ሰንሰለት ምጣኔ ሀብቱ ጠንካራ እድገት እንዲያስመዘግብ ይረዳዋል። ነገር ግን የጥይት የምርት እና የግብይት ሰንሰለት ስናየው እሴት የሚፈጥረው በምርት ወቅት ብቻ በመሆኑ ማለትም ጥይቱ ተመርቶ ቀጥታ በመንግስት በኩል ለጦርነት ግብአት ስለሚውል ለምጣኔ ሀብቱ የሚያደርገው አስተዋጽኦ እንደበፊተኛው ሊሆን ስለማይችል ምጣኔ ሀብታዊ እድገቱን በተጠበቀው መልኩ ላያፋጥን ይችላል።

ሌላው የሰው ሀይል አቅርቦት ሁኔታን በምናይበት ጊዜ ጦርነት የምጣኔ ሀብታዊ አሃዝ መዘባትን ያመጣል። እንደሚታወቀው በምጣኔ ሀብት ሳይንስ ሥራ አጥ ዜጋ ማለት የሥራ ፍላጎት ያለው ዜጋ ሆኖ ሥራ በመፈለግ ላይ ያለ ነገር ግን ጊዜያዊም ሆነ ቋሚ ሥራ ያልያዘ (ቢያንስ

በሳምንት ለአንድ ሰዓት ቋሚም ሆነ ጊዜያዊ ሥራ የሌለው) ዜጋ ማለት ነው። የሥራ አጥ ምጣኔ (unemployment rate) ማለት ደግሞ የሥራ አጥ ዜጎች ቁጥር ለሠራተኛ ሀይል (labor force) ሲካፈል ነው። መንግስት ዜጎችን በጦርነት ምክንያት ወደ ውትድርና ሲያስገባ የሠራተኛ ሀይል ቁጥር ይቀንሳል ምክንያቱም በምጣኔ ሀብት ሳይንስ ትርጉም መሰረት ተማሪዎች፣ ወታደሮች እና ጡረተኞች በሰራተኛ ሀይል (labor force) አይካተቱም። ይህም በተመሳሳይ የሥራ አጥ እና የሠራተኛ ምጣኔዎችን ሊቀንስ ይችላል። የሥራ አጥ ምጣኔ እንዴት እንደሚቀንስ በምሳሌ ለማየት 100 የሠራተኛ ሀይል ብቻ ያለባት አንድ ሀገር እንደሆነና ከዚህ ውስጥ 20 ሰዎች ሥራ ፈላጊዎች 80ዎቹ ደግሞ ሥራ አላቸው ብለን ብናስብ የሥራ አጥ ምጣኔ 0.2 ወይም 20% (20/100) ሲሆን የሠራተኛ ምጣኔ ደግሞ 0.8 ወይም 80% (80/100) ይሆናል ማለት ነው። ይህ በእንዲህ እንዳለ መንግስት ሥራ ያጡ 10 ዜጎችን ብቻ ለውትድርና ቢመለምል የሠራተኛ ሀይል ቁጥሩ ከ100 ወደ 90 ይወርዳል። በተመሳሳይ የሥራ ፈላጊዎች ብዛትም ከ20 ወደ 10 ዝቅ ይላል። በዚህ ቀመር መሠረት አዲሱ የሥራ አጥ ምጣኔ 0.11 ወይም 11.1% (10/90) ይሆናል ይህም የሥራ አጥ ምጣኔን ከ 0.2 ወደ 0.11 ያወርደዋል። በተመሳሳይ አሁን ደግሞ መንግስት ከሠራተኞች ብቻ 10 ሰዎችን ለውትድርና መለመለ ብለን ብናስብ የሠራተኛ ምጣኔ ከ 0.8 ወደ 0.77 ወይም 77.8% (70/90) ይቀንሳል ይህም ሊሆን የሚችለው ቁጥራዊ ተጽእኖ በተለይ በሠራተኛ ሀይል ላይ በማሳደር በሁለቱ ምጣኔዎች ላይ ተጽእኖ (bias) ስለሚያስከትል ነው። በተጨማሪም የሲቪል ሠራተኛ የነበረን ዜጋ ወደ ውትድርና ሲመደብ በቀሪዎቹ የሲቪል ሠራተኞች ላይ የሥራ ጫናን በማምጣት የምደባ ኢ-ቀልጣፋነትን (allocation inefficiency) ያመጣል።

በጦርነት ወቅት የሰው ሀይል አቅርቦት ሁኔታ በምጣኔ ሀብት ሳይንስ ምሁራን ሲጠና የሚታየው ሌላው ጉዳይ በጦርነት ወቅት ህይወታቸውን የሚያጡ ወታደሮችን/ዜጎችን ምጣኔ ሀብታዊ ኪሳራን በገንዘብ መለኪያ ማስቀመጥ ነው። ምንም እንኳን የአንድ ወታደር ህይወት ዋጋ በገንዘብ የማይተመን ቢሆንምና በዘመድ እና በቅርብ ጓደኛ ላይ የሚያሳድረው ሞራላዊ፣ ስነ-ልቦናዊና ማህበራዊ ጉዳቱን ባያካትትም በምጣኔ ሀብት ሳይንስ ትንታኔ የሚሰጠው ከወጪ (cost) እና ጥቅም (benefit) አንጻር በመሆኑ እና ይህም የሚገለጸው በገንዘብ መጠን በመሆኑ በጦርነት ምጣኔ ሀብት ምሁራን በገንዘብ የመተመኛ ዘዴ ይሠራሉታል።

