ETHIOPIAN JOURNAL OF ECONOMICS

Volume II | Number 1 | April 1993

CONTENTS

330.5
ETH
JOU

ETHIOPIAN JOURNAL OF ECONOMICS

EDITORIAL BOARD

Teshome Mulat (Editor)
Abebe Adera
Mekonnen Taddesse
Seilu Abraha
Sentayehu Tefera
Shiferaw Jamo
Tekle-Berhan G. Michael

ADVISORY BOARD

Addis Anteneh, formerly International Livestock Centre for Africa.
Ajayi, I., University of Ibadan, Nigeria.
Bigsten, A., Gothenburg University, Sweden.
Collier, P., University of Oxford, U.K.
Dahiya, S.B., Jan Tinbergen Institute of Development Planning, India.
Diejomaoh, V.P., ILO/Jobs and Skills Programme for Africa.
Duri Mohammed, Ministry of Planning and Economic Development, Ethiopia.
Elbadawi, I., World Bank, Washington, D.C.
Fassil G. Kiros, Addis Ababa University.
Hanson, G., Lund University, Sweden.
Mukras, M., University of Nairobi, Kenya.
Mureithi, L.P., University of Nairobi, Kenya.
Pankhurst, R., Addis Ababa University.
Pickett, J., Stratchlyde University, U.K.
Taye Gulilat, UNDP.
Tekalign Gedamu, Africa Development Bank.
Teriba, O., UN Economic Commission for Africa.

ETHIOPIAN JOURNAL OF ECONOMICS

Volume II | Number 1 | April 1993

CONTENTS

Volume II Number 1 April 1993

Ethiopian Journal of Economics

A Publication of
THE ETHIOPIAN ECONOMIC ASSOCIATION
(EEA)

ETHIOPIAN JOURNAL OF ECONOMICS, II(1), April 1993, pp. 1-30

CEREAL PRODUCERS, PRICES AND THE SUPPLY OF MANUFACTURED CONSUMER GOODS: A NOTE*

Alemayehu Seyoum
St. Anthony's College, University of Oxford

ABSTRACT: *The study presents a simple model of a peasant household, which extends the basic agricultural household model, by attempting to explicitly incorporate the operational milieu of such a household in Ethiopia during the 1980s. Specifically, quantity constrained markets for labour and manufactured consumer goods are introduced. The resultant comparative static results indicate that the response of cereal-producing peasant households to market-related incentives is more complex than in an un-rationed context. Income and substitution effects, as well as input substitution possibilities are identified as key determinants of that response. Although the paper is based on the situation in the 1980s, its results are valid so long as shortages in manufactured consumer goods persist in the rural areas.*

1. INTRODUCTION

Ethiopian agriculture:

(i) accounts for 40-50 percent of national output;

(ii) provides employment for more than 80 percent of the country's labour force; and

(iii) generates almost the entire export earnings of the country.

In fact, alternative rural employment opportunities being, at best, marginal and centred around it, the agricultural sector effectively constitutes the rural economy of Ethiopia. Furthermore, this sector is characterised by:

(i) overwhelming dominance by small-scale peasant (or semi-subsistence) producers (they produce above 80 percent of total agricultural output); and

(ii) imperfect market structure with underdeveloped or non-existent infrastructures.

These circumstances support the observations that:

(i) the Ethiopian economy as a whole, and its rural sector in particular, cannot be transformed without radical changes in, and subsequent influences from, agriculture; and

(ii) despite unenlightened, and thus detrimental, policies of the past two decades (including forced cooperativisation, extremely radical land reform with complete

* This paper is part of an MSc dissertation submitted to the University of Warwick during summer, 1992.

© THE ETHIOPIAN ECONOMIC ASSOCIATION

nationalisation of land; discrimination against private peasant producers; and the compulsory grain delivery system) the government has a potentially beneficial role if it adopts a temporally, spatially and internally consistent set of policies and instruments.

Indeed the direct implication to development-oriented government policy initiatives is that they should be founded on a reasonable understanding of:

(i) the behavioral dynamics of subsistence agriculture's basic unit - the peasant household; and

(ii) the interaction of the agricultural sector with the rest of the national economy.

These observations warrant a systematic attempt to model the microeconomic behaviour of agricultural households. Particular emphasis, in this regard, should be accorded to cereal-producing semi-subsistence households given their dominance in agricultural production, food supply and exports.

Such an attempt can be deemed a priority area of research in Ethiopia because it contributes towards:

(i) identifying correct policy directions and instruments; and

(ii) avoiding a repeat of disastrous policy experiments of the past.

Both are critical to a country with a history of famine (perhaps largely due to man-made factors); with an urgent need for reconstruction; and with a new government that seems to have a different policy orientation.

As a contribution in that direction this study proposes to formulate a particular economic model of peasant households by introducing quantity constraints in the basic agricultural household model outlined in Strauss [26]. The main emphasis is on shortages of manufactured consumer goods and limited opportunity for labour market participation that such a household appears to face.

2. CEREAL PRODUCING FARM HOUSEHOLDS IN ETHIOPIA - A SCHEMATIC CHARACTERISATION

2.1 This section briefly outlines the pertinent features of a semi-subsistence cereal-producing farm household in Ethiopia. This schematic characterisation is bound to abstract from the substantial degree of diversity to be expected from peasant farming in the country. However, it is deemed sufficient for the purpose of this paper.

During the study period a cereal-producing household in Ethiopia:[1]

(a) simultaneously produced a number of crops, cereals being the most important;

(b) operated a small land holding - allotted to it by the state on usufruct - divided into a number of variously endowed and located plots;

(c) employed a traditional technology of production with little or no application of improved inputs;

(d) sold a portion of its output, largely on the 'free' market;

(e) bought manufactured consumer goods, primarily from the public sector, but appeared to be unable to fully satisfy its demand for such goods; and

(f) relied on family labour, and may have participated in a labour market, which was conditioned by institutional, technological and economic constraints.

Given the main objectives of the paper more has to be said about the last two items.

2.2 Manufactured Consumer Goods Supply

In the study period, peasant households had two sources of manufactured consumer goods. The first was the Ethiopian Domestic Distribution Corporation (EDDC). EDDC supplied such goods to Service Cooperatives (SCs), which subsequently ration what was available to members of Peasant Associations, mainly according to family size. The second source was the 'free' market on which private traders sell consumer goods, partly supplied to them by EDDC itself, at higher prices.

There is little direct evidence regarding how satisfactory manufactured consumer goods (MCGs) availability to peasant households was in the study period. The following, however, may shed some light:[2]

(a) During the 1979-82 period, the average share of the peasant sector - which accounts for more than 80 percent of the country's population and about 40 percent of its GDP - out of the total EDDC supply of MCGs was only 20 percent. Even this may overestimate the actual share of the sector because leakages at different stages of distribution were highly probable.

(b) A survey conducted in a relatively prosperous administrative region - Arsi - during 1983, found that EDDC-supplied SCs constituted the primary source of MCGs for 69 percent of sample households.

(c) As a matter of government policy importation of MCGs was highly restricted.

(d) Private traders are likely to prefer urban centres due to, among others, discouraging transport difficulties in rural Ethiopia. In 1983/84, for instance, the country - with a surface area of 1.25 million sq. km - had only 13,195 km of all-weather roads.

These facts indicate the likely severity of MCGs shortages that farm households had to cope with. Obviously, it is necessary to consider the demand side of the problem to make definitive inferences, particularly given the low level of income attained by peasants. However, it can be argued that the sheer size of the farming population in Ethiopia and its proportionately meagre share of available MCGs make excess demand more probable than otherwise.

2.3 Labour Market

During the period under consideration, the sell and purchase of labour was prohibited by law. Nevertheless, there is some evidence of hired labour use, suggesting that the restriction was not fully effective. Indirect evidence of the practice is furnished by the Rural Household Income, Consumption and Expenditure Survey (1981/82). The survey revealed that wages and salaries contribute about 1 percent and 0.2 percent of total household income in cash and in kind, respectively.

Given the smallness of landholdings, as well as the apparently lax application of restrictions on wage labour, heavy reliance on hiring-out family labour is to be expected. However,

(a) little variation in size-distribution of farms;

(b) virtual absence of complete landlessness;

(c) seasonality of production and the probable imperfect substitutability of family and hired labour; and

(d) almost complete absence of non-agricultural employment opportunities;

suggest that peasant households were unable to sell or buy as much farm labour as they wish. Hence, although establishing the existence, nature and role of a labour market under these circumstances is a non-trivial task, it is possible to tentatively observe that such a market, if it exists, is likely to be incomplete.

On the basis of the above characterisation and relevant assumptions, an economic model of a peasant household is presented in the next section.

3. CEREAL SUPPLY, PRICES, AND THE SUPPLY OF MANUFACTURED GOODS

The description of a peasant household in the last section reveals that, typically, such a household is simultaneously a production and consumption unit. As such it faced the problem of optimal choices in production and consumption. These choices are likely to be affected by market variables, including prices and availability of goods and factors; and non-market-variables such as household size/composition and production technology. These variables, in turn, relate to government policies; public investment in infrastructure, education and health; dissemination of improved technology; pattern of land tenure; the evolvement of markets; as well as household resource endowments and corresponding capabilities to deal with change.

In other words, the production and consumption decisions of cereal producers in Ethiopia and their adjustment to economic change depend on a large number of interconnected market, technological and institutional factors. These interconnections mean that the degree of responsiveness to one is either promoted or hampered by the state of the others. For instance, higher producer prices may fail to stimulate substantial increases in farm output not because farmers are unresponsive to such an incentive, but because the technology of production limits their capacity to fully adjust to the new situation. Similarly, rationing in one or more markets may constrain the speed and extent of adjustment. It is imperative, therefore, to place theoretical and empirical

analysis of the responsiveness of farm supply to market-related incentives (especially prices) within the overall socio-economic dynamics of agriculture. In this sense, the formal model presented in the next section is only a partial representation of the behavioural dynamics of a peasant household.

3.1 A Static Model of a Peasant Household

Beginning in the late 1960s the assertion that peasant producers are, in principle, unresponsive to market-related incentives has been challenged both on theoretical and empirical grounds. At about the same time, the fact that a farm household is simultaneously a production and a consumption unit started to be emphasised by economists.[4] Theoretical and empirical analysis of this peculiarity eventually evolved into what is known as the theory of the farm household - a hybrid of the theory of the firm and that of the consumer [16]. In principle, this theory models farm households as simultaneously making production and consumption decisions. Nevertheless, it also stipulates conditions under which these decisions became logically sequential though simultaneous in time.

In a related, but more recent, development, the impact of shortages in manufactured consumer goods on the economic behaviour of peasants began to receive increasing attention. A common feature of the growing literature is the argument that quantitatively rationed supply of manufactured goods, with or without government price control, may modify farmers' behaviour such that they respond negatively to price incentives. The corollary is increasing the supply of these goods to peasants may, in itself, induce them to produce more and/or restore the positive impact of farm output prices.[5]

An economic model that attempts to incorporate these considerations, and the main attributes of the cereal-producing peasant households in Ethiopia, is presented below. Essentially, it is the general model of an agricultural household developed in Strauss [26], now modified by the introduction of quantity-constrained (or rationed) markets of manufactured consumer goods and labour.

3.1.1 The Model[6]

In the light of section 2, a typical peasant household in Ethiopia can be described as follows. This household:

(a) maximises utility subject to a production function, cash income (or explicit budget) and time constraints;

(b) applies inputs of its own (particularly labour) in agricultural production and consumes part of the output thus generated;

(c) sells part of its agricultural output and uses the receipts to buy market goods - particularly manufactured consumer goods;

(d) makes labour supply decisions involving its participation in the labour market to the extent possible;

(e) faces quantity constraints in terms of available supply of manufactured consumer goods and the amount of labour it can buy or sell.

To construct a static model of this household's behaviour (without worrying about comparative statics for the time being) it is sufficient to assume that:[7]

(i) there exists a single household utility function (U) - with household consumption of farm output (X_a), market purchased manufactured consumer good (X_m), and Leisure (X_L) as its arguments - which is twice continuously differentiable, monotonically increasing and quasi-concave;

(ii) the farm production function, $Q_a(L, V, A, K)$ - where L, V, A and K are total labour input, variable input, acreage (or land) and fixed input, respectively - is twice continuously differentiable and quasi-concave;

(iii) leisure includes short-term, non-traded outputs of household production activities, i.e. Z-goods; and

(iv) farm production is risk-free.[8]

Under these assumptions, and noting that the labour market constraint translates into a constraint in terms of leisure, the short-run (i.e., a single agricultural cycle) optimisation problem of the farm household becomes:

$$\text{(A.1)} \quad \text{Max } U(X_a, X_L, X_m)$$

subject to:

(A.2) $p_m X_m \leq p_a(Q_a - X_a) - p_L(L - F) - p_v V + E$;cash income constraint.

(A.3) $Q_a \leq Q_a(L, V, A, K)$; production function.

(A.4) $X_m \leq \bar{X}_m$; level of manufactured consumer goods ration.

(A.5) $X_L \leq T - \bar{L} + \bar{E}$; constraint on leisure consumption due to the ration in the labour market; i.e. $L - F \leq \bar{L}$.

where p_i = *prices; i = a, L, m, V*

F = *family farm labour input*

T = *household's total time endowment*

$L - F$ = *hired labour (hired-in if positive, hired-out if negative)*

$(Q_a - X_a)$ = *marketed surplus*

E = *non-wage, non-farm net other income.*[9]

$\bar{L}$ = *maximum volume of labour a household can buy or sell.*

To achieve (short-run) equilibrium, such a farm household should equate its maximised expenditure with its maximised full income (Y_f), i.e., at a given utility, U, achieve the equality:[10]

$$p_a X_a + p_L X_L + p_m X_m = Y_f [= p_t T + (p_a Q_a - p_L L - p_v V) + E]$$

This condition is always necessary. However, additional equilibrium conditions are introduced by the presence of rationing. Thus, the specific forms of the expenditure and full income functions have to be modified accordingly. Indeed, the model is non-recursive.

Recursiveness in farm household models implies production and consumption decisions, though temporally simultaneous, are logically separable, such that the household makes the former independently and incorporates them in reaching the latter. For this property to hold, the following additional assumptions, concerning commodities which enter both production and consumption by the household, are sufficient [26]:

(i) all markets relating to such commodities exist and clear (i.e. are unrationed);

(ii) the household is a price-taker in all markets relating to such commodities; and

(iii) all such commodities are homogeneous.[11]

It is obvious that the rationing in the X_m market alone does not violate the conditions of recursiveness because the good is consumed, but not produced, by the household. However, the fact that the household is rationed in the labour market, with or without rationing in X_m, leads to the breakdown of recursiveness.[12]

Assuming that the rations bind and one of the constraints (A.2) - (A.3) holds with equality, the relevant Lagrangean can be written as:[13]

$$(A.6) \quad \Phi = U(X_a, X_L, X_m) + \lambda_1[p_L T + p_a Q_a - p_L L - p_V V + E - p_a X_a - p_L X_L - p_m X_m] + \lambda_2[\overline{X_m} - X_m] + \lambda_3[T - L + \overline{L} - X_L]$$

With interior solutions, the first-order conditions are:[14]

$$(A.7) \quad U_a = \lambda_1 p_a$$

$$(A.8) \quad U_L = \lambda_1 (p_L + \frac{\lambda_3}{\lambda_1})$$

$$(A.9) \quad U_m = \lambda_1 (p_m + \frac{\lambda_2}{\lambda_1})$$

$$(A.10) \quad p_a \frac{\partial Q_a}{\partial L} = p_L + \frac{\lambda_3}{\lambda_1}$$

$$(A.11) \quad p_a \frac{\partial Q_a}{\partial V} = p_V$$

$$(A.12) \quad p_L T + (p_a Q_a - p_L L - p_V V) + E = p_a X_a + p_L X_L + p_m X_m$$

$$(A.13) \quad X_m = \bar{X}_m$$

$$(A.14) \quad X_L = T - L + \bar{L}$$

First-order conditions (A.7)-(A.14) form a system of eight equations with eight unknowns - X_a, X_L, X_m, L, V, λ_1, λ_2, and λ_3. Solving, we obtain the goods (Marshallian) and factor demands. Since these demands depend on the ration levels X_m and L, they are rationed demands. Thus, following Deaton [14], and Neary and Roberts [20], we can write these equations as:

$$(A.15) \quad \tilde{X}_a = \tilde{X}_a(p_a, p_L, p_m, p_v, \bar{X}_m, \bar{L}, T, A, K, E)$$

$$(A.16) \quad \tilde{X}_L = \tilde{X}_L(p_a, p_L, p_m, p_v, \bar{X}_m, \bar{L}, T, A, K, E) = T - \tilde{L} + \bar{L}$$

$$(A.17) \quad \tilde{X}_m = \tilde{X}_m(p_a, p_L, p_m, p_v, \bar{X}_m, \bar{L}, T, A, K, E) = \bar{X}_m$$

$$(A.18) \quad \tilde{L} = \tilde{L}(p_a, p_L, p_m, p_v, \bar{X}_m, \bar{L}, T, A, K, E)$$

$$(A.19) \quad \tilde{V} = \tilde{V}(p_a, p_L, p_m, p_v, \bar{X}_m, \bar{L}, T, A, K, E)$$

where, $(\tilde{\ }) =$ *rationed.*

Accordingly, output decisions depend not only on prices and fixed input levels but also on the levels of X_m and L. Alternatively, production decisions depend on consumption decisions through λ_3.

In order to examine the influence of rationing on household behaviour it is necessary to work out the relationship between rationed and unrationed demands. This task is simplified if the utility maximisation problem is reformulated as an expenditure (or cost of utility) minimisation problem using the duality theorem.[15] To specify the dual under these circumstances we have to use the only exogenous part of the household's full income, E (this in fact can be read directly from the rationed demand functions above).

Given the relation:

$$p_a X_a + p_L X_L + p_m X_m = p_a Q_a - p_L L - p_v V + p_L T + E$$

we have

$$(A.20) \quad E = p_a X_a + p_L X_L + p_m X_m - p_a Q_a + p_L L + p_v V - p_L T$$

Hence, the optimisation problem reduces to minimising (A.20) subject to a given level of utility and constraints (A.3) - (A.5). The resultant represents minimum exogenous income required to achieve a given utility level, say $\bar{U}$. Minimised (A.20) can be considered as an expenditure function, say e'.[16] Formally this can be stated as:

$$Min\ p_a X_a + p_L X_L + p_m X_m - p_a Q_a + p_L L + p_v V - p_L T$$

subject to:

$$\begin{gathered} U(X_a, X_L, X_m) \geq \bar{U} \\ Q_a \leq Q_a(L, V, A, K) \\ X_m \leq \bar{X}_m \\ X_L \leq T - L + \bar{L} \end{gathered}$$

With binding constraints and interior solutions, duality ensures that the first-order conditions will be the same as in the case of utility maximisation.[17] The resulting expenditure function is a rationed one:

$$(A.21) \quad \bar{e}' = \bar{e}'(p_a, p_L, p_m, p_v, \bar{X}_m, \bar{L}, T, A, K, \bar{U})$$

Applying the results of Neary and Roberts [20], this expenditure function can be assumed to possess the following properties:

(i) It is increasing and concave in prices.

(ii) Its partial derivatives with respect to commodity prices are , by Shepard's lemma, rationed Hicksian (or compensated) demands $\bar{X}_a^c$, $\bar{X}_L^c$ and $\bar{X}_m^c$ -

where c represents "compensated".

Based on these and noting that,

(i) $\bar{X}_L^c = (T - \tilde{L} + \bar{L})$ and $\bar{X}_m^c = X_m$; and

(ii) a virtual price is defined as that price which would induce an unrationed household to purchase (or consume) the ration levels of a commodity [20, p.30]; the following hold:

$$(A.22)\quad \tilde{e}'(\cdot) = p_a\tilde{X}_a^c + p_m\bar{X}_m + p_L(T - \tilde{L} + \bar{L}) - (p_aQ_a - p_L\tilde{L} - p_v\bar{V}) - p_LT$$

$$(A.23)\quad e'(p_a, \bar{p}_L^*, \bar{p}_m^*, p_v, T, A, K, \bar{U}) = p_aX_a^c + \bar{p}_m^*\bar{X}_m + \bar{p}_L^*(T - L + \bar{L}) - (p_aQ_a - \bar{p}_L^*L - p_v\bar{v}) - \bar{p}_L^*T$$

$$(A.24.1)\quad X_a^c(p_a, \bar{p}_L^*, \bar{p}_m^*, p_v, T, A, K, \bar{U}) = \tilde{X}_a^c(p_a, p_L, p_m, p_v, \bar{X}_m, \bar{L}, T, A, K, \bar{U})$$

$$(A.24.2)\quad X_L^c(p_a, \bar{p}_L^*, \bar{p}_m^*, p_x, T, A, K, \bar{U}) = T - L + \bar{L}$$

$$(A.24.3)\quad X_m^c(p_a, \bar{p}_L^*, \bar{p}_m^*, p_v, T, A, K, \bar{U}) = \bar{X}_m$$

$$(A.25)\quad e(p_a, \bar{p}_L^*, \bar{p}_m^*, \bar{U}) = p_aX_a^c + \bar{p}_L^*X_L^c + \bar{p}_m^*X_m^c$$

where e'(.) = unrationed expenditure function at virtual prices.

X_i^c = unrationed compensated demands at virtual prices (i = a, L, m).

e(.) = unrationed ordinary expenditure function at virtual prices.

$\bar{p}_i^*$ = compensated virtual price (i = L, m).

Therefore, we are able to derive the following three major results:

(a) (A.24.2) and (A.24.3) implicitly define the compensated virtual prices of labour and X_m as

$$(A.26.1) \quad \overrightarrow{p_L} = \overrightarrow{p_L}(p_a, \overrightarrow{p_m}, p_v, T, A, K, \overline{U})$$

$$(A.26.2) \quad \overrightarrow{p_m} = \overrightarrow{p_m}(p_a, \overrightarrow{p_L}, p_v, T, A, K, \overline{U})$$

These prices do exist given standard assumptions about preferences [14, p.59].

(b) Subtracting (A.23) from (A.22) and making use of (A.24.1) - (A.24.3) produces the required relationship between the rationed and unrationed expenditure functions as:

$$(A.27) \quad \tilde{e}'(\cdot) = e'(\cdot) + (p_m - \overrightarrow{p_m})\ \overline{X_m} + (p_L - \overrightarrow{p_L})\ \overline{L}$$

(c) Finally, using (A.23) and (A.25) and the definition of short-term profits we obtain the relationship between the rather unconventional unrationed expenditure function e'(.) and its ordinary counterpart e(.):

$$(A.28) \quad e'(\cdot) = e(\cdot) - \eta(p_a, \overrightarrow{p_L}, p_v, A, K) - \overrightarrow{p_L}\ T$$

Note that the profit function is assumed convex in all prices.

In order to conduct comparative static analysis of household behavior it is necessary to establish the impact of exogenous variables on compensated virtual prices and the relationship between compensated and uncompensated virtual prices. To achieve the first we start by differentiating (A.28) with respect to $\overline{p}_L^*$:

$$e'_L = e_L - \eta_L - \tau$$

Noting from (A.23), $e_L' = \overline{L}$ and rearranging we have:

$$e_L = T + \eta_L + \overline{L}$$

This is a restatement of the labour market ration translated into a constraint on leisure consumption since e_L is unrationed Hicksian leisure demand at virtual prices and, by Hotelling's lemma, L expresses labour demand at the same prices.

