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External Imbalances, Famines and Entitlements: A Case Study

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EXTERNAL IMBALANCES, FAMINES AND ENTITLEMENTS: A CASE STUDY

1. Introduction:

Motivation: Famines in Sub-Saharan Africa and in particular the case study country - Ethiopia - have been recurrent features of the past two decades. Different writers have, depending on the information available to them, generated different perceptions of the phenomenon. The prevalent view that famines are the direct consequence of food availability decline appears to have led, in the context of the case study country, to interventions that emphasize famine relief and emergency preparedness. However, the recurrent pattern of the famine conditions render the emergency approach to famine prevention unsustainable. Dependence on the indirect "trickle-down" effects of economic growth and the subsequent alleviation of poverty and famine vulnerability have proved to be too passive in conditions that are prone to "exogenous shocks" like drought, pest infestation and civil strife. Through emphasizing the limiting effects of such shocks to the rural households´ production possibility frontiers, it has been argued that a direct approach to famine prevention, based on public provisioning of income supplementing schemes (employment generation, cash relief etc.), was probably the unavoidable alternative if the country is to successfully cope with its endemic famine conditions.[1]

Such a direct approach to the resolution of the famine issue however imposes a sever burden on the resources of the public sector. Under normal conditions of hunger and

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[1] The indicated arguments are provided under a different chapter of the same research exercise, with the present paper comprising only one of a series of chapters.

poverty, some may even consider such public commitments as being too radical and unsustainable. But under the circumstances of the case study country, where, as has been wittiness times and again over the past two decades, external shocks are too frequent, the margins for survival too narrow, and the cost in terms of human lives and destroyed families too high, the issue of famine prevention becomes a matter of fundamental concern and render public provisioning for famine prevention an indispensable high priority objectives in its own rights.

Against such a background, however, it has become evident recently that the country was to enter, probably as early as 1993/94, its first ever stabilization and structural adjustment programme.[2] This makes the issue of adjustment one of the important considerations in a research exercise exploring the policy options available, to an impoverished nation, for a lasting break from recurrent famines. This study, therefore, attempts to asses the potential conflict between conventional adjustment programmes and the more immediate and overriding objective of famine prevention.

The premises and hypothesis: In order to set a frame-work for the analysis and on the basis of the existing circumstances regarding the case study country, the study will start by taking a position regarding the appropriate strategy for famine prevention and the likely implications of such a strategy. Hence the study will maintain the following.

1) It is maintained that a direct approach based of an early public intervention needs to be a vital aspect of any strategy for famine prevention.[3] Interventions would

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[2] see for example The Financial Times, January 25/26, 1992

[3] The *indirect approach* envisages famine prevention in its longer term perspective as a function of economic development and would prescribe the standard strategies for growth and sustainable development on the premise that the richer the nation the less the incidence of famines. One could well argue that the policies regarding famine prevention in the case study country over the past decade and halve espoused such an approach.It would appear from events in the country that the

typically focus on public provisioning for employment generation and other income-support programmes in order to uphold the food entitlements of the vulnerable population.[4] Such an approach is predicated by the persistence of widespread famine conditions in the country and the impossibility of maintaining, on a sustained basis, the state of alert and preparedness required by a large-scale emergency famine-relief operation. It is presumed that a direct consequence of such an approach would be the increase in government spending and participation, over and above the level considered desirable as per the standards of the IMF/World Bank orthodoxy.

2) Concurrent to the protection of entitlements through increased government intervention, a committed public effort is also assumed to be necessary for raising the food output pre capita which has been declining over the last decade. This active role of the government is made necessary by the actual circumstances of the country which, even during the first few years of the 1990s, is expected to maintain an economic structure conditioned by the socialist mode of production that had prevailed over the preceding decade and half. In view of the absence of a sizable entrepreneurial class, the active participation of the public sector appears to be a critical factor for raising agricultural output through a system of input subsidies, price incentives and infrastructural support.

3) Increased public commitments for the maintenance of entitlements on the one hand, and the intensified effort towards increasing the level of food output per capita, on the other, are expected to require, over the medium term period, a higher level of capital inflows. The required level of capital imports cannot be supported by export revenues, the level of which has been lagging far behind that of import expenditures

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natural outcome of the indirect approach for the containment of famine conditions in the proliferation of *emergency* famine relief operations with their inherent drawbacks of late intervention.

[4] On famines and entitlements see Sen (1981); Sen (1987); Kumar (1990); Drèze (1988); Drèze and Sen (1989); Drèze and Sen (1989); Drèze and Sen.(eds.) (1990); Drèze and Sen (eds.,)(1990).

throughout the last decade. It is, therefore, assumed that the closure of the external gap would have to depend primarily on loans from the IMF and The World Bank.

Deriving from the above premises therefore, the study addresses the hypothesis that *the standard IMF/World Bank-type stabilization and structural adjustment package could be incompatible with the strategies that can enable the case-study country to emerge from the recurrent famine conditions.* The study, as such, espouses the view that the indicated stabilization and structural adjustment package works against the disadvantaged sectors of a population.[5] In the context of the case-study country it is argued that the special circumstances created by recurrent famine conditions, render the country particularly vulnerable to the unfavourable outcomes which uncertain policy measures could possibly unleash. For example, a chance divergence of a policy measure from its desired outcome could trigger a recurrence of widespread famines, in view of the pauperisation of large sectors of the population. Such circumstance, it is being argued, makes the case-study country a rather unsuitable ground for the assertive manner in which stabilization and structural adjustment programmes have been applied to various under-developed countries, where the negative aspects of the programmes only had the effect of depressing the level of relative well-being among the population without culminating into an acute social disaster.

The study is therefore presented as follows: Section 2 deals with the background to the development of economic imbalances over the preceding decade and half, and also provide a background to the proceedings for a standard IMF/WORLD Bank macroeconomic and structural adjustment programme. Section 2 will highlight the macroeconomic deficiencies of the economy. Section [illegible] will be based on two

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[5] The literature is quite abundant regarding the adverse effects of such programmes on the welfare of the various social classes with the low income groups invariably being on the loosing end. On this see Demery, L., Addison, T.,(1987) See also Helleiner, G. K.,(1987).

scenarios, with the first depicting the development of events if current trends continue in the medium term period, and the second constructed to approximate the required increase in the growth of agricultural output in order to be able to meet adequately the food requirements of the population. The analysis will limit itself to assessing the effects of two policy tools that constitute an important part of the standard IMF/World Bank-type adjustment package, viz., 1) devaluations of the domestic currency 2) domestic credit restraint. Section 4 will discuss issues of policy conflict with section 5 concluding the study.

2. The Background: Sources of Imbalances.

What are the sources of the external imbalances characterizing the case-study country? A number of factors can be identified as probable causes. Primary among these are the civil strife that has been raging in the country between the mid-1970 to the beginning of the 1990, and the mismanagement of the economy under the socialist policies during that period. These factors and their obvious ramification will be discussed as the sources of the internal imbalances which are manifested in the low and declining level of output per capita, the spread of poverty and the rising vulnerability to famines. The internal imbalances in turn contribute to the external imbalance which is manifested by the deteriorating balance of payments position of the country. The destabilisations due to adverse movements in the terms of trade and cutbacks in foreign aid by the major donor nations of the West, have also contributed to the external imbalance as will be briefly reviewed below.

2.1 The Internal Imbalances.

The Leadership, civil strife and mismanagement. Probably the most important factors that has contributed to the economic difficulties, in which the case-study country found itself by the beginning of the 1990s, were the political uncertainties and turmoil that had characterized the nation during the preceding two decades. These problems have their roots partly in the politically uncertain period of the early 1970s, during which time the regime of the former Monarch disintegrated into incompetence and corruption. The leadership crisis so created, resulted in the emergence to power, of the military junta - The Dergue - in 1975. The military junta retained its hold on power, under different guises, until 1991 when it was forcefully evicted. It is not surprising, therefore, that the economic ills of the nation should have intensified during the seventeen-year period of this regime, which initially had taken the label of the "Provisional Military Government" and later through, allegedly contrived, electoral proceedings, had come to be known as the "Workers Party of Ethiopia".

The civil strife during the period could be conceived as being the consequence of the undemocratic and totalitarian principles followed by that regime. The inevitable consequence of the civil strife on the performance of he economy, are evidenced by the persistence of famine conditions in the country during the period. Among the direct consequences of such civil-strife, the most prominent were a) The diversion of over half of the national budget for purposes of military spending in an attempt to control the operations of the resistance and separatist movements that have cropped up in opposition. b) The large scale recruitment of conscripts for the war effort - a process that went on for years on end and caused severe disruptions in the productive activities of the agricultural sector in particular. c) The absence of security and stability in most of the rural areas, at various times over the period, inevitably had negative effects on economic activity.

These negative effects were further aggravated by the mismanagement of the socialist policies which had been adopted by the regime soon after its ascendancy to power. The combined effects of political uncertainty, civil strife and mismanagement, therefore, are at the heart of the poor performance of the economy and the prime factors for the development of the internal and external imbalances. We shall therefore proceed further to briefly canvass some aspects of the economic imbalances in the following order: a) Output and employment b) Savings and investment c) The public sector.

Output and employment: The dismantling of the feudo-capitalist system and the imposition of a socialist mode of production instead, was considered to be the panacea for all the economic ills facing the country at the time the military Junta sized political power in 1974. After a decade and a half of socialist rule however, the economy was showing all the wrong macroeconomc indicators. The annual growth rate of output has shown a steady decline. The average rate of 1.1 % per annum that had prevailed between 1965-73 had gone down to a period of zero growth rate per annum between 1973- 80, and a negative rate of growth of -1.6 % per annum between 1980-87.[6] The average annual population growth rate has been increasing with the rate prevailing between 1965-80 recorded as 2.7% per annum, that between 1980-89 being 3 % per annum and the rates for the future(1989-2000) projected as 3.4% per annum.[7] The population as at 1990 was 50,973,900 with about 89% being rural population and with the distribution by gender being more or less equally divided.[8] The high rate of population growth coupled with the declining rate of growth of

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6 See United Nations (1988)

7 See The World Bank (1991) pp.254-255.

8 See Central Statistical Authority (1991)

output have depressed the quality of life of both the rural as well as the urban population.

