EDRP No.126

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"The Financial Aspect of Foreign Aid in Uganda-an outline of some proposed methods of enquiry".

Introduction:

When considering the financial aspects of utilising and managing foreign aid, several problems come to the fore. It is the purpose of this paper to raise these problems, and to indicate how it is intended to investigate them in the case of Uganda.

The first problem dealt with is the determination of the true value of 'Aid'. Foreign Aid is given in various forms, with different terms attached, and the nature of these terms effects the value of this 'Aid' to the recipient. The first section "The Grant Value of Aid" is an attempt to work out the element of concession in the flow of 'so called' Aid funds to underdeveloped countries. This is allowing for such terms on loans as the rate of interest; the length to maturity; and the grace period on the repayment of principal.

The second section considers the effect of tying Aid. By tying we mean that certain restrictions are placed on the way in which, and the place in which the aid funds must be spent. Aid may be tied to a specific project; to a specific source of imports; to both a project and a source of imports; or simply to off-shore costs. Most of the major donors tie their aid in various ways, justifying their policies by arguing that they have to tie their aid because of balance of payments problems, and/or that a certain amount of tying is necessary in order to ensure the efficient use of aid. (e.g. project supervision). Both of these arguments do possess an element of truth, but the side effects of tying on the development of the recipient has also to be considered. In the past the tying of aid has placed the emphasis in development assistance on the financing of the direct foreign exchange costs of specific projects. It has become increasingly clear, however, that many less developed countries have difficulty in raising the local resources necessary to to complete projects the foreign exchange components of which are available from outside. The inability to raise the local costs, coupled with the lack of provision for such costs in loan areeements can lead to several problems which are discussed in section B.

Section C concentrates on the problem of servicing the loans offered as foreign aid. This raises the problems of short-run liquidity, and long - run capacity to service debt. This is a very controversial subject which can lead to a criticisism of the motives of 'so-called' "Aid".

Throughout it is tried to indicate the approaches that will be tried in applying this analysis to Uganda.

This paper is intended primarily as a discussion of methodology.

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A.) The "Grant " Value of Aid.

The first task is to define what we mean by "Aid". The most satisfactory way of defining "Aid" is as that part of the flow of resources into a country from outside that involves an element of concession on the part of the donor. This includes not only grants, but also some part of the flow of loaned funds. The problem is to determine the net discounted value of a concessionary loan.

The definition of "grant" element is thus the difference between the face value of a loan and the present value of all future repayments, (amortization and interest payments), discounted at a proper rate of interest (estimated market rate). The choice of a discount rate is difficult, and the long-term rate that would represent the borrower's opportunity cost, is a good deal higher than the appropriate rate to the lenders.

Goran Ohlin has developed a mathematical method by which he attempts to calculate the concessionary element of a loan, given the terms of the loan and an appropriate rate of interest to use as the rate of discount.

It is realised that the model is very limited in as much as it does not allow for all of the restrictive terms, and presumes a standard method of repayment. Never the less it is felt that some useful results can be obtained.

Ohlin's Model.

He considers a loan with the following terms:

i = the rate of interest;
T = the maturity;
G = the grace period on the repayment of principal;

The face value of the loan is represented by, L , and the following variables are listed for estimation:

P = the present value of future repayments at the time of lending;
p = P/L;
S = L-P, the subsidy or grant value;
s = S/L:
q = the rate of discout (i.e. a 'proper' rate of interest);

Ohlin first considers the present value of such loans, and derives a set of equations for the same. He then derives an equation for the present value as a proportion of face value, and using the relationship

$$1 = P/L + S/L \;;\ \text{i.e.}\ \ S/L = 1 - P/L$$
$$\text{i.e.}\ \ s = 1-p$$

he arrives at his equation for the "Grant" value of a loan:

$$s = (1-i/q)\left(1-\left[e^{-qG} - e^{-qT}\right]\right) / q(T-G)) \qquad \text{eqn. (I)}$$

Using this model Ohlin constructs a set of tables which would be of use when considering the grant value of loans of varying terms, with different rates of discount.

Application to Uganda :

The value of using such a model for actual calculation of the grant value of the "Aid" received by a particular country is of course limited because of the limitations of the model itself (mentioned earlier); and any satisfactory evaluation will have to consider the effect of further restrictive terms (e.g. tying) by other methods of analysis elsewhere. Nevertheless, it would seem that the results obtained from applying Ohlin's model to Uganda will be of great interest, and of value providing there limitations are realised.