<sup>1</sup>ሠራተኛ ሀይል ማለት የሥራ ፈላጊ እና የሠራተኛ ዜጋ ድምር ነው።

በዚህ ዘዴ መሰረት የአንድን ወታደር ህይወት ዋጋ ለመተመን ሁለት መንገዶችን ይጠቀማሉ። የመጀመሪያው በተመሳሳይ እድሜ ላይ ለሚገኝ ዜጋ የሚተመንን አማካይ የህይወት ዋስትና (Life Insurance) በመጠቀም ነው። ይህም ማለት ምንም እንኳን የህይወት ዋስትና ከግለሰብ ግለሰብ እና ከሀገር ሀገር ቢለያይም አማካይ የዜጎችን የህይወት ዋስትና በመውሰድ የሚሰላ ነው። ለምሳሌ አሜሪካውያን በዚህ ስሌት መሰረት ለአንድ የአሜሪካ ወታደር የህይወት ዋጋ ግምት 7.5 ሚሊዮን የአሜሪካ ዶላርን ይጠቀማሉ። ይህን በመውሰድም አሜሪካ በሁለተኛው የዓለም ጦርነት 292,131 ወታደሮቿን በሞት አጥታለች በዚህ ቀመር መሰረት የሞቱ ወታደሮች የህይወት ዋጋ ወደ ገንዘብ ሲለወጥ 2.2 ትሪሊዮን የአሜሪካ ዶላር (7,500,000 X 292,131) ይሆናል ማለት ነው። ይህም የሚነግረን አሜሪካ በ2ኛው የዓለም ጦርነት በሠው ህይወት ብቻ 2.2 ትሪሊዮን የአሜሪካ ዶላር ከሰራለች ማለት ነው። ሁለተኛው ዘዴ አንድ ለአደጋ የሚያጋልጥ ሥራ ለምሳሌ በማዕድን ቁፋሮ ወይም በተመሳሳይ ስጋት ባለበት ቦታ የሚሠራን ሰው አማካይ ክፍያ በመውሰድ ለተሰው ወታደሮች ቀሪ የሥራ ዘመን በማስላት ምጣኔ ሀብታሚ ዋጋ ማውጣት ነው። ይህም እንደመጀመሪያው ዘዴ እንደየሀገሩ ሁኔታ ይለያያል።

### 3. መደምደማያ

በማጠቃለያም በዚህ ጽሁፍ ጦርነት የሰዎችን ህይወት ከመቅጠፍ እና ስነ-ልቦናዊና ማህበራዊ ቀውስን ከማስከተሉ ባሻገር በምጣኔ ሀብት ላይ የሚያሳድረውን ተጽእኖ ለመገንዘብ ምን ምን ነገሮች መፈተሻ እንዳለባቸው ለመዳሰስ ተሞክሯል። ከላይ እንደተዘረዘረው ጦርነት በምጣኔ ሀብት ላይ የሚያሳድረውን ተጽእኖ ለመረዳት አምስት ነጥቦች መታየት እንዳለባቸው ተጠቅሷል። በአሁኑ ወቅት ሀገራችን ካለችበት ሁኔታ አንጻር እና እንደ ብሔራዊ ባንክ ባለሙያ በተለይ ጦርነት እንዴት ፋይናንስ መደረግ አለበት የሚለውን በጥልቀት ማየት ያስፈልጋል።

ከላይ ለመግለጽ እንደተሞከረው አበዛኛዎቹ ፋይናንስ የማድረጊያ መንገዶች የየራሳቸው አሉታዊ ተጽእኖ ስላላቸው በጥንቃቄ መመርመርና ተጓዳኝ ተጽእኖአቸውን መቋቋም የሚያስችል ሥርዓት ዘርግቶ ለሚመለከተው መንግስታዊ አካል ማቅረብ፤ የምጣኔ ሀብት እድገት በጦርነት ምክንያት እንዳይቀንስና የማክሮኢኮኖሚ መዘባት እንዳያስከትል ዜጎች በጦርነት ወቅት የፍጆታ እና የኢንቨስትመንት ባህሪያቸውን እንዴት ከጦርነቱ አንጻር መመልከት እንዳለባቸው ግንዛቤ ማስጨበጥ ያስፈልጋል።

ማስታዎሻ: ይህ ጽሁፍ በሚዘጋጅበት ወቅት በ Paul Poast (The Economics of War, McGraw-Hill (2006)) የተጻፈ መጽሀፍ በዋናነት እንዲሁም የተለያዩ የባይነ መረብ መረጃዎች በተጨማሪነት እንደ ግብአት ጥቅም ላይ ውለዋል።





# “ምሽት” አጭር ልብ ወለድ

ቤተሰብና ግብርና

ወይዘሮ ጥሩነሽ እና ወይዘሮ ወለተጻዲቅ የከተማ ሰዎች ናቸው። ወይዘሮ ጥሩነሽ የሃምሳ ሰባት ዓመት ሴት ቢሆኑም የተጫጫናቸው መስለው ይታያሉ። ባላቸው አቶ ጥሩነህ የስልሳ አምስት ዓመት ሰው ሲሆኑ የአንድ ሳሙና 4-ብሪካ ዘበኛ ናቸው። ወታደር ነበርኩ ይበሉ እንጂ ሚስታቸውን እንኳን የሚያሳምን የቁሳቁስም ሆነ የነገር ማስታወሻ ግን የላቸውም። ከመሸ ስለተገናኙ የጋራ ልጅ የላቸውም። ወ/ሮ ጥሩነሽ አንድ ልጅ ነበራቸው ግን አሁን አብሯቸው የለም። አቶ ጥሩነህ ያገቡ ልጆች አራት አሏቸው።

ወ/ሮ ወለተጻዲቅ ሃምሳ ስምንት ዓመት ሲሆናቸው ከ7 ልጆቻቸው እና ከጡረተኛ የፖሊስ ኮሌጅ ባላቸው ጋር ይኖራሉ። እርሳቸውም ከጓደኛቸው ባላነሰ አርጅተው ይታያሉ።

ሁለቱ ሴቶች ሲበዛ ጓደኛዎች ናቸው። ሁለቱም ረጃጅምና ጠያይም ናቸው። በወጣትነታቸው ውቦች አንደነበሩ ዓይኖቻቸው ላይ የቀረው ድባብ ይናገራል። አኗኗራቸው ለየቅል ቢሆንም ጓደኛዎች ናቸው።