The structural features of the country has changed very little over the past decade and half. By 1989 the structure of production in the economy was such that 42% is agriculture, 16% industry (of which manufacturing accounts for 11 %), and 42% services, compared with 58%, 14%, and 28% respectively in 1965.[9] It can be observed that the economy has remained predominantly agricultural over the period although the share of the services sector (which includes unallocated GDP) almost doubled. The ten year perspective plan (83/84-93/94), which was to have been implemented through a sequence of short and medium term plans, was envisaged to transform the structure of the economy significantly with agriculture giving way to industrial development which was to increase its share of GDP from 16 per cent to about 24 per cent.[10]

Decline in food production per capita was ,and still is, one of the manifest features of the poor economic performance of the country. This statistic has shown a sizable and persistent decline over the last decade.[11] This is illustrated in chart-1 below, which shows the shortfalls during the last decade, in per capita food output, below the level that had prevailed during 1979/80. It can be noticed that the largest shortfall occurred during the aggravated famine periods of 1983/84 to 1985/86 reaching a deficit of close to 44 percent during the peak famine period of 1984/85.

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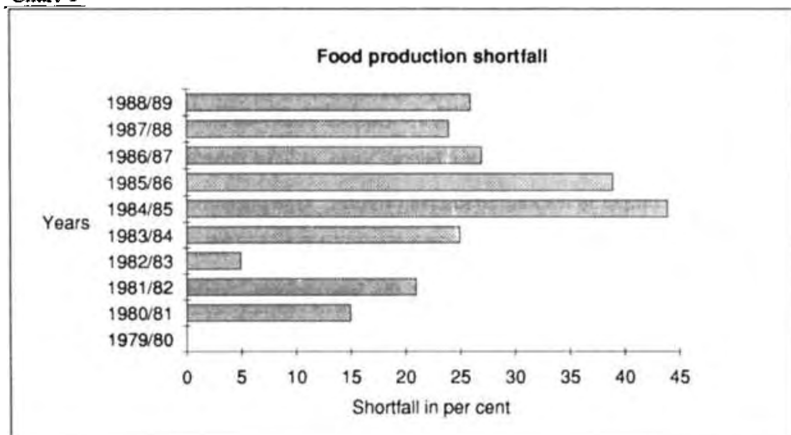
[9] See The World Bank (1991). pp.220-221

[10] ONCCP (1984) . p.24

[11] See Gutu, Lambert, Maxwell (1990)

Chart-1



Computed on the basis of food output data from Gutu,S.A.,et al.(1990)

The agricultural sector is characterized by a backward production methods which has shown no improvement over the years. A variety of explanations have been forwarded for the poor performance of the sector and often centre on the recurrence of the draught condition in the country; the negligible use of irrigation in the production process; soil degradation due to water and wind erosions; the absence of security in the land ownership system due to defects in the provisions of the land reform; the declining use of fertilizers and improved seeds; and inappropriate agricultural policies.

For example, the use of fertilizers and improved varieties of seeds, which at some point in the early 1970s was strongly propagated by the Ministry of Agriculture as a major sources of growth for the agricultural sector, had over the years declined

significantly, particularly during the 1980s, due to a combination of factors which included rising prices for fertilizers and absence of adequate supplies of improved seeds.

Although the land tenure problem, which used to be regarded as the most significant constraint to increased agricultural output prior to the mid-1970s, had been eliminated through the reform carried out in 1975, no marked improvement in output seems to have resulted. It appears that various factors seem to have contributed to the failure of agricultural output to respond to the land reform. One plausible explanation has to do with the incentive and motivation of the peasant farmer. The marketable surplus of the typical peasant farmer, soon after the land reform, could have boosted the household's income by as much as a third - the surplus being the amount which would have been claimed by the landlords in the absence of the reform. It is conceivable, therefore, to imagine that the peasant farmer, faced with the unexpected increase in his income on the one hand, and the shortage of manufactured products on the other - possibly due to the political instability which may have contributed to shortage of such goods - could have found his needs satiated at the level of income made possible by the land reform, thereby eroding his motivations for increasing his output in subsequent periods.

Such an explanation would not be farfetched in view of the absence of policies to encourage increased farm production. It is a notable feature of the agricultural policies, following the nationalization of land, that no attempts were made to enhance the productivity of the smallholders who accounted for over 90% of the agricultural output. The primary causes for this was the declared commitment of the government to collectivise rural agricultural production through the formation of communes. The small holder farmers, who were the initial beneficiaries of the land reform, were subsequently subjected to a series of policy measures, which gave exclusive attention

to the formation of producer cooperatives, and thereby undermined their role in food production.[12]

Savings and investment: The rate of savings in the economy had been gradually declining over the years from a level of about 12 percent of GDP in 1972 to 0.5 percent of GDP by 1987.

Table-1
Investment and Savings:(percent of GDP)

Year	Investment	Savings	Year	Investment	Savings
1970	11.5	11.2	1979	8.7	3.4
1971	11.8	9.9	1980	10.0	3.7
1972	12.7	10.8	1981	10.3	3.1
1973	11.4	13.4	1982	11.8	2.2
1974	9.9	13.3	1983	11.2	2.7
1975	10.4	7.5	1984	12.9	2.4
1976	9.6	8.7	1985	11.3	0.3
1977	8.8	5.7	1986	11.2	0.7
1978	7.5	1.9	1987	12.4	0.5

Source: The World Bank (1990) " African Economic and Financial Data"

As can be noted from Table 8, aggregate savings in the economy has declined considerably over the last decade and half. Aggregate domestic savings which had financed about 97 percent of new investments in the economy in 1970 has drastically declined by 1987 where domestic savings accounted for only 1 percent of investment. These compares very unfavourably with the 15 to 20 percent and above, experienced in the upper middle-income countries.[13]

It appears to be reasonable to assume that this extremely low level of capital formation originating from domestic savings is a reflection of the declining level of production that has characterised the economy over the last decade and half. For the

[12] Proclamation for the establishment of producer cooperatives.

[13] See The World Bank. (1991)

period 1970 to 1987, no relationship could be observed between savings per head and income per capita for the populations as a whole. [14] The lack of relationship at this very low level of income appears to indicate the hand-to-mouth survival of significant sectors of the population with the low level of income bearing no influence on the level of savings in the economy. Analyzing the relationship of the per capita income of the urban sector of the economy and the time-series data on savings per head observed over the seventeen year period cited above, appears to indicate that the small amount of savings observed for the economy may be originating from the relatively better-off urban sector. [15]

The annual per capita income, which over the period 1965 to 1989 had been declining at the average annual growth rate of minus one percent to the level of only 120 US$, also meant a higher propensity to consume and consequently a very low rate of savings.[16] The level of consumption had even exceeded the level of GDP during some of the draught years of the 1980s.[17] All these reflects the precarious survival confronting large sectors of the rural population due to the recurrent drought condition that had resulted in a succession of lean years.

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[14] Regression analysis conducted using eighteen years of time series data of savings per head and incomes per capita fails to indicate any relationship between the two variables. This result is not necessarily surprising in view of the very low level of incomes per capita prevailing during the period.

[15] An analysis conducted in order to establish any relationship between incomes per capita of the better-off urban sector to the population to the declining savings per head observed for the economy as a whole clearly indicates significant relationship:(S=savings per capita. IU= income per capita of the urban sector)

$$S = -24.811 + \underset{(0.011)}{0.037}\, IU \quad (R^2 = 0.43)$$

A proxy for the percapita income of the urban sector was established by allocating the sum of the value added in the industry and services sectors of the GDP to the urban sectors which consisted of about twelve percent of the population.

[16] See The World Bank. (1991)

[17] The World Bank (1990)

The ideological alignment of the regime also meant that the private sector was ascribed very limited role in the development of the economy. Up to 1989/90 domestic entrepreneurs were not even allowed to participate in joint ventures with foreign investors.

Private foreign investment had very little role during the preceding decade and half. The first set-back limiting private foreign investment came when the regime proclaimed the nationalization, in 1975, of almost all foreign owned enterprises, while a few of such enterprises were allowed to form joint ventures with the government. These nationalizations of Western assets (without compensation initially although settled a decade later) had been one of the bones of contention which the US government held as justification for its withdrawal of development aid to the country. The prohibition of direct foreign investment must have proven inconsistent with the objectives of economic growth, as the regime appeared to have reversed its stand by 1983 when it issued a new proclamation aimed at encouraging such foreign investments. The measure however had very little positive effect inspite of the incentives made to foreign investors.[18]

The public sector: Due to the socialist orientation of the regime, which was in power from the mid-1970 to 1991, and its commitment to central planning, the role of the public sector in the economy had become increasingly significant. The series of proclamations in 1975 for the nationalization of land and other means of production and distribution, cited earlier, enabled the incorporation of major investments in the industrial, trade and communications as well as the financial sectors of the economy,

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[18] See UNIDO(1991), and see also King (1986)for a well informed assessment of the political developments. As summarized by the former publication, the incentives offered for foreign investment include "a. exemptions from custom duties, government and municipal taxes levied on imports of capital goods and the first instalment of spare parts...; b. exemption from custom duties and transaction taxes for products exported; c. exemption of corporation tax for five years in the case of new projects and three years in the case of a major expansion project; d. corporation tax ...of 40 per cent(compared with...50 to 89 percent for local SSIs)...e. dividends reinvested in Ethiopia are exempted from tax but repatriated dividends are taxed at 10 percent." p113

within the public sector. The size of the government could be considered to be significant when compared to other developing countries as indicated in Table-2 below:

Table-2

Items(1989 data)	Ethiopia	Low-income S.S.Afr.
1. Government expenditure(% GNP)	35.2	22.8*
2. General government consumption(% GDP)	26	13.6
3.Ownership of large scale industry(%of total)	99	-
4. Ownership of land resources(%of total)	100	-

Source: 1 and 2 compiled from the "World Development Report" The World Bank (1991) 3 and 4 deduced from various sources including the proclamations for the nationalization of productive assets.
* Applies to only ten nations for which data was available.

