AN EVALUATION OF U. S. GOVERNMENT AID TO INDIA

by ALAN PHILIP CARLIN

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ABSTRACT

The thesis is an evaluation of United States Government aid to India through Fiscal Year 1962 in terms of its contribution to Indian economic development. An effective aid program for development purposes is defined as one having a high rate of return in terms of the increased income of the recipient country. Primary emphasis is placed on the evaluation of aid at the micro or project level. Two sectors of the Indian economy, transportation and irrigation, are selected for detailed case studies.

The analysis of aid to transportation concludes that the basis for making the early U.S. aid to that sector for replacement of rolling stock was never thoroughly examined, that little effort has been made to persuade the Indian Railways to implement a number of the suggestions made by the only U.S. technical study of the Indian Railways, and that there is some economic justification for expanding line capacity by installing centralized traffic control in many cases rather than the much more costly doubling now commonly undertaken. More broadly, it is found that the growth of demand for Indian Railway services and hence the need for U.S. aid is likely to be reduced if the Railways charged rates which more accurately reflected the full costs of moving various commodities, particularly bulk minerals such as coal, and if alternative modes were given an equal chance to develop. Detailed estimates of the fully-distributed average costs of transporting passengers, coal, other bulk minerals, and other freight are developed and compared with Railway rates and present and potential costs of coastal shipping and bus transportation.

The study of aid to irrigation centers attention on the state tubewells built in North India with U.S. aid. Rough estimates of benefits and costs suggest that the rate of return on invested capital is perhaps as low as three per cent, and that their operation involves a large subsidy to the water users. More generally, it is found that the state tubewells, like most other irrigation and drainage projects in India, provide a very low quality of service and that the water is used at an intensity far below optimum. It is suggested that American aid would be more effective if it were directed towards encouraging more

intensive use of irrigation and drainage, research on the optimum use of water under Indian conditions, and systematic analyses of benefits of proposed projects, rather than on providing foreign exchange for doubtful projects.

With regard to the program as a whole, the study finds that the non-technical aid given during the early period (prior to U.S. Fiscal Year 1958) was ineffective in promoting Indian development since India had substantial foreign exchange reserves at the time which could have been used for the same purposes. Although significant improvements are possible, the later program (since 1958) is found to be fairly efficient in raising Indian national income; but considerable question is raised as to the expectations that India will be able to carry on its development program without outside assistance in any "reasonable" period of time.

The study suggests that U.S. aid could be made more effective if more U.S. influence were exerted on the program level to improve the balance of payments situation and, particularly on the project level, to insist on more minor changes affecting the efficiency of the use of developmental resources in sectors receiving substantial U.S. aid. The program is found to be particularly deficient in the techno-economic analyses made of projects and sectors receiving substantial U.S. aid. Agency for International Development personnel problems together with a generally overoptimistic view of Indian development prospects are singled out as two of the underlying problems of the U.S. AID program in India.

Thesis Supervisor: Max F. Millikan

Title: Professor of Economics

PREFACE

This study is based on material gathered in India during a one year period in 1962. While it does not exhaust the material, it includes the data gathered on the two principal sectors studied, transportation and irrigation. The research and writing were carried out under a fellowship granted by the Ford Foundation. However, the conclusions, opinions, and other statements made are those of the author and not necessarily those of the Foundation.

An empirical field study of this magnitude relating to a number of different technical specialties has required the assistance and co-operation of many people in many different places. It would be very difficult to list all the individuals who submitted to my questions or answered my requests for particular information. I am particularly grateful to the many officials of the Government of India who so willingly gave of their time and the information available to them. I shall try to list those individuals who went particularly far out of thej^r way to provide assistance.

At the Massachusetts Institute of Technology, I am indebted to the three members of my thesis committee, Professors Max F. Millikan, Evsey D. Domar, and Louis Lefeber, as well as Everett E. Hagen, for their interest, assistance, and criticism. Professor Domar is partly responsible for my original interest in the topic, although he may not realize it. Professor Lefeber[1]s 1961 study of Indian transportation provided much of the inspiration for Chapter 3.

Among the many outside MIT who were particularly helpful and influential in shaping the study, I should like to single out Morton C. Grossman of the Ford Foundation in New Delhi, whose ideas considerably influenced the general outlines of the study, and Ellis L. Hatt of the U.S. Soil Conservation Service, whose readily-shared knowledge of Indian irrigation in particular and the agricultural aspects of irrigation in general proved invaluable in the analysis of U.S. aid to Indian irrigation.

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I am grateful to The RAND Corporation for encouragement in putting the manuscript in final form, and to many RAND staff members for their helpful criticism of the manuscript, particularly Michael Intriligator, Richard Nelson, George Rosen, Robert Slighton, and Charles Wolf, Jr.