The actual collection of the necessary data would not seem to be too difficult, and the major problem would seem to be the choice of appropriate rates of discout.

B). The 'Local Costs' Problem: (the effects of tied aid).

The failure to make due provision for the local costs of a project when providing foreign aid, may lead to the following problems:

Problem (a).

The actual refusal of foreign aid by the recipient because she is unable to raise the local finance necessary for the project. If, as is more likely, the aid is not refused, the inability to raise the local finance may lead to the project being delayed early on in its life, and lying unfinished, tying up scarce resources until the local finance is found. The shortage of local finance may make schemes with a high import content more attractive to the planning commission because such schemes are likely to find foreign supporters.

A possible way of investigating this problem is to break down the costs of aid supported projects into the following sub-divisions:

(i) import content;

(ii) local costs;

(iii) recurrent costs;

It will also be necessary to ascertain the provision for such costs in the loan agreements. An examination of the actual and estimated expenditure under these sub-heads will enable us to pinpoint any delays in implementing the projects. If the delay can be seen to be mainly in the field of local finance, it will then be possible by considering the provision in the loan agreement for such costs, to judge whether or not the provision can be regarded as inadequate. A similar examination can usefully be carried out for recurrent costs, which are not usually provided for in loan agreements. (N.B. there is a degree of overlap between local costs and recurrent costs).

Several examples illustrating the difficulty of utilising tied aid in Uganda come readily to mind; for example the U.K. Commonwealth Assistance Loan granted at Independence, and the U.S.S.R. £5.6m. Loan.

Problem (b)

The favouring of schemes with a high import content may lead to a distortion in the path of development as indicated by a list of projects in descending order of development priority.

The case usually cited is that of a bias against agriculture. It is argued that in countries where agriculture is the major growth sector this bias will be harmful to development. The hypothesis of the bias against agriculture is based on the argument that donors tend to be preocupied with large prestige projects, or at any rate with projects that have a large import content; thus neglecting agricultural development, which it is argued consists of a large number of small projects requiring a high proportion of local and recurrent expenditure. This of course presumes that agriculture is of the peasant variety, based mainly on subsistance production.

Hal Mettrick in his book "Aid in Uganda-Agriculture" has attempted to look at this problem for the period covered by the First Five Year Plan. "To speak of a bias against agriculture is only meaningful if one has in mind some idea of what a fair share for agriculture is.........the determination of the proportion of resources to be devoted to agriculture requires a detailed examination of what the available options are. The analysis provided by the Second Plan is the most sophisticated which has yet been produced for the Ugandan Economy. In the light of this, the proposed portion for agriculture in the First Plan appears less than optimum."

Mettrick continues: "Whether or not aid has caused a bias against agriculture can be assessed in two ways; by examining the rate of progress in implementing agricultural projects contained in the Plan; or by comparing the proportion of total aid spent on agriculture with the proportion of total expenditure planned for agriculture."

It is hoped to be able to look at this problem in greater detail than Mettrick, and to come to some worthwhile conclusions.
Another point in connection with the distortion of priorities, is that if the aid sponsored projects come from a low position in the list of development priorities; then the fact that the recipient has to finance the local and recurrent expenditure of such projects, may divert scarce resources away from projects of a higher priority. This is a question of judging the opportunity cost of the diverted local funds.

Problem (c).

Imports from the donor may be of a higher cost than local materials, or imports from another source. (for examples see Helleiner in bibliography).

This problem is difficult to quantify owing to the inadequacy of the statistics, and lack of information as to the available options at the time of purchase. Prestige projects are often quoted as examples (e.g. Tororo Girls School), and it is hoped to be able to look into this problem with regard to certain selected projects-, if time allows. Mettrick when considering this problem in the case of agriculture doubts if this has been a serious problem in Uganda, quoting only one "clear" example: the equipment for the proposed dairy to be supported by the U.S.S.R.

Problem (d).

The predominance of imports may lead to the wrong choice of technique; for example to too high a degree of capital intensity.

This has also been looked into by Mettrick in the case of Agriculture.

His conclusion is that in certain cases the pursuance of mechanisation backed by aid cannot be supported on economic grounds. It is argued that the lack of local finance has been the cause of delays in the implementation of less capital intensive projects. It is hoped to extend this analysis to other sectors.