Doing the same with respect to $\overline{p}_m^*$ and noting that $\overline{p}_m^*$ does not affect profits,

$$e'_m = e_m$$

By (A.23) and (A.24.3),

$$e_m = \bar{X}_m$$

Thus we obtain

$$(A.29) \quad e_L = T + \eta_L + \bar{L}$$

$$(A.30) \quad e_m = \bar{X}_m$$

Given T and U, and differentiating (A.29) and (A.30) with respect to $\alpha[=p_a, p_v, A, K]$ and noting the interdependence between $\bar{p}^*_L$ and $\bar{p}^*_m$ [see (A.26.1) and (A.26.2)]:

$$e_{L\alpha} + e_{L} \frac{\partial \bar{p}^*_L}{\partial \alpha} + e_{Lm} \frac{\partial \bar{p}^*_m}{\partial \alpha} = \eta_{L\alpha} + \eta_{L} \frac{\partial \bar{p}^*_L}{\partial \alpha},$$

$$e_{m\alpha} + e_{mL} \frac{\partial \bar{p}^*_L}{\partial \alpha} + e_{mm} \frac{\partial \bar{p}^*_m}{\partial \alpha} = 0$$

Given the symmetry of the Slutsky matrix, solving the above system simultaneously produces the desired expression for the effects of exogenous variables on virtual prices:

$$(A.31) \quad \frac{\partial \bar{p}^*_L}{\partial \alpha} = \frac{-e_{mm}(e_{L\alpha} - \eta_{L\alpha}) + e_{Lm}\, e_{m\alpha}}{e_{mm}(e_{LL} - \eta_{LL}) - (e_{mL})^2}, \quad \alpha = p_a,\ p_v,\ A,\ K$$

$$(A.32) \quad \frac{\partial \bar{p}^*_m}{\partial \alpha} = \frac{-e_{m\alpha}(e_{LL} - \eta_{LL}) + e_{mL}(e_{L\alpha} - \eta_{L\alpha})}{e_{mm}(e_{LL} - \eta_{LL}) - (e_{mL})^2}, \quad \alpha = p_a,\ p_v,\ A,\ K$$

As can be observed from (A.31) and (A.32) the impact of α on $\bar{p}_L^*$ and $\bar{p}_m^*$ is complex, and depends on the degree of substitution characterising consumption and production. The denominator in both cases can be described as:

$$(A.33) \quad \left(\frac{\partial^2 e'}{\partial \overline{p_m^*}^2}\right)\left(\frac{\partial^2 e'}{\partial \overline{p_L^*}^2}\right) - \left(\frac{\partial^2 e'}{\partial \overline{p_L^*}\,\partial \overline{p_m^*}}\right)^2$$

Such that, by the concavity of the expenditure function, it is greater than or equal to zero. The latter case cannot produce economically meaningful results, and thus has to be excluded.

As to the numerators, it can be generally noted that the key factors are:

(i) the degree of substitution, in household consumption, between X_a, X_L, and X_m; and

(ii) the degree of substitution between labour and other, if any, variable inputs.

The ultimate effect of a change in p_a, for instance, on the two compensated virtual prices depends on the sign of the respective numerators. From the concavity and convexity of the expenditure and profit functions, respectively, $(e_{LL} - \eta_{LL})$ and e_{mm} are negative. This means, the sign of the effect is indeterminate unless explicit assumptions are made about whether X_a, X_L, and X_m are substitutes or complements, i.e. e_{La}, e_{ma} and $e_{mL}(=e_{Lm})$ are positive or negative, respectively. Indeed, only if we assume that all are substitutes for one another that it is possible to deduce the sign of $\partial p_L^*/\partial p_a$ and $\partial p_m^*/\partial p_a$. In that case both are positive, although the size of the effect depends on the possible extent of substitution between labour and other variable inputs in production. Otherwise, both are indeterminate a priori and depend on the relative strength of the opposing influences.

The task of working out the relationship between compensated and uncompensated virtual prices proceeds as follows. The rationed Marshallian demands derived initially can be equated with their unrationed counterparts at virtual prices so long as the household is compensated for the imposition of rations [20, p.33]. Since the rationed demands are defined at E, and since the income effect of the rations are $(p_L^* - p_L)\,\overline{L} + (p_m^* - p_m)\,\overline{X_m}$ we have:

$$(A.34) \quad \tilde{X}_i(p_a, p_L, p_m, p_v, \overline{X_m}, \overline{L}, T, A, K, E) = X_i[p_a, p_L^*, p_m^*, p_v, T, A, K, E + (p_L^* - p_L)\,\overline{L} + (p_m^* - p_m)\,\overline{X_m}]$$

where X_i = unrationed Marshallian demands at virtual prices.

p_i^* = uncompensated virtual prices, i = L, m.

However, at equilibrium E = ē'(.), and using (A.27)

$$(A.35) \quad E + (p_L^* - p_L)\,\bar{L} + (p_m^* - p_m)\,\bar{X}_m = \bar{e}'(\cdot) - (p_L - p_L^*)\,\bar{L} - (p_m^* - p_m)\,\bar{X}_m = e'(\cdot)$$

Therefore,

$$(A.36.1) \quad \tilde{X}_L(\cdot) = X_L[p_a,\ p_L^*,\ p_m^*,\ p_v,\ T,\ A,\ K,\ e'(\cdot)]$$

$$(A.36.2) \quad \tilde{X}_m(\cdot) = X_m[p_a,\ p_L^*,\ p_m^*,\ p_v,\ T,\ A,\ K,\ e'(\cdot)]$$

Since:

$$\tilde{X}_L(\cdot) = X_L(\cdot) = T - \underline{L} + \bar{L}$$
$$\tilde{X}_m(\cdot) = X_m(\cdot) = \bar{X}_m$$

(A.36.1) and (A.36.2) implicitly define the uncompensated virtual prices of labour and X_m as:

$$(A.37.1) \quad p_L^* = p_L^*[p_a,\ p_m^*,\ p_v,\ T,\ A,\ K,\ e'(\cdot)]$$

$$(A.37.2) \quad p_m^* = p_m^*[p_a,\ p_L^*,\ p_v,\ T,\ A,\ K,\ e'(\cdot)]$$

e'(.) being the minimum expenditure (and thus exogenous income) required to achieve U, we have

$$\overline{p_L^*} = p_L^*[p_a,\ p_m^*,\ p_v,\ T,\ A,\ K,\ e'(\cdot)]$$
$$\overline{p_m^*} = p_m^*[p_a,\ p_L^*, p_v,\ T,\ A,\ K,\ e'(\cdot)]$$

Therefore, the impact of an exogenous variable $\alpha[= p_a, p_v, A, K]$ decomposes into direct and indirect effects

$$(A.38.1) \quad \frac{\partial \overline{p_L^*}}{\partial \alpha} = \frac{\partial p_L^*}{\partial \alpha}\Big|_E + \frac{\partial p_L^*}{\partial E}\,\frac{\partial e'}{\partial \alpha} + \frac{\partial p_L^*}{\partial p_m^*}\,\frac{\partial p_m^*}{\partial \alpha},$$

$$(A.38.2) \qquad \frac{\partial p_m^*}{\partial \alpha} = \frac{\partial p_m^*}{\partial \alpha}\Big|_{\bar{s}} + \frac{\partial p_m^*}{\partial E}\frac{\partial e'}{\partial \alpha} + \frac{\partial p_m^*}{\partial p^*}\frac{\partial p_L^*}{\partial \alpha},$$

We close this section by emphasising that the virtual prices reflect both the production and consumption decisions of the peasant household. Changes in exogenous variables - particularly those of market prices - now produce additional effects working through these virtual prices. The latter, in straddling the consumption and production segments of the decision-making process transmit influences between them. Hence, apart from being affected by production decisions, consumption decisions now produce reverse effects, thereby resulting in non-recursiveness. Note, however, that the last result critically depends on the argument that the labour market is incomplete or effectively absent.

3.2 Comparative Statics

In this section the comparative static effects of changes in the levels of $\bar{X}_m$, p_m and p_a are outlined.

3.2.1 Change in the Level of the Ration in the Manufactured Consumer Good ($\bar{X}_m$)

Suppose the rationing constraint, $\bar{X}_m$, is partially relaxed. As illustrated by Neary and Roberts [20] for the pure consumer case, this change has repercussions to the equilibrium of the household. In the present case of a peasant household the following effects can be identified.

3.2.1.1 Impact on Total Expenditure ($\bar{e}'$)

Differentiating (A.27) with respect to $\bar{X}_m$ reveals the effect of increasing the availability of the manufactured consumer good on total expenditure of farm households:

$$(A.39) \qquad \frac{\partial \bar{e}'}{\partial \bar{X}_m} = \frac{\partial e'}{\partial \bar{X}_m} + \frac{\partial [(p_m - \bar{p}_m^*)\ \bar{X}_m]}{\partial \bar{X}_m} + \frac{\partial [(p_L - \bar{p}_L^*)\ \bar{L}]}{\partial \bar{X}_m}$$

LIBRARY

Decomposing $\partial e'/\partial X_m$ and noting that, by (A.23),

$$\frac{\partial e'}{\partial \overline{p_L}} = \overline{L} \text{ and } \frac{\partial e'}{\partial \overline{p_m}} = \overline{X_m} \text{ , we have}$$

$$\frac{\partial \tilde{e}'}{\partial \overline{X_m}} = \overline{X_m} \frac{\partial \overline{p_m}}{\partial \overline{X_m}} + \overline{L} \frac{\partial \overline{p_m}}{\partial \overline{X_m}} + (p_m - \overline{p_m}) - \overline{X_m} \frac{\partial \overline{p_m}}{\partial \overline{X_m}} - \overline{L} \frac{\partial \overline{p_L}}{\partial \overline{p_m}} \frac{\partial \overline{p_m}}{\partial \overline{X_m}}$$

Thus:

$$(A.40) \qquad \frac{\partial \tilde{e}}{\partial \overline{X_m}} = (p_m - \overline{p_m})$$

In the postulated context of excess demand for manufactured consumer goods, $(p_m - \overline{p}_m)$ is non-positive, if not actually negative. It implies that relaxing the ration increases the possibility of substitution in consumption afforded by peasant households, and thus, is likely to reduce the expenditure (or cost) required to attain a given level of utility. Therefore, ceteris paribus, relaxing the rationing constraint improves the welfare of such households. Note, however, that possible distributional effects of rationing and its relaxation are being ignored.

3.2.1.2 Impact on Own-Consumption of Farm Output (X_a)

At equilibrium E is evaluated at $\tilde{e}'$ such that rationed Marshallian and Hicksian demands are equal:

$$(A.41) \quad \tilde{X}_a^c(p_a, p_L, p_m, p_v, \overline{X_m}, \overline{L}, T, A, K, \overline{U}) = \tilde{X}_a[p_a, p_L, p_m, p_v, \overline{X_m}, \overline{L}, T, A, K, \tilde{e}'(\cdot)]$$

Differentiating with respect to X_m and rearranging:

$$\frac{\partial \tilde{X}_a}{\partial \overline{X_m}} = \frac{\partial \tilde{X}_a^c}{\partial \overline{X_m}} - \frac{\partial \tilde{X}_a}{\partial E} \frac{\partial \tilde{e}'}{\partial \overline{X_m}}$$

By (A.40):

$$\frac{\partial \bar{e}^{I}}{\partial \bar{X}_m} = (p_m - \bar{p}_m^{*}) = -(\bar{p}_m^{*} - p_m)$$

This can be considered as the reduction in the expenditure necessary to achieve U due to a unit increase in the ration level. Substituting:

$$(A.42) \qquad \frac{\partial \bar{X}_a}{\partial \bar{X}_m} = \frac{\partial \tilde{X}_a^{c}}{\partial \bar{X}_m} + (\bar{p}_m^{*} - p_m)\frac{\partial \tilde{X}_a}{\partial E}$$

Essentially equation (A.42) can be interpreted as a Slutsky equation with the first term on the right-hand-side considered as a "substitution effect", and the second as an "income effect" of the change in the ration level [20]. Assuming that X_a is a normal good, the impact of relaxing the ration on the demand for it depends on whether it is a substitute or a complement for X_m. If it is a substitute, the negative "substitution effect" works against the positive "income effect" (positive because $\bar{p}_m^{*} > p_m$ in the present case of excess demand for X_m) such that the net effect is indeterminate a priori. However, if the two are complements, both effects are positive and lead to a rise in own-consumption of farm output as the availability of X_m increases.

3.2.1.3 Impact on Farm Output (Q_a)

By Hotelling's Lemma:

$$Q_a = \frac{\partial \eta_a}{\partial p_a}(p_a, p_L^{*}, p_V, A, K)$$

Then the impact of a change in the level of X_m operates through p_L^{*} via p_m^{*} and appears as:

$$\frac{\partial Q_a}{\partial \bar{X}_m} = \frac{\partial Q_a}{\partial p_L^{*}} \frac{\partial p_L^{*}}{\partial p_m^{*}} \frac{\partial p_m^{*}}{\partial \bar{X}_m}$$

Thus:

$$(A.43) \qquad \frac{\partial Q_a}{\partial \bar{X}_m} = \eta_{aL} \frac{\partial p_L^*}{\partial p_m^*} \frac{\partial p_m^*}{\partial \bar{X}_m}$$

Given excess demand for X_m, $\partial p_m^*/\partial X_m$ is bound to be negative. Hence, since η_{aL} is negative, the direction of the output effect expressed by (A.43) depends on whether X_m and X_L are substitutes or complements to one another. If they are substitutes, then output increases due to increasing X_m. Otherwise it falls. Moreover, the extent of the change in Q_a depends on the degree of substitution between labour and other variable inputs as well as the supply of all inputs that the peasant household faces. The weight of X_m in the household's consumption bundle matters in that regard.

3.2.1.4 Impact on Marketed Surplus ($Q_a - \tilde{X}_a$)

The response of marketed output is measured by the net effect of increased availability of X_m on farm output and own-consumption:

$$(A.44) \qquad \frac{\partial (Q_a - \bar{X}_a)}{\partial \bar{X}_m} = \eta_{aL} \frac{\partial p_L^*}{\partial p_m^*} \frac{\partial p_m^*}{\partial \bar{X}_m} - \left[\frac{\partial \bar{X}_a^c}{\partial \bar{X}_m} + (\bar{p}_m^* - p_m) \frac{\partial \bar{X}_a}{\partial E} \right]$$

From what has been noted about output and own-consumption responses of changes in $\bar{X}_m$, it is possible to observe that, with increasing $\bar{X}_m$:

(i) marketed surplus falls if (X_a, X_m) and (X_L, X_m) are complement pairs;

(ii) if they are pairs of substitutes, marketed surplus changes in the direction of the output effect and the "substitution effect" [of (A.42) which will be positive in this context] net of the "income effect" [of (A.42) which will be negative in this context].

3.2.2 Change in the Price of the Manufactured Consumer Good (p_m)

A change in the price of the rationed X_m, p_m, can only affect own-consumption as can be seen from (A.27), (A.28) and (A.42). This effect can be derived by differentiating (A.41) with respect to p_m:

$$\frac{\partial \bar{X}_a^c}{\partial p_m} = \frac{\partial \bar{X}_a}{\partial p_m} + \frac{\partial \bar{X}_a}{\partial E} \frac{\partial \bar{e}^I}{\partial p_m}$$

From (A.22) we have

$$\frac{\partial \bar{e}^I}{\partial p_m} = \bar{X}_m$$

Noting from (A.24.3) that, at a given level of utility, p_m does not affect demand for X_m, i.e. does not result an own-substitution effect, and thus has no substitution effect [20]:

$$\frac{\partial \bar{X}_a^c}{\partial p_m} = \frac{\partial \bar{X}_a}{\partial p_m} + \bar{X}_m \frac{\partial \bar{X}_a}{\partial E} = 0$$

Rearranging:

$$(A.45) \qquad \frac{\partial \bar{X}_a}{\partial p_m} = -\bar{X}_m \frac{\partial \bar{X}_a}{\partial E}$$

Therefore, a rise in the price of X_m produces only an income effect. At a given E, it forces farm households to spend more on the same ration level. Assuming X_a is normal, this induces a reduction in own-consumption of farm output. The magnitude of this reduction, as indicated by (A.45) depends on the level of the ration, X_m. The implication to government policy is obvious. By raising the price of X_m, which it controls (or, at least, regulates), it can stimulate expansion in marketed surplus within the bounds of the subsistence requirements of peasant households. This result, however, critically depends on the assumptions that:

(i) peasant households are unrationed in the market for farm output; and

(ii) the ration on X_m binds.

3.2.3 Change in the Price of Farm Output (p_a)

As noted at the outset, rationing is expected to modify the response of peasant households to changes in output prices. This problem is considered below. Suppose the

price of farm output, p_a, has increased. This change will work through the system ultimately influencing consumption, labour supply and input demand decisions.

3.2.3.1 Impact on Own-Consumption of Farm Output (X_a)

In the manner of (A.36.1) - (A.36.2) above, the relationship between the rationed and unrationed Marshallian demands at virtual prices can be written as :

$$(A.46) \quad \bar{X}_a(p_a, p_L, p_m, p_v, \bar{X}_m, \bar{L}, T, A, K, E) = X_a[p_a, p_L^*, p_m^*, p_v, T, A, K, e'(\cdot)]$$

Accordingly, the effect of a change in p_a appears as:

$$(A.47) \quad \frac{\partial \bar{X}_a}{\partial p_a} = \frac{\partial X_a}{\partial p_a}\Big|_{p_L^*,\, p_a^*} + \frac{\partial X_a}{\partial p_L^*}\frac{\partial p_L^*}{\partial p_a} + \frac{\partial X_a}{\partial p_m^*}\frac{\partial p_m^*}{\partial p_a} + \frac{\partial X_a}{\partial Y_f}\frac{\partial Y_f}{\partial p_a}$$

Noting that:

(a) $\partial Y_f/\partial p_a$ constitutes the profit effect and thus:

$$\frac{\partial Y_f}{\partial p_a} = \frac{\partial m_a}{\partial p_a} = Q_a$$

(b) (A.23) implies:

$$\frac{\partial e'}{\partial p_a} = (X_a - Q_a) = -(Q_a - X_a)$$

(c) By (A.38.1) and (A.38.2)

$$(A.48.1) \quad \frac{\partial p_L^*}{\partial p_a} = \frac{\partial \bar{p}_L^*}{\partial p_a} - \frac{\partial p_L^*}{\partial E}\frac{\partial e'}{\partial p_a} - \frac{\partial p_L^*}{\partial p_m^*}\frac{\partial p_m^*}{\partial p_a}$$

$$(A.48.2) \quad \frac{\partial p_m^*}{\partial p_a} = \frac{\partial \bar{p}_m^*}{\partial p_a} - \frac{\partial p_m^*}{\partial E}\frac{\partial e'}{\partial p_a} - \frac{\partial p_m^*}{\partial p_L^*}\frac{\partial p_L^*}{\partial p_a}$$

and rearranging after substitution:

$$(A.49)\quad \frac{\partial \bar{X}_a}{\partial p_a} = \frac{\partial X_a}{\partial p_a}\Big|_{p_L^*,\, p_m^*} + \frac{\partial X_a}{\partial p_L^*}\frac{\partial \overline{p_L^*}}{\partial p_a} + \frac{\partial X_a}{\partial p_m^*}\frac{\partial \overline{p_m^*}}{\partial p_a} - \frac{\partial X_a}{\partial p_L^*}\frac{\partial p_L^*}{\partial p_m^*}\frac{\partial p_m^*}{\partial p_a} - \frac{\partial X_a}{\partial p_m^*}\frac{\partial p_m^*}{\partial p_L^*}\frac{\partial p_L^*}{\partial p_a} + (Q_a - X_a)\left[\frac{\partial X_a}{\partial p_L^*}\frac{\partial p_L^*}{\partial E} + \frac{\partial X_a}{\partial p_m^*}\frac{\partial p_m^*}{\partial E}\right] + Q_a\frac{\partial X_a}{\partial Y_f}$$

The existence, albeit rationed, of markets for X_m and X_L leads to income as well as substitution effects by both virtual prices. Thus, using the Slutsky relation we have:

$$\frac{\partial X_a}{\partial p_a}\Big|_{p_L^*,\, p_m^*} + \frac{\partial X_a}{\partial p_L^*}\frac{\partial \overline{p_L^*}}{\partial p_a} + \frac{\partial X_a}{\partial p_m^*}\frac{\partial \overline{p_m^*}}{\partial p_a} = \frac{\partial X_a^c}{\partial p_a}\Big|_{\overline{p_L^*},\, \overline{p_m^*}} + \frac{\partial X_a^c}{\partial p_L^*}\frac{\partial \overline{p_L^*}}{\partial p_a} + \frac{\partial X_a^c}{\partial p_m^*}\frac{\partial \overline{p_m^*}}{\partial p_a} - \bar{L}\frac{\partial \overline{p_L^*}}{\partial p_a} - \bar{X}_m\frac{\partial \overline{p_m^*}}{\partial p_a} - X_a\frac{\partial X_a}{\partial Y_f}$$

Substituting in (A.49) and rearranging we obtain:

$$(A.50)\quad \frac{\partial \bar{X}_a}{\partial p_a} = \frac{\partial X_a^c}{\partial p_a}\Big|_{\overline{p_L^*},\, \overline{p_m^*}} + \frac{\partial X_a^c}{\partial p_L^*}\frac{\partial \overline{p_L^*}}{\partial p_a} + \frac{\partial X_a^c}{\partial p_m^*}\frac{\partial \overline{p_m^*}}{\partial p_a} - \frac{\partial X_a}{\partial p_L^*}\frac{\partial p_L^*}{\partial p_m^*}\frac{\partial p_m^*}{\partial p_a} - \frac{\partial X_a}{\partial p_m^*}\frac{\partial p_m^*}{\partial p_L^*}\frac{\partial p_L^*}{\partial p_a} + (Q_a - X_a)\left[\frac{\partial X_a}{\partial p_L^*}\frac{\partial p_L^*}{\partial E} + \frac{\partial X_a}{\partial p_m^*}\frac{\partial p_m^*}{\partial E} + \frac{\partial X_a}{\partial Y_f}\right] - \bar{L}\frac{\partial \overline{p_L^*}}{\partial p_a} - \bar{X}_m\frac{\partial \overline{p_m^*}}{\partial p_m}$$

Little can be said about (A.50). Obviously, it cannot be signed a priori. However, (A.50) reveals, and indeed there lies its usefulness, the complex set of influences which determine own-consumption response to changes in p_a. These include:

(a) the degree of substitution between goods in consumption;

(b) the share of commodities in the total expenditure of the household;

(c) the character of goods in consumption, i.e. whether they are normal or inferior;

(d) the degree of substitution between factors in production -particularly between labour and other variable inputs; and

(e) the status of the household in the farm output market, i.e. whether it is a net-seller or net-purchaser.

Depending on the relative strength of these, the net effect on own-consumption can be of either sign. As such (A.50) illustrates the need for a comprehensive approach in policy formulation and implementation if development objectives are to be realised. In particular, the significance of household production activities (here subsumed in leisure) should be reassessed. Usually, these activities are ignored by analysts and government policy-makers, who almost exclusively emphasise farm production.

3.2.3.2 Impact on Farm Output (Q_a)

The impact of the change in p_a on output can be derived using the profit function. By Hotelling's lemma:

$$Q_a = \frac{\partial \eta}{\partial p_a} \quad (p_a,\ p_L^*,\ p_v,\ A,\ K)$$

Differentiating with respect to p_a produces the desired relation, i.e.:

$$(A.51) \qquad \frac{\partial Q_a}{\partial p_a} = \frac{\partial Q_a}{\partial p_a}\Big|_{p_L^*} + \frac{\partial Q_a}{\partial p_L^*}\ \frac{\partial p_L^*}{\partial p_a}$$

Thus, change in p_a affects output in two ways; directly and indirectly via the virtual wage. Noting that:

$$\frac{\partial Q_a}{\partial p_a}\Big|_{p_L^*} = \eta_{aa}$$

substituting for $\partial p_1^*/\partial p_a$ from (A.48.1) and rearranging:

$$(A.52) \qquad \frac{\partial Q_a}{\partial p_a} = \eta_{aa} + \eta_{aL} \frac{\partial \overline{p_L^*}}{\partial p_a} - \eta_{aL} \frac{\partial p_L^*}{\partial p_m^*} \frac{\partial p_m^*}{\partial p_a} + (Q_a - X_a)\ \eta_{aL} \frac{\partial p_L^*}{\partial E}$$

Replacing $\partial \overline{p_L}^*/\partial p_a$ from (A.31) and rearranging:

$$(A.53) \qquad \frac{\partial Q_a}{\partial p_a} = \eta_{aa} + \eta_{aL} \left[\frac{e_{mm}(\eta_{LA} - e_{La}) - e_{Lm}\, e_{ma}}{e_{mm}(e_{\epsilon} - \eta_{\epsilon}) - (e_{mL})^2}\right] - \eta_{aL} \frac{\partial p_L^*}{\partial p_m^*} \frac{\partial p_m^*}{\partial p_a} + (Q_a - X_a)\ \eta_{aL} \frac{\partial p_L^*}{\partial E}$$

Here again, a more intricate response is observed. Although the direct output supply response to own-price, η_{aa}, is positive, output response to the virtual wage, η_{aL}, is negative. Moreover, the other terms in the expression complicate the effect further. For instance, we already observed that $\partial \overline{p_L}^*/\partial p_a$ can be signed a priori only when all goods are substitutes to one another in consumption-in which case it is positive. The entire effect, in that case, depends on the relative strength of the income effect:

$$(Q_a - X_a)\ \eta_{aL} \frac{\partial p_L^*}{\partial E}$$

which is negative if leisure is assumed a normal good and the household a net-seller and

$$\eta_{aL} \frac{\partial \overline{p_L^*}}{\partial p_a} - \eta_{aL} \frac{\partial p_L^*}{\partial p_m^*} \frac{\partial p_m^*}{\partial p_a}$$

which is also negative, on the one hand, and the positive direct effect η_{aa}, on the other. In this particular case the possibility of a negative output response is clearly higher than the unrationed case. Indeed, it is higher than the case of an absent labour market but no rationing in X_m. To see this, we compare (A.52) with the out put response implied by equations (IA.17) and IA.28) of Strauss [26] which is:

$$(A.54) \quad \frac{\partial Q_a}{\partial p_a} = \eta_{aa} + \eta_{aL} \frac{\partial \overline{p_L^*}}{\partial p_a} + (Q_a - X_a)\ \eta_{aL} \frac{\partial p_L^*}{\partial E}$$

Given the assumption that X_L and X_m are substitutes (A.52) has one more term, the third on the right-hand side, which is negative. This illustrates the argument that the possibility of a "perverse" output response to own-price can increase under rationing in X_m relative to the unrationed situation.