The monopoly which the public sector had in the economic sphere, during most of the previous decade, had been accompanied by a systematic campaign to undermine the initiatives of private entrepreneurs. The consequent erosion of initiative, on the part of the private entrepreneurs, had persisted even after the regime had proclaimed various concessions to allow for the limited participation of private venture-capital in various economic activities. The reluctance of the private sector to participate in the reconstruction of the economy could be explained by the fact that the propaganda machine of the regime still kept up its attack on capitalism and so called "capitalist exploitation". By March 1990 the regime had officially declared its intentions for a mixed economic system and has taken a number of measures to encourage the active participation, in the private sector, of both foreign as well as domestic capitalists.[19]

Mainly as a reflection of the increased role of the public sector in the in the economy, and partly as a reflection of the intensified military operation during the period, the internal financial imbalance (the budget deficit) has shown a steady increase over the

[19] See Addis Zemen (1990) march, Vol. (year) 49, No.448

past decade. Government deficits have averaged about 9.5 percent of GDP from 1980 to 1987 and had a rising trend.[20]

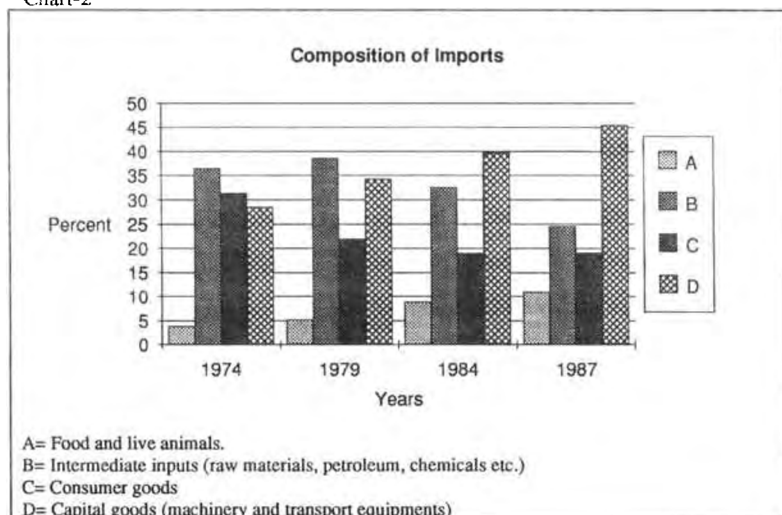
2.2 The External Imbalances.

The foreign trade sector and the balance of payments: Foreign trade was mostly a centralized operation with foreign transactions carried out through state organizations which had the monopoly on the export and import of various important categories of commodities. The level of imports has gradually increased over the years and by 1987 had risen to about 26 percent of GDP from about 14 percent in 1974.[21] The components of imports have also undergone changes over the years with imports of food and capital goods showing marked increases while other categories have gradually declined. This is evident from the table below. With strict import control in place throughout the indicated period, the imports, it can be presumed, have been trimmed to the bare essentials.

[20] Computed based on data in The World Bank (1990)

[21] See Central Statistical Authority (1991)

Chart-2



Source: Compiled from data from Central Statistical Authority(1991)

Export performance in the economy has been disappointing with export revenues falling far short of import expenditures. The country had always been, and still is, dependent for its export earnings on a single commodity which is coffee beans. This commodity accounts for not less than 70% of the agricultural exports with agriculture accounting for about 80% of the country's export earnings.[22] The inability of the economy to diversify, and thereby enhance its export base, was a manifestation of the general crisis in economic performance experienced by the country over the last decade and half.

Strict import restrictions and exchange controls were followed in order to reduce the mounting balance of payments deficits. These included, beside the imposition of prohibitive import duties on luxury items, the rationing of foreign exchange in a

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[22]See UNIDO (1991) and also see Central Statistical Authority (1991)

manner that gave priority to imports of the public sector, the total prohibition of private consumer items like motor vehicles. These restrictions can be said to have effectively curbed the import demand of the private sector while enabling the allocation of most of the available foreign exchange to meet the import requirements of the public sector on the basis of approved expenditure plans. The severe rationing even among State-owned enterprises, meant that allocations for the importation of intermediate inputs fell far short of the amount required to keep some of the factories operating at even half their capacity levels.[23]

Over the same period the external debt burden of the economy had escalated from 169 million dollars in 1970 to 875 million dollars in 1987 and 3013 million dollars by 1989.[24] According to World Bank sources the external debt facing the case study country as of 1985 amounted to a total of about 1.1 billion (US $) with a debt/ GNP ratio of about 39.4 and a debt /service ration of about 26.7. When compared with the corresponding total debt figure of about 3 billion by 1989 at which point the debt/GNP ratio was 50.6 and the debt/service ratio 38.7, it can be noted that the external debt over this short span of period has gone up by about 61%.[25]

Cutbacks in Foreign-Aid: A significant factor contributing to the destabilization of the economy was the withdrawal of foreign-aid for development. It is to be recalled that Western nations, particularly the United States of America, had very favourable relations with the case-study country during the reign of the Imperial government. This good relation and the West's strategic interests in the region, could have resulted in a flow of foreign-aid significant enough to have played a vital role in the development of the economy. The situation, however, took a turn for the worst soon

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[23] See UNIDO (1991)

[24] See The World Bank (1991). See also the same series for 1984.

[25] See United Nations (1988)

after the imperial regime was disposed from power. The emergence of the Military Junta to power in 1975 and the development of various events soon created circumstances which alienated the Western countries in general and the USA in particular. The eventual alignment of the Junta with the Soviet block countries, the partial expulsion of US-embassy staff, the nationalization of foreign-assets without compensation, can be cited as events that intensified the alienation of the Western countries and led to the reduction and eventual cessation of foreign-aid to the country.

It is not surprising that the importance of Western foreign-aid in the construction of the country had not been properly perceived by the Military Junta. What appeared more popular at the time was the alienation of the West for its alleged partnership with the, then disposed, Imperial regime, popular bitterness and resentment against which had aided the formation of the Military Junta. In hindsight, taking into consideration the development of events over the following years, one could almost attribute the radicalization of the Military Junta to the recognition of the fact that alignment with the Soviet block and the adoption of the Marxist/ Leninist ideological cover, provided better opportunities for the unhindered establishment of the undemocratic, totalitarian government that managed to stay in power upto 1991. The Junta´s move away from the West appeared to be keenly encouraged by the Soviet block which came in with aid packages of its own, although comprising chiefly of military armaments rather than economic aid.

The reluctance of the West, particularly the USA to assist the case-study country also extended to emergency assistance although the amount of such aid was significantly increased during the 1984/85 famine disaster. To quote one observer "...The termination of development aid to Ethiopia, ostensibly because of her nationalization of US assets, meant that US emergency aid, up to April 1985, could not be used in such a way as to support roads or well construction, irrigation projects, the purchase

of trucks or seeds, or any other activity that could be construed as `developmental' - as involving anything more than just keeping people alive."[26]

The consequence of these events was that Ethiopia remained the lowest recipients of western foreign-aid over the last decade and half. This fact is reflected in the following statistic (1989 data) on percapita foreign-aid for those countries that are not only among the poorest in Sub-Saharan Africa, but also were the most affected during the 1984/85 drought.

Table-3

Country	Per capita(dollars)
Chad	43.2
Ethiopia	14.2
Mali	57.2
Mozambique	49.4
Niger	39.8
Sudan	31.0

Source: The World Bank (1991), "World Development Report 1991." Compiled from Table 20, p.242.

The same source also indicates that, for the same period, the per capita foreign-aid to the case study country was also the lowest among all other Sub-Sahara countries (except Nigeria which is in fact a contributor to the OPEC official development assistance fund). [27]

2.3 Macroeconomic and Structural Adjustment.

The need for both stabilization and structural adjustment programmes was becoming increasingly obvious by the late 1980s. Due to the reluctance of the regime that was

[26] See King (1986).

[27] See The World Bank (1991). p.242

then in power, stabilization and structural adjustment programmes of the IMF/World Bank-type had not been attempted in Ethiopia.[28] That regime had been persistent in its reluctance to entertain such policy measures and the associated conditionalities, apparently because of the risk of compromising its ideological stance, even though there was the awareness, as early as 1987, that the socialists road to development was not bearing any fruits.[29] Never the less, in early 1990, preliminary negotiations for a standard structural adjustment and stabilization programme had been revived between the Government and the IMF/World Bank. By this time, however, disenchantment with the regime had reached such a level that militant opposition forces soon ousted the government from power, before any substantial progress was made in the negotiations. The policy reform programme that was under discussion at that time had the broad categories given in table-4 below.[30]

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[28] The government had however applied for balance of payments support from the IMF which approved a stand-by arrangement in May 1981. The approved amount of 67.5 million SDR was fully drawn. (National Bank of Ethiopia and Ministry of Finance.)

[29] See Addis Zemen (1990) march, Vol. (year) 49, No.448

[30] As has been indicated earlier the substance of this analysis was acquired in the course of the field work conducted for the research project. Data from both National Bank of Ethiopia and the Ministry of Finance were utilized in preparing the summary of the reform package.

Table-4

Time frame for Macroeconomic and Structural adjustment Policies	1990 /91	1991 /92	1992 /93
1. External Policies			
a) Exchange rate			
b) Exports	xxxx	xxxx	
c) Imports	xxxx	xxxx	xxxx
d) Current transfers	xxxx		
e) External debt	xxxx	xxxx	xxxx
f) Investment	xxxx		
2. Sectoral Policies			
a) Agriculture	xxxx	xxxx	xxxx
b) Manufacturing and services	xxxx	xxxx	xxxx
c) Housing	xxxx	xxxx	xxxx
d) Transport	xxxx		
3. Public Administration	xxxx	xxxx	xxxx
4. Fiscal Policy	xxxx	xxxx	xxxx
5. Public Enterprises	xxxx	xxxx	xxxx
6. Monetary and Financial Policy	xxxx	xxxx	xxxx
7. Pricing and Distribution Policy	xxxx	xxxx	xxxx
8. Employment Policy	xxxx	xxxx	
9. Social sectors	xxxx	xxxx	xxxx
10. Population policy	xxxx	xxxx	xxxx
11. Social costs of adjustment	xxxx		
12. Disaster preparedness	xxxx	xxxx	

Source: Compiled from Ministry of Finance Sources.

While elaborating on each and every item of the proposed programme is beyond the scope of this paper, it should be noted that the exchange rate adjustment and the reduction in the government budget deficit had been the sources of disagreement that had resulted in protracted negotiations on the programme. According to the proposed time-frame, the policies were to be applied over the span of three years (1990/91-1992/93) and as can be noted the included policies touch upon all aspects of the economy.

The Transitional Government, established in July 1991 for the purpose of guiding the nation towards full democracy within a period of two and half years, has declared its

commitments for adjusting the economy in accordance with free market principles while retaining some aspects of socialist control particularly regarding the ownership of rural lands.[31] The international community had also made pledges of assistance, for the reconstruction of the war and famine ravaged economy, as was under-scored by the World Bank Mission which visited the country soon after the establishment of the Transitional Government.[32] The mission, which had the expressed intentions of assessing the best way of assisting the country, had come up with an Aide-Memoir proposing the establishment of an Emergency Recovery and Reconstruction Project for financing by IDA.[33] It is believed by some that these funding would be the forerunner to a full fledged macroeconomic and structural adjustment policy framework, much in the spirit of the proposal presented to the previous regime in August 1990.

This belief was confirmed when the Transitional Government, soon after its ascendance to power, entered into a process of negotiation with the IMF/World Bank on "...what would become Ethiopia's first structural adjustment programme."[34] One

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[31] See the Negarit Gazeta(1991). Also for the social and economic programme of the transitional period see Laine (1991). See also the Financial Times (1992). January 25/26. p.3

[32] This section has been compiled by the researcher on the basis of personal interview of relevant, high level, officials both at the Ministry of Finance as well a the National Bank of Ethiopia as part of the fieldwork exercises for the research project.