Robert Slighton, in particular, was influential in reshaping Chapter 3.

It cannot be emphasized sufficiently strongly that sole responsibility for the views expressed rests with the author. In fact, a number of the individuals and institutions named would disagree with some of the statement made.

Finally, it is important to point out at the outset that any study, particularly one as ambitious as this one, must go beyond the point reached by the use of the facts available if it is to reach practically useful conclusions. In this case, more detailed application of the criteria developed in Chapter 1 could develop more of the relevant facts, but it would still not be possible to resolve all of the remaining uncertainties. As a result, varying amounts of personal judgment have been exercised in the study, particularly in Chapters 2, 5, and 6.

BIOGRAPHICAL NOTE

The candidate, Alan Philip Carlin, was born on April 28, 1937 at Port Chester, New York. His education has been as follows:

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Chapter 1

INTRODUCTION

> We have not to date made a serious mistake in India, which has been the largest recipient of our aid. We have not made mistakes because we have taken the time to study things carefully and indeed have also spent money on studies.
>
> John Kenneth Galbraith[1]

After more than ten years of large-scale aid to many underdeveloped countries, disenchantment with the aid program has grown to such proportions as to menace its very existence. To the extent that this discontent has rational roots, it can be largely traced to doubt as to whether the objectives sought in many countries would advance United States interests if achieved and whether the aid has in fact promoted the stated objectives. This study is concerned with a major segment of the latter problem, namely, the effectiveness of U.S. aid in promoting economic development where that is the principal objective. The approach taken is to attempt to analyze how such economic aid can be made more effective by evaluating the effectiveness of past aid.

Perhaps the basic unit for evaluating aid is the aid given by one (or more) donor(s) to an individual country, commonly called a country program. Since the effectiveness of a donor's program in one country has relatively little causal relation to the effectiveness of programs carried out in other countries, each can be usefully analyzed separately. Where possible, one of the easier ways of doing this is to break down a country program still further into its constituent parts, usually called projects. The difficulty is that the effectiveness of a country program is not necessarily related to the effectiveness

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[1]U.S. Congress, House, Committee on Appropriations, Foreign Operations Appropriations for 1964, Hearings before Subcommittee, Part 4, 88th Congress, 1st Session, August 14, 1963 (Washington: U.S. Government Printing Office, 1963), p. 1538.

or its constituent projects because of the fungibility problem and the importance of influence exercised at the country program level. Hence while an analysis of the effectiveness of projects may furnish valuable information about the effectiveness of the program as a whole, the latter must be the basic unit of analysis.

Now that something has been said about the level at which the effectiveness of aid programs can best be analyzed, the next step is to define what is meant by effectiveness at the suggested levels of analysis, and to suggest criteria by which it can be measured or at least examined. Following this, some general comments are made on the application of these criteria of effectiveness to the particular country program which has been selected for this study, and a brief outline offered of the contents of the study as a whole.

DEFINITION OF AN EFFECTIVE PROGRAM

In order to define what an "effective" program is, it is necessary to characterize what the most generally held objectives of aid intended to promote development are. Since economic development means many things to many people, from increasing employment and improving the technological base to equalizing income and wealth, there are likely to be a variety of answers. Perhaps the most generally accepted measure of development, however, is per capita national income. Most governmental aid programs, however, appear to be directed (perhaps mistakenly) only at increasing national income. For the sake of simplicity, this will be taken as the objective here,[2] so that an

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[1] See below, pp. 12-13.

[2] If per capita income is taken as the objective, the words per capita national income and per capita aid expenditure should be substituted for national income and aid expenditure in the following discussion. Thus, the criterion suggested in the next paragraph would be the rate of return, r, found by solving for r in the following present value equation:

effective aid program is defined as one which is efficient in increasing the national income of the recipient in terms of the aid expenditure required. The simplest general criterion might be the ratio of the increase in national income above what it would otherwise have been over a given period to the aid expenditure examined (say during a year).

One problem with this criterion is that it neglects the undoubted differences in the timing of the increases in income resulting from various forms of aid expenditure. It is suggested that this can be overcome by using the rate of return from aid in terms of the increased income of the recipient in succeeding years over what it would otherwise have been. The question of what constitutes a minimum acceptable rate of return is one which theoretically depends on the utility of aid funds in their alternative uses to the American people. A rough guess might be that a suitable poll would reveal that the minimum acceptable return might be between 10 and 100 per cent. The 10 per cent is intended to represent the marginal return on reproducible capital in the United States. The 100 per cent represents a permanent rise in the income of the country by an amount equal to the aid given.