In general, the ultimate effect again depends on variables (a) - (e) listed in relation to own-consumption response. Nevertheless, the structure of our model suggests the following key questions:

(i) does the rise in p_a increase the virtual wage;

(ii) if so, to what extent does the resultant decline in profitability perceived by the household induce a fall in labour demand; and

(iii) to what extent this fall can be compensated by a rise in the demand for and application of other variable inputs, whose price(s) have now declined relative to that of labour.

4. CONCLUSION

This study presented a simple model of cereal-producing peasant households by extending a basic agricultural household model, and by attempting to explicitly incorporate the specific operational milieu of such households in Ethiopia. The resultant comparative static results suggest the response of these producers to market-related incentives is much more complex than in an unrationed situation. Important influences include:

(a) income and substitution effects;

(b) possibilities of input substitution in production; and

(c) levels of rations.

These results, however, should be accorded limited significance due to the exclusion of risk and the static nature of the model. In spite of its limitations, the model provides some insights. The major implication is liberalising output markets alone does

not necessarily lead to desired expansion in production. Increased supply of manufactured consumer goods, and greater possibilities of input substitutions through technological and institutional innovations appear to be critical. Similarly significant are home activities and non-agricultural rural employment opportunities.

NOTES

[1] These features are summarized from various sources including: [1, 11, 12, 23, 27, 28, 29, 30].

[2] [1, p. 97; 10; 28, p. 11; 29].

[3] [27].

[4] Important contributions of that period include: [16, 18, 24]. More recent ones include: [3, 4, 25, 26].

[5] The most comprehensive treatment of the issues so far is [8]. Other important contributions include: [5, 6, 7].

[6] This particular model builds upon, and uses the notations of, the basic agricultural household model due to [25] and [26].

[7] Although we have restricted ourselves to single-crop, single manufactured consumer good case, the essential results remain valid for the m crops and n manufactured goods case. That the latter are all rationed is necessary for the extension of subsequent analysis as it is presented here.

[8] This appears to be a strong assumption in the Ethiopian context because of, among others, semi-subsistence agriculture's almost total dependence on rain and the natural endowments of the soil. Nevertheless, risk cannot be incorporated in this simple static model. As such the significance of the model is restricted.

[9] E summarises non-wage and non-farm sources and uses of income, and reduces to exogenous income in a static model.

[10] The notion of a full income appears particularly pertinent because income is endogenous being determined by, and determining, household output - variable input choice including the labour-leisure trade-off.

[11] So long as (i) and (ii) hold heterogeneity can be allowed if interior solutions are, as is customary, assumed [26].

[12] The model with a clearing labour market and rationed X_m was considered, but only a brief summary of comparative statics are presented due to space limitation.

[13] Note that since the model is static the cash income (or explicit budget) constraint binds.

[14] $p_L^* = p_L + (\lambda_3/\lambda_1)$ and $p_m^* = p_m + (\lambda_3/\lambda_1)$, can be considered as uncompensated virtual prices of labour

(i.e., virtual wage) and manufactured consumer good, respectively.

[15] For details of the problems of using the direct utility function see Deaton [14, pp. 57-58].

[16] Following Strauss [26], e' is assumed to satisfy all the requirements of an expenditure function.

[17] The exception being now we have:

$$\bar{p}_L^* = p_L + \lambda_3,$$
$$\bar{p}_m = p_m + \lambda_2$$

which can be considered as compensated virtual prices.

REFERENCES

[1] Alemneh Dejene, *Peasants, Agrarian Socialism and Rural Development in Ethiopia*, Westview Press, Boulder, 1987.

[2] Askari, H. and Cummings, J., "Estimating Agricultural Supply Response with the Nerlovian Model: A Survey", *International Economic Review*, Vol. 18, No. 2, June 1977, pp. 257-292.

[3] Barnum, H.N and Squire, L., "An Econometric Application of the Theory of the Farm Household", *Journal of Development Economics*, Vol. 6, 1979, pp. 79-102.

[4] Barnum, H.N. and Squire, L., "Predicting agricultural Output Response", *Oxford Economic Papers*, 32, 1980, pp. 284-295.

[5] Berthelemy, J.C. and Morrison, C., "Manufactured Goods Supply and Cash Crops in Sub-Saharan Africa", *World Development*, Vol. 15, No. 10/11, pp. 1353-1367, 1987.

[6] Berthelemy, J.C. and Gazey, F., "The Agricultural Supply Price Elasticity in Africa: A Note on Peasants' Rationality in a Non-Walrasian Context", *European Economic Review*, 31, pp. 1493-1987.

[7] Berthelemy, J.C. and Morisson, C., *Agricultural Development in Africa and the Supply of Manufactured Goods*, OECD, 1989.

[8] Bevan, D., Collier, P. and Gunning, J.W. with Bigsten, A. and Horsnell, P., *Peasants and Governments - An Economic Analysis*, Clarendon Press, Oxford, 1989.

[9] Bond, Marian E., "Agricultural Responses to Prices in Sub-Saharan African Countries", *IMF Staff Papers*, Vol. 30, 1983, pp. 703-726.

[10] Central Statistical Authority, *Ethiopia: Statistical Abstract*, Various Issues.

[11] Central Statistical Authority, *Time Series Data on Area, Production and Yield of Major Crops (1979/80 - 1985/86), Statistical Bulletin (56)*, Addis Ababa, 1987.

[12] Central Statistical Authority, *Rural Household Income, Consumption and Expenditure Survey (May 1981 - April 1982) - Statistical Bulletin (61)*, Addis Ababa, 1988.

[13] Chhibber, Ajay, "The Aggregate Supply Response: A Survey", in S. Commander (ed.), *Structural Adjustment in Agriculture: Theory and Practice*, London, James Currey, 1988.

[14] Deaton, A., "Theoretical and Empirical Approaches to Consumer Demand Under Rationing", in A. Deaton (ed.), *Essays in the Theory and Management of Consumer Behaviour, in Honor of Sir Richard Stone*, Cambridge University Press, 1981, Chapter 3.

[15] Dessalegn Rahmato, *Agrarian Reform in Ethiopia*, The Red Sea Press, New Jersey, 1985.

[16] Krishna, Raj, "Comment: Models of Family Farms" in Clifton R. Wharton, Jr. (ed.), *Subsistence Agriculture and Economic Development*, Chicago, Aldine Publishing Company, 1969.

[17] Lundahl, Mats, *Incentives and Agriculture in East Africa*, Routledge, London, 1990.

[18] Nakajima, Chihiro, "Subsistence and Commercial Family Farms: Some Theoretical Models of Subjective Equilibrium", in Clifton R. Wharton, Jr. (ed), *Subsistence Agriculture and Economic Development*, Chicago, Aldine Publishing Company.

[19] National Bank of Ethiopia, *Quarterly Bulletin*, Various Issues.

[20] Neary, J.P. and Roberts, K.W.S., "The Theory of Household Behaviour under Rationing", *European Economic Review*, 13, 1983, pp. 25-42.

[21] Nerlove, Marc, *The Dynamics of Supply: The Estimation of Farmers' Response to Price*, Baltimore, Johns Hopkins University Press, 1958.

[22] _____, "The Dynamics of Supply: Retrospect and Prospect", *Journal of Agricultural Economics*, December 1979, pp. 874-889.

[23] Pickett, J., *Economic Development in Ethiopia: Agriculture, the Market and the State*, OECD, Paris, 1991.

[24] Sen, Amartya K., "Peasants and Dualism with or without Surplus Labour", *Journal of Political Economy*, Vol. 74, No. 5, October 1966, pp. 425-450.

[25] Singh, I.J., Squire, L. and Strauss, J., "A Survey of Agricultural Household Models: Recent Findings and Policy Implications", *The World Bank Economic Review*, Vol. 1, No. 1, 1986, pp. 149-179.

[26] Strauss, John, "The Theory and Comparative Statics of Agricultural Household Models: A General Approach", in I.J. Singh, L. Squire and John Strauss (eds.), *Agricultural Household Models: Extensions, Applications and Policy*, Baltimore, Md: Johns Hopkins University Press, 1986.

[27] Taye Mengistae, "Public Policy, Markets and Technical Progress in the Grain-Plough Culture", *Ethiopian Journal of Economics*, Vol. 1, No. 1, April 1992.

[28] Tesfaye Asfaw Andabo, "The Informal Economy in Ethiopia", unpublished manuscript, 1992.

[29] World Bank, *World Development Report 1990*, Oxford University Press, 1990.

[30] Yeraswork Admassie, et al., *Ethiopian Highlands Reclamation Study - Report on the Sociological Survey and Sociological Considerations in Preparing a Development Strategy*, Addis Ababa, 1983.

[31] Yotopoulos, P.A. and Lau, L.J., "On Modelling the Agricultural Sector in Developing Economies - an Integrated Approach of Micro- and Macro-Economics", *Journal of Development Economics*, 16, 1974, pp. 105-127.

ETHIOPIAN JOURNAL OF ECONOMICS, II(1), April 1993, pp. 31-36

THE EFFECT OF THE TIME OF DAY OF SALE ON THE PRICE OF SHEEP IN THE SHOLLA MARKET*

Andargachew Kebede
Planning Department, Ministry of State Farms, Coffee and Tea Development, Ethiopia

ABSTRACT: *A sheep market survey was undertaken in nine key Ethiopian Central Highlands markets in 1989. Data relating to animal (sex, age, condition, breed, weight, colour) and market (price, purpose of buying, time of buying, buyer type, seller type) characteristics were recorded. Two rounds of sheep traders' surveys were also undertaken during the same year. The Sholla market was selected for analysis because it was possible to record time of sale more accurately than in the other markets. The results of the analysis suggest that the time of day of sale did not affect the price of sheep when the sellers were predominantly urban resident traders. It would be desirable to inquire whether this result would remain unchanged when large number of itinerant traders also attend the market.*

1. INTRODUCTION

The Sholla market is one of the most important sheep markets in Addis Abeba, the latter being the most important consumption center in the nation. It is a specialized terminal sheep market attended on every day of the week. Two major types of traders offer sheep for sale in the Sholla market : resident urban traders and itinerant traders. Itinerant traders are regular traders who travel long distances to collect as well as sell sheep. Itinerant traders sell their animals to resident urban traders on wholesale basis or retail to consumers directly, mainly on Mondays, Wednesdays and Fridays. Resident urban traders reside in urban centers and buy animals from the same markets they sell or from closely located markets. Such traders are most common in Addis Abeba markets and offer sheep for sale every day of the week. They provide their animals with hay and other supplementary feed. About sixty percent of the traders who responded to the traders survey in the Sholla market confirmed that they provide their animals with some sort of feed.

Given the cost of maintaining their animals and other related expenses, itinerant traders should prefer disposing of their animals as early as possible. Though resident

* The author acknowledges the all-round support extended to him by the International Livestock Center for Africa for the Central Highlands' sheep market and traders surveys.

© THE ETHIOPIAN ECONOMIC ASSOCIATION

urban traders would also prefer disposing of their animals as early as possible, this is not expected to go to the extent of causing significant variation in their prices during the day as they had established system of keeping and feeding their animals. Feeding may be attractive as long as it pays in terms of weight gain and improvement of condition.

Market information is essential to producers, market intermediaries, buyers, sellers, policy makers and researchers. Sheep buyers, sellers and intermediaries would particularly be interested to take most advantage from information about the level and pattern of price and factors underlying its behaviour. It has been shown that certain animal and market characteristics and season underlie price variations and intra-annual price patterns [1]. However, it is not known how the time of day of sale affects the price of sheep. This paper examines the effect of the time of day of sale on the price of sheep in the Sholla market.

2. DATA AND METHODS

A sheep market survey was undertaken in the Sholla market during the whole year of 1989 as part of the Ethiopian Central Highlands Sheep Market Survey. Data relating to price, weight, sex, age, breed type, condition, colour, purpose, type of buyer and seller were recorded. Recording was done once a week on a major market day, Saturday, between 8 pm and 5 am and, in all, 6453 animals were recorded. In addition, two rounds of traders surveys were undertaken in these markets during the same period. The traders survey focused on organization of traders, regularity of trade, supply areas, destination, cost of transfer, problems associated with trading of sheep.

The Sholla market was selected for analysis because it was possible to record time of sale more accurately than in the other markets surveyed. This is a specialized terminal sheep market and there are neither traders who would tend to accumulate animals nor reasons that would keep buyers in the market place after they buy one. In the other markets, which are not specialized sheep markets, buyers keep their animals in the market place until they accomplish other businesses or accumulate sufficient number of animals. Since recording was done as buyers left the market place, it would be inaccurate to regard such time as the correct time of sale. Whilst time of sale was recorded equally

accurately in the Addisu Gebeya market (Gojjam road), another important market in Addis Abeba, it was discarded due to inadequacy of observations.

In order to minimize sources of variation and ensure homogeneity of the product the most common and specific type of sheep: male, one year or less of age, average condition, fat-tailed type and brown colour was selected for analysis. A total of 264 transactions were analyzed. The data collected on 52 market days during the year was grouped on the basis of time of day of sale into six periods.

Like any other survey data, the number of observations in the various time periods is unbalanced, Table 1. The traditional analysis of variance methods, in terms of well designed experiments, are generally inapplicable to the present case. On the other hand, regression can be used with some degree of propriety by allocating codes. Accordingly the following linear equation was used to estimate the effect of the time of day of sale on sheep prices.

$$P = b_o + b_1M_e + b_2M_m + b_3M_d + b_4A_e + b_5A_m + b_6A_l + e_i$$

where: P = (either) price per kg (or price per head) in Ethiopian Birr (EB)[1]

M_e = Early morning (8:00 - 9:59 am)

M_m = Mid-morning (10:00 - 11:59 am)

M_d = Mid-day (12:00 - 1:59 pm)

A_e = Early afternoon (2:00 - 2:59 pm)

A_m = Mid-afternoon (3:00 - 3:59 pm)

A_l = Late afternoon (4:00 - 4:59 pm)

b_i = Structural parameters of the equation

The data was run in the Statistical Analysis System (SAS) software with the TUKEY option of the General Linear Models (GLM) procedure. The GLM procedure uses the least squares method to fit general linear models and is appropriate to perform analysis of data when cell sizes are disproportionate [2].

3. RESULTS AND DISCUSSION

Average prices for the different times of the day are presented in Table 1. An overall F test of significance shows that there is no significant difference between the

least squares means of the different times of the day. This suggests that the time of day of sale had no effect on both price per kg ($p > 0.8080$) and price per head ($p > 0.9484$), Tables 2 and 3. In these tables "late afternoon" has been included in the intercept. The (parameter) estimates represent the magnitude and sign of the differences between the intercept and the respective individual dummy class. The T statistics were presented here for the sake of completeness,

Table 1. Average Prices of Sheep for the Different Times of the Day

		Mean price per	
Time of sale	Sample size	Head	Kg
Early morning	29	55.93	2.51
Mid-morning	104	58.46	2.61
Mid-day	61	58.93	2.60
Early afternoon	19	57.58	2.61
Mid-afternoon	26	57.69	2.61
Late afternoon	25	59.48	2.73

although it was understood that it was of little value when the F tests show no overall statistical significance.

The results were not unexpected, given the dominant type of traders who offer sheep on the survey days, resident urban traders. These traders reside in towns and feed their animals until they are sold. Being in no hurry to leave the market place, the time of sale of the day is not expected to affect their selling prices. It is thought that buyers generally think that price declines as the time of the day progresses, as sellers would prefer to get rid of their animals and leave the market place. However, empirical evidences suggest that price does not change with time of the day when majority of the sellers are urban resident traders. Hence, it makes no price difference to buy a sheep at any time during a market day dominated by resident urban traders. It is not known whether buyers differentiate resident urban traders from itinerant traders.

Table 2. Estimated Parameters (main effects) of Price Per Kg Equation for Sholla Market

Parameter	Estimate	Pr > |T|
Intercept	2.7322	0.0001
Time		
Early morning	- 0.2248	0.1321
Mid-morning	- 0.1208	0.3206
Mid-day	- 0.1247	0.3372
Early afternoon	- 0.1251	0.4517
Mid-afternoon	- 0.1204	0.4310

Overall mean price per kg = 2.6103
F value = 0.46
Pr > F = 0.8080

Since data was collected on market days when resident traders were dominant it is not known whether the result would remain unchanged when the proportion of itinerant traders increases.

Table 3. Estimated Parameters (main effects) of Price Per head Equation For Sholla Market

Parameter	Estimate	Pr > |T|
Intercept	59.4800	0.0001
Time		
Early morning	- 3.5490	0.3707
Mid-morning	- 1.0185	0.7528
Mid-day	- 0.5456	0.8742
Early afternoon	- 1.9010	0.6672
Mid-afternoon	- 1.7877	0.6602

Overall mean price per kg = 58.25
F value = 0.23
Pr > F = 0.9484

4. SUMMARY AND CONCLUSION

Sheep market and traders surveys were undertaken in nine key Central Highlands markets in 1989. Data relating to animal and market characteristics were recorded. Analysis of data pertaining to time of day of sale reveals that resident urban traders' prices were not affected by the time of day of sale. This suggests that it makes no difference to buy a sheep at any time of the day as long as the market is dominated by resident urban traders. It is desirable to inquire if the results would remain unchanged when the market is attended by large number of itinerant traders too.

NOTES

[1] Exchanged at a fixed rate of 2.07 Birr for a US$ during the survey period.

REFERENCES

[1] Andargachew Kebede and Brokken, R., "Intra-annual Sheep Price Patterns and Factors Underlying Price Variations in the Central Highlands of Ethiopia", *Agricultural Economics*, 8, 1993, pp. 125- 138.

[2] Dunnet, C.W., "A Pairwise Multiple Comparisons in the Homogeneous Variance, Unequal Sample Size Case", *Journal of the American Statistical Association*, No.75,(1980) pp. 789-95.

[3] SAS Institute Inc. *SAS/STAT Guide for Personal Computers, Version 6 Edition (Cary, NC, USA, 1987).*

ETHIOPIAN JOURNAL OF ECONOMICS, II(1), April 1993, pp.37-72

THE DISMAL ECONOMY: CURRENT ISSUES OF ECONOMIC REFORM AND DEVELOPMENT IN ETHIOPIA*

Eshetu Chole
Department of Economics, Addis Ababa University

ABSTRACT: *Written prior to the devaluation of the Birr and related adjustment measures, this paper is concerned with issues of economic reform in Ethiopia. The first section reviews the country's economic and social crisis. The second considers the prospects for economic reform and recovery by focusing on the political environment; the relative roles of the state and private sectors; the link between economic reform and growth (with special attention to structural adjustment in general and exchange rate adjustment in particular) and the social dimensions of economic reform. It concludes by arguing that the most significant determinant of the prospects for economic reform and growth is the political environment.*

1. THE CURRENT ECONOMIC AND SOCIAL CRISIS IN ETHIOPIA

Ethiopia is currently going through a critical period of transition. The end of the long- drawn-out and devastating wars, it had been hoped, would finally usher in an era of peace. Unfortunately, as the war drums begin to beat again - this time in other settings - such hopes seem to be dissipating in the quicksand of ethnic politics. Having suffered for seventeen years under a brutal dictatorship, the Ethiopian people had been hoping for more democratic governance. But, as the controversies surrounding the recent elections make only too clear, the country's halting efforts in this direction have yet to bear fruit. Its economy debilitated at least in part by a stifling policy environment, it had been expected to move towards greater market orientation. But any signs of this are invisible as of now. For long encumbered by over-centralized rule, Ethiopia is now experimenting with a decentralized pattern of regional administration, but this is a move that is full of unpredictable consequences. These multiple tasks make the transition a particularly complex and difficult process.

It is rendered even more complex by the fact that it is taking place in a context of mass poverty and serious social dislocation. The economy is in ruins, and must submit to extensive reform if it is to be galvanized at all. In order to appreciate the current economic and social situation in Ethiopia it is best to begin with a review of the legacy

* This is an Inaugural Lecture delivered at the Inaugural Ceremony of the Ethiopian Economic Association on the 15th of August 1992, Addis Ababa.

©THE ETHIOPIAN ECONOMIC ASSOCIATION

of the military government.[1] Between 1974 and 1990, GDP grew at an annual average rate of 1.9%, which in conjunction with a population growth rate of 2.7% led to a decline in per capita income of 0.8% per annum. The major cause of this disastrous performance was stagnation in the agricultural sector, which grew by only 0.7%, or a full 2% below the rate of growth of population. In other words, food production per capita fell by 2%.

The period witnessed a rapid and consistent decline in the saving rate, from 13% on the eve of the revolution to about 4% in the last years. This was largely due to a dramatic rise in government consumption, accounted for in large part by steep rises in military spending and government administration. In contrast, the rate of investment rose steadily, averaging about 14% towards the end. However, this figure compares unfavorably with the saving rate of similarly placed countries. Even then, because of the poor record of domestic saving mobilization, most of this investment effort had to be financed from external sources, with the consequence that the country's debt position deteriorated at an alarming rate. Towards the end, the country started defaulting on its debt obligations, and hence accumulating arrears.

The wide investment-saving gap was paralleled by a large and steadily widening budget deficit, in spite of considerable increases in government revenue. This substantial deficit was financed by external sources and borrowing from the banking system. This was a major factor in the growth of money supply, with inflationary consequences.

Likewise the trade deficit was steadily rising, a fact which was the major factor in triggering and expanding a negative balance in the current account. Consequently, the country had to borrow abroad and draw down on its foreign exchange reserves. This meant a drastic decline in import cover, so much so that by 1989-90 the country's foreign exchange reserves could cover only 10 days' imports.

These facts inevitably translated into declining living standards. In addition to falling per capita income, the economy was characterized by declining food availability, an erosion in the purchasing power of income, rising unemployment, poor housing conditions, limited access to water and sanitation, etc. Thus, according to World Bank estimates, 60% of the population lived in absolute poverty, meaning they could not afford the minimal requirements for decent human living.

And all the available evidence shows that these negative trends accelerated during the last year of the Derg.[2] In 1990/91 GDP further declined by 0.3%, implying a fall in per capita income of 3.2%. The sectoral rates of decline were 7.4%, 4.9% and 15.1% for agriculture, industry and services, respectively. The investment rate declined to 10.4% of GDP, while the saving rate was -0.2%, suggesting that the country consumed more than it produced. Export earnings declined by 24.4%, while - in contrast - the value of imports increased by 16%, giving rise to a trade deficit of Birr 1.6 billion. Arrears on external debt rose to Birr 450 million. The total budgetary deficit was in excess of Birr 2 billion, about 60% of which was financed by borrowing from the banking system, with clearly discernible inflationary consequences. The Addis Ababa retail price index rose by 20.9%, compared to 5.2% for the previous year. And open urban unemployment was very conservatively estimated at more than 600,000. One concludes, therefore, that the military regime left behind a bankrupt economy and an accumulation of social problems.

However, the fall of that regime has not led to an amelioration of the economic situation; on the contrary, the process of economic decline has continued unabated. It is estimated that over the last year or so GDP declined by 10%; that the investment rate declined to 9.1%; and that the saving rate reached an all-time low of -3.2%. Export earnings are also estimated to have reached a very low figure of Birr 388.6 million, with the value of coffee exports having hit a rock-bottom figure of Birr 164.9 million. In contrast, there has been a slight rise in the value of imports, raising the trade deficit to about Birr 1.8 billion. The debt service ratio on accrual basis is estimated to have exceeded 95%, but it was much lower on cash basis for the simple reason that arrears were being accumulated. The share of the budget deficit financed by bank borrowing was even higher, and the price index continued to escalate.