[33] It had been observed during the Researcher's investigations that the Aide-Memoir had three components to the ERRP which are 1) an Emergency Inputs Programme for the supply of essential inputs; 2) a Basic Infrastructure Reconstruction Programme which as the name indicates will be used to build up the essential infrastructure devastated by war and overuse and 3) an Economic and Social Reconstruction Fund which is to be utilized mainly for purposes of generating employment for dislocated members of the community. However some mention has also been made in The Financial Times, January 25/26, 1992, of the Emergency Recovery and Rehabilitation Programme worth $650 million which reportedly is to take the economy until national election in January 1994.

[34] See The Financial Times, January 25/26, 1992. p.3

point of difference, according to some, could probably be the insistence by the IMF/World Bank for an immediate devaluation.[35]

The following exercise will therefore explore the possible areas of conflict between an active programme of famine prevention through public provisioning - an undoubtedly heavy resource burden on the government - and the standard policy tools of IMF/World Bank-type interventions.

2.4 The Initial Conditions of a Distressed System.

The need for stabilization and structural adjustment measures is quite obvious as can be deduced from the profile of the economy detailed in the preceding section. Both the internal and the external balances appear to be in disequilibrium. Observation of the economically distressed years of the last decade indicate that survival in the system had required the maintenance of a sizable external imbalance reflecting the economy's inability to generate sufficient output to support its consumption as well as investment requirements. The following salient features of the economy are therefore identified as defining the initial conditions confronting a stabilization and structural adjustment programme:

a) With the lowest percapita income in the world (120 US$), a declining level of percapita food production, a high rate of population growth (2.9 percent per annum), an unworkable socialist production structure, and the persistence of famine conditions, the case-study country finds itself, at the beginning of the 1990s, in the paradoxical situation of a large agrarian country unable to generate sufficient food to ensure survival. The dire need to transform the structure of the economy, in a manner

[35] Refers to discussions of the Researcher with concerned officials of the Ministry of Finance and The National Bank of Ethiopia. Also see The Financial Times, January 25/26, 1992. p.3

that would allow it in the short and medium term period, to meet its basic requirements of food, inevitably implies a heavy dependence on external resource inflows.

b) The public sector has played a relatively *big role* in the economy. Maintaining a level of domestic investment of about 12 percent of GDP, (by1987), had required sizable external resource inflows mobilized by the public sector. Given the low rate of domestic savings in the economy, the result of underproduction characteristic of the famine-prone period of the last decade, maintaining domestic investment even at this low levels (the lowest in Sub-Sahara Africa), could not have been possible in view of the close to total absence - as an unfortunate consequence of past socialist policies - of an endowed and enterprising group in the private sector.

c) The chronic balance of payment difficulties that have developed over the last decade have severely affected the economy even at its stagnant level of economic activity. Inspite of import restrictions and strict exchange controls, which had ensured its use for essential imports only, the shortage of foreign exchange had meant, not only the reduction of new investments, but also that existing capacity had to operate at low levels of utilization for lack of imported intermediate inputs.

d)Performance of the export sector has been stagnant with export revenues unable to pay for needed imports. Expansion of the export sector, which is primarily agricultural and subjected to the same climatic and related factors constraining production in the food sector, may entail significant adjustment in the structure of production - an activity which is heavily dependent on external resource inflows.

e) Monetary policy variables have a passive role in the macroeconomic management of the economy, with the rate of growth of the money supply considered to be within bounds as reflected in the not so high inflation rate. There appears to have been little

or no linkage between the rate of interest and the level of investment activity in the economy over the past decade, as such decisions fall within the domain of the central planners. The situation in the early 1990s may not be any different regarding the use of monetary variables, as the required attitudinal and institutional changes could be a time taking process.

3. Famine Prevention and the Orthodox Approach.

As stated earlier, the dual role of the public sector in the context of an active policy of famine prevention can be regarded as: 1) Public provisioning for the purpose of income support; 2) The concurrent public effort to increase food output. Exploration of possible conflicts between such a public commitment, on the one hand, and some of the standard policy tools of macroeconomic and structural adjustment on the other, derives primarily from the presumption that such a direct approach to famine prevention imposes a heavy burden on the resources of the public sector as well as exacerbates the external imbalances. Such an approach could, therefore, be at odds with the theoretical foundations of the orthodox approach that underlie standard Fund prescriptions. The question of whether such a strategy of famine prevention is feasible or not, in the context of the case study country, may therefore depend on finding the correct combination of policies that would allow the macroeconomic and structural adjustments to take place while at the same time enabling the implementation of the direct measures deemed necessary for the eradication of recurrent famines.[36]

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[36] Based on analysis of the specific circumstance of the case study country it has been argued that a direct approach to resolving the problem of recurrent famines would be for the public sector to be involved in provisioning through income supplementing programmes like employment generation. The issue is the subject matter of another paper(chapter) within the research project.

The discussions in this section, therefore, specifically addresses the question of whether or not devaluation of the Birr (the domestic currency) is an appropriate policy under the circumstances of the case study country. The adjustment of the external imbalance through policies aimed at restricting domestic credit creation is also assessed in view of the questionable validity of such an approach under the specific circumstances of the case study country.

3.1 The External Imbalances and Devaluation:

The central points of the debate, during the rounds of negotiations made in connection with the macroeconomic and structural adjustment policy framework cited in the preceding section were first, the chronic balance of payment difficulty which had characterised the economy during most of the previous decade and secondly, the overvaluation of the currency (which is pegged at 2.07 Birr to 1 US dollar whereas the parallel market runs at about 7.00 Birr to the dollar.) The IMF/World Bank policy framework had then articulated the objectives and targets of an exchange rate policy in terms of removal of cost-price distortions, encouragement of exports and efficient import substitution, avoidance of export subsidies and the elimination of rationing in the foreign exchange markets.[37] In short, what were targeted for improvement, as regards the removal of external imbalances, were the standard symptoms of a developing country with balance of payment difficulties generally leading, according to IMF standards, to a devaluation conditionality.

The theoretical underpining for devaluation, as the appropriate prescription for the elimination of balance of payment difficulties, derives from the liberal trade regimes of orthodox economic theory. The liberal trade regime which is one of the principle

[37] The researcher had lengthy discussions with relevant Officials at both the National Bank of Ethiopia and the Ministry of Finance as part of the research field-work.

goals of the IMF meant that "...fundamental disequilibrium, viewed by most economists at the time as a long-term disequilibrium that could not be corrected by aggregate demand policy in a reasonable time without an excessive degree of unemployment or inflation, was to be corrected by a change in the exchange rate." [38] The operation of the Fund was therefore being relied upon to assist in the corrective measures needed to overcome temporary imbalances and thereby contribute to the stability of the exchange rate. Given the chronic nature of the external imbalance in the case-study country, such a theoretical rationale would tend to dictate an exchange rate adjustment.

The state of the impoverished economy and the imperative imposed by the need to curtail the recurrence of famines through direct public provisioning, are factors which complicate the prospects of an exchange rate adjustment in the case-study country. The merits of such adjustments (devaluations) are quite unclear even under the normal circumstances of underdevelopment (i.e., not aggravated by draughts and famines) as evidenced by the literature on the efficacy of IMF/World Bank sponsored programmes in less developed countries.[39]

Over the years the IMF has evolved a number of criteria for aiding in its search for appropriate policy prescriptions and since, in the early years, exchange devaluation was considered an important measure for balance of payments adjustments, the method known as *the elasticities approach* had provided the theoretical framework under which devaluations were assessed.[40] Although this approach later gave way to other theoretical frameworks such as the absorption approach, and the monetary approach both of which evolved in the light of practical difficulties, the elasticities

[38] See Garritsen de Vries(1987). p.11

[39] See Khan (1990). See also Crockett (1981)

[40] See Garritsen de Vries (1987)

approach nevertheless can help clarify the conditions under which devaluations can be expected to succeed.

The elasticities approach could provide sufficient insight regarding the prospects for a devaluation in the case study country, where the economy is characterised by a relatively uncomplicated structure in view of its dependence on a single agricultural export commodity, the backwards nature of the agricultural production relations, and the dependence on imports for supplementing consumption requirements.

Put in simple terms, a country by devaluing its currency, is in effect cutting the price of its exports thereby making exports more attractive to the trading partners, while at the same time increasing the price of imports to its citizen. It follows therefore that the effectiveness of a devaluation would depend on the nature of the price elasticity of exports as well as the price elasticity of imports. More specifically the crucial factors on the export side are, the elasticity of the foreigners' demand for the country's export and the elasticity of the domestic supply of the export commodities, while those on the import side are, the elasticity of the domestic demand for imports as well as the elasticity of the foreign supply of the imported goods. According to the elasticities approach, for a devaluation to lead to improvements in trade balances, the sum for the elasticities of demand for its exports and imports must be greater than one in absolute terms.[41] It is desirable, therefore, that the decrease in export price should be compensated for by an increase in the volume of exports such that total export revenue improves. Likewise, the increase in import prices due to devaluation should not result in just increasing the import bill as would be the case if the demand elasticity for imports is inelastic.

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[41] For a detailed treatment of the concept see Bahduri (1986) pp.132-168

As a basis for subsequent analysis, the version depicting the essential features of the elasticities approach, and as formulated in Bhaduri, has been briefly summarized as follows.[42] It should be noted, however, that the formulation makes the assumptions that supplies are infinitely elastic so that the domestic price of exports and the foreign price of imports do not change in response to changes in their supplies.