There are several problems with even this improved definition of an effective program. One is raised by the fact that some of the future growth which may occur in national income in the long run cannot be directly attributed to the aid given during any one year, but rather to the aid program as a whole, which may eventually make possible "self-sustained" growth. In fact, one influential school of thought would characterize self-sustained growth as the principal

---

$$\frac{A}{P_0} = \frac{\Delta Y_1/P_1}{1+r} + \frac{\Delta Y_2/P_2}{(1+r)^2} + \cdots,$$

where A = aid expenditure in year 0,

ΔY_i = the increase in national income in year i over what it would have been without A, and

P_i = population in year i.

objective of aid for development purposes. They would say that unless a country gave a reasonable prospect of being able to sustain the additional growth made possible by the aid after a period of time without further assistance, that the program could not be considered effective. The criterion suggested would give some weight to this effect in that the hoped for "self-sustained" growth can be attributed equally to the aid given earlier, with a significant effect on the computed rate of return.

In the criterion as it stands, there is a trade-off between a high short-term impact on income and the longer-run possibility of self-sustained growth. For the sake of simplicity (because of the extreme difficulty of estimating when, if ever, self-sustained growth will take place), and to satisfy those who believe that self-sustained growth is a major, if not the major objective, it seems best to express the criterion for an effective program as a double criterion, both elements of which must be satisfied:

(1) that the short-term rate of return in terms of increased income is likely to be "adequate" if the short-term increase in income is taken as permanent, and

(2) that there is reason to believe that the country will be able to sustain the higher growth rate made possible by the aid without outside assistance within a "reasonable" period of time (say the expected life of the U.S. aid program).

These will be the operational criteria used in judging program effectiveness in this study.

Another problem with the more precise definition of an effective program arises from the fact that some of the aid may result only in a short-term rise in consumption in the country, as, for example, if the aid consists of consumption goods randomly distributed without charge or obligation. According to standard national income accounting procedure, such aid would make little or not difference in the recorded income of the country since imports would rise in an amount equal to the rise in consumption.[1] This is not entirely a fair

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[1]Investment may rise by a small proportion of the aid, depending upon the circumstances.

computation of the effects, however, since the standard of living, surely one of the objectives of the aid, will have been raised at least in the following year. It will be noted, however, that even if aid consumption imports are deducted in the computation of income, the rate of return in this case is roughly zero.

At the other extreme, if the aid helps the country to overcome one or more of the operating constraints which are preventing it from achieving a higher growth rate with its own resources, the return in terms of increased income is likely to be substantial. Suppose, for example, that the government of a country has the capability of making productive investments or developmental expenditures, but is prevented from doing so by a lack of tax revenue or other means of commanding resources. Provision of aid will generally result in additional developmental expenditures and a higher growth rate. If, in addition, provision of the aid assists the country in removing one of the underlying constraints to collecting higher taxes, developmental expenditures and hence higher income can be further increased and continued without further aid.

More systematically, foreign aid can be usefully considered as having three principal effects on a recipient country. It is a fairly simple matter to list some of the common constraints on growth which each of these effects can potentially overcome, and to describe the general conditions under which aid is likely to be effective in each case. The first two effects, to provide (1) foreign exchange and (2) domestic resources, are financial in character, while the last, (3) donor influence on domestic economic policy, is a potential product of the recipient's desire for (1) and (2).

(1) Foreign Exchange. Most aid recipients desire it primarily because of pressure on their balance of payments. Imports in all too many cases have a persistent tendency to exceed exports, and the easiest solution is often to obtain foreign aid to cover the difference. There is one circumstance, however, in which provision of foreign exchange has unusual potentialities for multiplying income. This is

the case where one or more institutions (such as the government) in a less developed country have the capability to make additional productive investments or other developmental expenditures and can command sufficient domestic resources to do so, but are constrained by the country's shortage of foreign exchange from purchasing the particular specialized resources not available domestically which are either required for the investment or for which it would be prohibitively expensive to find substitutes. Under these circumstances, which assume a disequilibrium in the foreign exchange market, foreign aid can increase development expenditures by a multiple of the amount of the aid, with even greater effects on income. All that is needed is the foreign exchange component of the developmental expenditures, which is usually only a fraction of the total expenditure.[1]

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[1]This is the ideal case; in reality, the additional developmental expenditures may create the need for additional foreign exchange to meet the need for additional specialized resources arising from changed consumer demands resulting from the project which cannot be met from domestic sources or fully controlled. They may also create the need for additional imports of generalized resources if industrialization attracts factors away from traditional sectors whose marginal productivity is greater than zero, and nothing is done to introduce new factors, curb demand for traditional products, or improve tne productivity of those factors remaining in the traditional sectors.