The country's social problems have also been compounded over the last year.[3] The end of the war has meant the demobilization of over 300,000 former soldiers, for whom no alternative source of income has been found. They and their families, conservatively estimated at between half a million and 800,000 (in addition to the former soldiers) represent an immense social problem that cries out for an immediate solution. Second, it is estimated that about one million people have been displaced on account of ethnic conflict; these are for the most part sheltered in makeshift accommodations and

dependent on relief handouts. Third, thousands have been dislocated from former resettlement sites and are in need of urgent assistance. Fourth, there are additional thousands evicted from Eritrea and without means of sustenance. Fifth, there are thousands who have returned from Somalia, Sudan and Djibouti. Sixth, the urban situation, particularly in Addis Ababa, has been deteriorating rather fast, with a very rapid rise in the numbers of street children and beggars, in addition to the overcrowding that is quite easily observable. And finally, there are the ubiquitous drought victims. All in all, some eight million people are estimated to be in need of relief assistance. It must be borne in mind that this is on top of the massive poverty with which the country has to contend even in the absence of such additional crises. Indeed, life for millions of Ethiopians today comes very close to the Hobbesian characterization of "poor, nasty, brutish, and short".

The challenges facing Ethiopia are therefore truly daunting and cannot be met without making significant policy departures and undertaking resource mobilization on a large scale. In the policy area the major developments in the post-Derg era have been: (a) the issuance by the transitional government of an economic policy for the transition period; (b) the conclusion of an agreement on economic recovery and reconstruction; and (c) negotiations that the government has been conducting with the Bank and the Fund with a view to launching a structural adjustment program.

The new economic policy [23, p. 28] promises to relax the grip of the state on the economy, to encourage and support private enterprise and to give greater scope for popular participation in the economic development of the country. More specifically, it is envisaged to privatize some state enterprises; to remove barriers to private investment; to minimize state interventions in such areas as marketing and pricing; to give greater autonomy to state enterprises; and to withdraw the privileges enjoyed by them. In brief, the intention is to move the economy in the direction of greater market orientation. All this is at the level of intent. There are, however, serious problems of implementation, quite apart from the question of the extent to which the government is committed to economic reform [see 7].

Although not strictly a policy move, the second important development is the signing of an agreement for an Emergency Recovery and Reconstruction Project (ERRP)

of $672 million, of which $600 million is expected to be put up by the World Bank, the African Development Bank, the EEC and a few other donors; and the remaining $72 million is to be put up by the Ethiopian government. The significance of the ERRP is not only that it makes funds available for the recovery and reconstruction of a devastated economy, but also that it is perceived by the Bank as a prelude to the country embarking on an adjustment program.

The first phase thus involves "emergency assistance needed to overcome the devastating effects of the several decades of civil unrest, and to recommence essential economic activity" [18, p. 2], and was designed in close consultation with the government. Of the total money committed, 43% is a production component (for meeting import requirements for industrial spares and materials; transport equipment, spares and tires; and petroleum products); 35% is an infrastructure component; and 22% is a social sector component.

Perhaps more significant over the long haul is that the ERRP is seen as paving the way for structural adjustment. After cautioning that the ERRP "is not in itself a vehicle for policy reform", the President of the World Bank states that "the project has [nevertheless] been designed to ensure that all of the components will be compatible with and complement the coming reform program". Further,

> at the same time, it must be emphasized that because of the weakened state of the economy, the ERRP on its own would bring only temporary relief without the rapid design and implementation of the program of adjustment. For this reason, special efforts were made to ensure that the program of reform is on track by organizing the first Policy Framework Paper (PFP) mission prior to the submission of the project to the Board. It is expected that the outcome of that mission does indeed confirm the TG's [Transitional Government's] commitment to a comprehensive program of policy reform, and the expectation that agreement will be reached on the PFP within a reasonable timetable.[18, p. 3]

The country has started negotiations with the Bank and the Fund on a possible structural adjustment program; in fact there have already been two rounds of such negotiations. Since public knowledge about the negotiations is limited, whatever we can say in this regard is gleaned from some government and Bank documents. Again

according to the President of the World Bank,

> The second phase, which will begin in parallel with the start-up of the ERRP, consists of the design of a program of structural reform, whose implementation will start in 1992. ... Alongside the design of the reform and adjustment program, the Bank will carry out an intensive review of the current portfolio, and further restructure existing projects if necessary to increase their relevance to the new situation. Agreeing on the program of reform would also open up the prospect of Ethiopia's entry into the Special Program of Assistance for Africa (SPA), and a broadened program of IDA investment projects.[18]

It is against this background that I will now proceed to discuss the prospects for economic reform and recovery within the next few years. Since not all issues can be dealt with within the compass of this paper, I have chosen to concentrate on what I consider to be the most important determinants of the course of the economy at least for the balance of the transition period. These are the political environment, the relative roles of the public and private sectors; the link between economic reform and growth; and the social dimensions of economic reform.[4]

2. PROSPECTS FOR ECONOMIC REFORM AND RECOVERY

2.1 The Political Factor

It is obvious that economic reform cannot take place in a political vacuum. But beyond a recognition of this fact, the link between political and economic reform, in countries that are forced to implement both, is not very clear. That there cannot be much democracy in an environment of economic stagnation seems quite evident. It is also true that political developments define the perimeter within which economic reforms take place. But whether or not democracy is a prerequisite for economic development is far from clear, at least based on historical experience. Thus, although South Korea, Taiwan, Singapore, and Chile under Pinochet have registered impressive rates of economic growth, they cannot be considered democratic regimes in any regularly accepted meaning

of the term. And the World Bank has been unable to establish any clear link between economic reform implementation and democratic governance. "Democratic governments", it says, "are not necessarily more adept at managing reform" [26, p. 133].

Whatever the link between political and economic reform may be, there is no doubt that the politics of a country can exert a positive or negative influence on the performance of its economy. I would go even farther and submit that in Ethiopia the most significant determinant of how the economy will perform in the immediate future is undoubtedly the **political** factor.

First, the Transitional Government's attention is so totally taken up in attempts at constructing a new political order that economic issues - burning as they are - have not been able to get the attention they deserve. To forestall a possible misunderstanding, my contention here is not that economic reform can be undertaken in complete disregard of political realities. It is rather that since economic reform is as much a matter of confidence-building as it is of implementing change, any posture that may be construed as reflecting lack of commitment to it can have adverse consequences on the economy. This means that, even in the process of pursuing the political agenda, time must be taken out to take care of the most pressing economic problems, especially given the state of the Ethiopian economy and the destitution of the people.

This suggests the importance of not only the **type** of the economic reforms that will be instituted but also of the **speed** with which this will be done. Nine months have elapsed since the economic policy of the Transitional Government was made public, but there are few signs to date of moves in the direction of implementation.[5] Efforts at reforming public sector enterprises and privatization have not gone beyond preliminary discussions, the new labor law has not been finalized, and negotiations with the international financial institutions have not been completed. The proclamation of the new investment law is the only measure that has been made public to date [19]. Whatever the reasons for slow reform implementation, the fact is that this has created a great deal of uncertainty with regard to the new economic course, especially so within the private sector. And uncertainty is the worst situation in a period of transition.

Nor is the issue one of politics first or economics first. Even if priority is to be given to putting the political house in order, the real question is whether the kind of

politics pursued is one that will facilitate or obstruct economic growth. It is on this aspect of the problem that I wish to dwell further.

First comes the question of security and political stability. It is important to note that the insecurity in many parts of the country, which has been exacerbated by the controversies surrounding the recent elections, is likely to grow worse - not better - in the immediate future. And this is bound to have an adverse impact on the economy. It will interfere with production, disrupt the movement of goods and people, and generally create an atmosphere of doubt and uncertainty, to the obvious detriment of economic growth. Especially noteworthy in this regard is that the regions affected are those that have traditionally been the backbone of the economy.

Another reason why economic development is a casualty of political instability is because it makes it impossible to acquire the "vision" without which any exercise in economic reform would be meaningless. As pointed out by one student of the problem, "weak governments that are trying to maintain legitimacy have a hard time thinking beyond the short-term".[6]

Also, the uncertain and highly charged political atmosphere will seriously erode whatever chances there may have been for reaping a peace dividend. For, as the old wounds of war begin to heal, it seems new ones are opening up on the Ethiopian body politic, making a pipedream out of the promise of peace. Military engagements will continue to require the commitment of resources and personnel, the government's revenue mobilization efforts will be frustrated, export earnings will be drastically reduced, and investment will be discouraged. Therefore, unless the political situation changes for the better, it will constitute the most serious deterrent to economic recovery. Unfortunately, the chances of peace and political stability being achieved in the immediate future look rather slim.

Finally, one has to consider the economic impact of the contemplated decentralization of regional administration [20]. Although there is nothing specific that the government has made public in this regard, there are a number of questions to raise. For instance, how much control will regional administrations have over resources (e.g., land, forests, minerals) that are found in their respective regions? With respect to exportable commodities (especially coffee), how much say will the regions have? What

kind of economic activities can the regions undertake without consulting or getting the permission of the central government? What legal powers will they have in raising revenue? What mechanisms will be put in place to ensure revenue-sharing between the central government and the regions?

All these are questions that need to be answered before anything definite can be said about their economic implications. However, even though the **extent** of the envisaged departure from the past practice of a highly centralized administration may not clearly be known, there is no doubt about the **direction**. If, for instance, regional administrations insist on getting a substantial share of export earnings generated by products originating from their regions, as seems likely, this will greatly weaken an already fragile central budget. It will also introduce a significant element of inequity between resource-rich and resource-poor regions. In other words, unless the relationship between the center and regions is handled carefully, it could end up by seriously weakening the national economy while exacerbating regional differences. While the move away from over-centralization is welcome even from an economic point of view, too radical a restructuring can be detrimental to the national economy. After all, development means building one national economy and ensuring that the benefits of such development are shared equitably. Any arrangement that departs from this will create a breeding ground for tensions. In this connection, it is instructive to note the similar experiences of Eastern and Central Europe.

> Tension has emerged in most of the reforming countries between the strong central leadership needed to push through difficult reforms and the broad participation and compromise needed to ensure widespread support for the program. Central executive authority has been discredited by past experience, and a new model of strong government with a legitimate role in a market system has not yet emerged. In fact the pendulum in several countries is swinging in the opposite direction, towards greater decentralization and autonomy of provincial and local governments. This is likely to complicate reform efforts in the short run [10].

Further comment would be superfluous.

2.2 The Role of the State and the Private Sector

In the final analysis the central problem of economic reform is one of deciding the relative roles of the public and private sectors. After decades of concern with problems of market failure, the international ideological-intellectual pendulum has swung to the other end, so that what is good form now is to hammer on problems of government failure. In our obsession with the current orthodoxy, which is unequivocal in its condemnation of state intervention in the economy, we tend to forget that, curiously, the pronounced role of the state over the last generation or so traces its ancestry, at least in part, to conventional welfare economics. According to this branch of orthodox economic theory, there are certain cases of "market failure" which justify government intervention in the economy, some of which being market imperfections, public goods, and externalities.

Liberally interpreted, this has been taken as a recipe for extensive government intervention, especially on account of pronounced market imperfections and the large scope for external economies in Third World countries. Government intervention was also justified by the weakness of the private sector in these countries. Yet another factor was the emergence of "the socialist camp", giving respectability to planning and hence to an extended role for the state.

There were, however, less principled considerations as well:

> The central motivation behind economic policy was regime survival. The emphasis was on buying political support and sustaining it, thereby avoiding the risk of being driven into the political wilderness. To the extent that the same policy could also be rationalized in terms of the prevailing development ideology, a convenient rhetoric was at hand. Priority was placed on avoiding political crises in the short run [11, p. 31].

Consequently, the main features of the economic policy that evolved in these countries was characterized by a) a substantial degree of government ownership of productive enterprises; b) extensive government regulation of economic activities, the corollary being undermining the private sector and a preference for administrative methods of resource allocation over market mechanisms; and c) considerable expansion in government expenditures. Thus, although in varying degrees, the heavy hand of the

state was all too obvious in most of these countries. Such an overextended state, in conjunction with a rapidly deteriorating natural environment, a hostile international economic setting, little technological advance and a rapidly growing population, was instrumental in producing a dismal economic record.

In view of this, a reconsideration of past policies has begun in most countries, although the sincerity and sense of commitment with which this is undertaken leaves considerable room for skepticism. Central to such a reconsideration is narrowing the scope of the government in the economy and allowing a greater role for the market. The compelling reasons for moving in such a direction have been intensified by what has been happening in the erstwhile socialist countries and the concerted pressures of donors, spearheaded by the World Bank and the International Monetary Fund.

Compelling as these reasons are, however, they should not lead us to lose sight of the indispensable contributions of the state or to exaggerate the virility of private enterprise in countries such as Ethiopia. This is neither to deny the adverse consequences of indiscriminate government interference in the economy nor to downplay the merits of the market. It is merely to point out that societies in transition will be ill-served by blanket condemnations of the state, as "the new orthodoxy" would seem to demand.

This is so because, in the first place, as the World Bank itself concedes, "intervention by the public sector is not undesirable in itself. On the contrary, many sorts of intervention are essential if economies are to achieve their full potential" [26, p. 131]. Especially noteworthy in this regard is the important role governments have to play in such areas as infrastructure and education, and - more generally - in creating an "enabling environment" for development.

In this connection, it is worth reviewing the experiences of the Asian countries which are always cited as success stories. Contrary to popularly held notions, these countries are not models of laissez-faire. In every case, the role of the state "was large, ... it was active, and it was interventionist" [24, p. 81].

Take Taiwan first:

> The Milton Friedman view of Taiwan is quite wrong. To say that they went to free enterprise completely, that this is an example of markets in operation is wrong. It is not that. It is a question of the state using its power intelligently and

> selectively... [24, p. 35]

Much the same applies to Korea:

> Korea was far from a market-oriented economy. It certainly had market elements and they were important, but look at the ways in which government really ran the show. Every large corporation in Korea that got credit got it through government banks and at very subsidized interest rates, generally zero or negative real interest rates for most of the period.[24, p. 54]

It should also be noted that "Korea has a greater share of GDP from public enterprises than India does" [24, p. 64].

Third, of Singapore it has been written that it has "one of the most **dirigiste** governments on earth" [3]. In the words of another journalist, "Singapore's economic miracle owes something to the fact that what might look like free-market capitalism is actually a capitalism carefully controlled and orchestrated by the government".[7]

The upshot of all this is that the issue is not whether the state should intervene or not, but how it should intervene. Specifically, the issue is whether it intervenes to promote growth or to stifle it.

In the second place, we would do well to remember the constraints within which the private sector operates. As Kitgaard notes, "in the throes of our current disillusion with government in the third world, we may tend to forget past disappointments with the private sector" [17, p. 3]. With respect to the Ethiopian case, the constraints are of two types. The first refers to the fact that the private sector is of limited scope. Never particularly robust even in the best of times, it has been seriously incapacitated by seventeen years of a policy framework that viewed it as an adversary, not an agent, of development. On this account, whatever private capital survived was driven underground.

This does not mean that fortunes were not made by private entrepreneurs; they were. But the very success of the private sector embodied its limitations as well. Private capital, to the extent that it thrived at all, did so by exploiting the pervasive scarcities that were the hallmark of the Ethiopian economy. It was engaged in rent-seeking, not in productive activity. Having been accustomed to the easy way out, it will not now be easily persuaded to invest its resources in productive activities, unless it perceives the

new policy environment to be unusually promising. Even then, however, it would be misleading to operate on the assumption of a dynamic private sector. It should also be noted that the fortunes alluded to above are concentrated in relatively few hands. Therefore, it would be unrealistic to expect much from the private sector in the immediate future. This should not, however, be misconstrued as belittling the importance of creating an environment conducive to private capital. It is of the utmost importance, as has been demonstrated by experiences of a world-wide scale.

The second type of constraints within which the private sector operates is related to the current policy environment. First, the attitude of the Transitional Government to the private sector is at best ambivalent. Although the economic policy expresses intent to give a larger scope for private enterprise, it should be recognized that there are many activities that have been reserved for the state. But more important is the fact that the private sector does not perceive the current policy environment as encouraging.

Quite apart from the problem of perception, there are also serious problems, some inherited from the past order and some of a more structural nature. These include the foreign exchange constraint (which is more severe on the private sector); discrimination in terms of access to credit; unfavorable tax laws; a labor law which seriously disadvantages the private investor; excessively involved bureaucratic procedures for obtaining licenses, clearing goods from customs, access to services such as electricity and telephone; and difficulties of obtaining land, to name only a few of the major ones. It is for these reasons that the prospects for privatization, which is much talked about, are bound to be unpromising. In addition, there are many intractable problems associated with the privatization exercise, including deciding on which enterprises to privatize, valuation of enterprises, choosing the best modalities for privatization, and coping with its social impact (unemployment, price hikes, etc.).

It seems more likely that government efforts will concentrate on rationalizing public enterprises rather than on privatizing them. The economic policy of the transition period envisages giving broad autonomy to state enterprises; using profitability as the major criterion of performance; and requiring state enterprises to compete with private ones without being given any privileges. But the policy also includes a stipulation that is bound to lessen enterprise autonomy in practice, because it states that "labor should have

a third of the voting right through representation on enterprise management boards" [23, p. 28].

That state enterprises should be judged on the basis of efficiency brooks no dispute. Here again, however, there are a number of problems that should not be glossed over. It should be especially noted that these enterprises, which had been operating in a highly protected manner, will not find it easy to operate on the basis of competition.

In the final analysis, however, what is most important will be not the pace of privatization or even success with respect to rationalizing state enterprises. What is decisive is the overall environment within which economic activity is to take place. It is one of dismantling the entire structure of rules and regulations that have blocked the energies of investors as well as those of the people at large. It is - in short - a matter of recasting the role of the state as a facilitator of development.

2.3 The Link Between Economic Reform and Growth

As indicated above, Ethiopia finds itself face to face with the real possibility of a structural adjustment program. As a latecomer to this type of policy exercise it has the opportunity to learn, if it so wishes, from the experiences of other countries. It is therefore worthwhile to begin with a brief review of the theory and practice of structural adjustment.

The most immediate cause for the emergence and proliferation of structural adjustment programs (SAPs) in Third World countries was the unprecedented economic crisis that hit them in the 1980s. A combination of internal and external factors combined to cause declines in per capita incomes, food production per capita, saving and investment rates, and export earnings; rising budget and balance of payments deficits; spiralling inflation; and mounting debt, all these culminating in severe declines in living standards.

Internally, the major causes of the crisis were rapid population growth, backward and inappropriate technology, poor physical and human infrastructure, environmental degradation, erroneous policies and, in certain cases, civil conflict. The external factors included deteriorating terms of trade, the oil shocks, stagnating or declining exports, stagnating or declining resource flows, and increasing protectionism in the advanced

countries. This combination of adverse factors plunged many countries into a crisis from which many of them have yet to extricate themselves.

Given such severe crises, continuing with business as usual was obviously out of the question. In fact, one could argue that the crisis could assume such dimensions partly because economic reform had been neglected for too long, making any anticipated adjustment measures more painful than they would have been if they had been implemented earlier. There was thus no debate on the need for adjustment, for to deny this need would have been to argue for these countries to continue along the path of immiserization.

The real debate was therefore not on whether or not to adjust, but on what kind of adjustment. One school argued that the major causes of the crisis are structural, i.e., factors inherent in the phenomenon of underdevelopment (such as poor infrastructure, backward technology, reliance on primary production, an unfavorable international environment, etc.) and that merely tinkering with policy reform without tackling these structural problems would not get the countries out of the crisis. Another school, especially the international financial institutions (IFIs), put the blame on the policy failures of governments, some of which included over-extending the role of the state, stifling private initiative, neglecting agriculture, spending beyond the economy's means, and maintaining an overvalued currency. They therefore called for the speedy introduction and implementation of measures for economic **stabilization** and **structural adjustment**.

In principle, there is a distinction between stabilization and structural adjustment. The objective of the former is to restore macroeconomic balance to an economy that has been characterized by persistent budget and balance of payments deficits as well as by inflation. The solutions proposed are in the nature of short-term corrective measures aimed at reducing public expenditure, reducing aggregate demand (including both domestic production and imports), tight money policy and restricting incomes; expenditure-switching policies aimed at increasing the supply of tradeables through, among others, exchange rate adjustment and export subsidies; and institutional reforms such as privatization and trade liberalization, among others. It is usually the IMF that is associated with stabilization measures.

Structural adjustment, on the other hand, focuses on what are considered to be longer-term structural problems that inhibit growth. It includes measures to promote the mobilization of domestic resources (including fiscal and monetary reform and enhancing the efficiency of public enterprises); measures for enhancing the overall efficiency of the economy (including privatization, reform of the civil service and public enterprises, encouragement of private investment); trade liberalization (including the removal of import quotas, tariff reduction and export promotion); strengthening the public sector through improvement in management; and institutional reform, including the rationalization of services, the introduction of user charges, etc. These are in the nature of medium- and long-term measures, and they are usually associated with the World Bank.

What should be obvious from the measures listed above is that there is a great deal of overlap between stabilization and adjustment measures. Moreover, the functions of the Bank and the IMF, which were clearly distinct when the two institutions were initially set up, have tended to converge over time, so that now it is common for both of them to be involved in the negotiation of SAPs with developing countries. We shall therefore use adjustment to refer to packages that include measures of both stabilization and structural adjustment proper.

The contents of standard SAPs generally include:

a) measures for reducing the role of the state in the economy and enhancing that of the private sector, including privatization and providing incentives to private investors;

b) retrenching government expenditures;

c) reforming the civil service and enhancing the efficiency of public enterprises through providing them greater autonomy, rationalization, introducing criteria of profitability, etc.;

d) allowing a greater role for the market in resource allocation, including removing restrictions on trade, lifting government controls on prices, liberalizing imports and generally minimizing administrative interferences in the economy;

e) devaluation of currency;

f) the introduction of user charges for services provided by the state, such as health, education, etc.;

g) removal of subsidies for food, health, education, transportation, etc.;

h) tightening money supply and putting a ceiling on credit; and

i) restraint on increases of wages and other incomes.

SAPs which have included all or most of these measures have been introduced in a large number of countries. They have naturally been surrounded by a great deal of controversy regarding how effective they have been. The controversy revolves around two central questions: how successful have they been in **economic** terms; and what have been the **human costs** of gaining economic success where this has been achieved? Economic success means generating growth and, more specifically, raising per capita income, savings, investment and export earnings; reducing inflation; and reducing budget and balance of payments deficits. In human terms, one would be interested in knowing what the impact of SAPs has been on human welfare in general, and on nutrition, health, education, poverty alleviation, unemployment, etc., in particular.

While the questions are clear, there are unfortunately a number of thorny problems involved in attempting to answer them. Take the methodological issues first. One approach is to compare the records of adjusting and non-adjusting countries as groups. While there is a logical basis for comparing the performance of the two sets of countries, this approach is not without its difficulties. In the first place, the differences between the two sets of countries may not be simply that one group has adopted SAPs while the other has not. It is possible for other factors to come into play (for example, drought and civil conflict), thereby introducing variables that have nothing to do with adjusting or not adjusting. Because of the difficulty of controlling such variables, it is possible to end up with misleading conclusions. Secondly, because the comparison is between **groups** of countries, interesting variations between sub-groups and even between individual countries could be concealed. Thus, while a certain conclusion may hold for a sample of developing countries, it may not hold for the least developed countries within that sample, or for the countries of Sub-Saharan Africa, or for oil importers as a group. Therefore, while it may not be possible to dispense with this approach entirely, caution should be exercised in making categorical conclusions based on it.

The other alternative would be to compare the performance of the same country prior to and after adjustment. On the face of it, this would seem a perfectly acceptable procedure. However, it too has its limitations. If, for example, the country performs worse in the post-adjustment period, would one be justified in attributing the deterioration to the adjustment package? If one did so, how would one respond to the claim that maybe the situation would have been even worse without adjustment? This lands us in the realm of speculation, which would put any neat conclusions in disarray. Moreover, the problem of other variables is relevant here also. For instance, if drought coincides with the launching of SAP, how much of the resulting deterioration in the economic situation can be attributed to the policies and how much to the drought? The problem of methodology is thus not amenable to easy solution.