It is stated that the increased physical volume of exports and reduced physical volume of imports would improve the financial balances only if export earnings in foreign currency less import expenditures, also in foreign currency, increases due to the devaluation.(see foot-note)

$\Delta B = \Delta E - \Delta M$
$\Delta E = (\eta_e - 1)\Delta r/r.E$
$\Delta M = -\eta_m . \Delta r/r . k_o E$
$\Delta B = \Delta E - \Delta M = (\eta_e + k_o\eta_m - 1) \Delta r/r . E$

From the above it can be seen that the trade balance can improve ($\Delta B > 0$) only if

$\eta_e + k_o\eta_m > 1$

[η_e = price elasticity of the foreigners demand for exports; η_m = price elasticity of the import for domestic buyers; P_d= price of exports in domestic currency; P_f = the foregn price of imports; r = the exchange rate; X_e = physical volume of exports;

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[42] For the detailed algebraic derivation see Bhaduri, A (1986) pp.143-150. The summary is as follows:
Devaluation by $\Delta r/r$ per cent results in a percentage increase in the volume of exports:
$\Delta X_e/X_e = +\eta_e . \Delta r/r$ if P_d=0
and a percentage decrease in the volume of imports:
$\Delta X_m/X_m = -\eta_m . \Delta r/r$ if P_f=0
From the definition of export revenue ($E = P_d/r . X_e$) and import bill ($M = P_f . X_m$) we have the percentage change in export revenue:
$\Delta E/E = \Delta X_e/X_e - \Delta r/r$ with $\Delta P_d = 0$
$\Delta E = (\eta_e - 1)\Delta r/r.E$ (1)
And percentage change in the import bill:
$\Delta M/M = \Delta X_m/X_m$ with $\Delta P_f = 0$
$\Delta M = -\eta_m . \Delta r/r . k_o E$ with $k_o = M/E$ (ratio prior to devaluation) (2)
Therefore from (1) and (2) above we have:
$\Delta B = \Delta E - \Delta M = (\eta_e + k_o\eta_m - 1) \Delta r/r . E$

X_m = physical volume of imports; E=export earnings in foreign currency; M = import expenditure in foreign currency; B = financial balance]

We will examine the implication of the forgoing formulation using projections obtained through the static model given in the preceding section. In doing so we will adopt two scenarios regarding developments within the case-study country in the medium term period to 1996/97. This will be done through utilizing the elasticities (η_e, η_m) and initial import/export ratio(k_o) as shift parameters in a simple static analysis. Since the values of the shift parameters are assigned subjectively, the analysis can only serve the purpose of assisting in the logical deduction of outcomes. The scenarios are as follows:

Scenario I: This would reflect the economic circumstances that would prevail if the socio-political and economic trends that have prevailed over the last decade still persist over the immediate future. Given the grim economic circumstances that had prevailed over the last decade, particularly the negative trends noted in some key macroeconomic variables(e.g. export growth, percapita food production, etc.,) this scenario could well be considered to be the worse-case scenario.

Scenario II: This will assume that the level of food production per capita will be maintained at the level which the country had during the beginning of the last decade. Measured by the amount of resources required to raise per capita food output to this level, this scenario may appear to be too ambitious. However the scenario is justified in view of the fact that the issue at hand is that of famine prevention and requires consideration of some minimum condition regardless of resource attainablity.

The static effects of devaluation on the trade-balance have been simulated on the basis of the following set of assumptions:

1) The assumption that $\eta e = \eta m = 1$; that supply elasticity of export is infinite; and that devaluation is assessed at the levels of 10% and 30%.

2) The assumption that $\eta_e = \eta_m = 0.1$; that supply elasticity of exports is infinite; and that devaluation is assessed at the levels of 10% and 30%.

3) The assumption that η_e and η_m differ and vary between the range defined by assumptions 1 and 2. Supply elasticity of exports is also assumed infinite, and the devaluation is assessed at the level of 10% for the median year of 1993/94.

It should be realized that given the circumstances of the case-study country, assumption (1) is considered not so realistic for a number of reasons detailed below. Its purpose is to provide an upper limit to what could turn out to be the most favourable outcome from a devaluation. The results of the exercises under assumption 1 and 2 is as given in Table-6a, while the results under asumption 3 are summerized in Table-6b and Table-6c.

Table-5a
The change in the trade balance(ΔB)

	$\eta_e = \eta_m = 1$		$\eta_e = \eta_m = 0.1$	
	1	2	3	4
Year	10%	30%	10%	30%
1992/93	+	+	-	-
1993/94	+	+	-	-
1994/95	+	+	-	-
1995/96	+	+	-	-
1996/97	+	+	-	-

Table-5b

The change in the trade balance based on projections under both scenarios.
(Import/export ratio of about 3.7-3.8 and a 10% devaluation)

η_m η_e	1	.9	.8	.7	.6	.5	.4	.3	.2	.1
1	+	+	+	+	+	+	+	+	+	+
.9	+	+	+	+	+	+	+	+	+	+
.8	+	+	+	+	+	+	+	+	+	+
.7	+	+	+	+	+	+	+	+	+	+
.6	+	+	+	+	+	+	+	+	+	-
.5	+	+	+	+	+	+	+	+	+	-
.4	+	+	+	+	+	+	+	+	+	-
.3	+	+	+	+	+	+	+	+	+	-
.2	+	+	+	+	+	+	+	+	-	-
.1	+	+	+	+	+	+	+	+	-	-

Table-5c

The change in the trade balance based on projections under both scenarios.
(Based on an import/export ratio of 1.5 and a 10%devaluation.)

η_m η_e	1	.9	.8	.7	.6	.5	.4	.3	.2	.1
1	+	+	+	+	+	+	+	+	+	+
.9	+	+	+	+	+	+	+	+	+	+
.8	+	+	+	+	+	+	+	+	+	-
.7	+	+	+	+	+	+	+	+	+	-
.6	+	+	+	+	+	+	+	+	-	-
.5	+	+	+	+	+	+	+	-	-	-
.4	+	+	+	+	+	+	+	-	-	-
.3	+	+	+	+	+	+	-	-	-	-
.2	+	+	+	+	+	-	-	-	-	-
.1	+	+	+	+	+	-	-	-	-	-

The results which are given for each year of the medium term period (Table-6a) and for the median year of 1993/94 are to be understood in the static sense. Since the probable year for the intervention is not known, this approach has, within the limitations of a static analysis, the advantage of portraying each year in the medium term period as the initial year of intervention.

What then are the prospects of devaluation of the currency as suggested by the elasticities approach? The answer to this question can be attempted through the logical assessment of the factors that affect the relevant elasticities as well as the economic circumstances characterising production and consumption in the economy.

Assumption 1 ($\eta_e = \eta_m = 1$): This exercise tell us that under the highly unrealistic assumption of perfect elasticity of supply of exports and unit elasticities of import and export demands, the trade balance can improve. The improvement in the trade balances is obtained from the restriction in imports under the given assumptions. The improvement in the trade balance increases in direct proportion to the level of the devaluation. If it is further assumed that the import cutbacks fall fully on investment requirements, as is most probable in the case-study country where strict import restriction rule out non essential imports, the total investment requirements will be curtailed at a devaluation rate not exceeding a rate of 50 per cent. The impact of devaluation on the level of imports, given as percentage of the investment requirements of a particular year, at different levels of devaluation, and for different levels of import/export ratios is illustrated in table-7 below.

Table-6
Import cutbacks as percent of required investment

Ko \ $\Delta r/r$	0.1	0.25	0.5	0.75
3.9	25	62	124	185
3.0	19	48	95	143
2.5	16	40	79	119
2.0	13	32	63	95
1.5	10	24	48	71

In deriving this relationship between import cutbacks and the level of investment four different levels of devaluation have been assumed ranging from 10 percent to 75 percent. The import/export ratio is varied between 1.5 to 3.9 with the latter ratio being what has been calculated as the average for the past decade. Under this conditions a 10 per cent devaluation shows an improvement in the balance of payments through the reduction in the level of imports. This improvement threatens to restrict imports to a level of 25 per cent of investments, which increases to 64 percent under a 25 percent devaluation, and exceeds total domestic investment at a devaluation rate of 50 percent. On lowering the starting import/export ratio which amounts to accepting the possibility that the government still has some means of curbing its imports requirements before devaluation, the impacts of the devaluation is reduced as can be expected in proportion to the different level of devaluation.

Since less than 4 percent of the projected domestic investment originates from domestic savings, the improvement in the trade balance coming from the import cutbacks has an adverse consequence to the growth prospects of the economy. Needless to say massive cutbacks in the required imports going either for essential consumption or investment has the effect of undermining the objectives of famine prevention.

Assumption 2 ($\eta_e = \eta_m = 0.1$): This assumption which attaches low values for the demand elasticities of exports and imports, the improvement in the trade balances noted under assumption one disappears. Given the proportion of imports to exports projected for the medium term period, the country would not therefore benefit form devaluation at low levels of price elasticity of export demand and import demand. This is the more realistic assumption with regard to both the price elasticities of demand for imports and exports. The demand for imports in particular is considered

to be inelastic because strict import controls and foreign exchange rationing, have meant that the composition of imports consists of essentials such that any cutbacks in import cannot be achieved without severely affecting the level of output in the economy.

Assumption 3: The analysis under this assumption which was done for the year 1993/94, merely illustrates the combinations of price elasticities of export demand and import demand required for an improvement in the trade balance given the import/export ratio characterizing the economy. It can be seen from the tables that the higher is this ratio the greater the likelihood that devaluation will improve the trade balance. The fact that there are no improvements in the trade balance at low values of both demand elasticities of exports and imports, appears to supports the arguments given under the preceding assumptions.

However what the exercise tells on the basis of price elasticities of demand for exports and imports is only part of the consideration that should be taken into account inorder to reach even a tentative conclusion regarding the appropriateness of devaluation as a policy option. Probably a more important consideration in the context of the case-study country, which has a supply constrained economy are the relevant supply elasticities of the exportable commodities. If the structure of production in the export sector is such that the devaluation fails to stimulate more physical output of the exportable commodities in the short and medium term period, the obvious effects of devaluation would be to aggravate the payment difficulties in the short and medium term.

A number of socioeconomic and political factors can be cited to show that the assumption of a high price elasticity of supply for exports may not be tenable in the context of the case-study country, not only in the short-term (about a year) but also in the medium term (less than five years).

The first factor relates to the composition of exports over the last decade. The country has been dependent on a single primary commodity (coffee) for over two decades and attempts to diversify the export base of the economy has not managed to shrink its share of the export earnings which is about 70 per cent. This dependence on a single primary product means that the capacity of the economy to take advantage of the increased export demand resulting from devaluation, in the short run, depends on the rate at which increased production can be mobilized in the sector. If there is no increase in the volume of export commodity, then the cheapening of the export price through devaluation would mean a reduction in the export earnings. The predicament that could face the country is that the particular local variety of coffee would require at least 4 to 5 years for an expansion in productive capacity to yield marketable output. This is not only because coffee trees would normally require three to four years to mature but also because the area expansion for coffee plantations requires massive reclamation costs, as the suitable regions for coffee are generally found in heavily forested regions. Short of raising the level of coffee production in the short-run, the only other source to meet the increased demand for export would be to curtail domestic consumption of coffee. However various policies to discourage the consumption of coffee have been in place throughout the last decade and exercised to their limits, in attempts by the government to increase its export earnings in the past. This policy which has also resulted in the spread of black market trade in coffee, has effectively restrained the domestic consumption of export quality coffee. A shift away from the domestic consumption of coffee is therefore not likely to help meet the increased export demand which is envisaged to result from a devaluation.