The basic assumptions in this section can be expressed algebraically as follows:

Let A = total foreign assistance,

A_I = foreign assistance actually used to finance additional specialized foreign investment goods for the modern sector,

A_c = foreign assistance actually financing additional generalized goods potentially produced domestically and demanded because of the investments made possible by A_I,

Y = national income in modern sector,

I = net investment in modern sector made possible by A, and

σ = marginal output-capital coefficient.

Then, if the long term increase in national income in the modern sector,

These are not entirely imaginary circumstances; in fact, they are likely to occur to some extent in countries which do not have plentiful supplies of readily marketable primary products (such as oil) but attempt to industrialize rapidly. Industrialization requires many specialized capital goods which are not likely to be produced in the country and raw materials which it may or may not have the resources to produce. While most capital goods can be produced if an elaborate organization and suitable factories are built, this requires considerable time and, usually, considerable foreign exchange since the machines necessary to make the new machines are not available domestically. Many essential industrial raw materials, on the other hand, are not even available in a country and cannot be produced at any reasonable

---

$$\Delta Y = \sigma I,$$

and investment is limited by the availability of aid, and is proportional to it, so that

$$I = \ell A,$$

$$\Delta Y = \sigma \ell A.$$

Since $A = A_I + A_c$, it will be seen that

$$\frac{\Delta Y}{A} = \sigma \ell = \sigma \frac{1}{A_I / I + A_c / I}$$

If A_c/I is small, that is, the traditional sectors can meet most of the demands for basic necessities such as food, clothing and shelter, despite the loss of the domestic factors transferred to the modern sector, and A_I/I is small (say a = .1), ℓ may be very large (almost 10), and the aid very effective. This is the extreme situation presented in this section (1). If, however, the output of the traditional sectors fails to keep up with demand, A_c/I may be much higher and ℓ correspondingly lower. Case (2) below represents the extreme case where A approaches I. Since the marginal propensity to import is generally less than one, A is generally less than I.

This discussion has ignored the effects of the modern sector investments made possible by the aid on the future balance of payments, which may also be a constraint on investment if there is no guarantee that future aid will be available for non-capital imports. Thus, unless the import savings resulting from the investment exceed the additional raw material imports, the investment will worsen the long-run balance of payments.

cost from domestic resources. At the same time, it may be very difficult for such a country to increase its export receipts rapidly even with devaluation because of the often limited markets for its usually largely primary exports. While it is possible to find substitutes for some of the scarce specialized resources, or to concentrate on heavy industry so as to eventually be able to make at least the specialized capital goods domestically, the cost to the economy will be a slower rate of growth in the short run.

To the extent that industrial growth is constrained by a shortage of these specialized resources, foreign aid can often be effective by providing the capital equipment and raw materials needed for growth, if the country uses the time to take the necessary steps to decrease non-essential imports and increase export earnings sufficiently so as to be able to sustain the industrialization program after a reasonable period of time. It should be noted that while the development made possible by the aid may improve the foreign exchange position of the country if it involves Import substitution or the build-up of heavy industry, this is not likely to be enough to solve the country's exchange problem. While the outputs of import substituting and heavy industries will reduce the need for imports of their particular outputs, they will also indirectly increase the need for other new and varied specialized resources obtainable only outside the country. If the aid program is to be effective in a country where foreign exchange is a serious constraint, it usually must do more than to provide foreign exchange; it must also use whatever influence is available to persuade the government to take those steps available to it which will increase exports and decrease non-essential imports. There may be exceptions, of course, where the country is already taking all possible steps to accomplish these ends but has not been successful because of (say) the considerable time required to create new export industries or to improve old ones.

(2) Domestic resources. The second important financial effect of aid is to provide generalized resources to the recipient institution

within the aided country, usually the government in the case of foreign aid. To the extent that the institution possesses the willingness and the capability of efficiently using these additional resources, but is constrained by the lack of them from doing so, aid may promote growth. The resulting increase in investment or other developmental expenditures and ultimately in national income is likely to be considerably less per dollar spent, however, than in those countries where specialized resources are the chief constraint because the aid must provide the foreign exchange cost of the project plus the entire increase in consumption demand for imports resulting from the additional domestic expenditures of the institution.

There are a number of plausible circumstances where the government of a country may be constrained by its inability to command additional resources from undertaking increased developmental expenditures. It may be, for example, that consumption levels are so low in the country that increased taxes or deficit financing will result in intolerable physical hardship. It may be that it is politically impossible for the government in power to raise additional taxes for those able to pay them without being thrown out of power. Or it may be that it is administratively incapable of collecting additional taxes. One may doubt that many governments faced with such problems could efficiently use additional resources supplied by aid to increase useful developmental expenditures, but there may be exceptions.