Quite apart from the question of methodology is the perennial data problem. In the first place, not all the data required to make an evaluation may be available, this being especially so in the case of social data. Second, even if some sort of data are available, they may be of doubtful validity. Third, the available data may not run for a sufficiently long period of time to enable making observations on trends over time. And finally, the data may not be disaggregated enough to enable making an analysis of the impact of SAPs on different segments of society.

Bearing these methodological and data problems in mind, we now turn to the available evidence. What is particularly striking in this regard is that the literature is replete with contradictory conclusions. In general, the Bank, the Fund and a number of other analysts argue that adjusting countries have on the whole performed better than non-adjusting ones in economic terms, and that there is no evidence to demonstrate that SAPs have caused a deterioration in the social situation. On the other hand, there are those who reject SAPs outright as total failures in restoring growth and as even greater failures in social terms, because they have led to serious social deterioration wherever they have been implemented. These may be taken as extreme positions.

The reality is more complex and probably falls somewhere in between. A nuanced - and consistent - position is that of UNICEF, which has been the leading champion of "adjustment with a human face". At the risk of over-simplification, UNICEF's evaluation of SAPs may be summarized as follows [See, e.g., 22]. In economic terms, the real

question is the extent to which SAPs have managed to accelerate economic growth; specifically, what has been their impact on real per capita income, saving, investment, the balance of payments deficit, the budget deficit, and the rate of inflation? The available evidence reveals considerable variation between countries. Taking developing countries as a whole, there are some that have registered an improvement, while there are many that have experienced a deterioration in the wake of SAPs. However, in Latin America and Sub-Saharan Africa, the regions with the largest numbers of adjusting countries, experience has been negative on balance (although there has been variation between countries within these groups). The broad conclusion for these regions is that, on the whole (with the exception of a few cases), adjustment policies have not delivered better economic performance, although it is conceded that countries in Asia, for example, have done better.

What, then, is the likely impact of adjustment on the Ethiopian economy? Since not all issues can be addressed here, I would like to concentrate on the measure that is considered central to economic reform by most students of the problem as well as by the international financial institutions, i.e., the **devaluation of the Birr.**

Let me begin by disposing of the issues that are not subject to dispute. First, there is no doubt that the Birr is over-valued. Second, and following from the first point, there is no question about the need to make an adjustment in the exchange rate. The controversy centers around the **timing** and **magnitude** of adjustment.

The basic problem of an overvalued exchange rate is that, like any price distortion, it exerts an adverse impact on economic efficiency and growth. Specifically, it discourages legal exports; encourages illegal ones; and discourages import substitution. Therefore, devaluation would be expected to encourage exports, not only the traditional ones but also new ones; and to divert illegal exports to legal channels, thereby putting more foreign exchange in the hands of the government. Also, by effecting a shift from an administrative allocation of imports to one based on the market, it would bring about an improvement with respect to the allocation of imports. In addition, by making imports relatively more expensive, it would provide a spur to greater import substitution. All in all, the argument goes, devaluation would lead not only to an improvement in the balance of payments, but also to more efficient resource allocation across the board.

While all these points are well-taken in principle, there are a number of arguments presented against an **immediate** devaluation in Ethiopia. First, the export supply response to devaluation may be exaggerated, at least in the short run. While it is readily conceded that devaluation would divert some exports from contraband to official channels, its impact in boosting traditional exports and encouraging new ones is debatable. With respect to traditional exports, most notably coffee in the Ethiopian case, there are at least two reasons for skepticism in this regard. In the first place, the time lag involved between planting new coffee trees and harvesting coffee beans for export is long, involving anywhere from three to five years, thus casting doubt on the immediate efficacy of devaluation. Secondly, there are a number of structural constraints that hamper a substantive supply reaction, including poor infrastructure - and therefore fragmented markets (exacerbated by the current political insecurity), limited access to land and other inputs, technological constraints, etc. With respect to non-traditional exports, while devaluation may encourage them over the long haul, it is highly unlikely that the country's export structure will be significantly altered in the immediate future. Thus, the supply argument for devaluation is at best of a medium-term nature.

Second, there are the inflationary consequences of reform to contend with. In response to devaluation, the prices of imported consumer goods and the costs of imported inputs such as machinery, spare parts, fuel and fertilizer are bound to rise, with a considerable impact on living standards, especially those of the poor and fixed-income receivers.

Third, for devaluation to be effective, it will have to be accompanied by complementary measures, including tight monetary and budgetary policies; restraint on wages; and civil service and public enterprise reforms. And this raises two problems. The first is how realistically budgetary expenditures can be cut, credit limited and wages restrained unless one assumes a massive inflow of resources from abroad, an assumption that is questionable at best. Second, here too there are social consequences to worry about, including the laying-off of workers, reduction of subsidies of essential goods and services, etc., issues to which I will return later.

The counter-argument in favor of devaluation starts by conceding that it will not be a costless exercise. However, it is contended, delay in correcting a seriously distorted price will merely compound these costs if the corrective measure is to be taken at a future point in time rather than now. In addition, some of the costs are blown out of proportion. For instance, it is argued that the inflationary impact with respect to consumer goods is highly exaggerated, for the simple reason that the prices fetched by these goods on the free market already reflect the real, not the official foreign exchange rate, which means that there will be no significant new inflation on account of devaluation. With respect to such items as fertilizer and fuel, it is argued that a possible subsidy scheme can be designed or that it may even be possible to use an administered exchange rate (as opposed to the market one) for a limited period of time. With respect to the social consequences of devaluation, the contention is that it is possible to work out arrangements for a social safety net so that the adverse impact on certain groups can be minimized. The funds for such a scheme could be obtained from abroad, because the implementation of adjustment measures holds the promise of external funds to help the country tide over what will necessarily be difficult times.

I hope the foregoing represents a fair, even if condensed, summary of the major issues of the debate. The debate, as pointed out earlier, is not on whether or not the Birr is overvalued, or on whether or not there is need for exchange rate adjustment. It is rather on the wisdom of immediate devaluation. While many of the arguments on both sides are well-taken, I find the insistence on an unconditional devaluation now less than persuasive, because it tends to overlook or consider unimportant certain basic Ethiopian realities. Perhaps it needs emphasizing that the debate is not about devaluation in general but about devaluation in Ethiopia today.

I believe there are very strong reasons for remaining skeptical about the impact of devaluation in boosting exports, for the reasons mentioned above. Such skepticism is strengthened by recent developments. Coffee exports, which used to fetch upwards of Birr 600 million annually in most years in the past, now account for less than one-third of that. Although the overvalued Birr is largely responsible for this, one must also recognize that the new political realities, especially problems of the free movement of goods and the existence of rival claimants to power in different parts of the country, have

contributed to the problem. Nor has there been any persuasive argument that Ethiopia can diversify her export structure in the immediate future.

In this connection, a familiar counter-argument is that the major immediate gain from devaluation is not boosting exports but improving the allocation of imports by moving away from a system of rationing to one based on market allocation. This is certainly a valid point, but fails to address the issues raised with respect to the inflationary impact of devaluation. Granted, this may not make much of a difference for imported consumer goods such as television sets or video recorders. But it says nothing about locally manufactured goods such as textiles, soap, footwear, etc., all of which have a significant import content.

The whole issue of the social consequences of reform is a point to which I return in the next section of the paper. But a word is in order here on the prospects for obtaining external finance to help cushion the adverse impact of reforms, including devaluation. Judging by the experiences of other countries, the prospects of getting such funds do not look bright, or not as bright as they are usually made to be. To the best of my knowledge, only Ghana has had such good fortune, but it is paying for this in a very high degree of indebtedness.

I am not, however, arguing for continuing with the status quo indefinitely. Some devaluation, with the new rate fixed somewhere between the current official and parallel market rates, is necessary. Like any corrective action, devaluation cannot be expected to be cost-free; the task is therefore one of minimizing the costs as much as possible. Specifically, the timing of devaluation should take the following factors into consideration:

a) One important consideration relates to the prospects for tightening monetary and fiscal policies without introducing intolerable consequences for the economy. If restraint is not exercised in these areas, the inevitable consequence will be an endless spiral of devaluation and inflation, with serious adverse consequences for macro-economic stability. This requirement, indispensable as it is, is not easy to fulfill for an economy which finances a substantial portion of its budget deficit through domestic bank borrowing.

b) Partly for this reason and partly due to the absolute necessity of designing an effective safety net, the efficacy of devaluation will depend on the prospects for obtaining generous funds from abroad. Again, this is something one cannot take for granted; in fact - given the experiences of other countries - there is justification for considerable skepticism. If such funds are not forthcoming at the required level and speed, the reform program may easily be derailed.

c) A third important consideration relates to the prospects for implementing the other components of the reform program, including price decontrol, relaxing trade restrictions, public enterprise reform, privatization, etc. What makes action in these areas complicated is that they are inter-related measures which have to be considered as a package. Devaluation in and of itself cannot be a panacea if it is not supported by these complementary measures. Focussing on exchange rate adjustment alone is a partial remedy, and - like all partial remedies - of doubtful utility.

Thus, while the need for moving in the direction of a market-determined exchange rate is not questionable, a possible transitional arrangement might be retaining a moderately adjusted rate for imports such as fuel, fertilizer and other items deemed of particular sensitivity, and a market-determined rate for most other transactions. But the details of such an arrangement (including its timing and duration) need to be worked out carefully.

2.4 The Social Dimensions of Economic Reform

The central issue here is, even if SAP performs the economic tasks it sets for itself (restoring macroeconomic balance and ensuring growth), what, if any, are the social costs involved?

The **social** impact of SAPs is reflected through their effect on incomes, prices and the availability and cost of essential services. Incomes are affected through changes in levels of employment, wages and incomes from self-employment. In general, performance

has been poor. Private consumption expenditure has fallen in many countries although not by as much as investment and government expenditure. SAPs tend to depress real wages, essentially because of the restraint imposed on money wages; because of the lifting of controls on prices; and because of the inflationary impact of devaluation. True, SAPs have a tendency to change the rural/urban terms of trade in favor of the former, but their impact on the rural population is not uniform; for example, they tend to benefit producers of export crops more than producers of locally consumed products.

SAPs also have a general tendency to lead to reduced employment, although it is hoped that over the long haul, through improvements in overall efficiency, they may lead to greater job opportunities. The reason that they may lead to reduced employment in the short run is that a number of the measures (e.g., retrenchment of public expenditures, civil service reforms, rationalization measures introduced in public enterprises, etc.) necessarily involve worker lay-offs which cannot be compensated for by job creation in the short run. Therefore, they inevitably lead to declines in formal sector employment. It should be noted, however, that this leads to increases in informal sector employment, as those pushed out of the formal sector are compelled to seek sources of livelihood in the informal sector. However, it is well-known that wages in the latter are lower than in the former.

The social impact of SAPs is also reflected through their effect on government expenditures on social services. The evidence suggests that, on balance, SAPs have led to declines in real per capita expenditure on health and education. With respect to health, this has translated into deteriorating services, which - in conjunction with the introduction of user charges as well as higher charges - have led to declining attendance at public health facilities. To a certain extent, however, this negative trend has been compensated for by the expansion of effective low-cost interventions such as oral rehydration therapy and immunization (which - it must be added - is not because of, but in spite of, SAPs). With respect to education, the evidence shows declining enrolment and increasing drop-out rates.

In general, while some adjusting countries have registered improvements in social terms, e.g., higher real incomes, reduced poverty, rising social expenditures, etc., the majority have had to face declining incomes and per capita consumption levels; rising

unemployment and declining performance in the health and education sectors.

Of course, this still leaves the methodological issues raised above unanswered. Regardless of the methodological problems, however, there is ample justification for taking at least a skeptical stand on the social impact of SAPs. There is no better proof of this than recent attempts by the IFIs, especially the World Bank, to accommodate such criticism. There are several examples of such attempts. In 1987 the Bank, together with UNDP and the African Development Bank, launched the Social Dimensions of Adjustment (SDA) program, which "started as an initiative to collect better data on how the poor were being affected by adjustment policies, but ... was rapidly broadened to provide policy advice and some support for taking action to protect vulnerable groups affected by adjustment" [, pp. 1807-21]. The fact that the Bank devoted its **World Development Report 1990** to the problem of poverty is also further evidence of concern with the human aspects of policies. It is also known that Bank guidelines to staff involved in the preparation of policy framework papers require

> "a brief description and assessment ... of the social impact of the government's intended adjustment program", and structural adjustment lending operations required that the president's report analyze the "short-term impact of the adjustment programs on the urban and rural poor, and measures proposed to alleviate negative effects" [27, p. 2].

Even the IMF has not been immune to these developments. "Now, before IMF missions depart from headquarters they are to discuss explicitly the poverty issues raised by proposed stabilization measures with country economists in the Fund and the World Bank" [27].

Essentially, however, what the Bank and the Fund attempt is to minimize the adverse social impact of SAPs rather than addressing the problem while designing them. In other words, the essentials of SAP are formulated without explicit consideration of social concerns, which are incorporated as a kind of after-thought at the end.

The alternative position, again consistently articulated by UNICEF, is that rather than adding social concerns at the end, there is need to incorporate them at the very beginning when the basic components of SAPs are being worked out [See 2]. The task, therefore, should be not merely one of minimizing the adverse impact of SAPs, but of

making sure that social concerns are built into them from the beginning. If this is done, social concerns will not be marginal to the essential design of SAP but will form an inherent component of it. In other words, better adjustment programs can be designed at the outset, rather than trying to embellish them once their essential structure has been determined.

In brief, UNICEF's conclusions [2, pp. 289-97], on the basis of lessons gained from country experiences, can be summarized as follows:

a) In countries that are experiencing a severe economic and social crisis, adjustment is clearly indispensable. As pointed out by Jolly and van der Hoeven, "'muddling through' in times of both internal and external imbalances is one of the worst policy options available" [16, p. 1802].

b) Although economic growth is necessary, it is not - in and of itself - sufficient to protect vulnerable groups. The assumption that the benefits of growth will trickle down to such groups has proved untenable. In fact, it is possible to protect them for a short period even in the absence of growth, but obviously this cannot be sustained over a longer period.

c) The experiences of a number of countries demonstrate that it is possible to combine growth with an improvement in human welfare (adjustment with a human face) if serious planning goes into the design of adjustment programs.

d) Protecting the vulnerable is justifiable not only in human terms but also in terms of economic efficiency, because investments in nutrition, health, education, etc. make important contributions to raising productivity and accelerating growth.

e) Success in promoting human welfare during adjustment is conditional upon a strong political commitment on the part of the leadership of a country towards this objective, generous resource flows from abroad and effective community participation.

In the Ethiopian situation, it is possible to identify the major potential social consequences of adjustment, although exact quantification of their magnitudes would be difficult. First, adjustment will definitely have a considerable inflationary impact, largely

due to devaluation and price liberalization. Devaluation, because it inevitably raises the Birr prices of imports, will cause increases in the prices of manufactured goods (textiles, soap, sugar, processed food, etc.) which are highly import-intensive; in the price of fuel (and hence the cost of transportation - both passenger and freight); in the prices of imported agricultural inputs, most notably fertilizer; in the cost of medicine and medical supplies; in the cost of imported foods (including wheat, for example); in the prices of locally consumed exportables (coffee, oil seeds, pulses, etc.); and in the prices of imported building materials. Such price increases will be reinforced by the lifting of price controls, especially those on manufactured goods, which are still subject to considerable price control.

Second, adjustment is likely to have an adverse impact on the incomes of large segments of society, partly because it will depress real wages and partly because it will reduce employment. Real wages are bound to be depressed when restraints are imposed on money wages while prices continue to rise under the combined influence of price liberalization and devaluation. Reduced employment (at least in the immediate future) will result as a consequence of the retrenchment of public expenditures, the rationalizing of state enterprises and privatization. Given the present importance of the civil service and public enterprises in providing employment, any significant moves in the three areas mentioned above are certain to have an adverse impact on employment, and hence on incomes.

Third, adjustment is likely to reduce the availability of social services while raising their cost. As government expenditures are retrenched, per capita expenditure on the social services, particularly on health and education, is likely to decrease. Especially affected will be operating expenditures and repair and maintenance activities. If this happens, the availability of services is bound to decrease and their quality will deteriorate. The cost of social services is also likely to increase under the combined effect of devaluation, price liberalization, the introduction and/or raising of user charges, privatization and the withdrawal of subsidies.

Obviously, it is the poor - i.e., the majority of the Ethiopian population - who will be most adversely affected by inflation, income decline and the reduced availability and higher cost of social services. Both the Bank and the government have attempted to

address some of these issues. Following a request by the government that "the Fund and the Bank assess the actions which could be taken to address the problems of chronic poverty, the problems of the poor during the current transition, and the potential impact of a future reform program on the poor" [25, p. 9], a Bank mission has already visited the country, with one of its objectives being "to define short term actions which might be taken to alleviate poverty, social deprivation and the adverse effects on vulnerable groups of the ongoing economic adjustment" [25].

In addition to poverty alleviation, the mission addressed issues of health, nutrition, rural domestic water supply and urban sanitation, "because problems in these areas are most pressing from a welfare point of view" [25, p. 10]. Starting from the recognition that "as a group the poor often get a lower share of the benefits from growth if left entirely to market forces, especially in the short to medium run" [25, p. 3] and that "food prices could increase by about 25 percent following a purely hypothetical exchange rate adjustment to Br 5 per $1" [25, p. 5], the mission proposed the following initiatives for urban areas:

> a system of vouchers to be distributed to the poorest in the population entitling their holders to basic foods and other essential commodities [and] "cost of food" price adjustment to public employees to protect them from further price increases in acquiring a basic food basket.[25, pp. 4-5]

For rural areas, it proposed "a system of vouchers for farming households, entitling them to purchase farm inputs (such as fertilizer, improved seeds, tools)" [25, p. 25].

Another component of poverty alleviation the mission envisaged was increasing employment opportunities through labor-intensive construction activities such as building and maintaining rural roads, soil conservation and afforestation.

The mission also identified what it considered to be the major issues in the areas of health, nutrition, rural domestic water supply and urban sanitation, and proposed measures to be taken, including, among others, bringing existing health facilities to a high standard; rehabilitating existing health infrastructure; strengthening health management; a targeted nutrition program; improving community domestic water supplies; and low-cost sanitation works at the domestic/community level [25, pp. 6-7].

This represents the Bank's line of action. It shows a recognition of the possible adverse impact of reform on certain segments of society, although such concerns are far from comprehensive; for instance, education has been left out deliberately. It is, however, noteworthy that the Bank's concerns transcend the reform program and address more general issues of poverty alleviation.

What is government thinking in this regard? The government seems to be well aware of the likely negative impact of adjustment in the social sectors, even though it significantly failed to address this question in its economic policy document. The only reference to social policy in that document is a statement at the very end, which reads "A macro-economic policy as well as a social policy that are consistent with this economic policy will be formulated and issued in the near future" [16, p. 44].

On the basis of the limited information that is available to me, I think there is clear recognition on the part of the government of the potential adverse effects of adjustment, including the inflationary impact of price liberalization and devaluation; the negative impact of tight budgetary and monetary policies on the supply of economic and social services; and exacerbation of the unemployment problem on account of retrenchment of workers in state enterprises and the civil service as well as on account of privatization. There is also a recognition that those most affected will be the poor in both rural and urban areas as well as fixed-income earners in the public service, essentially meaning the majority of the Ethiopian population.

Based on these and other considerations, the government has made a preliminary attempt to work out strategies through which it would be able to mitigate the adverse impact of adjustment on vulnerable groups and promote their greater participation in economic development. The most significant measures identified include providing the poor greater access to productive assets; helping raise the returns to such assets; creating opportunities for generating employment; facilitating access to health and education services; and transfers to identified target groups.

These broad measures translate into a variety of projects and programs, including projects for integrated agricultural development; afforestation, soil and water conservation; rural road construction; irrigation; small-scale cottage industries; income-generating activities; food and non-food subsidies; the rehabilitation of demobilized

soldiers, the displaced and returnees; and the building of social infrastructure. The government has also undertaken a preliminary costing exercise to determine the resources that would be needed to make these projects operational.

Thus, both the Bank and the government are aware of the adverse social consequences of adjustment, even if there may be no agreement on the specifics of these consequences. It is clear, however, that the government's proposals are much broader. However, both share a fundamental weakness. Without addressing issues related to the design and content of the anticipated adjustment program, they seem to concern themselves exclusively with how to minimize its fallout effect. Instead of attempting to incorporate social issues in the program, they prefer to take the program as given and concentrate on damage control. But, as the experiences of other countries demonstrate, such "compensatory" measures are simply not enough. The approach should therefore be more comprehensive.

In talking about a possible adjustment program for Ethiopia, we recognize that the country, being new to this kind of policy undertaking, has the advantages of the latecomer and it would be tragic if it failed to capitalize on the experiences of other countries. This is why, although its circumstances are not identical to those in other countries, a review of such experiences must be the starting point for action.

The magnitude of the challenge in Ethiopia is truly daunting. On the economic front the situation is perhaps not much different from that in most Sub-Saharan countries. On the social front, however, there is much that is unique in the Ethiopian situation. Just emerging from long and catastrophic wars, it still has to suffer their aftermath: demobilized soldiers with no source of livelihood; their dependents, left without any source of support; people displaced on account of ethnic conflict and leading a most precarious existence; returning refugees; those evicted from Eritrea; others forced to flee areas of resettlement; large numbers of disabled persons, street children, beggars; far larger numbers of drought victims; all on top of accumulated poverty add up to a social situation that is certainly out of the ordinary.

This is why "muddling through" is out of the question. The issue even goes beyond protecting vulnerable groups during adjustment, because it makes little sense to talk about vulnerable groups when the vast majority of the population can be so described.

It is in this context that the following lessons from the experiences of other countries should be considered.[8]

First, the general experience is that adjustment programs are expected to deliver too much too soon and with too few resources. Although the need for a longer-term approach seems to be accepted, including by the World Bank, resources have not been forthcoming at the level required to do the job. Adjustment programs are essentially deflationary in the sense that they aim at a speedy elimination of macroeconomic imbalances. While this may be a desirable goal, it may not be a realistic one within a brief period of time. Therefore, there is need to insist on less deflationary policies, a longer time period within which to implement them, and more generous funding from external sources.

In the Ethiopian case, there is no question that the economy requires shock treatment, and requires it now. But given the magnitude of the problem, there should be no illusion that dramatic improvements are possible in a short period or without a massive infusion of resources, especially in view of the many structural rigidities to which the economy is subject, including poor infrastructure, fragmented markets, foreign exchange constraints, and - on the political plane - insecurity in a number of regions. In such a context, deflationary macroeconomic policies that are associated with structural adjustment are not enough. The challenge is how to combine sound economic management with measures to protect the poor.

Second, attention should be paid not only to macroeconomic parameters but also to sectoral issues, with a focus on such questions as the distribution of income and assets, income-generating activities for the poor, and the provision of basic goods, with special emphasis on small farmers and those in the informal sector.

Third, in addition to macro and sectoral policies, there is need to pay attention to "meso" policies, i.e., "policies that deal with the consequences of macro policies on special target groups, the poor, in particular" [12, p. 1839]. The basic idea is to use policy instruments such as taxation, credit, interest rate, etc. to protect vulnerable groups in addition to using them to promote growth.

Fourth, with respect to social sector spending, attention should be paid not only to the level of expenditure but also to how to make a given level of such spending more

equitable and more specifically targeted so that it can benefit low-income families and other vulnerable groups. In this connection spending on items such as nutrition, primary health care, primary education, etc. and focusing on small farmers, those in the informal sector, etc. is of special importance.

Fifth, as indicated above, compensatory measures also make an important ingredient of adjustment with a human face. In addition to subsidies, public works programs and income-generating activities, which were mentioned above, other lines of action are tailoring credit facilities for small businessmen and redundant workers; support for primary health care; provision of educational material, etc. Where compensatory programs are designed, they should be incorporated within existing structures, not seen as separate programs requiring separate administrative arrangements.

Finally, no intervention would be complete without an effective mechanism for monitoring the impact of adjustment policies and other interventions on the human situation. This helps not only to assess the effectiveness of interventions but also to identify needs as the adjustment program continues to be implemented. Even the Bank has recognized the importance of this point, as testified by its introduction of the Social Dimensions of Adjustment (SDA) program.

Admittedly, all these are easier said than done. Problems of implementation, partly on account of inadequate knowledge (especially with respect to targeting the most vulnerable) and partly on account of resource constraints, are bound to be formidable. However, a proper perception of the problem is an indispensable starting point.