ወለተጻዲቅ በዘመናዊ ሽላ ውስጥ ይኖራሉ። የስፈራቸው ሰው እንደሆነታም ነው የሚያያቸው። መቼም ቤታቸውም ውስጡ የሚመችና የሚያምር መሆኑ አያጠራጥርም። በተቃራኒው ጓደኛቸው የራሳቸው ግቢ ይኑራቸው እንጂ ቤታቸው ደሳሳ ጉጅ ማደሪያና መዋዩ ከመሆን ባለፈ ውስጡን አስመልክቶ ትንሽ መናገር ይቻል ይሆናል። ባጭሩ ከተማ ውስጥ የሚገኝ የገጠር ቤት ሊባል ይችላል። ግቢ ውስጥ የከብቶች በረት አለ።

ሁለቱ ሴቶች በመልክ ብቻ ሳይሆን በጠባይም ተግባብተው ተወዳጅተዋል። በህይወት ዘመናቸው መጨረሻ ላይ በጋራ ያፈቀሩት ነገር አወዳጅቷቸዋል። ወ/ሮ ጥሩነሽ ረጅም የሻማ ቀሚስ ወገባቸው ላይ በነጠላ ሹብ አድርገው በረንዳው ላይ ሆነው ከበረት ውስጥ ተኝታ

ቁና ቁና የምትተነፍስ ላም ያስተውላሉ። ከሻሻቸው ያመለጠ ነጭ ጠጉር አይናቸውን እየጋረደ ስለስቸገራቸው በእጃቸው አስሬ ገፋ ገፋ ያደርጉታል። ፀሐይ ልትጠልቅ ትንሽ ቀርቷታል። ወ/ሮ ወለተጻዲቅ ገንዘብ ያገኙ ሰሞን እንደሚያደርጉት ዛሬም ከጓደኛቸው ቤት ከች አሉ። ወ/ሮ ጥሩነሽ በጣም ደስ ብሏቸው ተቀበሏቸው። ዝናብ እያካፋ ስለነበረ ወ/ሮ ወለተጻዲቅ ጥላ ይዘዋል። ግቢው በከብቶች ኮቴ ቡክት ብሎ አያስኬድም። ጥሩነሽ የጓደኛቸውን ጥላ ተቀብለው ቀድመዋቸው ወደ ቤት ውስጥ ገቡ። ብረት ምድጃ ላይ ቆልል ከሠል ቤቱ መካከል ይታያል። በሩ ክፍት ስለሆነና ንፋሱ ስለሚገባ ተያይዞ ይንጠሽጠሻል። ከአንዲት ዱካ በስተቀር ቤቱ ውስጥ ዱካ የሚባል ነገር የለም። መቀመጫው ቁርበት የተነጠፈበት መደብ ነው። ወለሉም አፈር ነው። ቤቱ ቢከፋፈል አራት ክፍል ይወጣው ነበር። ነገር ግን ራሱን ችሎ ተንጣሎ ተቀምጧል። ግድግዳው ቀለም ተቀብቶ አያውቅም። ጣራውም በጣም ከፍ ተደርጎ የተሰራ ባዶ ኮርኒስ አልባ ነው። ግን ሽረሪት አላደራበትም።

ወ/ሮ ወለተጻዲቅ ጋቢያቸውን ከላያቸው አነሱና ሰውነታቸውን አጋለጡት። ጥቁር ስስ እጅጌ ጉርድ እግራቸው ድረስ የሚደርስ ቀሚስ አድርገዋል። “ተይ ብርድ ይመታሻል ወለትዬ” አሉ ወ/ሮ ጥሩነሽ፤ የእባቱን ሽታ ለመቀነስ ወይራ ከምድጃው እሣት ላይ አየጩሙሩ።

“አይነካኝም።

“ሰውየው የለም?”

“አዳሪ ነው ዛሬም”

“እኔም ገምቻለሁ”

“ባይሆንስ ምን ሊፈጥር”

“እሱስ ምንም አይለኝ፤ ያከብረኛል። ብቻ ትላንትና አንቺ ዘንድ ማምሸቴን እንዴት እንደረሰበት አላውቅም ልጆቼ ፊት ተናገረኝ”

“ማን ኮለኔል?”

“አዎን! መጣሁ ብሎ እንደወጣ ማሜቴ ዘንድ ሄዶ ወሬ አሳብቆ ሳይጋበዝ አልቀረም። በይ አሁን ተስፋሁንን ላኪው” ከመሃረባቸው ላይ አንድ ብር አንስተው ከመደቡ ላይ አረፍ አሉ።

“አረፍ እስከትይ ይመጣል፤ ከብቶችን ሊያመጣ ሄዶ ነው።”

ከውጭ በር ሲከፈት የከብቶች ኮቴና “ውሽ” የሚል የህፃን ልጅ ድምጽ ተሰማ።

“ውይ እሱ ነው መሰለኝ” አሉ ወ/ሮ ጥሩነሽ። ተስፋሁን አንገቱን በበሩ ብቅ አደረገ። የአስር ዓመት ልጅ ቢሆንም ፈጠን ያለ ንቁ ይመስላል። በዝናብ የራሱ ካኪ ቁምጣና ኮት አድርጓል። ወ/ሮ ወለተጻድቅን ሲያይ ፊቱ በደስታ ፈካ። አቀርቅሮ ሲጠጋቸው አቅፈው ጉንጨጭን ሳሙት።

“ውይ ምነው ልጄ ብስብስ ብለህ የለም እንዴ? ለመሆኑ እየተማርክ ነው? የኔ ድንቻ” አሉት እጃቸውን ጋቢያቸው ላይ እየደባበሱ። ዝም እንዳለ አጠገባቸው ቆመ። “በል እንካ ማሚቴ ዘንድ ደርሰህ ና። የማነው ብትልህ ምን አገባሽ ቀላማጅ በላት” አሉ ወ/ሮ ወለተጻድቅ አንድ ብሩን እየሰጡት።

“ተይ አንቺ! ደግሞ ገበያዎ አይደለም? እንደሱ አይባልም። በል አትገተር ልብሳን ታብላለህ። ፈጠን በልና ጠርሙሱን አለቅልቀህ ሂድ” አሉ ወ/ሮ ጥሩነሽ።