In order to be effective, such aid must do more than raise income in the short run; there must also be a reasonable expectation that the country will be able to sustain the higher aid-induced growth rate out of its own resources at the termination of the aid program. In many cases, there can be little expectation that the financial effects of the aid program will sufficiently increase tax revenues or other resources available for developmental purposes. While the increase in income resulting from the aid will undoubtedly increase the tax base, this will be a slow process unless there are high marginal tax

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In terms of the simple model presented in a footnote to section (l) above, $\ell_2 \sim 1$, so tnat $\underline{\Delta Y}$ is only $1/\ell_1$ as much, where ℓ_1 is the value of ℓ in a category (i) country.

rates, which are not generally found in such countries. More generally, unless the marginal propensity to invest out of the increased income generated by the aid is high, the country will not be able to maintain the higher aid-induced investment rates after the termination of the aid. As a result, there must either be the determination and ability to insure that the marginal propensity to invest is high, or the influence exercised by the aid donor must be sufficient to stimulate the necessary determination.

While in a few cases it may be possible to justify aid on the basis of providing generalized resources, the amount of the aid should be determined not by the need for domestic resources but rather by the corresponding foreign exchange requirement. This arises because the added government expenditure made possible by the aid will not give rise to an equal rise in imports since the marginal propensity to import is generally less than one. Provision of aid equal to the government deficit will result in a rise in foreign exchange reserves, which hardly serves any immediate purpose. This is more than an academic point in that the U.S. aid program has made this mistake in at least two countries.

(4) Bargaining power. Given that foreign aid is often the easiest solution to the foreign exchange problem which many less developed nations face, the possibility of giving foreign aid confers considerable bargaining power on the aid giver. This bargaining power increases once a country has received aid for a number of years, since it becomes increasingly dependent on it in the sense that its termination would result in even harder choices for the government concerned than the alternatives to accepting foreign aid in the first place. This phenomenon offers substantial opportunities for the donor to influence recipient country policies in ways likely to promote economic growth. For example, if the principal constraint on raising additional developmental resources in a given country is the difficulty of increasing tax revenue, the bargaining process rather than the financial

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[1]Laos and South Viet Nam.

effects of the aid itself can be used to encourage the government to adopt higher taxes. In essence, the government of the potential recipient is then faced with the alternatives of enacting and collecting the proposed tax increase or of taking any of the other measures necessary to solve its foreign exchange problem. Once again, aid given for the purpose of influencing policy is likely to he effective only if there is substantial promise that this together with other effects of the aid will be enough to help the country sustain growth out of its own resources. Often the bargaining power conferred by aid, even if fully used, is only enough to make marginal changes in policy specifically related to the aid. The Alliance for Progress, for example, which alone among the U.S. aid programs publicly attempts to influence domestic development and other policies, has had little success thus far in attempting to influence major domestic policies in the Latin American countries.

In addition, some influence may be exercised at the micro or project level, as outlined below under the definition of an effective project. While much more influence can be exercised in this way than is generally supposed or now used, it is unlikely to make a major difference in the over-all effectiveness except in the case of marginally effective programs.

On the basis of the definition of an effective program which has been presented, together with the description of the general conditions under which aid is likely to be effective, it should be possible with sufficient knowledge of individual countries to roughly classify various aid recipients according to the economic effectiveness of aid programs to them. At one end of the effectiveness-ineffectiveness scale, many observers would probably place Western Europe just after World War II and Israel during the 1950s. It requires comparatively little detailed knowledge of the U.S. aid programs to these countries to recognize that these were potentially viable economies where growth was severely limited by a shortage of both foreign and generalized resources; all that was needed to increase growth could be provided by foreign aid. Little influence and therefore control over the aid was

necessary because these countries were fully capable of productively using the foreign capital made available to them.

At the other end of the effectiveness-ineffectiveness scale are those in which no significant or sustained economic growth is likely to be stimulated no matter what attempts are made to furnish aid or exercise Influence. Many observers would Include much of Africa and Latin America in this category, as well as some Asian countries, such as Burma and Indonesia.

In between these two extremes is a comparatively small number of countries where some doubt may exist as to the likelihood of being able to carry out an effective aid program. In these programs, the effectiveness of the U.S. aid program may be affected by the amount and kind of influence which the U.S. is able to exercise, while an accurate estimate of the effectiveness of the program will often depend upon a knowledge of the problems and progress made in particular sectors, and the degree to which influence is exercised at the project level. It is in this group that it is important to insist on the meaningful use of various control devices such as granting aid only for specific projects.