3. CONCLUSION

The foregoing analysis does not make cheerful reading and lends credibility to Thomas Carlyle's description of economics as a dismal science. But one wonders if it is the science that is dismal or the reality it attempts to study. The more substantive question, however, is whether there is any light at the end of the tunnel for the Ethiopian economy as the present century draws to a close and the next one stands ready to knock at the gates.

In attempting to answer this question, I will eschew both a prophecy of doom - although it is very difficult to resist - and extravagant wishful thinking. In dealing with Ethiopia's economic prospects, we must be careful to distinguish the underlying problems from those of only current significance. Only by doing so can we acquire a proper perspective.

There should be no doubt at all about the seriousness of the country's deep-seated problems. Since these are fairly well-known, they can be passed with a cursory review. First, in view of the agrarian nature of the economy, must be the environmental factor. While the resource base for agricultural development is not as bountiful as it is often made to be, it compares favorably with that of many an African country. However, it would be foolhardy to underestimate the environmental constraints to which Ethiopian agriculture is subject. The alarming soil degradation that has devastated the traditional grain growing areas, the massive deforestation, and the frequently recurring droughts have seriously undermined the country's food production capacity. The tasks of rehabilitating the soil are enormous, requiring massive investment and a fairly long period of time. In the short term, therefore, the environmental constraint must be taken as a given.

Related to this is the country's demographic dynamics. A very fast rate of population growth, an age structure highly skewed in favor of the young, and no population policy in place combine to produce a demographic nightmare which - on top of massive poverty - makes for a bleak future. Even if a sound population policy were to be formulated today, its effective implementation would require, on top of resources, a fairly long period of popular education, and therefore time. This means that Ethiopia has to live with a rapid growth of population for a long time to come. Evidently, the ghost of Malthus is still around to haunt us.

Third, there is a whole cluster of familiar problems that can be called structural because they are inherent in the structure of underdevelopment. They include the dominance of low-productivity subsistence agriculture; a narrow export base; backward technology; low resource mobilization; poor infrastructure; and limited human resources. These too are problems that can be alleviated only over the long haul, but at least they can be ameliorated even in the short run provided the "development environment" is conducive.

It is this environment that demands immediate attention. As pointed out earlier, the major variable in the Ethiopian development equation is the political factor. For reasons already pointed out, to think of economic reform and development without a significant improvement in the political situation would be illusory. Speculation on the prospects for such an improvement would be hazardous, but skepticism would not be out of place.

This, however, should not be taken as an excuse for postponing economic reform. The government has to demonstrate in no uncertain terms that it takes such reform seriously. A failure to do so and to do so immediately is a sure recipe for perpetuating the morass in which the economy finds itself. For seventeen years the military regime was busy condemning the imperial order; and yet, when it fell, it left the economy in much worse shape than it had found it. To repeat that mistake, which would mean engaging in condemning the past without a vision for the future, would be a colossal tragedy for the Ethiopian people, whose calvary has already lasted too long and who deserve a better future.

What, then, does the future hold? The foregoing analysis may suggest a counsel of despair. But, when the temptation to write off Ethiopia as a basket case becomes overwhelming - as it so often does - one would do well to recall that even our not-so-distant past - which was certainly no golden age - gives a glimmer of hope for the country's future possibilities. It is thus worth recalling that there were times when this country used to produce surplus grain for export; when its budget was characterized by fiscal responsibility; when its balance of payments problems were manageable; when it had a solid reputation as a debtor; and when a parallel foreign exchange market was an unheard of aberration.

It is the realization of these possibilities that represents the major challenge for Ethiopian society today. In view of the enormity of the task, it cannot be done without generous resource flows from abroad, on the prospects for which, unfortunately, one cannot speak with any degree of certainty. But the major responsibility is that of Ethiopian society and of those who have assumed its stewardship. As I said on an earlier occasion, "to be sure, Ethiopia will not be catapulted into "the consumer society" in the immediate future. Yet the achievement of a society free from starvation and with access to the most basic necessities of life is not beyond its reach" [9].

NOTES

[1] This review is based on [8].

[2] The information in this and the following paragraph was obtained from the Ministry of Planning and Economic Development.

[3] The information in this paragraph was gleaned from the following sources: [1, 13, 14].

[4] The next section of the paper is based on the following papers: [4, 5, 6, 7].

[5] I am aware that a Task Force and a Steering Committee on economic reform have been established, chaired by the President and the Prime Minister of the Transitional Government, respectively. But it is telling that these bodies, which could have been formed on the morrow of the policy declaration, did not materialize until several months later.

[6] [24, p. 106]. And as someone else pointed out in the same volume, "The top agenda item for most of Africa today is not growth rate of 6 percent or higher, but how to prevent complete national disintegration. The future of Africa is not necessarily Malaysia. It's more like Liberia or Somalia. Until we get that straight, I think we are missing the picture" (p.143).

[7] [21, p. 49]. This article provides a fascinating account of how Singapore is ruled.

[8] This section draws on [2, pp.290-91].

REFERENCES

[1] Christian Relief and Development Association, *Fact Sheet*, No.41, 21/04/92.

[2] Cornia, G. Andrea, Richard Jolly and Frances Stewart, *Adjustment with a Human Face*, Vol. 1, Oxford: Oxford University Press, 1987.

[3] *The Economist*, 16 November 1991.

[4] Eshetu Chole, "Privatization and Deregulation in Ethiopian Industry: Problems, Prospects and Impact on the Economy", Paper Presented at the Second Annual Conference on the Ethiopian Economy, Organized by the Department of Economics of Addis Ababa University, October 29-November 1, 1992.

[5] _____, "The Social Dimensions of Economic Reform in Ethiopia and the Role of UNICEF", Report Prepared for UNICEF Addis Ababa Office, July 1992.

[6] _____, "On Problems of Economic Transition, with Special Reference to Ethiopia", Paper Presented at the Conference on Economy-Ecology Interaction in the Sahel, Organized by the Centre for Development and Environment, University of Oslo, 10-13 March 1992.

[7] _____, "Ethiopia at the Crossroads: Reflections on the Economics of the Transition Period", Paper Presented at the Symposium on Rehabilitating the Ethiopian Economy, Organized by the Inter-Africa Group, Addis Ababa, 15-18 January 1992.

[8] Eshetu Chole and Makonnen Manyazewal, "The Macroeconomic Performance of the Ethiopian Economy 1974-90", Paper Presented at the First Annual Conference on the Ethiopian Economy, Organized by the Department of Economics of Addis Ababa University, Nazareth, 22-26 November 1991.

[9] Eshetu Chole, "The Ethiopian Economy: Current State, Policy Environment and Future Prospects", Study Prepared for the Canadian International Development Agency (CIDA), January 1990.

[10] Gelb, Alan H. and Cheryl W. Gray, *The Transformation of Economies in Central and Eastern Europe: Issues, Progress and Prospects*, Washington, D.C.: The World Bank, 1991.

[11] Gulhati, Ravi, *The Making of Economic Policy in Africa*, Washington, D.C.: The World Bank, 1990.

[12] Hoeven, Rolph van der, "Adjustment with a Human Face: Still Relevant or Overtaken by Events?", *World Development*, Vol. 19, No. 12.

[13] International Federation of Red Cross and Red Crescent Societies, Appeal No. 27/92, May 8, 1992.

[14] _____, "Ethiopia: Drought and Post-Conflict Emergency Assistance", Situation Report No. 04/91, March 26, 1992.

[15] Jolly, Richard, "Adjustment with a Human Face: A UNICEF Record and Perspective on the 1980s", *World Development*, Vol. 19, No. 12, pp.1807-21.

[16] Jolly, Richard and Rolph van der Hoeven, "Editor's Introduction", *World Development*, Vol. 19, No. 12.

[17] Kitgaard, Robert, *Adjusting to Reality: Beyond "State Versus Market" in Economic Development*, San Francisco: ICS Press, 1991.

[18] Preston, Lewis T., "Memorandum and Recommendation of the President of the International Development Association to the Executive Directors on a Proposed Credit to Ethiopia for an Emergency Recovery and Reconstruction Project".

[19] Proclamation No. 15/1992, "A Proclamation to Provide for the Encouragement, Expansion and Coordination of Investment", *Negarit Gazeta*, 51st Year No. 11, Addis Ababa, 25 May 1992.

[20] Proclamation No.7/1992, "A Proclamation to Provide for the Establishment of National/Regional Self-Governments", *Negarit Gazeta*, 51st Year No. 2, Addis Ababa, 14 January 1992.

[21] Sesser, Stan, "A Nation of Contradictions", *The New Yorker*, January 13, 1992.

[22] Stewart, Frances, "The Many Faces of Adjustment", *World Development*, Vol. 19, No. 12, pp. 1847-64.

[23] Transitional Government of Ethiopia, *Economic Policy of Ethiopia during the Transitional Period*, Addis Ababa, November 1991.

[24] Winrock International Institute for Agricultural Development, *African Development: Lessons from Asia*, Baltimore, Md., 1991.

[25] World Bank, "Ethiopia: Towards Poverty Alleviation and a Social Action Programme - Preliminary Mission Conclusions", Addis Ababa, May 7, 1992.

[26] World Bank, *World Development Report 1991*, London and New York: Oxford University Press, 1991.

[27] World Bank, *Targeted Programs for the Poor during Structural Adjustment*, Washington, D.C., 1988.

ETHIOPIAN JOURNAL OF ECONOMICS, II(1). April 1993, pp. 73-100

TRENDS IN GOVERNMENT FINANCE*

Teshome Mulat
Department of Economics, Addis Ababa University

ABSTRACT: *Recent developments in the Ethiopian budget system indicate a trend of increasing structural deficits, which are caused by independent developments both in the revenue and expenditure structures. The mode of expenditure finance pursued by the government also resulted in a further monetization of these deficits.*

1. INTRODUCTION

A most important post-1974 development in Ethiopia is the phenomenal growth of the public economy. The trend toward "larger government", started in earnest during 1974/75, did not take much time to attain the desired objective. Already, by the middle of 1976, much of the economic wealth of the country were in government hands and the major control and management responsibilities of the economy also lay with the government. The process of developing a large public economy involved complicated steps and had four main elements.

First, the newly established government that supplanted the monarchy, declared socialism as its ideology and the establishment of a strong "state economy" as the target of its economic policies and programmes. The framework for the realization and management of the socialist economy were provided in a number of government publications and proclamations issued around 1974 and 1975 (see, for example, Appendix I).

Second, by issuing and implementing a succession of proclamations it was possible to effect a large-scale transfer of economic resources from the private to the public sector (see Appendix II). The nationalization drive, zealously pursued by the government, was not confined to economic enterprises, urban and rural lands and extra urban houses but also included the services (e.g. wholesale trade, import and export business, etc.) as well as social sector institutions such as schools and cultural centres.

* Revised version of a study originally prepared for a research programme on "How to pass from a war to a peace economy in Ethiopia" contracted by the European Economic Community to DIAL.

© THE ETHIOPIAN ECONOMIC ASSOCIATION

Thirdly, to carry out this greatly expanded responsibilities of the government in the economic sphere, a new system of state machinery was established and the existing bureaucracy was greatly expanded [29]. This constitutes another aspect of the growth of the public economy. Many new ministries, institutes, corporations and departments were established which led to a dramatic expansion of public sector employment and an increase in government expenditures in wages and other benefits[1]. The result of all these processes had been to expand the public sector economy considerably.

Finally, the launching of a series of sequenced "campaigns", which required the large-scale mobilization of human, material and financial resources had also contributed to the growth of the public economy (see Appendix III). In this connection mention may be made of the National Development Through Cooperation, Enlightenment and Work Campaigns (1974-1976) undertaken in order to agitate the peasantry and to implement the new land reform. The campaign was effected by closing all post-secondary institutions and engaging all their staff and students in campaign activities. During 1977 and 1978 about half a million-man militia was raised for another campaign, this time to "defend the mother land" from war of aggression by Somali "expansionists" and northern "secessionist forces". The literacy campaigns (since 1979) carried out over a ten year period and the *Eritrea Region Red-Star Multi-Faceted Campaign* (1982) also used up varying amounts of financial resources; in the latter case, in reconstruction activities and war effort. Following the persistent drought of the early 1980s a large-scale land resettlement campaign was launched which required sizable expenditures in rehabilitation work, transport and up-keep costs and establishment activities. The villagization drive was also extensive and covered nearly all the areas under government control. Later in 1978 another campaign was launched to rehabilitate economic infrastructure and activities destroyed by the "reactionary" wars and the persistent drought. A long run aim of this campaign, *the National Revolutionary Development Campaign* as it was called, had been to start economic development programmes on a stable and enduring basis.

It was attempted to manage these campaigns in a cost-effective and efficient manner by deploying students and peasants (during slack periods) in these campaigns and also by intensively using labour in public sector employment and by transferring underemployed workers to campaign operations. Campaign expenditures were also

trimmed down to approximate transport costs and other "necessary" operational costs only. Extensive use was also made of voluntary contributions and outside financial assistance and to limit as much as possible the financial burden on the public budget system. The initial steps in these campaign programmes may thus give the impression that they can be financed in ways that do not affect the regular government expenditure commitment. Nevertheless, these campaigns consumed a large amount of "transient cost" and also resulted in new activities and programmes requiring the establishment of permanent expenditure budget lines from the government.

Table 1: Total Government Expenditure to GDP Ratio
(Percentages)

Areas	1950	1970	1975	1980	1981	1985	1986	1988	1989	1990
World			27.3	27.8	28.6	30.0	30.1	28.8	---	---
Industrial Countries			28.9	28.7	29.6	31.4	31.4	30.1	29.9	---
Developing Countries										
Africa			22.4	24.2	24.7	24.7	25.3	24.1	---	---
Ethiopia			23.8	23.7	24.5	23.9	25.9	---	---	---
	5.3	14.3	21.7	28.4	32.3	42.1	40.1	49.2	46.4	45.2

SOURCE: The Ethiopian data is calculated from the Ministry of Finance, *Budgetary Revenue and Expenditures*, (various years) [6]; and the rest obtained from the International Monetary Fund (IMF), *Government Finance Statistics Yearbook*, (Various Years) [5].

The growth of the public sector economy is shown in Table 1. During the pre-1975 period the ratio of government expenditure to GDP was low, perhaps even lower than the world average or the average for the developing group of countries. Post-1974 developments show a marked increase in this ratio, reaching the staggering high rate of 45 percent by the latter half of the 1980s.

It appears that Wagner's thesis of the inevitable growth of the public economy is confirmed by the developments in Ethiopia except, perhaps, for the qualification that this growth in the Ethiopian case was more "revolutionary" rather than "evolutionary" [3, pp.44-46]. Peacock and Wiseman's thesis that government expenditures grow in step-like

fashion and that these expenditures are rigid downwards is also confirmed by the fiscal developments in Ethiopia. Every major expenditure up-thrust had raised public spending levels to a new high plateau which once achieved are apparently sustained by drawing regular expenditure budgets from the government [23].

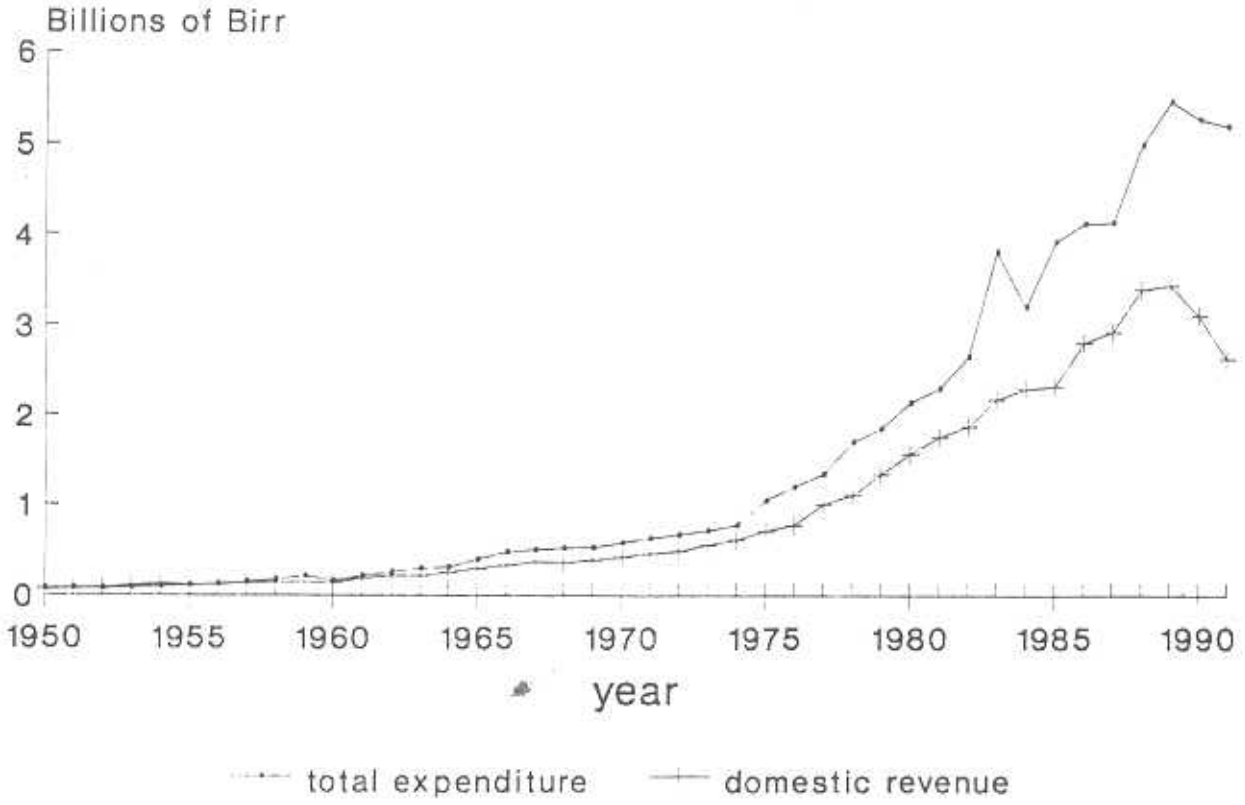
2. BUDGETARY DEFICITS

A major consequence of the fast growth of the public sector economy is the introduction of persistent structural deficits in the economic system. The management of government expenditures is made increasingly difficult because government revenues and expenditures are not properly aligned. Both revenues and expenditures are subject to wild fluctuations. This is not necessarily a manifestation of cyclical deficits, since the fluctuations lack periodicity and pattern. Also, cyclical budgets contribute little to the analysis of budgetary deficits because of limited role of automatic stabilizers in the Ethiopian fiscal system (automatic changes in tax receipts, following business cycles, are small; and so are transfer payments). Rather, the large and growing deficits are results of independent developments in both revenue and expenditure sources and indicate a vulnerable budgeting system operating with erratic fiscal behaviour: heavy and unsustainable financial injections here, large expenditure jumps there and with shocks and crises throughout the period since 1974. Such a budgeting practice is not untypical for an underdeveloped economy where a small financial assistance from a relatively rich source transforms the revenue picture and where, at another time, a small rise in the demand for public resources overtaxes its capacity to finance expenditures [see 31].

Figure 1 shows that budgetary deficits were increasing over the longer term. During the period 1950-1955 budgetary surpluses were recorded. During the following decade balanced budgets were maintained, more or less, and during the period 1965-1974, the practice of "fiscal conservatism" kept the deficits small. It was during the period 1975-1991 that large budgetary deficits are sustained.

Once in that state, all the precepts of classical fiscal management are violated. By deliberate act of government, deficits are increased and the call for "small government" is substituted by the outcry for "larger government". Balanced budget is no

Budget Defecit
From 1950 to 1991



longer the guiding principle for the management of the "fisc", and as for fiscal neutrality, the workings of the invisible hand in the market is substituted by administration and administered prices. In general prudent budget policies are not followed: Public sector investments are not necessarily guided by social rate of return calculus, government expenditures may not be planned always and may reflect the needs to cover "emergency costs", there is a trend toward increased government reliance on ad hoc and unstable revenue sources and the role of fiscal policy in the alleviation of mass poverty and in bringing about economic structural adjustment is not played [see, 31].

3. THE GROWTH OF GOVERNMENT EXPENDITURE

A major factor behind the trend of increasing government deficits has been the relatively higher growth of expenditures than revenues. The ratio of total domestic revenue to total government expenditure averaged 108.88 percent per annum during the period 1950-1955, 82.63 percent per annum during 1956-1964, 73.08 percent during 1965-1974 and 66.59 percent per annum during the period 1975-1991[2].

The trend of increasing government deficits is indicated by the continuing decline in the above ratio. The relatively high growth rate of government expenditures is also shown in Table 2.

Table 2: Average Annual Growth Rates of (Real) Expenditures[3]
(percent)

Period	Recurrent Expenditure	Capital Expenditure	Total Government Expenditure
1950-1960[a]	7.35 (16.07)	[b]12.40 (38.94)	9.17 (15.47)
1961-1974	9.80 (12.84)	17.48 (31.79)	10.25 (11.08)
1975-1990	7.97 (12.87)	11.33 (22.42)	8.38 (13.13)

[a]The growth rates of monetary values are calculated (since appropriate deflators are not provided for this period).
[b]The extremely high growth rate for 1955/56 is substituted by the average of the two encompassing growth rates.

SOURCE: Computed from Ministry of Finance, *Budgetary Revenue and Expenditures*.

Total expenditures, measured in real terms, had a growth rate of about 9 percent per annum during the period 1950-1960, and during the period 1961-1974 the average growth rate increased to about 10 percent per annum. During the era of socialist management of the economy (1975-1991), it was also possible to sustain a high rate of growth of government expenditure, averaging 8 percent per annum. In fact, the average annual rate of growth for the period 1975-1985 was 10.6 percent, and it is due to the relatively steeper drop of growth rate in subsequent years that the decline for the longer period, 1975-1991, to 8 percent is recorded. Both recurrent and capital expenditures increased, contributing to the dramatic rise in the level of total government expenditures.

Regarding the changes in the structure of expenditures and the impact these had on the nature and magnitude of government deficits several developments are indicated. Government expenditure allocations between capital and recurrent expenditures are shown in Table 3.

While recurrent expenditures were 13 times the level of capital expenditures during the 1950-1960 period, 6 times for the period 1961-1974, they were only 3 times as large during the period 1975-1991.

Table 3: Government Recurrent/Capital Expenditure Ratios
(Yearly Averages)

Period	Recurrent/Capital Expenditure Ratios (yearly averages)
1950-1960	12.54 (9.84)
1961-1974	4.52 (1.46)
1975-1991	2.95 (0.78)

NOTES: The figures in parentheses are the standard deviations of the yearly ratios.

SOURCE: Calculated from data in the Ministry of Finance, *Budgetary Revenues and Expenditures*.

The rise in the Capital/Recurrent expenditure ratio need not necessarily imply that a significant change in the overall investment level in the economy had occurred. That the rate of investment growth has in fact decelerated during the post-1974 period

is indicated by national income account statistics. These show that the average annual rate of growth of real fixed capital formation, estimated at 3.03 percent per annum during the period 1961-1974, had decreased to the level of 2.54 percent per annum for the 1975-1991 period[4].

What is indicated by the rise in the capital/recurrent expenditure ratio is merely the changes in the government shares of total investment. The socialist management of the economy has shifted investment responsibilities from the private toward the public economy. Government share of the total fixed capital formation, which averaged a mere 20 percent per annum during the period 1961-1974, increased to 71 percent per year during 1975-1989[5].

The increases in the rate of government capital expenditures (growing structural deficits) had a significant "crowding-out effect" on private investment. Normally, the mechanism through which this effect is transmitted is indirect and involves the reactions of the money market. Structural deficit growth leads to an increase in the rate of interest (government expenditure growth raises the level of gross national income which, in turn, increases the demand for money and thus increases the rate of interest) and, therefore, a decrease in the level of private investment [27, pp.368-689]. However, in the Ethiopian case the crowding-out effect is carried through a more direct route: private entry into specific investment lines are barred (by law), credit rationing practice gives priority to government investment projects, licensing and permit procedures are cumbersome and frequent changes in investment laws and administrative red-tapes are discouraging to prospective private investors. The inefficient and not-so-cost-effective government operations in the investment field deny society the economic benefits from private investment projects, perhaps, with relatively higher yield and greater social utility. As a result, the possible increase in the gross national income (caused by government expenditure growth) is offset by the decline of (or, crowding-out effect on) private investment.