ተስፋሁን ጠርሙሱንና ወለተጻድቅ የሰጡትን አንድ ብር ይዞ ጠጅ ሊያመጣ ሄደ። ጠጅ ቤቱ ያለው ከወ/ሮ ጥሩነሽ ቤት አልፍ ብሎ የሚገኝ ግዙፍ ግቢ ውስጥ ነው።

ሁለቱ ጓደኛዎች ከመደቡ ላይ አጠገብ ላጠገብ ተቀምጠው የሚወዷትን ይጠብቁ ጀመር።

“ጥሩ አድርገሻል የኔ እናት ጥሩ አድርገሽ አሳድጊው” አሉ ወ/ሮ ወለተጻድቅ እግራቸውን እየዘረገጉና እየተመቻቸ።

“ምን ይሆናል ብለሽ ያድግና ደግሞ በተራው ትቶኝ ይሄዳል”። ተስፋሁን ከቤተክርስቲያን ደጅ ወድቆ የተገኘ ጊዜ ሁለት ወር አይሞላውም ነበር።

“በይ እንግዲህ የማይሆነውን ከሚሆነው አታቀላቅይ፤ ያኛው ሌላ ይሄ ሌላ” “እስኪ ወለትዬ ተይኝ”

“ያብራክሽ ክፋይማ ኑሮሽ አሳፍሮት ትቶሽ ሄዷል፤ ያውልሽ እንግዲህ እውነቱ” ወ/ሮ ጥሩነሽ ሽታ ሲያውዳቸው ታወቃቸው። ጠጥቶ ማን ይዋሻል።

“አንቺ ምን አለብሽ በሰባት ልጆቻሽ ያውም እራሳቸውን በቻሉ ታጥረሽ” አሉ የመጠጡን ነገር ወደ ጎን ትተው።

“ራሳቸውን ቢችሉ ለኔ መሰለሽ? ለራሳቸው ሲሉ ነው”

“ማን ሆነና የሚጠርሽ? ላንቺም ነው እንጂ ኩኔኔርማ ጠረታው ለራሱም አይበቃው” የውጪው በር ሲከፈት ተሰማና ወድያው ተስፋሁን የተላከውን ይዞ ገባ።

“ምነው ቆየህ? አሉ ወ/ሮ ጥሩነሽ።

“ቅዳሜ ስለሆነ ግርግር ነው “ አለ ተስፋሁን በዝናብ የራሱ ፀጉሩን እያባበሰ።

“በል ሂድ ከብቶቹ ከበረት እንዳይገቡና ቡሬን እንዳይወጓት ጠብቅ”

አሉ ወ/ሮ ጥሩነሽ”

ተስፋሁን እሺ እማማ ብሎ ወጣ

“ጥሩ ልጅ ነው እናቴዋ፤ ሲያድግ ትልቅ ሰው ባይሆን ምንአለች በይኝ። እኔም እንዳው የሚላላከኝ እንደዚህ ምስጢር የሚጠብቅ ልጅ ባገኝ ጥሩ ነበር።”

“ሠራተኛሽስ?”

“አሷ ማ ደግሞ የሚከፍላትን አወቀች መሰለኝ ከትንሿ ጋር አድማለች። እኔ ወለቴ ታይኛለሽ ባላባርራት”

“ቢያስቡልሽ ነው እንዲ አትበይ” አሉ ወ/ሮ ጥሩነሽ ጠጁን በረጃጅም ሁለት ብርጭቆ እየቀዱ። አንዱን ለጓደኛቸው ሰጡና በጃቸው ከቀረው ፉት ብለውለት ወደበሩ ጠጋ አሉና “ተስፋሁን ቡሬን እያየህ ሌሎቹ እንዳይገቡ እዚህ ይሁኑ ገሽ የኔ ልጅ” አሉ። ተስፋሁን “እሺ” አለ።

“ውሯ ከገባ ዛሬ ዘጠኝ ቀኗ ነው እንዳይወጡሽ እዚህ ነው ያዋልኳት” አሉ ወ/ሮ ጥሩነሽ ብርጭቆቻቸውን አጋብተው ለመጨረስ እየተቻኮሉ ነበር።

“አይዘሽ ምንም አትሆን” አሉ ብርጭቆቻቸውን እያስቀመጡ። ወ/ሮ ጥሩነሽ ብርጭቆቻቸውን ሞሉላቸውና ካጠገባቸው አረፍ አሉ።

“ሁለቱም መታለብ ካቆሙ ወዲህ ሞቼልሻለሁ”

“አውቃለሁ እራስሽን ለማሸነፍ እንደምትጣጣሪ መች አጣሁትና። አይዘሽ ደርሳልሻለች” አሉና ጠርሙሱን አየት አደረገት። “ሳይመሽ ይሄንን ልጅ ላኪው” አሉ።

“ይበቃናል ወለትዬ እኔ እንደሁ በቃኝ ከዚህ በላይ አልጠጣም”

“ምኑ አንድ ጠርሙስ?”

“እኔ ዛሬ ቡሬን ፈርቻታለሁ ቁጭ አድርጋ ሳታሳድረኝ አትቀርም”

“በይ አታሹፊ ትልኪው እንደሁ ላኪው፤ እህልም ጠዋት የቀመስኩ ነኝ ትንሽ ሥጋ ቢጤ ይዞ ይምጣ።”

“ኸረ ተይ አስቤዛውን እዚህ ልትጨርሽው እኮ ነው”

“ስለ እሱ አንቺን አይመለከትሽም”

“እሺ ካልሽ ይሁን” አሉና ተስፋሁንን ተጣሩ። ተስፋሁን ባዶ ጠርሙስ ፈልጎ ወ/ሮ ወለተጻድቅ የሰጡትን አሥር ብር ይዞ በዝናቡ ውስጥ ተፈተለከ። ወ/ሮ ጥሩነሽ የጠጁን ጠርሙስ አንስተው ለጓደኛቸው የቀረውን ሞሉላቸው።

“እናቴዋ ግን ሰውዬሽ አዳሪ ነው አይደለም?”

“አዎን አዳሪ ነው፤ ባይሆንስ ደግሞ ከመቼ ወዲህ ነው እሱን የፈራሽው?”