A second reason for expecting the supply of exports to be inelastic in the short and medium term is the limited range for the diversification of the export sector particularly towards export products that are known to have high demand elasticities. This limitation is mainly a manifestation of the level of poverty and the defective

production structure which the country has. Furthermore, persistent droughts and recurrent famines underscore the need for the reallocation of productive resources towards the production of basic food necessities. This is critically essential if sufficient stock of basic food crops, is to be maintained to bridge the food gap during lean years. Facing up to this challenge could well mean a total commitment to food production in the medium term period so that the institutional and infrastructural support for the diversification of exports may not be available.

Third, and closely related to the above point, is that pertaining to the role of the private sector. The socialist mode of production and ownership which had been followed by the government for over a decade and half, since the mid 1970s, has not only relegated the allocative decisions in the productive sectors of the economy, to the central planners, but has also systematically eliminated the entrepreneurial spirit in the private sector. This was done through the incessant campaign undertaken by the Marxist/Leninist media to undermine the role of the private sector in the development of the economy, by labelling as capitalist exploitation, any worth-while profit-oriented venture. Although the government reversed its stand regarding the private sector´s role in economic development towards the end of the 1980s, and openly declared a mixed economic system in March 1990, very little had taken place in terms of restructuring the economy to effectively accommodate an active private sector.[43] The implications of these circumstances to the prospects of devaluation is that the required market orientation and the entrepreneurial group able to respond to the price and cost signals, which are purported to result from a devaluation, would not be in place. Since one mechanism through which a devaluation could remove the external imbalances is through encouraging the restructuring of production towards exportables in response to the increased foreign demand, the presence of an active

[43] See Addis Zemen (1990) march, Vol. (year) 49, No.448

entrepreneurial group and a conducive market structure appear to be essential preconditions for a policy of devaluation.

3.2 The External Imbalance and Domestic Absorption

Although the elasticities approach does give indications regarding the conditions under which devaluations can be expected to benefit an economy, the IMF, as indicated earlier, has evolved over time, various methodologies as a basis for its policy prescriptions. One such approach that underlies Fund assisted programmes with Developing countries and which has been a source of contention is the approach known as the *absorption approach.* This approach provides the basis for the IMF position that external imbalances are the result of excess aggregate domestic demand fuelled by excessive credit expansion and that the solution must lie in the contraction of the domestic demand. [44] Under this approach the balance of payments in current account (CA) can be stated as the difference between aggregate demand for domestic goods and imports i.e., domestic absorption (A) and domestic output i.e, nominal income(Y) which is also equivalent to the excess of imports (M) over exports (X).

$$Y - A = CA = X - M$$

The main features of the accounting identity on which the IMF bases its financial analysis under this approach is given below as derived in detail in Bacha.[45]

The derivation of the accounting identity gives changes in the money stock (dMs) expressed as the sum of the changes in international reserves (dR) and domestic credit (dD); changes in money demand (dMd) as functions of nominal incomes variations(dY/v)with the income velocity of money (v)assumed constant over time;

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[44] Bacha (1987). See also Garritsen de Vries(1987)

[45] See Bacha (1987) pp 1462-1463.

and an equilibrium condition for the money market between the changes in the demand and supply for money:

$dMs = dR + dD$
$dMd = dY/v$
$dMs = dMd$

And the relation that changes in the international reserves will be negative when changes in domestic credit exceed the changes in the money demand is obtained through substitution:

$dR = dMd - dD = dY/v - dD$

To link aggregate domestic demand to domestic credit the balance of payments in current account (CA) is defined as the difference between nominal income and domestic absorption (Y - A) and then assumed to balance with changes in the international reserves and in net foreign indebtedness (dF):

$CA = dR - dF$

Through substitution in the last equation and rearranging terms we have the central relation in the IMF formulation:

$A - Y = (dD + dF) - dMd$

This relation states that "...to an excess of absorption over income there must necessarily correspond an equivalent excess of domestic plus foreign credit changes over money demand variations" [46]

If the excess of absorption over income is to be curtailed the logical extension would be to target either changers in the level of dD or dF both. But since dF can be considered beyond the control of even the concerned government, dD remains to be the more feasible target.

[46]See Bacha (1987) p1463

Needless to say, when viewed from the context of a famine-distressed economy such as that of the case-study country, the reasoning behind the above IMF formulation of the absorption approach does not appear to be valid for the following reasons. The fact that the domestic output of goods and services (Y) in a primarily agrarian economy that has been distressed by persistent draughts and underproduction can fall far below that level of output required to enable survival is not accounted for. Under such circumstances and assuming that strict import regimes and exchange controls the importation of only the bare essentials, the aggregate level of expenditure representing the level of domestic absorption (A) which includes expenditure on both domestically produced goods and imports, can be taken to be, as a first approximation, equivalent to the level of output required for survival.

Evidences, to this effect, are provided by the macroeconomic circumstances characterizing the period most affected by the disabling effects of famines during the last decade. This period, 1981 to 1986, clearly reflects the salient features of an economy with an impaired productive capacity and a necessity to rely on foreign resources for its survival and investment needs.

Table- 7

	1981	1982	1983	1984	1985	1986
	As per cent of GDP					
Total consumption(TC_t)	97	98	97	98	100	99
Domestic savings(GDP_t - TC_t)	3	2	3	2	0	1
Domestic investment(DI_t)	10	12	11	13	11	11
Excess of investments over savings	7	10	8	11	11	10
Excess of imports over exports	9.5	11.7	11.1	14.4	13.9	17
Distress imports	2.5	1.7	3.1	3.4	2.9	7

Source: Computed based of data from The World Bank (1990) " African Economic and Financial Data" Data on Diskette.

The situation depicted in the above table is represented as follows inorder to highlight the level of external imbalances(Z_t). GDP_t = the gross domenstic product; TC_t = total consumption and includes both private and government consumption expenditures; M_t = import demand; DI_t = domestic investment; X_t = export demand

$$Z_t = GDP_t - TC_t - DI_t - X_t + M_t$$

It is to be noted that the distinctive feature of the economy is its reliance on external resources to augment its declining food and other resource balance. It is maintained that at some very low level of percapita income, when it becomes evident that domestic output cannot sustain survival, the variable Zt will be equivalent to some *necessary survival import* (NSI). The NSI will consist of the sum of a distress import component and the excess of investments over domestic savings. The implication is that a very low rate of savings and a level of domestic output below that required to support consumption, will have to be compensated by an inflow of external resources if survival in the system is to be ensured. Needless to say, while any economy can fall in such a situation due to unforeseen external shocks, no economy can sustain such a dependent state for a prolonged duration.[47]

This heavy reliance on external resources can be expected to continue throughout the first half of the 1990s as current social, political and economic realities would indicate. To the extent that the *necessary survival imports* must be maintained in the short and medium term period to withstand the threats of famines, those IMF/World Bank-type policy instruments that base their rationales on the absorption approach tend to become inappropriate under the circumstances.

[47] The historical background of the IMF (International Monetary Fund) shows that even among the now developed economies of western Europe there was a severe need for balance of payment support at about the time of the Fund's establishment in 1946, due to the fact that most of those countries had their economies devastated by the war and could not generate sufficient exports to meet their consumption and investment needs. (See Garritsen de Vries (1987))

The *necessary survival imports* can be regarded as transitory in the sense that their linkages to survival diminishes as production in the economy picks-up and the economy is better able to with stand the disabling effects of draughts and external shocks. The revitalized economy also becomes better able to respond to the more traditional stabilization and structural adjustment packages. By virtue of this definition therefore, NSI in a manifestation of economies which, like the case-study country, temporarily lack the output level to ensure the survival of their increasing population.

The state of the economy being analyzed therefore appears to be of vital importance for the application of a policy package based on the absorption approach. If the level of domestic absorption (A) is a better reflector of the survival needs of an economy, then policy packages based on the IMF conventional approach of restraining domestic credit would have the obvious effect of aggravating the conditions of underproduction. When the survival needs of large sector of a population is at stake, as is the situation in the case study country, adherence to such a policy option can have severe consequences in terms of famine recurrences.

4. Policy Conflicts and Available Options

4.1 The Sources of Policy Conflict.

The conflicts between an active policy of famine prevention, on the one hand, and some of the standard tools of IMF/World Bank-type stabilization and structural adjustment programmes, on the other, do not arise, in the context of this study, from differences in perception regarding the underlying economic theory per se. Rather, such conflicts arise from differences in perceptions regarding the circumstances for

the justifiable use of some standard tools of adjustment and the underlying assumption regarding the behaviour of markets, individuals and the system.

Differences in opinion regarding exchange rate adjustments are rather wide, in the case study country. At one extreme, there are those supporters of the IMF/World Bank-type interventions, who espouse the point of view of the orthodox approach and manage to draw favourable pictures regarding the prospects for a devaluation.[48] According to this group, not only the poor export performance of the economy, in terms of the growth and diversification of both agricultural and industrial exports, but also economic ills such as the dependence of the economy on imports, are regarded as consequences of the overvalued exchange rate. They argue that devaluation would lead to the more efficient allocation of resources through encouraging production for exports. Such a shift in production, it is argued, would be prompted by the higher prices of export commodities made possible by the increased demand for such commodities believed to result from a devaluation. Regarding imports, they would argue that the rise in import prises would lead towards the more efficient allocation of resources in production and consumption through a shift away from imports and towards the use of domestic resources.

The foregoing analysis of this study would however suggest a strong opposition to these views on the ground that such favourable scenarios conflict with the actual realities, confronting the case-study country, on a number of counts.

Firstly, is the fact that the case-study country has been exposed to a series of extraneous shocks (droughts and other natural hazards, foreign military aggression, etc.,) as well as defective governance over an extended period of time and that these conditions have reduced it to an unprecedented level of impoverishment. This fact is

[48] The researcher had been to the case-study country on a short field-trip and had occasions to discuss the issue with concerned officials both in the Ministry of Finance and The National Bank of Ethiopia.

reflected by its percapita income which is the lowest in Sub-Sahara Africa. Coupled to this is that the recurrence of droughts and crop failures, which render the country highly vulnerable to even the slightest of adverse changes in circumstances.[49] Shock treatments to the economy (a sudden removal of subsidies; a sharp increase in prices; etc.,) could be expected to have immediate adverse consequences. These unfavourable features mean that any IMF/World bank programmes applied to the country need to be rather frugal in their use of the standard remedies, if human distress, no less painful than the plights of the famine victims in the past, is not to be repeated.