Table 4: Sources of Government Capital Expenditure Finance - Actual
(Percentage Shares)

Period	Central Treasury	Foreign Loans	Foreign Assistance
1973-1974	56.9 (1.8)	27.4 (1.3)	15.7 (3.2)
1975-1988	56.9 (4.7)	30.1 (4.9)	13.0 (3.7)
1975-1991*	55.0 (6.5)	32.0 (6.2)	13.0 (3.8)

*The figures for 1989-1991 are "budget" estimates and not "actual". Note also the figures in parentheses are the standard deviations of the annual shares.

SOURCE: Computed from Ministry of Planning and Development, *Government Capital Expenditures*.

Furthermore, there has also been little change in the relative importance of government sources of capital finance. The Central Treasury allocations cover about 55 percent of the government capital expenditures. In recent years there have been slight increases in the share of foreign loans and a decrease in the share of foreign assistance as sources of government capital expenditure finance. But these small changes do not seem to have affected the general picture: the system of capital expenditures depends, to a high degree, on foreign finance (see, Table 4).

With regard to the allocational effects of government recurrent expenditures three points may be made. First, while the bulk of the expenditures are made in "general services", "defence" forms the single most important category of that group. The annual rate of growth of real expenditure on defence averaged 6.3 percent per annum during the period 1961-1974 and rose to the growth rate of 19.8 percent per annum during the 1975-1991 period[6]. The distortion this high growth rate introduces into the structure of government expenditures is pretty obvious. Ever increasing shares of government expenditures were pumped into destructive activities with adverse consequences on economic growth. The share of defence expenditures (in the total government expenditure), which averaged 26 percent per year during the period 1950-1960, rose to the rate of 42 percent per annum during the period 1975-1991 (see Table 5).

Table 5: Functional Distribution of Recurrent Expenditures (percentages)

Period	General services/Total Recurrent Expenditures		Economic development/Total Recurrent Expenditures	Social Services/Total Recurrent Expenditures
	Defence Exp./Total Recurrent Expend.	General Serv./Total Recurrent Expenditures		
1950-1960	26.35 (2.39)	62.87 (2.15)	16.44 (2.73)	17.25 (1.84)
1961-1974	22.10 (4.32)	52.12 (8.91)	10.73 (2.87)	21.13 (2.85)
1975-1991	41.66 (6.02)	55.19 (6.01)	6.16 (1.18)	17.90 (2.44)

Note the row additions do not yield 100 percent because of "unallocated" expenditures. The figures in parentheses are standard deviations of the yearly ratios.

The second feature of recurrent expenditure allocation is that while "social service" expenditure shares during the 1975-1991 period were maintained at their 1950-1960 period levels, the expenditure allocations for "economic services" have in fact declined in recent years. Low rates of social service expenditure allocations are reflected in declining health and educational standards. The problems in this regard are accentuated by population growth and by the declining rate of private participation in the delivery of social services.

Government recurrent expenditure allocations for economic services were 16 percent of the total per year during 1950-1960, 11 percent during 1961-1974 and only 6 percent per year during the period 1975-1991. Nevertheless, the range of social goods produced in the public sector were both diversified and increasing. In other words, although the relative expenditure shares (on economic services) were declining, the actual levels of government sectoral expenditure allocations were rising. But, with declining shares of sectoral expenditure allocations, declining rates of private sector participation, poor economic performance overall and a high rate of population growth, the economic wellbeing of the population had not improved.

Thirdly, the rapid growth of government expenditure has created a situation where the ordinary revenue system not only fails to contribute to capital finance, but also fails to cover all recurrent expenditures of government. The expansion of the public sector,

it is argued, led to public sector employment growth, the rapid expansion of the bureaucracy and hence the establishment of a permanent budget line in the government expenditure budget system. The rapid expansion of government investment also had a "snowball effect" on the levels of recurrent and total expenditures. Through expenditure linkages and investment multipliers a given level of government investment led to multiples of these in regularized wage bills, running costs and maintenance expenditures.

The overall impact of government expenditure growth had been to create a condition, perhaps inappropriately called and otherwise known as the "recurrent cost problem": excess capacities are created in the productive economic enterprises, projects are abandoned after only some phases of the project cycle are completed, other projects take longer running-in periods, depreciation and maintenance reserves are consumed, etc. and in general, regular government revenues fail to cover even recurrent expenditures, let alone pay for economic expansion and new investment.

4. RECENT DEVELOPMENTS IN GOVERNMENT EXPENDITURE FINANCE

The growing government deficits(or the gaps between domestic revenue and government expenditures), as shown in Figure 1, are bridged by external assistance, external loans and domestic bank borrowing. The last factor, government borrowing from the national banking system, is examined in some detail later.

External assistance and foreign loans constituted an important element in government expenditure finance. Over the years the level of external assistance and loans had increased, although the relative share of these in the total government finance has not changed significantly (see Table 6).

Regarding external assistance, there is no recorded evidence that the Ethiopian government received any prior to 1963. During the period 1964-1974, the annual share of external assistance in the total government finance averaged 16 percent and declined to the level of 9 percent for the period 1975-1991.

Table 6: Sources of Deficit Finance

Period	External Assistance	External Loans	External Assistance and Loans	Domestic Bank Borrowing	Total Government Finance
A. Average Annual Levels (million Birr)					
1950-1963	0	13.76 (17.43)	13.76 (17.43)	3.12 (20.93)	149.66 (72.52)
1964-1974	86.12 (19.01)	40.42 (18.71)	126.56 (31.14)	14.93 (14.61)	556.78 (138.20)
1975-1991	291.00 (219.19)	334.32 (195.07)	625.32 (366.27)	475.71 (452.40)	3198.12 (1536.32)
B. Average Annual Share of Total Finance (percent)					
1950-1963	0	7.36 (5.59)	7.36 (5.59)	-2.01 (16.57)	100.00
1964-1974	15.73 (3.63)	7.05 (2.26)	22.77 (2.83)	2.63 (2.78)	100.00
1975-1991	8.72 (3.62)	10.15 (3.09)	18.87 (5.03)	13.75 (8.07)	100.00

Note the total finance (equals total expenditures) is arrived at by adding to the above "domestic revenue". The figures in parentheses are the standard deviations of the annual values.

On the other hand, the level and share of external loans have been increasing. External loans were about 7 percent of the total yearly finance (on the average) during the pre-1974 period but account for an average of 10 percent share per year of total finance during the period 1974-1991.

While external assistance went mainly to finance consumption (pay for food, labour services, etc), loans constitute a most important source of capital (investment) finance. During the period 1974-1991 assistance and loans were flowing from Eastern Europe, the country's main trading partners, but following the recent setback in both Eastern Europe and Ethiopia, these are now reduced to a trickle and stopped altogether in most cases. Presently, the major sources of relief aid are Western donors and the UN system and the bulk of investment finance is expected from the World Bank and the International Monetary Fund (IMF). However, the negotiations with these institutions under their structural adjustment programme are on-going; and the early monetary disbursement within the framework of the so-called "Economic Restructuring and Reconstruction Programme (ERRP)" do not have a sizable investment component.

External assistance and loans form a rather unstable financial base for government expenditure programmes. As is clearly shown in Ethiopia, international politics rather than the economic needs of the country influence the flow of these

resources. Nevertheless, these sources account for about 20 percent of the annual government finance in recent years, which indicates a high dependency ratio.

4.1 Domestic Financing of Government Expenditures

4.1.1 Tax Financing of Government Expenditure

An important element in the domestic revenue system is taxation. Although over the longer term tax yields had a high growth rate, there has been a marked decline in the rate of growth of tax revenues in recent years. The recent declines in tax collections have resulted in the main from an erosion of the tax base and marked deterioration in tax administration. This trend is indicated in Table 7.

Real tax revenues had an average annual growth rate of about 7 percent during the period 1950-1960. By breaking down the 1975-1991 period into smaller time intervals, the declines in the rate of growth of tax revenues in most recent years can be shown. Although the rate of growth of tax revenue is less than the rate of growth of government expenditure, it is much higher than corresponding growth rates for such macro-variables as gross national income, exports, per capita income or the rate of growth of labour productivity.

Table 7: The Growth of Tax Revenue (percent)

Period	Average Annual Rate of Growth of Real Tax Revenue	Tax Revenue/GDP at Current Factor Cost	Tax Revenue/Total Expenditures	Tax Revenue/Domestic Revenue
1950-1960	8.45 (11.95)*	5.91 (1.02)	86.46 (17.63)	88.10 (1.74)
1961-1974	7.52 (7.60)	8.73 (1.09)	66.84 (9.79)	86.27 (1.82)
1975-1989	7.22 (9.23)	---	---	---
1975-1990	5.96 (10.15)	---	---	---
1975-1991	4.90 (10.67)	17.25 (3.12)	50.68 (8.19)	76.26 (6.37)

*money values (appropriate deflators are not available for the pre-1960 period). The figures in parentheses are standard deviations of the annual figures.

SOURCE: Based on data in Ministry of Finance, *Budgetary Revenue and Expenditures*, and Ministry of Planning and Development, *National Income Accounts*.

Thus, the ratio of tax revenue to GDP at current factor cost increased over time. Tax revenues per annum were about 6 percent of GDP during the period 1950-1960, 9 percent during the period 1961-1974 and 17 percent per annum during 1975-1991. On the other hand, the tax revenue/total expenditure ratio shows a declining trend, indicating a widening gap between government expenditures and tax revenues. Likewise, the ratio of tax revenue to domestic revenues declined, indicating a faster growth of non-tax revenues in recent years.

Table 8: Tax Revenue Structure (percentages)

Period	Direct Tax/Total Tax	Indirect Tax/Total Tax	Foreign Trade Tax/Total Tax Revenue
1950-1960	29.18 (7.80)	22.94 (9.05)	47.88 (4.94)
1961-1974	26.32 (3.09)	29.81 (2.47)	43.87 (4.89)
1975-1991	35.84 (7.00)	29.08 (4.35)	35.08 (10.54)

SOURCE: Ministry of Finance [6].

There has been little change in the structure of tax revenues, using broad classifications (see Table 8). Direct and indirect taxes together accounted for about 50 percent of the tax revenue, and foreign trade taxes for the remaining 50 percent during the period 1950-1960. During the period 1961-1974 the average annual share of direct taxes and foreign trade taxes decreased slightly and that of indirect taxes increased. The average annual share of direct taxes in the total tax revenue increased, that of indirect taxes remained constant and the share of foreign trade tax revenue declined during 1975-1991. During this period foreign trade performance was poor and this is reflected in the relatively low tax returns from that source.

A main factor behind the rising trend of tax revenues has been the discretionary changes introduced around 1964 and 1974. Tax reforms were introduced during the mid-1960s and include the *Income Tax Proclamation 173/1961* and the amendment *Proclamation 242/1966* and *Proclamation 255/1967*, as well as *The Public Servant*

Pensions Contribution Proclamation 199/1963, *Transaction Taxes Proclamation 205/1963* and the *Transaction Tax Regulations, Legal Notice 282/1964*. The amendments to the *Customs Revised Import and Export Regulations, Legal Notice 153/1959* (including the *Customs Temporary Importation Regulations, Legal Notice 310/1965*), *Coffee Surtax Regulations (Legal Notice 280/1964)*, *Excise Tax Proclamation 204/1963*, *Excise Tax (Amendment) Proclamation 220/1965* and *Alcohol Excise Tax Proclamation 217/1965* are also among the important tax laws revised and introduced during the mid-1960s.

The tax reforms made during the mid-1970s, which are thought to have contributed to a considerable increase in tax yield, include the *Rural Land Use Fee and Agricultural Activities Income Tax Proclamation 77/1976* and its amendment, the *Rural Land Use Fee and Agricultural Activities Income Tax Amendment Proclamation 152/1978*. The introduction of these reforms not only replaced the archaic and complicated system of agricultural taxation of previous years, but also increased the agricultural tax yield considerably. Agricultural tax reforms are estimated to have raised the average yearly level of agricultural tax revenues during the post-1976 period to twice the level of the pre-1976 period [30, p.39]. Other tax reforms introduced around mid-1970s and causing a significant increase in tax yields include *The Customs Tariffs Regulations, Legal Notice 42/1976* and the *Income Tax Proclamation 155/1978*. The overall effect of these tax reforms had been to raise the taxation rate, broaden the tax base and thus, increase the tax yield.

There were also tax administration reforms contributing to the growth of government tax revenues. Attempts were made to make the operations of the Ministry of finance departments relatively efficient and cost-effective. The land reform of 1975 introduced a new system of land administration (peasant associations and cooperatives) with responsibilities in tax collections, a factor behind the high increase in agricultural tax yields during the post-1976 period.

4.1.2 The Growth of Domestic Nontax Revenue

Charges and fees, government sales of goods and services, miscellaneous revenues (e.g. fines on government employees), employees pensions contributions and revenues from government property and investment constitute the important nontax revenues in

the system of domestic finance. Of these the revenue source with the highest yield is "revenues from government property and investments". Presently, the yield from this source is at least twice as much as the other nontax revenues put together and includes revenue from state mines, sale of movable property, profits and dividends from capital investment, various rents, surplus from national lottery, and interest on loans and dividends. Since the introduction of *Proclamation 163/1979*, over 95 percent of the revenue from "government property and investments" is contributed by another revenue category: "capital charges and residual surplus". In effect this category can replace the former nomenclature since it is a good approximation of "revenues from government property and investment".

The bases of government extraction of capital charges and residual surpluses is the *Regulation and Coordination of Public Financial Operations Proclamation 163/1979*. According to this Proclamation, each public enterprise pays to the government an annual capital charge of five percent of (the value of) "state capital plus general reserve fund". The General Reserve Fund is 10 percent of the surplus of an enterprise (and to be collected and kept by the enterprise up to a ceiling of 30 percent of the state capital) and 30 percent of the surplus of a financial agency (also collected and kept by the agency for a maximum of 60 percent of the state capital) to be used by the enterprise or financial agency for expansion activities and to pay debts. The capital charge is paid to the government as interest on loan capital, the thinking being that had the government not provided the capital itself, the enterprise or financial agency would have to obtain it from the capital market and pay the debt and the interest on it. In addition to the "Capital charge", a public enterprise or financial agency pays to the government the residual surplus defined as "the sum remaining after the deduction of the general reserve fund from the surplus".

Table 9 shows the growth of government revenue from "capital charges and residual surplus". The average annual rate of growth of "revenue from government property and investments" was 5.7 percent during the period 1967-1977. The average rate of growth of revenue from "capital charge and residual surplus" was a high 21.8 percent per annum during the period 1978-1990 (note the effective date for the introduction of *Proclamation 163/1979* was 30 June 1978). "Revenues from government

property and investment" accounted for only 7 percent of the annual total domestic revenue and 44 percent of the annual nontax revenue during the period 1967-1977. On the other hand, "residual surplus and capital charge" constituted, on the average, 17 percent of the annual total domestic revenue and 65 percent of the annual nontax revenue during 1978-1990.

Table 9: The Growth of "Capital Charge and Residual Surplus"

Period	Average Annual Rate of Growth (percent)	Capital Charge and Residual Surplus-Average annual (million Birr)	Capital Charge and Residual Surplus/Total Domestic Revenue (percent)	Residual Surplus and Capital Charge/Nontax Revenue (percent)
1967-1977*	5.74 (23.26)	45.19 (28.02)	6.80 (2.27)	44.19 (6.45)
1978-1990	21.82 (41.41)	433.93 (223.09)	16.84 (4.98)	64.62 (10.49)

*The row figures refer to "Revenue from Government Property and Investments". The growth rate of 5.74 is obtained when the annual rate of growth for the year 1974/75 is substituted by the average of the growth rates for 1973/74 and 1975/76. As before, the figures in parentheses are the standard deviations of the actual annual values.

For most public enterprises and financial agencies the extraction rate (taken away by the government in the form of capital charge and residual surplus) is considered high. Many of these enterprises and agencies could not produce "surplus", and were kept, for varying periods of time under the "relief" provisions of the Proclamation. Other than narrowing the scope for independent action, the extraction formula leaves the public enterprises and financial institutions with very little resource for expansion and new investment. Furthermore, every time the government is hard-pressed for cash, it tends to syphon off the revenues of the public enterprises and financial agencies by applying the full provisions of the law. During the years 1988, 1989 and 1990 for example, (when the structural deficits reached their peak) the average yearly take of the government on the bases of Proclamation 163/1979 amounted to 74 percent of nontax revenues or 22 percent of the total domestic revenue.

4.2 Domestic Bank Borrowing

Government borrowing from the domestic banking system constitutes a most important means of financing government deficit in recent years. Although the *Monetary and Banking Proclamation 206/1963* permitted the government to use the borrowing facility , it did not make an extensive use of it during the pre-1974 years. This was because of, among other reasons, the relative smallness of government deficits and the greater possibilities of using less inflationary means of deficit financing (including foreign borrowing) in those years. However, since 1974 the government was hard pressed for cash to cover its ever growing levels of deficits and resorted to an extensive use of the borrowing provisions of the banking laws.

The practice of government bank borrowing shows the application of diverse borrowing instruments. Short-term loans are financed by means of treasury bills, which are issued by the government and purchased and held as security by the banks and other financial institutions. Although the 1963 Monetary and Banking Proclamation (*Proclamation 206/1963*) allowed the National Bank to purchase in the open market freely negotiable treasury bills, it was *Proclamation 263/1969* which first initiated the practical application of this borrowing instrument. *Proclamation 263/1969* authorized the Minister of Finance to issue and redeem treasury bills from time to time. In the original proclamation the treasury bills were issued in 50,000 Birr denominations and had a maturity period "not exceeding 93 days". Direct advances constitute the other important, and in recent years indeed a most important, instrument for short-term borrowing from the banking system. First introduced to overcome fluctuations in the ordinary revenues of government in 1963 (Proclamation 206/1963), the government used direct advances to finance the bulk of its bulging expenditures in recent years.

On the other hand, government bonds are used to finance long-term borrowing, and they came into the picture a bit earlier, in 1961. By *Proclamation 172/1961* the Minister of Finance was authorized to issue bonds ("with a total principal value not exceeding 30 million Birr" and) with a maturity period of "not more than 10 years". As the financial needs of government to finance long-term investments expanded considerably, various types of bonds were issued over the years. Some were specific: e.g. there was a 1963 government borrowing against a treasury obligation, later converted

into bond, of 87 million Birr; there was a government issue of an investment bond valued at 46.3 million Birr to save the Agro-Industrial Development Bank from bankruptcy, etc. There were two bonds issued by the government and bought by the National Bank: Pension Commission Bond and the National Bank Bond with a combined value of 1.3 billion Birr. Other bonds issued by the Government were more general, including many saving bonds, premium bonds and, in most recent years, special bonds. With regard to the last type, in 1988 the Government issued a Decree for the purchase of Special Government Bonds by the Bank with a total ceiling value of 1.5 billion Birr and bearing a 2 percent per annum interest payment obligation to contribute to its debt finances.

Two related developments are apparent from this trend of debt financing. First, the government is seen moving in the direction of "soft financial management" by loosening the tight borrowing procedures, raising the loan ceiling, reducing the interest payment obligation, expanding the loan base and introducing special government bonds. This process eroded the "financial discipline" that was there during the pre-1974 years. For example, according to the *Monetary and Banking Proclamation 206/1963*, the ceiling for "direct advances" made by the Bank to the government, was 15 percent of the ordinary revenue of government in the previous fiscal year. This ceiling was raised to 25 percent in the *Monetary and Banking Proclamation 99/1976*, to 50 percent in the *Monetary and Banking (Amendment) Proclamation 289/1985*, to 70 percent in the *Council of State Special Decree 3/1988* and to the high level of 145 percent of the actual ordinary revenue collected during the previous fiscal year in the *Council of State Special Decree No. 22/1990*.

The ceiling for government cash borrowing from the Bank in exchange of Treasury Bills was "50 percent of the capital (and general reserve fund) of the Bank according to *Proclamation 206/1963*. According to *Proclamation 99/1976* the value of treasury bills surrendered to the Bank "must not exceed 20 percent of the ordinary revenue of government in the previous (i.e previous to the borrowing) fiscal year". The ceiling for government borrowing using treasury bills rises to "25 percent of the ordinary revenue of the government of the previous fiscal year" in the *Special Decree 3/1988* and to the level of 35 percent of the ordinary revenue according to the *Council of State Special Decree 22/1990*.

Similarly, for bonds the loan base became "the ordinary revenue of government in a previous fiscal year" rather than the "Bank capital and general reserve fund of the Bank" in *Proclamation 99/1976*, which also set the loan ceiling at 50 percent of the ordinary revenue of government in the year preceding the borrowing year. The ceiling was raised to 55 percent of ordinary revenue in the *Special Decree 3/1988* and to 70 percent of ordinary revenue in the *Council of State Special Decree 22/1990*. It is also obvious that the issuance of the *Special Decrees 3/1988, 4/1988 and 22/1990* removed some of the other barriers to government borrowing practice and increased the ceiling of such borrowing significantly.

The second development points to the trend of increasing use of more inflationary instruments of bank borrowing. As tax revenue sources and revenues from government property and investment failed to generate the required finances to offset deficits, the government resorted to bank borrowing. The borrowing instruments vary in their respective safeguards (some impose relatively more financial discipline than others, for example), loan maturity, mode of repayment and the amount of the loan. Long-term loan instruments have relatively better "safety valves" and impose better financial discipline than the instruments used for short term financing of government expenditures. In the Ethiopian case the instrument with the least safety provisions - "direct advances"- is most frequently used in government borrowing practice. As such it constitutes a most "inflationary" instrument in debt financing. The result of this government debt financing practice had been the monetization of deficits.

The growth of government borrowing from the banking system are also shown in Table 10. The rather high growth rate (averaging 19 percent per annum) of the cash loans to the government by the banking system during the post-1974 period are indicated in the last column. During the pre-1974 period the government deposited with the bank more than it withdrew from it. Because data on breakdowns of government borrowing by type of instruments used are not given, it is not possible to confirm or deny the allegation that the government was exceeding the ceiling set in the banking regulations in its borrowing practice. However, it is known most loans are based on "direct advance" the bank makes to the government and the years when relatively large cash withdrawals are reported are shown in the Table.

Table 10: The Growth of Government Bank Borrowing - Averages Per Year (percent)

Period	Domestic Bank Borrowing (year t)/Ordinary Revenue (year t-1)	Domestic Bank Borrowing/Total Expenditures	Average Annual Rate of Growth of (Real) Bank Borrowing*
1950-1960	-2.52 (21.48)	-3.62 (18.45)	
1950-1974	1.47 (14.18)	0.05 (12.53)	
1961-1974	4.31 (3.96)	2.93 (2.76)	-1.78 (146.42)
1975-1991	22.92 (13.91)	13.75 (8.07)	18.75 (86.28)
1975/76	30.71	18.35	
1977/78	34.49	20.52	
1982/83	49.55	24.42	
1984/85	25.85	15.11	
1989/90	50.72	33.13	
1990/91	40.00	23.91	

The figures in parentheses are standard deviations of the annual values
*The exceptionally high growth rates for 1974/75 and 1982/83 are left out.

Although comprehensive "inflation indices" are not computed by any authority in Ethiopia, the Central Statistical Authority's *Retail Price Index for Addis Ababa* may be used as an approximation (see Appendix IV). The rate of inflation increase has been particularly high in recent years. For example, during the period 1963-1974 the increase in the inflation rate had been by only 47 points while between 1983 and 1991 the rate of inflation doubled. These inflationary trends are associated with the growth of government deficits which result in large scale bank borrowing. The related expansion of money supply unaccompanied by growth of productivity causes inflation. It is that trend that is captured by the Addis Ababa Retail price General Index.

5. CONCLUSION

The socialist economic policies followed by the last government, the private property nationalization drive zealously pursued during 1975 and 1976, the establishment of an expanded bureaucracy and state administration and the conduct of endless

"campaigns" had resulted in a large public economy within a short span of time. The management of the finances of the public economy had been problematic from the start.

A vulnerable fiscal system characterized by erratic behaviour is borne out of these developments. The vulnerability is evident in the "smallness" of the budget and in the great difference to the deficit situation a small financial injection (or its denial) from outside can make. The erratic behaviour is also shown by the high revenue growth in some years and by an even larger expenditure jumps in others.

The structural deficits have continued to grow and this trend had serious economic implications. A large crowding-out effect of government deficit on private investment is noted. The allocation effects of government expenditures also leave negative impressions. Increasing levels of government expenditures have been made in "defence" with noticeable neglect of the social and economic sector development. As a result health and educational standards have deteriorated and the rate of economic growth decelerated considerably.