“እሱንም ምናባቱ አፈራዋለሁ በቀደም የማማ የውብዳር ቀብር ላይ ከሽማግሌው ጋር ሲንሸካሸክ አይቆዋለሁ።”

“አንቺ ደግሞ ገንዘብ አይቶበት እንዲጋብዘው እየሰበከው ይሆናል” ።

“ደግሞ በቀደምለት ያቺ የቄሱ ሚስት መንገድ ላይ አግኝታኝ” አሉና ጀመሩ ወ/ሮ ወለተጻድቅ ብርጭቆቻቸውን አፋቸው ጋ አድርሰው እየመለሱ።

“መቼ?”

“ካንቺ ጋር ምነው ትንሽ ቀምሼ በጊዜ አልሄድሁም”

“አዎን አስታውሳለሁ”

“እንደ ደህና ወዳጅ ለቀም አድርጋ አትስመኝም”

“አፈር ትብላ ይች ቆማጣ”

“ኸረ የትአባቷ እኔማ ነቅቼባታለሁ። ኋላልሽ ምነው በቀኑ የሰርክዬ እናት አለችኛ”!

“አወይ እህቴን”

“ውይ አንቺ ደግሞ እኔ ለሷ አንሼ እጅሞን ለቀም አደረኩና “ዋ አንቺ ልቃሚ ቡዳ ነች ብዬ ስምሽን እንዳላጠፋው” ሰላት አቤት ፈቷን ብታይው”። አሉና ሳቃቸውን ለቀቁት።

ወ/ሮ ጥሩነሽ አብረዋቸው ሳቁ፤ ግን ብዙም አልቀጠሉባትም፤ ዛሬ ቀኝቸዋል።

“አይገርምሽም የሰው ነገር? እስቲ ጋብኸኝ አልኳት”

“ኸረ ዲያብሎስ ይጋብዛት”

“ውይ ስከሬ አልተንገዳገድኩ ወይ ሰው አላስቀየምኩ” ወ/ሮ ወለተጻድቅ ሞቅ እያላቸው እንደሆነ ወ/ሮ ጥሩነሽ ገብቷቸዋል።

“ብትንገዳገዷስ ደግሞ ምን አባቷ አግብቷት”

“ውይ እናቴ እኔ ቀድሞውንስ እንገዳገዳለሁ እንዴ”

“አንቺ ደግሞ ይልቅ ጠጪ ምቀኛ ከምቀኝነቱ አያልፍም ተይው”

ዝናቡ እየጨመረ ሲመጣ የሁለቱ ጓደኛዎችን ጨዋታ እየዋጠው ነበር።

ውጪው መጨለም ጀምሯል። ቤቷ የኤሌክትሪክ መብራት ስለሌላት ውስጣ ቀድሞውኑ ጨልሟል። ወ/ሮ ጥሩነሽ ተነሱና ኩራዝ ከግድግዳው አወረዱ ከዚያም ምድጃውን እፍ ብለው ሲያያዝላቸው የኩራዙን ክር ለኮሱት

“አሁን መብራት ማስገባት አቅቶት ነው እንዲሁ በኩራዝ ጢስ የሚገለን”አሉ ወ/ሮ ወለተጻድቅ።

“ተይኝ እስኪ ገብጋባ መሆኑን እያወቅሽ”።ተስፋሁን ከፀጉሩና ከቆምጣው ላይ የዝናብ ውሃ እየተንጠባጠበ በአንድ እጁ ጠጅ የሞላበት ጠርሙስና በአንድ እጁ ደግሞ በጋዜጣ የተጠቀለለ ሥጋ ይዞ ገባ። በሩ ስላልተዘጋ መግባት ባያገደውም አዳልጦት ወድቆ ነበር።

“ውይ አፈር በሆንኩት ምነው የኔን ጥላ ብትሰጪው ኖር” አሉ ወ/ሮ ወለተጻድቅ ልባቸው በጣም እዝን ብሎ።

“ምንም አይሆን ልጅ አይደል! ያውልህ አሮጌ ጋቢ አደራርቅ።” ተስፋሁን ወደጋቢው አቅጣጫ ሲሄድ

“እናቴዋ እኛ ግፍ የተዋለብን ለሰው ካለዘንን ማን አዛኝ ሊሆን ነው?” አሉ ወ/ሮ ወለተጻድቅ

“ውይ ወለትዬ የምንግፍ አመጣሽ? ይልቅ ያኸ ጠጪ ገንዘብሽን ከስክሰሽ ሳትጠጪ እንዳይመሽብሽ” ወ/ሮ ጥሩነሽ የጓደኛቸው ነገር አልጥም ብሏቸዋል።

“ዛሬ ዝናቡ ችክ አለ እናትዬ። ደግ በጊዜ ጨልሟል ይሄኔ ብቻዬን ብሆን ወገ ለንዳለ ይውል ነበር” ለወትሮው ወ/ሮ ወለተጻድቅ ዝም ያሉ ነበሩ። ዛሬ ግን ወሬ ከማብዛታቸው አንድ ነገር ሊያደርጉ የተዘጋጁ ጭምር መስለው ለወ/ሮ ጥሩነሽ ታዩዋቸው።

“አይዘሽ ቶሎ ጠበስ ጠበስ አደርገውና አደርሰዋለሁ”

“ደህና ሥጋስ ከሆነ ጥሬውን እንሞክረዋለን”

“ካልሽማ ጥሩ” አሉና ሥጋውን ከተጠቀለለበት ጋዜጣ አላቀቁት “አይ ደህና ሥጋ ነው የሰጠው” አሉ አየተነሱ።

“በይ ለልጅሽ ትንሽ አስቀሪለት”

“ደግሞ ለሱ አሰብሽ አይ ያንቺ ነገር”