It must be admitted that, striking such a chord of caution is quite justified in view of the uncertain results of IMF/World Bank sponsored structural adjustment and stabilization programmes in Sub-Sahara Africa and the widely documented literature pertaining to the adverse effects of such programmes on the disadvantaged sectors of low income countries implementing them.[50] According to a survey of recent literature on the impact of stabilization and structural adjustment programmes, Helleiner concludes that " ... When equivalent external blows impact upon very low income countries, there must be a presumption that other things being equal (including the distribution of income), the proportion of households and people pushed over the line into `absolute poverty´ will be greater than in middle income or better-off countries."[51] In the context of the case-study country, where the disadvantaged and famine vulnerable sections of the community comprise a significant portion of the population, such a presumption leads us to associate

[49] See table in part a above which shows the extremely low level of savings in the economy. The precarious survival in the region is also underlined by a recent statistic of the RRC (Relief and Rehabilitation Commission) which shows those sectors of the population requiring relief assistance either due to drought or displacement to be about 8, 722,467 or about 18 percent of the population in 1991. These figure does not include the needy in the urban centres or the rural areas outside of the drought affected zones. See RRC (1991)

[50] See review of recent literature by Demery, Addison (1987). See also Helleiner (1987).

[51] See Helleiner (1987). p.1511.

standard IMF/World bank-type programmes with severely adverse consequences that may not be justified by the gains to be acquired from using the standard policy tools for the stabilization and structural adjustment of the economy.[52]

Secondly, the socialist structure of production in the economy requires significant transformation before policy measures relying on markets and prices can be expected to give the desired results. The nationalization of land, financial institutions, and large enterprises in the productive sectors of the economy had given the public sector a dominant role in the economic activity. A major defect of past policy was that trading at free market prices was not allowed for essential commodities and that the activities of private traders were severely restricted. Foreign trade was mostly a centralized operation with foreign transactions carried out through state organizations which had the monopoly on the export or import of various important categorise of commodities. These features of the economy must therefore be rectified before the use of market oriented policy tools can be justified within a stabilization and structural adjustment package.

Thirdly, the relevant set of demand and supply elasticities, as has been illustrated in the previous section, do not appear to conform with the conditions required for a devaluation to result in favourable outcomes in the short and medium term period.

Fourth, the origins of the current account deficit in the economy, as indicated earlier, was mainly due to the importation of essential items for both consumption and investments as well as inputs for the manufacturing sector. Strict import controls and rationing in the foreign exchange market, ensured that the import bill was not inflated by the demands of non-essential and luxury items. Given such circumstances

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[52] According to a relatively recent source about 15 million or 46 percent of the population in Ethiopia is food-insecure. On this see The World Bank (1988)

devaluation by making imports even more expensive, could aggravate the conditions of under-production characterizing the economy.

Fifth, the inflation that often accompany devaluations, as the wage earning sectors try to keep up with increases in the price level, has a destabilizing effect on the vulnerable sectors of the community and would tend to undermine any effort, on the part of the public sector, to keep up with its effort at maintaining the entitlements of these sector of the community.

Prices of imports and import-related domestic consumption of basic essentials, including food, will soar making the famine vulnerable population even more unable to cope. Increased prices of agricultural inputs like fertilizers, pesticides, improved seeds farm machinery etc would be reflected in the prices of farm outputs thereby worsening the conditions of the urban as well as the market-dependent rural community to unsustainable levels.

Sixth, the increase in the value of foreign debt, which is one consequence of a devaluation, can have far reaching adverse effects on the finances of the public sector and to its active involvement in provisioning for famine prevention. This problem is aggravated by the fact that the country has an existing heavy debt commitment. Furthermore, in view of the absence of a class of entrepreneurs able enough to ensure the revival of sustained growth of the economy, the continued presence of a strong public sector appears to be required over the medium term period covering the first half of the 1990s. An inflated foreign debt commitment would inevitably hinder its capacity not only to initiate investment in the flagging sectors of the economy, in order to lend support to the activities of an emerging private sector, but also to ensure that the envisaged, free-market based, economic development takes an egalitarian direction through provisioning for the maintenance of the entitlements of the disadvantaged.

The source of conflict regarding the second policy tool for controlling the external imbalances - that of restricting domestic credit creation - is more obvious in that an active policy of famine prevention can be expected to entail a higher level of public expenditure than otherwise. Here again the theoretical rationale is not the issue of conflict. Controlling the level of domestic expenditure as a method for curtailing that level of domestic absorption in excess of domestic output, and thereby easing the pressure on the balance of payments may have obvious merits as an adjustment process, assuming all the relevant socioeconomic parameters are sufficiently responsive to a corrective policy stimulus. The source of conflict instead lie with the initial conditions characterizing the case-study country. As has been argued in the preceding section, the phenomenon of total consumption in the economy exceeding domestic output has been a characteristic feature of the draught years with the level of consumption being in the neighbourhood of 98 percent even in normal years. This level of total consumption, inspite of its apparently large magnitude in proportion to the GDP, however reflects a level of food consumption that falls about 25 percent short of the recommended level of consumption.

This facts clearly indicate that one major effect of the recurrent drought and famine conditions of the past two decades was the unavoidable dependence on external sources to supplement the production shortfalls. Given such an initial condition, where the excess of domestic absorption is a reflection of underproduction and distress caused by exogenous shocks, the rationale for the approach of contracting the national income as a method of controlling the external imbalance ceases to be relevant. Contraction of the national income through restricting the rate of domestic credit creation would tent to exacerbate the conditions of underproduction which have been created by successive years of adverse exogenous shocks.

The conclusion that neither devaluation nor credit restriction appear to be desirable policy options under the special circumstances expected to prevail in the case-study country during the first half of the 1990s has been strongly suggested by the foregoing discussions. Therefore we will broadly discuss below the alternative implied by the circumstances.

4.2 The Alternative Options

When a country is unable to devalue in the face of external imbalances which severely limit its import capacity, the options available to it include the imposition of various restrictions on imports, strict exchange control, and the resort to foreign loans. All of these conventional measures have been applied in the case-study country over the past decade. Strict exchange control had been imposed throughout the period. Private importation of various categories of consumer goods had been strictly prohibited. Import duties of luxury items were sufficiently prohibitive to discourage their importation. That the country has also resorted to external loans, as a way of tiding over the exchange constraint, is evident in the mounting debt balance which has been increasing, at a high rate, over the last decade.

Contemplating devaluation as a policy measure inorder to encourage exports by making the exportable commodity cheaper to the trading partners, in the short or medium term period, must take into account the existing pattern of export earnings. The low elasticity of export supply implied by the long gestation period of the primary export commodity, is one of the many structural factors that would tend to diminish the potential benefits of the devaluation. A policy of exchange rate devaluation would therefore appear to require various preconditions. These include the various policy reforms regarding pricing and markets, property rights, the role of the private sector and similar other measures required to transform the economy from

a socialist mode of production and ownership into a market orientated economy. Such a structural adjustment need to precede exchange rate devaluations inorder to ensure that markets and individuals respond, in the predicted manner, to the price signals which a policy of devaluation is purported to trigger. The appropriate response to such signals may therefore lead to the more efficient allocation of resources in both production and consumption, with production tending towards the increased use of domestic resources, and the composition of output tending towards more exportables. In this way it is hoped that exportables would be expanded sufficiently to pay for needed imports.

It appears, therefore, that the economy needs to undertake stabilization and structural adjustment programme without the imposition of a devaluation conditionality at least during an interim period. Such an interim period would be required to transform the socialist production and ownership relations inline with the requirements of a market orientated economy. Furthermore, the interim period should also allow for the needs of an active policy of famine prevention in view of the recurrence of draughts and famine conditions. The indispensability of an active famine prevention intervention as a safety-net against famines on the one hand, and the apparent resource limitations implied by the grim economic profile of the country on the other, make it even more necessary that the task of exploring and devising alternative spending plans should not be overly constrained by considerations of credit-restraint argued earlier. After over a decade and half of communist rule however, such an interim period of transformation and adjustment could be expected to take a good part of the first half of the 1990s.

But such a programme of transformation and structural adjustment, even on an interim basis, cannot be conducted without exacerbating the mounting external imbalance. Since increasing the export base in the short and medium term, as has been discussed earlier, does not appear to be a feasible alternative, the resolution of

the external imbalance becomes a predicament that may ultimately have to rely on foreign loans. But the question is would the international loaning organizations (IMF/World Bank) be willing to compromise their liberal trade policies in order to accommodate the survival requirements of a Third-World nation. Would such organizations be willing to provide the significant balance of payments support implied by the need to combat recurrent famines concurrently with the need to implement a programme of structural adjustment.

Questions of this sort are rather speculative and we can afford to leave them open. They, never the less, lead us to digress into the historical background of the IMF where we note that special circumstances (such as the Marshal plan, absence of IMF conditionalities, etc.) have assisted in the post war period of reconstruction and adjustment when balance of payments support was most evident.[53] It can be gathered from historical accounts of the IMF´s activities during the early years after its inception, that even among member industrialized countries, the process of balance of payments adjustment had not worked through the exchange rate policy (as per the Bretton Wood system). The reasons identified for such an outcome, according to the same analysis, were that first, the reconstruction period following World-War two did not allow the use of the exchange rate policy due to the transitional period arrangements for which the primary rationale was "...that there was an urgent need for members to rebuild their war shattered economies and restore trade relations and that for the time being exports could not be expanded sufficiently to pay for needed imports."[54] Second, members were reluctant to devalue their currencies, and third, there was heavy reliance on import restrictions as a means of avoiding exchange devaluation and thereby for maintaining a favourable terms of trade. Beside such incidences in the historical background of the IMF which undermine the policy of

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[53] See Garritsen de Vries (1987)

[54] See Garritsen de Vries (1987) pp 34

exchange rate adjustment, there are also reasonable grounds to cast doubts on the efficacy of such policy as an instrument of balance of payment adjustment based on the experiences of the developing countries that had undergone IMF stabilization and structural adjustment programmes.[55]

As for the lending organizations' reservations regarding the undesireability of compromising orthodox principles, particularly the liberal trade regime, we note from the historical accounts that the liberal trade regime has never been fully adhered to, in view of the various provisions which hamper free trade. Even the Fund recognizes that, subject to approval by the international communities, member countries frequently restricted imports inorder to avoid a protracted disequilibrium in their external balances.[56] One does not have to resort to historical records insearch of evidences that these international arrangements could lead to massive and sustained disequilibrium as one could cite the recent controversy regarding the U.S./ Japan trade imbalance or the controversies surrounding the GATT.[57]

We can therefore close these section first, by restating the conclusion that the orthodox policy tools analysed would not result in positive outcomes for the economy in the short and medium term period, and second, that the alternatives available to the country inorder to maintain the level of imports required for an adjustment programme that accommodates public provisioning for famine prevention, depend for the most, on the will of the international loaning organizations.

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[55] See Streeten (1987). pp.1469-1482; and Rodrik (1990), pp. 933-947.