All this suggests the possible importance of evaluating aid programs on the micro or project level in the case of the marginally effective programs — to gain information as to the over-all effectiveness of the program and to assess the use which is being made of project-tying to exercise influence in desired directions. At least one aid donor, the World Bank and its affiliates, goes so far as to use project analysis as the principal measuring rod for judging the effectiveness of aid. This, however, appears mistaken in most cases in light of the relatively small impact vfaich one or even a few projects can have as well as the fungibility problem. The fungibility problem arises because the particular developmental expenditures with which the aid is identified may or may not represent the actual purposes which the added funds provided by the aid have financed. Thus, while expenditures for imports for a power plant may be reimbursed by the U.S. Agency for International Development (AID), the plant might well

have been built even if total U.S. aid had been reduced by the amount reimbursed. The U.S. funds can then hardly be said to have financed the power plant at all, but rather the alternative use of the funds which would not have been made if the aid had not been extended. A meaningful analysis of the effectiveness of the aid must therefore analyze the effectiveness of the marginal projects which the aid in fact makes possible. In most cases this is exceedingly difficult because the government concerned has in fact never been forced to choose which project to cut out and therefore to identify the marginal project — because it has either received the aid or has not yet been turned down in the request for funds.

DEFINITION OF AN EFFECTIVE PROJECT

Nevertheless, considerable information can often be learned by evaluating the effectiveness of aid projects, where the project is interpreted to mean the purpose for which the funds are supposedly used. A useful definition of an effective project might include the following four elements:

(1) That the project offers an acceptable return in terms of increased income (if largely financed by aid),

(2) That the project represents an efficient use of the resources available to the country for developmental purposes,

(3) That the project be part of an effective program, and

(4) That the project fully utilizes the fact that the aid is identified with some specific purpose and sector of the economy to promote development to the extent possible.

It is important to explain why these particular four criteria have been chosen, and to briefly outline, where this is not self-evident, how an evaluation of a project might best be carried out using each criterion.

(1) Increased Income

This criterion is intended primarily to be applied to technical aid projects, which are generally the only ones almost entirely financed by aid. Technical aid projects, particularly those which are designed

primarily to make this contribution by exercising influence, are often projects which the recipient country would not otherwise undertake, so that the effectiveness of the aid will often depend on the effectiveness of the project for which the aid is supposedly used. And since the recipient's contribution is generally a small proportion of the total, the criterion for an effective program can be directly applied to this type of project. The ability of a technical aid project to stimulate a high return in terms of increased income is entirely dependent on whether the influence which the project is intended to exert or the unrealized need for technical assistance which the project is intended to supply happens to solve a critical bottleneck in an important sector and whether the bottleneck happens to be amenable to the particular influence or assistance offered at the time it is offered. An evaluation of the effectiveness of a technical aid project must assess the importance of the bottleneck and the sector, and the extent to which the project helped to solve the bottleneck. This usually requires a detailed analysis of the more critical problems in the sector involved as well as the role of the project in solving one or more of them.

(2) Efficient Use of Resources

The program productivity criterion breaks down in the case of most capital aid projects. Local resource requirements are usually a substantial proportion of a capital project, so that the proportion of the project formed by the foreign exchange component can affect the judgment rendered by a measure which considers only the aid component of the project, even though projects with a high import component are often equally essential for a country's development. The alternative is to consider the project in terms of the resources available to the country and their alternative uses. The proper condition would be that the project be included among the optimal groups of projects which could be financed out of these resources in terms of promoting development.

A second problem is raised by the fungibility question. If the project supposedly financed by aid is not the project actually

financed, it is not immediately clear why one "use" of aid is necessarily any more effective than any other if it meets any particular productivity criterion since the productivity of the actual project is never measured. In actuality, there are likely to be some aid projects which clearly would not have been built without the aid, and it is obvious that the effectiveness of the aid is dependent upon the productivity of these projects. In the case of the remaining projects, there is often considerable doubt whether they would be financed without the aid. If the aid donor insures that all such projects are "effective," however, the productivity of the total will usually be somewhat higher.