“አይ እናቴ ዕድሜ ለኮሎኔል ሽግ አድርጎ አስቀረኝ እንጂ እኔ ወለቴ ሆቴል ነበረ የማንበሽብሽሽ” አፋቸውን ይይዛቸው ጀምሯል።

“እስከ ለተሞቴ አረሳትም” አሉ ደገሙና

ተስፋሁን ጋቢውን ፀጉሩ ላይ ሽብ አድርጎ ወደ ውጭ ወጣ ።

“ንሽ የኔ ልጅ በረንዳው ላይ ሆነህ እያት” አሉ ወ/ሮ ጥሩነሽ ሥጋውን በትሪ ላይ እያደረጉ፤ ሚጥሚጣ ከጎኑ አደረጉና ከሁለት ቢላዋ ጋር ዱካ ላይ አቀረቡት

“በይ እስኪ ያዢ” አሉ ተክዘው የተቀመጡትን ወ/ሮ ወለተጻድቅን።

“በይ አኮ ያኸ” አሉ ደግመው

“እይዛለሁ ለማን ይድላው ብዬ እተዋለሁ” አሉ ወ/ሮ ወለተጻድቅ “ከእንግዲህ ምንቀረኝና ለየትኛው ጊዜ እጨነቃለሁ።

ወለቴ አትከፊ አይበልሽ ቅርቅር

ሁለም ለዘላለም ጥንቅር ብሎ ይቅር አለ ጎርፉ” አሉ በዜማ።

“በይ ተይ ነገር አታላምጪ ወለትዬ” ወ/ሮ ጥሩነሽ ቀኑ ቀኝቸዋል።

ከውጭ ድምጽ ስምተዋል “ተስፋሁን” ሲሉ ተጣሩ “አቤት” አለ ህፃኑ “ቡሬ ነች የተነሳችው?”

“አዎን” አለ “መጣሁ” አሉና ወደ ደጅ ለመውጣት ብድግ ሲሉ ብርጭቋቸውን ደፉት

“አይዘሽ ይደፋ”፤ አሉ መደንገጣቸውን ያዩት ጓደኛቸው።

“ኸረ ጦሴን ይዞ ይሂድ” አሉና ወጡ ከጥቂት ደቂቃዎች በኋላ ሲመለሱ ወ/ሮ ወለተጻድቅ ሥጋውን መብላት ትተው አቀርቅረው አገኙአቸው።

“ምነው ወለትዬ ብይ እንጂ።” ወ/ሮ ወለተጻድቅ እያለቀሱ ነበር።

“ምን ሆነሻል ወለቴ ምንነካሽ?” አሉ ወ/ሮ ጥሩነሽ ደንግጠው።

“ምንም አልሆንኩም” አሉ ወ/ሮ ወለተጻድቅ ከጠጁ እየተጎነጩ ።

“ይብቃሽ ወለትዬ የዛሬው ጠጅ ጤናም የለው”

“የሰከርኩ መስሎሽ ነው እናቴ አይዘሽ አልሰከርኩም”

“ እኔ አልወጣኝም ይልቁኑ ከምግቡ ትንሽ ቅመሽ በሞቴ”

“በቃኝ”

ቡሬ ግድግዳውን በእግሩ ስትረግጠው ይሰማል

“አይ ዛሬ እንዲሁ ማደሬ ነው” አሉ ወ/ሮ ጥሩነሽ

“አይዘሽ ምንም አትሆንም”

“እንዳፍሽ ያድርግልኝ ወለትዬ ይችን ስድስት ወር ያቺኛይቱ መታለብ አቆመችልሽ ድርቅ ብዬልሻለሁ።”

“ምን ትነግሪኛለሽ የማውቀውን” ወ/ሮ ጥሩነሽ ወሬ ለመለወጥ እንደፈለጉ የተነቃቃቸው ስለመሰላቸው ደንገጥ አሉ።

“እራስን እንደመቻል ምንአለ እናቴዋ ይሄ ዝናብ ጨመረ ልበል” አሉ ወ/ሮ ወለተጻድቅ ዓይናቸውን በጋቢያቸው ጫፍ እያደራረቁ።

“ቆይ ያባራልሽ ኮነኔር እንደሁ አሁን አይገባ”

“አረ የራሱ ጉዳይ ደግሞ ለእርሱ ተጨነቅሁኝ? እኔ የምፈራው ልጆቼን ነው፤ እነሱ ሰው አፍ እንዳይገቡ ነው የምጨነቀው”

“ሰው ከሰው እራስ አይወርድም እባክሽን”

ቢሆንም እናቴዎ እንደእኔ ሆነው እንዳይቀሩ እፈራለሁ” ::

“በይ ዝም በይ ምን ሆነሽ ምን ጎደለሽ?”

እንዴት ምንም አልሆነኩም? ገና በሃምሳ አመቴ ጋቢ ለብሼ አረቄ ስጠጣ የምውለው ምንም ሳልሆን ነው?”

“ብትጠጪ በገንዘብሽ ነው አልለመንሽ”

“እሱስ ቢሆን መች ቀረልኝ ብለሽ”

“በይ እረፊ ልጆቻችን እንዳታስቀይረህ”

“አረ ኔቴ! ምን ቆርጦኝ ላንቺ ላንጂ ምን ሲያገደኝ”

“ደግሞም ለነሱ ከኛ የተሻለ ዘመን መጥቶላቸዋል፤ ስለነሱ ፈጣሪን ልናመሰግን ይገባል”:: ሁለተኛው ጠርመሱን አንስተው፤

“በይ ጠጪ” አሉ::

“አንቺም ያገር እንጂ ብቻዬን እኮነው የጠጣሁት”

“እኔ ይቅርብኝ ዛሬ ቡሬ የምታስተኛኝም አይመስለኝ”::

ዝናቡ ሃይሉ መቀነስ ጀምሯል፤ ካፊያ እየሆነ ነው:: ድንገት ወ/ሮ ወለተጻድቅ ለመነሳት ሞከሩና ስላልቻሉ መልሰው ተቀመጡ::