[56] See Garritsen de Vries (1987)

[57] The US-Japan trade tension was subject addressed by various issues of the The Financial Times in early February. See for example, The Financial Times, Feb. 13,1992." Japan'a trade threat'" . The Financial Times, Feb. 4,1992 "Competition and the GATT".

5. Summary and Conclusions:

The study proceeded by broadly categorizing the various defects of the economy as manifestations of two disequilibria in the system. The first disequilibrium pertains to the internal imbalances as reflected mainly by the stagnation in economic growth, the decline in the per capita output of food and related items, and the growing budget deficits of the public sector. The other disequilibrium is the external imbalances and is chiefly reflected in the system's inability to eliminate the balance of payment deficits. This latter disequilibrium was the subject matter of this paper

The external imbalance has been a characteristic feature of the economy since the famine years of the 1980s. With close to 99 percent of domestic output allocated for consumption during most of the latter part of the period, survival in the economy had meant a heavy reliance on external resource inflows. As has been wittinessed times and again by the famines of the 1980s, the country's inability to mobilize sufficient external resources to bridge the gap between domestic consumption requirements and domestic production, finds expression in increased famine distress and mortality.

When a country is as distressed by exogenous factors as is the case-study country, where the domestic output had been unable to support an acceptable level of consumption or investment, and where survival is contingent on the availability of external resources, there arises a need to define some concept of a *necessary survival import*. The necessary survival import is presumed to comprise of a distress import component of food and related items, and an investment component required to supplement domestic savings and maintain domestic investment at some minimal level.

On the basis of the vital statistics of the case-study country, which has the lowest percapita income in the world as well as the lowest rates of investment in the Sub-

Sahara Africa, the study maintains the premise that the economic set-up during most of the 1980s represents the case where the external imbalance corresponded with the necessary survival imports. This correspondence, it is argued, is likely to hold during most of the first half of the 1990s - the period during which the country will need to undertake the transformation and structural adjustment required to enable the economy to over come the threat of recurrent famines.

Against this background however is the need to conform to the conditionalities of the standard IMF/World Bank- type stabilization and structural adjustment package - as the country prepares for its first test of such a programme. The study has therefore focussed of the issue of whether or not two of the standard components of the orthodox policy package, the first being devaluation of the national currency and the second domestic credit restraint, by targeting directly and indirectly the external imbalances could aggravate the condition of underproduction in the economy and thereby frustrate the objectives of famine prevention.

The study leads to the tentative conclusion, on the basis of logical reasoning and with the aid of projections of a simple static model, that significant structural adjustment particularly regarding the supply response of the economy, must precede any consideration of an exchange rate devaluation. Since such a structural adjustment is at best a medium term proposition, the prospects for a successful devaluation during the first half of the present decade is considered highly unlikely.

With regard to conditionalities pertaining to domestic credit restrictions, the study has attempted to show the contradiction inherent in such policy tools when applied in the context of an impoverished economy where meeting the necessary survival needs is contingent on the maintenance of domestic absorption in excess of domestic output.

The study therefore underscores the need, for IMF/World Bank-type of stabilization and structural adjustment programmes, to make sufficient concessions in their use of standard policy tools when the initial conditions of the economy does not warrant their application. It has been argued that with an economy adversely conditioned by persistent draughts, political instability, defective governance, and recurrent famines, the case-study country was a case in point. The particular intensity of the famine problem and the impossibility of maintaining a state of readiness to the demands of chronic emergency-relief situations, make it an imperative that some active policy of famine prevention be adopted. The success of any such strategy, however , appears to be dependent, to a significant extent, on the country´s ability to obtain sufficient balance of payments support, with toned-down conditionalities, at least for an interim period of transformation and adjustment.

6. Appendix

APPENDIX I

Model used in the projections:

Use was made of the following aggregate demand model which was designed *only* to obtain crude projections of the level of *external imbalances*. Necessary simplifications were made inorder to couch the system in standard macro economic terms. The persistent external imbalance which is characteristic of the distress condition of the economy, has been reflected in the balancing equation of the model where the balancing item Z_t will be expected to be positive in the short and medium term period.

The model incorporates government consumption expenditures within total consumption, and does not show the government sector explicitly as investment is considered mainly an activity of the public sector(in line with past practices). Since the variables of interest for the current analysis are limited, the model has been trimmed accordingly. The components of GDP as well as exports are determined exogenously.

The external imbalance:

1) $TC_t = b_1 + b_2 \, GDPt$

2) $DI_t = b_4 + b_5 \, GDP_t$

3) $M_t = b_7 + b_8 \, GDP_t$

4) $X_t = X_{t-1}(1+g)^t$

5) $VAA_t = VAA_{t-1} \, (1+g)^t$

6) $VAI_t = VAI_{t-1}(1+g)^t$

7) $VAS_t = VAS_{t-1} \, (1+g)^t$

8) $GDP_t = VAA_t + VAI_t + VAS_t$

9) $$Z_t = GDP_t - TC_t - DI_t - X_t + M_t$$

Devaluation:

10) $$\Delta X_t = (\eta_e - 1)(\Delta r/r) X_t$$

11) $$\Delta M_t = - \eta_m (\Delta r/r) M_t$$

12) $$\Delta B_t = \Delta X_t - \Delta M_t$$

TC_t = Total consumption at time t
DI_t = Domestic investment at time t
M_t = Imports at time t
X_t = Exports at time t
ΔX_t = Change in export revenue at time t
ΔM_t = Change in the import bill at time t
ΔB_t = Change in the trade balances at time t
VAA_t= Value added in agriculture at time t
VAI_t= Value added in industry at time t
VAS_t= Value added in services at time t
GDP_t= Gross domestic product at time t
Z_t = Necessary survival import at time t
η_e = price elasticity of demand for exports
η_m = price elasticity of demand for Imports
$\Delta r/r$ = Devaluation rate

The first equation of the model expresses total consumption in the economy (private and public consumption) as a function of GDP(current income /output).

The second equation expresses domestic investments as a function of the GDP. Since in the present exercise the object is to obtain a rough indication of the level of domestic investment , the aggregate GDP instead of the sectoral break downs was used to compute the marginal propensity to invest.

The third equation gives the marginal propensity to import also as a function of GDP. For the same reason indicated in the preceding paragraph, obtaining the marginal propensity to import on the basis of disaggregated expenditure categorise was not considered necessary.

The fourth question gives the level of exports for the model as an exogenous variable. It is projected as an exponential trend.

Equations 5-8 also give the other exogenous variables of the model. The value added variables, and therefore GDP, are projected on the basis of growth rates (g) consistent with the assumptions of the analysis in the following section.

Equations 10 - 12 comprise the devaluation exercise whereby changes in the trade balance are simulated on the basis of projected imports and exports.

Estimation of the equations:

The Two-stage least squares(2SLS) was used to estimate the parameters b_1, b_2, b_4, b_5, b_7 and b_8.

$$TC_t = -223.289 + .985\, GDP_t \qquad R^2 = 0.98$$
$$(105.05) \quad (.029)$$

$$DI_t = 162.954 + 0.074\, GDP_t \qquad R^2 = .53$$
$$(50.54) \quad (0.014)$$

$$M_t = -447.997 + 0.323\, GDP_t \qquad R^2 = 0.88$$
$$(87.38) \quad (0.025)$$

Scenario I
No devaluation.

Projections (in millions local currency units, 1 US$ = 2.07 Birr)

Variables	1992/93	1993/94	1994/95	1995/96	1996/97
TC_t	9152	9251	9356	9467	9587
DI_t	1138	1148	1160	1173	1186
M_t	2626	2659	2693	2729	2769
X_t	744	739	735	730	726
ΔX_t	0	0	0	0	0
ΔM_t	0	0	0	0	0
ΔB_t	0	0	0	0	0
VAA_t	3518	3440	3363	3288	3215
VAI_t	1835	1889	1944	2001	2059
VAS_t	4165	4289	4418	4549	4685
GDP_t	9518	9618	9725	9838	9959
Z_t	1110	1138	1167	1198	1230

Scenario II
No devaluation.

Projections

Variables	1992/93	1993/94	1994/95	1995/96	1996/97
TC_t	11364	11704	12054	12414	12784
DI_t	1380	1418	1456	1496	1536
M_t	3351	3463	3578	3696	3817
X_t	885	911	937	964	992
ΔX_t	0	0	0	0	0
ΔM_t	0	0	0	0	0
ΔB_t	0	0	0	0	0
VAA_t	5763	5930	6102	6279	6461
VAI_t	1835	1889	1944	2001	2059
VAS_t	4165	4289	4418	4549	4685
GDP_t	11763	12108	12464	12829	13205
Z_t	1486	1539	1595	1652	1710

Scenario I
Import cutbacks as per cent of total investment.
$\eta_e = \eta_m = 1$

	$\Delta r/r$ k_o	0.1	0.25	0.5	0.75
1992/93		26	64	128	191
1993/94		25	63	126	188
1994/95	3.9	25	62	124	185
1995/96		24	61	122	182
1996/97		24	60	119	179
1992/93		20	49	98	147
1993/94		19	48	97	145
1994/95	3.0	19	48	95	143
1995/96		19	47	93	140
1996/97		18	46	92	138
1992/93		16	41	82	123
1993/94		16	40	81	121
1994/95	2.5	16	40	79	119
1995/96		16	39	78	117
1996/97		15	38	77	115
1992/93		13	33	65	98
1993/94		13	32	64	97
1994/95	2.0	13	32	63	95
1995/96		12	31	62	93
1996/97		12	31	61	92
1992/93		10	25	49	74
1993/94		10	24	48	72
1994/95	1.5	10	24	48	71
1995/96		9	23	47	70
1996/97		9	23	46	69

Scenario II
Import cutbacks as per cent of total investment.
$\eta_e = \eta_m = 1$

	k_o \ $\Delta r/r$	0.1	0.25	0.5	0.75
1992/93		25	63	125	188
1993/94		25	63	125	188
1994/95	3.9	25	63	126	188
1995/96		25	63	126	189
1996/97		25	63	126	189
1992/93		19	48	96	144
1993/94		19	48	96	145
1994/95	3.0	19	48	97	145
1995/96		19	48	97	145
1996/97		19	48	97	145
1992/93		16	40	80	120
1993/94		16	40	80	121
1994/95	2.5	16	40	81	121
1995/96		16	40	81	121
1996/97		16	40	81	121
1992/93		13	32	64	96
1993/94		13	32	64	96
1994/95	2.0	13	32	64	97
1995/96		13	32	65	97
1996/97		13	32	65	97
1992/93		10	24	48	72
1993/94		10	24	48	72
1994/95	1.5	10	24	48	72
1995/96		10	24	48	73
1996/97		10	24	48	73

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