Problem (e).

The tying of aid may lead to the necessity of errecting a complex and expensive administrative set-up to ensure that the terms are followed, and proof of this is available. This will be an unnecessary drain on the scarce supply of skilled manpower in the economy.

The truth of this is evident in any discussion with the parties involved. It may be possible to improve this situation if there is some coordination and cooperation between the Government and the donors' representatives on some sort of consultative group basis. This may make it possible to limit the extent of tying to an 'off-shore' variety.

Problem (f).

Pursuance of inflationary monetary policies on the part of the recipient in an attempt to pay for the local costs or recurrent expenditure of projects, relying on 'Crisis Aid' to fill the consequent Balance of Payments gap. Also of course it is argued that inflation may distort the economy in a way unfavorable to development.

This has not as yet proved a problem in Uganda, partly as a result of a healthy balance of payments position, and partly because of the joint monetary system under the E.A.C.B. In the future, Uganda, now with her own Central Bank, and a worsening balance of payments position, will have to watch this possibility carefully.

When considering recurrent costs it would be useful to distinguish between that spent in Uganda, and that spent directly on imports. (e.g. fuel). If no provision is made for this drain, then it may place a heavy burden on Uganda's Balance of Payments. A similar case can be made for making provisions for the indirect imports resulting from the incomes generated by the local expenditure via the propensity to import. This step has in fact been taken by a few donors.

C). The Problem of Debt Servicing.

The problem of the ability of a country to service its foreign debt can be looked at in two main ways: first there is the short term liqidity problem which may be caused by such factors as a sudden flight of capital, the bunching of repayments in a particular year, or a temporary fall in external earnings; then there is the long-run ability of a country to service its foreign debt.

The former may be looked into with the aid of certain short-term indicators, which have their limitations but are useful for the prediction of short-term liquidity crises.

(i) Short-term Indicators:

Service payments are expressed as a % of income, savings, government revenue and foreign exchange receipts. The level of this % (sometimes called the debt-service ratio) and its changes over time are taken as one indicator of the debt service burden. Because of the problem or transfering the service payments in the form of foreign exchange, the most relevent of these indicators from the analytical point of view, is the ratio of Public Debt Service to foreign exchange receipts (earnings), particularly in the context of a short term decline in external earnings. All of the indicators are worthy of examination however.

(ii) Long term considerations:

When considering the long term ability of a country to service its foreign debt Avramovic in his study for the 1964 U.N.C.T.A.D. used the following methods.

He examined the direction of the rate of change in income, savings, government revenue, and foreign exchange earnings which remain available after service payments have been made. It would be very useful to deduct the amount of service payments from each of these variables at two different points of time, and then to consider whether the "remaining flow" has increased, what has been its rate of growth, and whether this can be considered as satisfactory. If the remaining flows have risen adequately this indicates that the rise in service payments has proceeded pari-passu with a strengthening of the country's long-run economic position.

The main problem in applying this analysis will be, needless to say, the estimation of the necessary variables; at present it is intended to use some combination of the follwing sources- advice would be welcome:

<u>Foreign Earnings:</u>

It is proposed to use a combination of Uganda Government and E.A.C.S.O. Balance of payments data; their concepts differ, and it is difficult to know which to prefer.

<u>Income and Governemtn Revenue:</u>

Data for previous years will of course be obtained from published Government information. As for predictions, Clark's Projection Model or Newman's revised Chenery-Bruno model might be useful.

<u>Savings:</u>

This is a difficult problem for any economy, and even more difficult in the case of Uganda because capital formation and balance of payments data are so incomplete as to render even the residual method more innaccurate than usual. It would seem that the best answer might be to use the projection models again.

Growth of Service Charges:

This should not present too difficult a problem, indeed the I.D.A. have already done some work on this.

The ability to service debt is of course effected by the impact that the loan financed projects have no foreign exchange earnings, via export promotion and import substitution. The ideal way to estimate this would be by means of a cost-benefit study. But because of the emmense difficulty of such a study and the lack of available time, this will not be attempted. It should be possible, however, to make some estimate of a projects value in this sense simply by observation.

With reference to the short term problem, Contractor finance is likely to prove a difficult problem as it is very difficult to track this down.

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