“ምነው ወለትዬ ትሄጅ እንዴ” አሉ ፍርሃት በላያቸው የነገሰው ጓደኛቸው:: ወ/ሮ ወለተጻድቅ ፈገግ አሉና

“አበዛሁት መሰለኝ እናቴዎ” አሉ:: “ልጆቼ ይሄኔ ተጨነቀዋል::” ፈታቸው ላይ ላብ ችፍ ብሎብታል:: ወ/ሮ ጥሩነሽ ሆዳቸው ለወዳጆቻቸው ተንባጫባቸው:: “አይዘሽ ቀስ አያልሽ ጥግጥጉን ይዘሽ ትሄጃለሽ” አሉ ወ/ሮ ወለተጻድቅ እንደመሳቅ አሉና “አይ እናቴዎ መሳቅያ ልሆንልሽ ነዋ ዛሬ” አሉ::

“ምን የቆረጠው ይስቅብሻል”

“ግድ የለም መሳቅያም ብሆን አይገደኝም፤ መሳቅያ የሆንኩት ዛሬ አይደለም”

“በይ ወለትዬ በርቸና ተነሽ”

“አልነሳም አልሄድም ምን ቤት አለኝና እሄዳለሁ” አሉ ወ/ሮ ወለተጻድቅ ገገቸው ተቀይሮ

ለብዙ ዘመናት ይዘውት፤ ተሽከመውት የኖሩትን ብቸኝነትና የዋጋቢስነት መንፈስ ወረሰ:: ወ/ሮ ጥሩነሽ የባሰ ደነገጡ::

“አረ ወለቴ እንደዚህማ ስትሆኝ እኔም ደስ አይለኝም”

“አንቺስ ደስ አለሽ፤ ኮሌጌልን ደስ አለው፤ ተንግዲህ ማንም ደስ አለው አላለው አይመለከተኝም:: እስከ አሁን የተቀለደብኝ ይቢቃል”

“ውይ ወለትዬ እኔ ደግሞ ምን አጠፋሁ? መሄጃ ቢሰ ደሃ”::

“ማነው ደሃ ያደረገሽ አንቺማ ቢሆንልሽ ደፋር ነበርሽ:: እኔ አለሁ የልጆቼን ደም ከሚጠራጠር ባለጌ ጋር የምኖር”::

“አይ እንግዲህ ያለፈ ነገር አንስተሽ እራሰሽን አትበጥብጪ”::

“ቢያልፍማ ጥሩ ነበር ግን አላለፈም ጥሩዬ”

“እንግዲህ መሽቷል ተነሽ”

“አልም ብሎ ይምሽ ለኔ ለወለቴ ብሎ፤ ቢቃኝ ከዛሬ ጀምሮ ቤትም ባልም የለኝ”::

“ልጆቻሽ ለነሱ አታስቢም?”

“እነሱ አያገባቸውም”

“ለምን አያገባቸውም:: ያንቺም ታሪክ የነሱ ታሪክ ነው:: በዚህ ዕድሜሽ ምን ልትሆኝ ሌላ ባል አታገቢ ወይ አትመነኩሽ”

“ማን? እኔ ወለቴ? ሆሆ የምን ባል ከዚህኛው ጋር መች ጨረሰኩና ገና መች ተፋረድንና”

“እሱ እኮ ቢቀና ነው ታይኝ አትማሪ ያለሽ፤ የልጆቼንም አባትነት ቢጠራጠር ያው ቅናት ነው:: በእርሱ ምን ይፈረዳል፤ ሁሉም ባል ይቀናል፤ ይልቅ መፍረድ በራስ ነው”

“በራስ ነው መፍረድ? እንዳንቺ ደፋር ብሆን ትቼው እሄድ ነበር::”

“አረ ይችን ሴት አንድ በሉልኝ ጤናም አልያዘሽ ዛሬ” ቡሬ ደጋግማ እምቧ አለች:: ወ/ሮ ጥሩነሽ አፋቸውን መረራቸው:: ጓደኛቸው በነገርና በአልኮል እንደተመረዙ አውቀውታል:: ስለዚህ በዘዴ ሊሸፍኑቸው ይገባል::

“ወለትዬ ልጆቻሽ ይሄኔ ፍለጋ ወጥተዋል፤ ኋላ እዚህ ያገኙሽ እንደሆነ ሰውም አያደርጉኝ”::

“ምን ቆርጧቸው ይናገሩሻል? አይናገሩሽም”

“ቢሆንም ተነሽ መሽቷል ሁለት ሰዓት ሳይሆንም አይቀር”

“የራሳቸው ጉዳይ እኔ ከእንግዲህ ከሱ ጋር አንድ አልጋ ላይ ቀርቶ አንድ ቤት አላድርገው” ::

“እህ እንዴት ትሆኝ ታድያ ወዴት ትሄጃ”

“አይ ምነው ተይኝ መሄጃ ያጣሁ አታድርገኝ ሰባት ባል ብትፈቺ ደፋር ትመስይኝ ነበር” ::

“እኔና አንቺ አንድ አይደለንም እኔ ተንከራተቺ ያለኝ ደሃ፤ አንቺ እመቤት”::

“ማንም ደሃ ሆኖ አልተፈጠረም፤ እኔም እመቤት ሆኜ የማውቀው ለአሥር ወር ነው:: ዕድሜ ለኮሌጌል ታይኝ ቻለች ብሎ ቅናት አሳርሮት ይኸው . . .” ወ/ሮ ወለተጻድቅ ማልቀስ ጀመሩ::

“አረ በፈጠረሽ ወለቴ አሁን መናደድ ምን ይባላል? የኔና ያንቺ ጊዜ አልፏል:: አንቺኮ ባታገኘው ልጆቻሽ በነፃነት እንዲኖሩ መንገዱን አሳይተሻቸዋል::” ተስፋሁን እማማ ብሎ ሲጣራ ወ/ሮ ጥሩነሽ ወደ ደጅ ወጡ::

ወ/ሮ ጥሩነሽ “እልል” ሲሉ ጓደኛቸው በጎናቸው መሬት ላይ ወድቀው ነበር:: የውጪው በር ተከፍቶ የወ/ሮ ወለተጻድቅ የመጨረሻ ልጅ ስትገባ ወ/ሮ ጥሩነሽ እልልታቸውን በደስታ እንባ ለውጠው ተመስገን እያሉ ነበር:: የወ/ሮ ወለተጻድቅ ልጅ እናቷን ከወደቁበት አንስታ ደግፋ ስትወጣ እንኳን ወ/ሮ ጥሩነሽ ማልቀሳቸውን አላቋረጡም:: በመጀመሪያው ክፍያ ጓደኛቸውን ለመጋበዝ በጣም ጓጉተው ነበር::