The large and growing deficits also led to gross fiscal mismanagement. The revenues not only failed to contribute to the finances of capital expenditures, they also failed to cover even the recurrent expenditures of government. As a result projects, mostly unplanned, were abandoned without completing the project cycle, and others were retained with ever extended running-in periods. Excess capacities in most public enterprises showed an increasing trend, plants were not properly maintained and depreciation allowances and reserve funds were consumed. The so-called "recurrent cost problem" characterized these fiscal developments in Ethiopia.

On the revenue side, although the rate of growth of government finance had been rather high, it was offset by an even higher rate of growth of government expenditures. Tax reforms made during the mid-1960s and mid-1970s together with reforms in tax administration improved the yield from this source. It was possible to exploit tax revenue sources by raising the taxation rate, broadening the tax base and introducing cost-effective and efficient measures in tax administration. But the gap between the tax yield and government expenditure needs continued to widen.

Of the nontax sources of domestic revenue, the revenues from "residual surplus and capital charge" make the most contribution to government expenditure finance.

Unfortunately, and in spite of the high growth rate of the revenue yield from this source, public enterprises and financial agencies consider the government extraction rate "excessive". The evidence for this is borne by the fact that many enterprises were kept for extended periods of time under the "relief" provisions of the tax law, others could not manage maintenance of plants, carry out expansion programmes or make investment. The extraction formula also denied public enterprise managers the freedom to make independent decisions.

With foreign sources of finance outside the range of influence of the Ethiopian government, it had to resort to domestic bank borrowing to finance its ever growing deficits. Two important developments are noted in this regard. First, there had been a marked move toward "looser" budget management. Borrowing ceilings are continuously raised, the base on which ceiling calculations are made are broadened, the effective rate of interest on loans and payable to the National Bank are lowered and special government bonds (which allow the government to borrow even larger amounts of cash from the domestic banking system) are introduced. These depreciate the "financial discipline" in budget management and make the government ever more dependent on this easy mode of deficit financing.

The second development indicates greater dependency on the most inflationary borrowing instrument to finance deficits - direct advances. The result of this development had been the "monetization of deficits" and the accentuation of the inflationary state of the economy.

NOTES

[1]Between 1975 and 1990, no less than 116 enterprise establishment proclamations and regulations were issued.

[2]Government Domestic Revenue/Total Government Expenditure
(percentages)

Period	Ratios (percent)
1950-1955	108.88 (19.04)
1956-1964	82.63 (9.19)
1965-1974	73.08 (3.54)
1975-1991	66.59 (7.30)

NOTE: The figures in parentheses are the standard deviations of the yearly ratios

SOURCE: Calculated from the Ministry of Finance, *Budgetary Revenue and Expenditure*. (various years)

[3]The deflator used to calculate real expenditures is the implicit GDP index which is defined as the ratio of GDP at current Factor cost by the GDP at constant factor cost of 1980/81 prices.

[4]Computations using data from the Ministry of Planning and Development, *National Income Accounts*, yields the following result:

Average Annual Rate of Growth of Real Fixed Capital Formation
(percent)

Period	Average Growth Rates
1961-1974	3.03 (9.19)
1975-1989	2.54 (12.81)

NOTE: The figures in parentheses are the standard deviations of the yearly growth rates

[5]Government Capital Expenditure/Gross Fixed Capital Formation (percent)

Period	Average Shares
1961-1974	19.56 (6.55)
1975-1989	70.83 (21.06)

NOTES: The figures in parentheses are the standard deviations of the annual shares

SOURCES: Computed from data obtained in [6,7]

[6]Average Annual Rate of Increase of Real Expenditures on "Defence"
(percent)

Period	Average Growth Rates
1960-1974	6.29 (18.30)
1975-1991	19.83 (31.53)

NOTES: The figures in parentheses are standard deviations of the annual growth rates.
SOURCE: Calculated from data in the Ministry of Finance, *Budgetary Revenue and Expenditures*.(various years)

REFERENCES

[1] Central Statistical Authority, *Retail Price Index for Addis Ababa (1963 = 100).*

[2] The Ethiopian National Literacy Campaign Coordinating Committee (NLCC), *The Ethiopian National Literacy Campaign - Retrospect and Prospects, 1979-1989*, Addis Ababa, 1989.

[3] Goode, R., *Government Finance in Developing Countries*. Washington, D.C.: The Brookings Institution, 1984. pp. 44-74

[4] Gray, Clive and Martens, Andre, "The Political Economy of the 'Recurrent Cost Problem' in the West African Sahel", *World Development*, Volume 11, Number 2, 1983. pp. 101-117

[5] International Monetary Fund (IMF), *Government Finance Statistics Yearbook*, Vol. XIV, 1990.

[6] Ministry of Finance, *Government Budgetary Revenue and Expenditure*. (An annual publication of the Ministry)

[7] Ministry of Planning and Economic Development, *National Income Accounts*. (various Years)

[8] Negarit Gazetta, *National Development Through Cooperation, Enlightenment and Work Campaign Proclamation 11/1974.*

[9] ------, *Public Enterprises Proclamation 20/1975.*

[10] ------, *Proclamation to Provide for the Ownership and Control by the Government of the Means of Production No. 26 of 975.*

[11] ------, *A Proclamation to Provide for the Public Ownership of Rural Lands, Proclamation 31/1975.*

[12] ------, *Proclamation to Provide for Government Ownership of Urban Lands and Extra Urban Houses, Proclamation 47/1975.*

[13] ------, *Public Ownership of Private Schools Proclamation 54/1975.*

[14] ------, *Legal Notice 42/1976: Customs Tariffs New Regulations.*

[15] ------, *Rural Land Use Fee and Agricultural Activities Income Tax Proclamation 77/1976.*

[16] ------, *Monetary and Banking Proclamation Number 99 of 1976.*

[17] ------, *Administration and Control of Schools by the People Proclamation 103/ 1976.*

[18] ------, *Rural Land Use Fee and Agricultural Activities Income Tax Amendment Proclamation 152/1978.*

[19] ------, *Personal and Business Income Tax Proclamation 155/1978.*

[20] ------, *National Revolutionary Development Campaign and Central Planning Supreme Council Establishment Proclamation 156/1978.*

[21] ------, *Regulation and Coordination of Public Financial Operations Proclamation 163/ 1979.*

[22] ——, *Monetary and Banking (Amendment) Proclamation 289/1985.*

[23] Peacock, Alan T. and Wiseman, J., *The Growth of Public Expenditure in the United Kingdom*, Princeton University Press, 1961.

[24] Provisional Military Administrative Council (PMAC), *Declaration on the Economic Policy of Socialist Ethiopia*, Addis Ababa, February 1974.

[25] ——, *Programme of the National Democratic Revolution of Ethiopia*, 1975.

[26] Provisional Military Government of Socialist Ethiopia, *Ten-Year Perspective Plan 1984/85 -1993/94.* Addis Ababa, Bole Printing Press, 1984.

[27] Samuelson, P.A. and Nordhaus, W.D., *Economics*, MacGraw-Hill Book Company, (13th Edition), 1989.

[28] Tanzi, V., "Quantitative Characteristics of the Tax Systems of Developing Countries", in David Newbery and Nicholas Stern (editors), *The Theory of Taxation in Developing Countries*, Oxford University Press, 2nd. printing 1988.

[29] Teshome Mulat, "Planning in Ethiopia", in Ndegwa, P., Mureithi, L.P. and Green R.H. (Editors), *Development Options for Africa in the 1980s and Beyond*. Nairobi: Oxford University Press, 1985.

[30] ——, *Agricultural Taxation in Ethiopia*. Rome: Food and Agriculture Organization of the United Nations (FAO Agricultural Taxation Studies, 4), 1992.

[31] World Bank, *World Development Report 1988*, (Part II) Oxford University Press, 1988.

APPENDIX I

The Policy Framework for a Socialist Economy

Proclamation 1/1974: Provisional Military Government Establishment Proclamation
PMAC: Declaration on the Economic Policy of Ethiopia, February 1974
PMAC: Programme of the National Democratic Revolution of Ethiopia
Proclamation 19/1975: Ministry of National Resources Development Establishment Proclamation
Proclamation 20/1975: Public Enterprises Proclamation
Proclamation 26/1975: Government Ownership and Control of the Means of Production Proclamation
Proclamation 64/1975: Labour Proclamation
Proclamation 71/1975: Peasant Associations Organization and Consolidation Proclamation
Proclamation 76/1975: Proclamation Relating to Commercial Activities Undertaken by the Private Sector
Proclamation 138/1978: Cooperatives Societies Establishment Proclamation

APPENDIX II

Nationalization Programme

Proclamation 3/1975: Public Ownership of Rural Lands Proclamation
Proclamation 19/1975: Ministry of National Resources Development Establishment Proclamation
Proclamation 20/1975: Public Enterprises Proclamation
Proclamation 47/1975: Proclamation to Provide for Government Ownership of Urban Lands and Extra-Urban Houses
Proclamation 39/1975: Government Control of Mineral Prospecting, Exploration and Mining Activities Procl.
Proclamation 54/1975: Public Ownership of Private Schools Proclamation

APPENDIX III

Campaign Proclamations

Proclamation 11/1974: Development Through Cooperation, Enlightenment and Work Campaign Proclamation
Proclamation 97/1976: Eritrea Region Affairs Special Commission Establishment Proclamations
Proclamation 129/1977: National Revolutionary Operations Command Proclamation
Proclamation 156/1978: National Revolutionary Development Campaign and Central Planning Supreme Council Establishment
Proclamation 174/1979: Commission for Organizing the Party of the Working People of Ethiopia Establishment
Proclamation 237/1983: National Defence and Security Council Establishment Proclamation
Proclamation 238/1983: National Military Service Proclamation
Proclamation 239/1983: Establishment of the Military Commissariat and the Territorial People's Militia
Council of State Special Decree 25/1990: National Revolutionary Campaign Command Establishment

APPENDIX IV

Retail Price Index for Addis Ababa 1963 = 100

Year/month	*General Index*
1973	*147.0*
1975	*170.1*
1980	*353.5*
1981	*375.2*
1982	*396.1*
1983	*394.5*
1984	*427.8*
1985	*509.4*
1986	*459.4*
1987	*448.3*
1988	*480.0*
1989	*517.6*
1990	*544.2*
1991	*738.7*
March 1992	*781.2*

ETHIOPIAN JOURNAL OF ECONOMICS, II(1), April 1993, pp. 101-108

የኢኮኖሚ መዝገበ ቃላት

GLOSSARY OF ECONOMIC TERMS Nos. 51-102

ከ 51-102 የተፈቡ ቃላትና ትንተና

Takkele Tadese
Department of Linguistics, Addis Ababa University
and
Dejene Aredo
Department of Economics, Addis Ababa University

The number of technical terms that appeared in the two preceding issues of this journal add up to the number appearing in this one. We have benefitted from all possible methods and principles in coining these terms. We are fortunate in having these methods and principles well documented and thought out as the result of an earlier research endeavour. What should be remembered about coinage, however, is that it is easier to find fault with what is coined than to actually coin one. We are prepared to be criticized on reasonable grounds, and other alternative coinages are also welcome.

51. equilibrium (n)	ተመዛዛኝነት (ስ)
52. market equilibrium (n)	የገበያ ተመዛዛኝነት (ስ)
53. partial equilibrium (n)	ከፊል ተመዛዛኝነት (ስ)
54. general equilibrium (n)	አጠቃላይ ተመዛዛኝነት (ስ)
55. equilibrium price (n)	ተመዛዛኝ ዋጋ (ስ)
56. equilibrium quantity (n)	ተመዛዛኝ መጠን (ስ)
57. equilibrium position (n)	ተመዛዛኝ ስፍራ (ስ)

58. equilibrium tendency (n)	አመዛዛኝ ዝንባሌ (ስ)
59. elasticity (n)	ተለጣጭነት/ልጠት (ስ)
60. elastic (adj)	ተለጣጭ (ቅ)
61. inelastic (adj)	ልጠተቢስ/እተለጣጭ (ቅ)
62. price elasticity (n)	የዋጋ ተለጣጭነት (ስ)
63. income elasticity (n)	የገቢ ተለጣጭነት (ስ)
64. inelastic demand (n)	ልጠተቢስ ተፈላጊነት (ስ)
65. inelastic supply (n)	ልጠተቢስ አቅርቦት (ስ)
66. perfectly elastic (adj)	ፍፁም ተለጣጭ (ቅ)
67. perfectly inelastic (adj)	ፍፁም ልጠተቢስ (ቅ)
68. cross elasticity (n)	ተሻጋሪ ተለጣጭነት (ስ)
69. utility (n)	እርካታ (ስ)
70. marginal utility (n)	ተጨማሪ እርካታ (ስ)
71. total utility (n)	ሙሉ እርካታ (ስ)
72. cost (n)	ወጪ (ስ)
73. explicit cost (n)	ግልፅ ወጪ (ስ)
74. implicit cost (n)	ስዉር ወጪ (ስ)
75. fixed cost (n)	ቋሚ ወጪ (ስ)
76. opportunity cost (n)	የተር ዕድል ወጪ (ስ)
77. minimum cost (n)	ዝቅተኛ ወጪ (ስ)
78. variable cost (n)	ተለዋዋጭ ወጪ (ስ)
79. cost minimization (n)	ወጪን ዝቅ ማድረግ (ስ)
80. profit (n)	ትርፍ (ስ)
81. profit maximization (n)	ትርፍ ከፍ ማድረግ (ስ)
82. profit maximizer (n)	ትርፍ ከፍ አድራጊ (ስ)
83. profitable (adj)	ትርፋማ (ቅ)

84. <u>loss</u> (n) ኪሳራ (ስ)

85. <u>production</u> (n) ማምረት/ምርት/ማምረቻ (ስ)

86. product (n) ምርት (ስ)

87. productivity (n) ምርታማነት (ስ)

88. factors of production (n) ነገሬተ ማምረቻ (ስ)

89. production possibilities frontier (n) የማምረት ችሎታ ወሰን (ስ)

90. land (n) መሬት (ስ)

91. capital (n) ካፒታል (ስ)

92. entrepreneur (n) የምርት ፊታውራሪ (ስ)

93. entrepreneurial ability (n) የምርት ፊታውራሪነት ችሎታ (ስ)

94. capital using method of production (n) በካፒታል ተጠቃሚ የማምረት ዘዴ (ስ)

95. labour using method of production (n) በሰራተኛ ተጠቃሚ የማምረት ዘዴ (ስ)

96. capital saving method of production (n) ካፒታል ቆጣቢ የማምረት ዘዴ (ስ)

97. labour saving method of production (n) ሰራተኛ ቆጣቢ የማምረት ዘዴ (ስ)

98. superior goods (n) በላጭ ምርታ ምርት/የላቀ ምርታ ምርት (ስ)

99. inferior goods (n) ተራ ምርታ ምርት (ስ)

100. intermediate goods (n) መካከለኛ ምርታ ምርት (ስ)

101. complementary goods (n) ማሟያ ምርታ ምርት (ስ)

102. substitute goods (n) ተተኪ/መተኪያ ምርታ ምርት (ስ)

ትንተና

Comment

We took time to coin the main terms first. We thought that once we find appropriate terms for the main ones, the rest can be found easily. Comments on the coinage of these main terms will now follow.

1. equilibrium. It was difficult to coin a term for this concept. One of our methods is to look at the origin of the term. It consists of the Latin aequus 'equal' and libra 'balance'. We realized that the key idea is inherent in 'balance' and we therefore focused on the Amharic root verb that carries this idea. The next step was to use the calque, or loan translation method, i.e. find two Amharic words that go word for word with the Latin ones to see whether this method can bring out the desired result. Following this procedure through, we found the following three alternatives:

1. እኩል ምዘንበት
2. እኩል ሚዛንት
3. ሚዛን እኩልነት (Note that this third one is based on the Geez word formation model.)

We found all the three alternatives not only long but also inappropriate. We also realized that single words formed from semantically close root verbs can be more effective. We therefore examined the following:

1. ምጥንነት from መጠነ 'he (it) equalled'

2. ተመዛዛኝነት from መዘነ 'he (it) balanced'

We decided to take the second alternative as a better choice. The noun ተመዛዛኝነት refers to an act or condition in which one thing or force balances the other. This meaning is closer to equilibrium and we thought all the remaining meanings associated with the usage of the term in economics can be made up for by the definition of the Amharic equivalent in the dictionary. After this, we had little difficulty in coining appropriate terms for those that go with it except for 'position'. We decided ስፍራ even though ቅምጥት, formed from the root ተቀመጠ 'he sat', was suggested as an alternative.

2. elasticity. The key idea this word carries is the degree of responsiveness of one variable to changes in the other variable. We discovered that the word ተለጣጭ was coined for it by the Electro-Mechanical Panel in the Science and Technology Terms Translation Project. When we considered the meaning of the root verb from which the coined term is formed, we were satisfied. The meaning of the root verb ለጠጠ 'he pulled, something which will return to its original position when released' is close to the main idea of the original term. Again we had little difficulty in coining terms for the rest of the terms that go with elasticity. However, we had encountered some difficulties with the coinage of አጠተ ሊለ 'inelastic'. Most people think that the Amharic prefix ኢ should be used in all such contexts and so they think the appropriate Amharic coinage for inelastic should be ኢተለጣጭ. But our

argument is that the Amharic prefix has the connotation of the English prefixes in-, or un- as in 'inhuman' 'ኢሰብዓዊ', unscientific 'ኢሳይንሳዊ' etc. We therefore opted for another type of coinage. First we formed the possible word ልመት, from the root verb ለመመ. It is a possible word because it patterns with ሰደደ 'he sent away' ስደት, 'exile' and ደተተ 'it became fine (say for sugar)', ድተት 'the state of being fine'. We then thought of the Amharic prefix ቢስ, which, when suffixed to an appropriate word, gives the meaning of 'being without' or 'devoid of something'. For example, when ቢስ is suffixed to መሰረት 'foundation, base' we get መሰረተ ቢስ 'without foundation, baseless'. Similarly, ልመተ ቢስ 'without the quality of elasticity, or having no capacity to be elastic' can be used for inelastic. In accordance with our understanding, ኢተለማጭ for 'inelastic' means that which is against anything elastic and does not mean without the characteristics of elasticity, or not elastic. Those who favour the prefix ኢ may argue, however, that ኢሳይንሳዊ 'unscientific' does not give the connotation of 'being against' science but that of 'not scientific'. But what led us to the above conclusion is the constant use of ኢሰብዓዊ 'inhuman' in the sense of referring to acts or behaviour that go against the human being or the human nature. Nevertheless, a careful look at the word unscientific which means 'not scientific' does not seem to give the connotation the Amharic ኢሳይንሳዊ gives. This suggests that the Amharic prefix can also be used in a similar way. If this is done it does not contradict with the principle that a given linguistic unit or item can have more than one usage. If it is the wish of the majority to use the Amharic prefix ኢ in this way, we have no serious objection. ኢተለማጭ can therefore stay as an alternative

to ለጠቲቢስ.

We don't have comments on the following main terms: utility, cost, profit, loss, production and product.

3. labour. We have used two words for this term, ሰራ and ሰራተኛ. This goes with the English usage of the term. One of its meanings, according to the Advanced Learner's Dictionary, is 'task; piece of work' while the other is 'workers as a class' among many of its meanings. These two basic meanings agree with its usage in economics and the Amharic terms also go parallel to these meanings.

4. capital. We tried all possible methods to coin a term for this word but none of them could produce a satisfactory result. When this happens, the principle is to adopt the word, or in some cases, adapt it to suit the Amharic context. In this case, the term is adopted.

5. entrepreneur. The method we used here is creativity. When we considered the basic characteristics of an 'entrepreneur' we struck upon the idea of using our traditional titles usually accorded to gallant warriors. An entrepreneur (i) takes an initiative, (ii) makes decisions, (iii) is a strategist, (iv) is a risk bearer or risk taker. A ፊታውራሪ 'commander of the vanguard' must manifest all the four characteristics in deeds. He is the first to attack, he must make decisions on the spot, he must also be an able strategist, and he does not hesitate to take any kind of risk to show his king that he never lets him down. Since the title is associated with war and bravery, we put the

word የምርት 'of production' to qualify it so that the sense of the 'entrepreneur', the ሊታጠፋ of production not of war, is magnified. We thought that this is one way of maintaining some of the traditional words that are likely going to oblivion. We were quite satisfied when we repeated the word several times to ourselves - የምርት ሊታጠፋዎች 'entrepreneurs'.

ETHIOPIAN JOURNAL OF ECONOMICS, II(1), April 1993, pp. 109-110

COMMENTARY ON GLOSSARY OF ECONOMIC TERMS Nos. 51-102

Baye Yimam
Department of Linguistics, Addis Ababa University

I like the efforts being made. My comments are as follows:

58. I prefer ተመላሽ ዝንባሌ to አመላሽ ዝንባሌ which refers to an agent/force as in አመላሽ ኃይል whereas ተመላሽ relates to state as in ተመላሽ ችሎታ.

59-63 አጠቃ is better as it is simpler/shorter than the complex ተለማመንት.

64. ዋጋነት is better than ተፈላጊነት because it is shorter and follows the same pattern as አትርቦት.

68. ተሻጋሪ አጠቃ

76. Not clear to me.

79. መጥ ትነሳ is preferable as it is shorter and hence simpler.

81. ትርፍ ግላጽግ

82. ትርፍ አሳዳጊ/አትራፊ

88. factors of production (n). What kind of nominal phrase is this? Instrumental or result? ነገራት ግምረት is instrumental. But the head of the phrase is 'factors' and not ግምረት. I think ነገረ-ምርት is better.

94. በካፒታል ተጠቃሚ የግምረት ዘዴ is not grammatical, because it involves two NPS which have no predication relations. (A) better form(s) would be በካፒታል የግምረት ዘዴ or ካፒታል-አገዝ የምርት ዘዴ

95. same as 94

97. ትልበት-ቆጥቦ የግምረት ዘዴ

99. ተራ does not imply inferior; a better form would be ሆላ ምርታምርት. ሆላ "ዝቅተኛ ፣ የግይረባ".

I have no comment on the commentaries of the authors. However, I was struck with dismay when I read their introductory comment. A review is not a criticism on personalities nor is it a fault-finding exercise as such. It is an act of sharing expert opinions between or among professionals on a piece of work such as this with a view to raising its quality.

Notes to Contributors

1. Draft articles for publication in the EJE are sent to the editor in triplicate, typed double-spaced and on one side only of an A4-size paper. Although no strict limits are imposed on the size of an article, current editorial policy limits this to a maximum of 40-50 pages (for text only).

2. An article submitted to the EJE has the following features:

   i) On the front page: Title, Author's full name (plus affiliation and acknowledgements if any), the Abstract (in single space and in not more than 100 words), and a portion of the text.

   ii) The article is divided into sections and sub-sections, sequentially arranged and numbered (using arabic numerals), followed by Appendices, Notes and References.

3. The references used in the article are arranged according to alphabetical order, numbered sequentially in squared brackets and placed at the end under a heading, References. Quoting a specific reference is effected by writing the serial number of the reference in square brackets at the relevant location in the text. Notes are sequentially numbered using numerical superscripts and placed in the section labelled, Notes, before References.

4. Diagrams should be properly labelled and carefully drawn, and preferably kept in a form suitable for photographic reproduction. Tables too are sequentially numbered with a descriptive heading and kept within the space provided in a page (at the most). Details of mathematical and statistical work in support of the publishable portion of the manuscript should also be sent to the editor for use by the referees.

5. All manuscripts should be submitted with a statement by each author explaining the status of the manuscript, i.e. whether or not it is published (or submitted for consideration) elsewhere.

6. Copyright of accepted articles is vested with the Ethiopian Journal of Economics.

The **Ethiopian Journal of Economics** is a publication of the Ethiopian Economic Association. It is a bi-annual (numbers one and two of each volume appearing in April and October of each calendar year) devoted to the advancement of economic science in Ethiopia. However, contributions by non-Ethiopians and on economic experiences of other lands are considered for publication. All communication (i.e. subscription, editorial and other) may be addressed to The Editor on one of the following addresses:

The Ethiopian Economic Association
P.O.Box 34282
Addis Ababa
ETHIOPIA

or

Economics Department
Addis Ababa University
P.O.Box 1176
Addis Ababa
ETHIOPIA

Subscription Rates (surface mail) 1992

Per Copy/local	Birr 10
Annual	**US$**
Africa	15
Others	18
Per copy	9
Back issues	10