Under conditions of competitive equilibrium, general equilibrium theory says that a firm maximizes profit if it uses capital to the point where the marginal productivity of capital is equal to the price of capital, that is, the interest rate. In the case of economic development projects, the object is not to maximize the profit of an individual firm, but rather the social profitability of the project to the country as a whole. This means that the benefits and costs of the projects should be taken as the benefits and costs to the nation, with tariffs, taxes, and subsidies eliminated. The social value of domestic production can be taken as the cost of importing the same product where that is possible. The detailed application of the social profitability criterion is the subject of an extensive literature, in which the failure of the criteria developed under certain (generally fairly unusual) situations is described in detail.[1]

The development of growth theory over the last two decades has led to several modifications of the criteria suggested by equilibrium theory for application to the less-developed countries. Chenery has grouped the changes required under five headings:[2]

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[1]For government projects, which include both of the major studies undertaken later in this volume, one of the clearest accounts is given by Roland N. McKean in Efficiency in Government through Systems Analysis (New York: John Wiley, 1958). See also J. Hirshleifer, J. C. De Haven, and J. W. Milliman, Water Supply: Economics, Technology, and Policy (University of Chicago Press, 1960).

[2]H. B. Chenery, "Comparative Advantage and Development Policy," American Economic Review, Vol. 51, March 1961, pp. 22-5.

(a) Adjustment of factor costs to reflect opportunity costs.

(b) Consideration of some of the unfavorable effects of dependence on primary exports, as is often dictated by market forces.

(c) Consideration of the possibility of rising efficiency as labor and management acquire increasing experience (the infant industry argument).

(d) Dynamic external economies.

(e) Consideration of the dangers of overspecialization arising from changing trade conditions.

Of these modifications, two require more comment than given by Chenery:

(a) Factor costs. Because of imperfections in factor markets in many of the less-developed countries, factor prices often do not reflect opportunity costs. These divergencies can be treated either by adjusting direct benefits and costs so as to take into account the indirect benefits and costs to the rest of the economy, or by adjusting prices by the use of accounting rather than market prices. The factor prices most frequently found to be substantially different than their opportunity costs in less-developed countries are foreign exchange, labor, and capital.

(d) Dynamic external economies. These can usefully be divided into those arising from interdependence in production and interdependence via increased consumer incomes. Of these, only the former appears likely to create a situation where market forces are likely to lead to less than optimum investment decisions. The latter are often very

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[1]This is Hollis Cheery's distinction (see "Interdependence of Investment Decisions," The Allocation of Economic Resources, Stanford University Press, 1959, p. 86), but follows an earlier distinction by Marcus Fleming between "vertical" and "horizontal" economies (see "External Economies and the Doctrine of Balanced Growth," Economic Journal, June 1955, pp. 241-256).

[2]Marcus Fleming, ibid., has pointed out that interdependence via increased consumer incomes is dependent on the existence of an elastic supply of capital or labor. He further suggests that the domestic supply of capital is practically inelastic in the short run. The assumed elasticity of labor, on the other hand, which has usually been justified on the basis of a marginal productivity of labor in traditional agriculture approaching zero is open to serious question, at least in the case

difficult to quantify; Chenery, however, in a recent article has illustrated how some of these interdependencies might be taken into account if sufficient data were available.[1] The calculation of social profitability after the various corrections in benefits, costs, and prices suggested by growth theory have been made has been illustrated in a number of articles,[2] although not always enthusiastically recommended in light of the great uncertainties involved, particularly with respect to accounting prices.

More popular are a number of partial productivity criteria, based on the assumption that the principal restriction on the development of a less developed economy is capital. These attempt to measure the increase in national income resulting from a project using varying assumptions concerning the social welfare function, the ability of the government to use various policy instruments, and the extent to which various allowances are made for the indirect effects of a given investment allocation.[3]

In the real world, where it is usually not possible to determine what many of the indirect benefits and costs or accounting prices are with any precision, it is necessary to use various approximations.

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of the country concerned in this study (see the partial evidence presented by Theodore SchuLtz in Transforming Traditional Agriculture, New Haven: Yale University Press, 1964, pp. 53-70).

[1]H. B. Chenery, "Interdependence of Investment Decisions," op. cit.

[2]A particularly simplified example is given by the United Nations in Manual on Economic Development Projects (New York, 1958), pp. 207-9. In order to accurately compute the accounting prices and determine the social profitability of projects it would theoretically be necessary to resort to a linear programing model of a country's entire investment program. See, for example, Hollis Chenery, "The Role of Industrialization," American Economic Review, Proceedings, Vol. 45, May 1955, PP. 40-57.

[3]The best known examples include the Kahn-Chenery social marginal productivity criterion (see H. B. Chenery, "The Application of Investment Criteria," Quarterly Journal of Economics, Vol. 67, February 1953, Vol. 67, pp. 76-96), the marginal reinvestment criterion (see W. Galenson and H. Leibenstein, "Investment Criteria, Productivity, and Economic Development," Quarterly Journal of Economics, Vol. 69, August 1955; pp. 343-70), and the marginal growth contribution (see Otto Eckstein, "Investment Criteria for Economic Development and the Theory of Inter-temporal Economics," Quarterly Journal of Economics, Vol. 71, February 1957, PP. 56-85).