ምንጭ: ብሪቱ መጽሔት ግንቦተ- ሐምሌ 1996

## **CAPITAL GOODS FINANCE COMPANIES**

<b>No</b>	<b>Name Of Company</b>	<b>Address</b>	<b>Phone</b>	<b>Fax</b>
1	Waliya Capital Goods Finance Business S.Co	Bahirdar	058-2206780	0582 205 342
2	Oromia Capital Goods Finance Business S.Co	Addis Ababa	0115-571307	251-0115571411
3	Addis Capital Goods Finance Business S.Co	Addis Ababa	0111-262445	251-0111263479
4	Dehub Capital Goods Finance Business S.Co	Hawasa	046 2125191	251-462 125 170
5	Kaza Capital Goods Finance Business S.Co	Mekelle	0344 40 00 85	0342 40 00 84
6	Ethio lease Ethiopian Goods Finance Business S.Co	Addis Ababa	0116 393 397	0116 392 730



## Information on Micro Finance Institutions

NBE MFI No.	Name of Institutions	Telephone No.	Fax No.
001	Amhara Credit and Saving Institution S. Co.	058-2201652 / 0918340256	251-058 – 2201733
002	Yegna Microfinance Institutions S.Co	0911318756 / 091202835	
003	Dedebit Credit and Saving Institution S.C.	034-4409306 / 0914702214	251-034-4406099 251-034-2400208
004	Omo Micro Finance Institution S. Co.	096619611 GM 046-2202053/ 0462207384	251-046 – 220-20-52
005	Gasha Micro Financing S. Co.	0118952389/90/91 0911240437	
006	Vision Fund Microfinance Institution S. Co.	0116463569 0911211823 (GM)	251-011 – 6293346
007	Sidama Micro Finance Institution S.Co.	046-2200850 / 0462206151 0916836687 (GM)	251-046 – 2204704
008	Africa Village Financial Services S. Co.	0116532052 / 0113204732 0911296401 (GM) 0913113446	
009	Buusaa Gonofaa Micro Financing S. Co.	0114162491 0911223679 (GM) / 0912017087 (FM)	251-011 – 4162501
010	PEACE Micro Financing S. Co.	0116678059 / 0911219506 (GM)	251-011 - 4654088
011	Addis Credit and Saving Institution S. Co.	0111572720 011111512/13 0911406174 (GM)	251-011 – 1573124
012	Meklit Micro Finance Institution S. Co.	0113484152 / 0113482183 0911318625 (GM)	251-011 – 5504941
013	ESHET Micro Finance Institution S.Co.	0113206451/52 0911677434 GM)	251-011 – 3206452
014	Wasasa Micro Finance Institution S.Co.	0911-67-38-22 / 0113384133	251-0113679024
015	Benishangul-Gumuz Micro Financing S.Co.	057-7750666 / 057-7752042 0911951484 Gm	251-057 – 7751734 251-057 - 7750060
016	Kendil Micro Finance Institution S. Co.	046 1105952 / 3831 / 5663	251-046-11015
017	Metemamen Micro Financing Institution S. Co.	6615398/6635801/0913460432(GM)	251-011 – 6186140
018	Dire Micro Finance Institution S. Co.	0251129702/1127072/1119246/47 0911353890 (GM)	251-025 – 1120246
019	Aggar Micro Finance S.Co.	6183382/3104 0911689457 (GM)	251-011 - 6183383
020	One Micro Finance Institution S. Co.	0911658497 (GM) / 0911169263 (Finance GM) 0911418280 (Aster)	
021	Harbu Micro Financing Institution S. Co.	0116185510 / 0911512633 (GM)	251-011 - 6630294
022	Digaf Micro Credit Provider S. Co.	0112787390/2782252/0910-27-52-34 0911936785 (GM)	
023	Harar Micro Microfinance Institution S. Co.	025-6663745/025-6664078/0912401911	251-025 - 6661628
024	Lefayeda Credit and Saving S.Co.	0116296976 / 0118237179	
025	Tesfa Micro Finance Institution S. Co.	0115526205 / 0911831882	251-011 - 5512763
026	Gambella Micro Financing S. Co.	0475511250/0475512252 / 0917823153	0475511271 / 0475512390
027	Dynamic Micro Finance S. Co. (Approved 23/03/09)	01155491585540390 / 0915766908(GM)	
028	Somali Micro finance Institution S.Co.	0257752122257-756976/77 0915768505 (GM)	0257780462
029	Specialized Financial and Promotional Institution S. Co.	0116622780 0911625576	251-011 - 6614804

## Information on Micro Finance Institutions

NBE MFI No.	Name of Institutions	Telephone No.	Fax No.
030	Lideta Micro Finance Institution S.C.	0914788554 0344450064/32	0344452829 /0344450383
031	Nisir Micro Finance Institution S.Co.	0115500700/701 /0912364092 0911059722 / 0911875165	305/1250
032	Adaday Micro finance Institution S.Co.	0342405095/69 /0914749064	0342405217
033	Rays Micro Finance Institution S.Co.	0913386180	496/1110
034	Afar Microfinance Institution	0913399644	0336660748
035	Kershi Micro Finance Institution S.Co.	0118 721106/02	
036	Debo Micro Finance Institution S.Co.	0911758872	
037	Sheger Micro Finance Institution S.C	0113 698998	
038	Yemsirach Micro Finance Institution S.C	0118312404	
039	Grand Micro Finance Institution S.Co.	0912116101	
040	KAAFI Microfinance Institution S.Co.	0946877364	
041	Kalub Microfinance Institution S.Co.	0252789263	
042	Gogiba Microfinance Institution S.C.	0911951484	



የኢትዮጵያ ብሔራዊ ባንክ  
National Bank of Ethiopia