The choice of investment criteria used should be made on the basis of ease of making the calculations, the extent to which the approximate method used approaches the theoretical ideal, and the particular assumptions made about the goals of development policy, the principal constraints on development, and so on.

Needless to say, actual practice of the principal aid donors in their pre-project evaluations bears only a faint resemblance to the theoretical solutions sketched here. The World Bank, for example, which undoubtedly has the highest standards of project evaluation of any of the principal donors, describes its evaluation of the economic aspects of a project as follows:[1]

> It is assumed that the sector of the economy in which the project belongs (agriculture, transportation, etc.) is of a priority which has already been established in a general review of the development needs of the economy. The economic examination of the project itself normally involves some kind of market study, the extent of which will depend on the type of project. In some cases, the study may be limited to a relatively confined area (for example, when a small power system is being considered), or at the other extreme, it may involve an analysis of the demand and supply prospects for a commodity on a world-wide scale (as for instance in the case of a large new source of iron ore).
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> The objective of the economic appraisal is to discover whether the project is able to earn a reasonable return on the capital which must be invested. The question of what rate of return is reasonable is not easy to answer, and the answer will vary from case to case. Where market forces operate freely it could be said that the new project should earn not less than the return from comparable enterprises in the country concerned. But in the case of projects which are subject to regulation because of their monopoly position (for instance, some public utilities and transport systems) this test tends to become indistinct, and resort must often be had to the application of pricing formulae to produce the desired results.
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> In addition to the direct return which a project may produce, there are a number of other ways in which it

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[1]International Bank for Reconstruction and Development, "Some Techniques of Development Lending," September 1960, pp. 12-14.

may contribute to economic development. One of these is the extent to which it would utilize resources, material or human, which would otherwise be idle or under-employed. Then there is the question whether the project would create conditions favorable for the establishment of related economic activities (for instance, industries supplying raw materials or processing the products of the project). The obverse of this question is the question whether the project could be successfully carried out only on condition that other developments, which were not directly part of it, were also carried out (for instance, the establishment or expansion of a steel industry is only practical if there are adequate facilities to transport the raw materials and the finished products).

In the case of agricultural projects, an economic analysis may be required on several scales (that of the individual farmer, that on the project as a whole, and that of its effects on the whole economy).

An important aspect of the economic appraisal is a determination of the project's probable effects on a country's balance of payments, whether by way of generating increased exports or by way of import substitution. It is of course the net effect on the balance of payments which must be estimated, that is, account must be taken of possible need to import spare parts or raw materials, as well as debt service, etc. Nor would the indirect impact of the project on the balance of payments be overlooked.

In considering projects for highways or railways, particularly on a national scale, it may be necessary to compare the relative merits of different types of transportation (railways, highways, inland water transportation). Similarly, when considering projects for the development of energy sources, the relative advantages of different types of energy source may have to be examined.

Another important economic question is whether the success of the project will depend upon measures taken to protect it from competition. These may be of various kinds. The commonest type is the imposition of import duties or quotas, but there are other types of protection such as a limitation on the freedom of road transport in order to protect a railway system. Any protection should be embarked upon with care, although there are cases in which protection for a period can be justified on the classical infant industry grounds.

Where the project is a regulated monopoly it is necessary to investigate whether the regulatory supervision is such as to permit the sound operation and development of the project.

> In many cases external assistance, for example a loan from the Bank, will only be forthcoming if necessary changes are made in the management and regulations governing a project, as well as in its pricing policies, if these endanger the project's successful operation.

In essence, what the Bank is saying is that it analyzes the profitability of a project at market prices and then studies various other aspects of the project often on a subjective basis, to see if the use of accounting prices or inclusion of indirect benefits would alter the conclusion reached by comparing the rate of return at market prices with what they regard as a "reasonable" rate of return (presumably also reflecting some of these same differences).

AID policy is much the same, although they appear to have a peculiar fascination for the theoretically incorrect benefit-cost ratio,[1] probably because of Congressional insistence based on their long years of exposure to it.

The policy advocated here for evaluating this particular aspect of an aid project leans somewhat closer to present practice than the theoretical ideal. The real objective should be to maximize the amount learned by the evaluator about the merits of the project in the time available. This will usually require computing at least the private or the social profitability of the project, depending upon whether it is a private or public project, respectively. Beyond that, further refinements of the analysis to convert it into a measure of social returns using accounting prices and including indirect benefits where appropriate, should depend on whether these refinements seem likely to affect the final judgment and on the availability of data. Often this is best done subjectively rather than numerically.

Theoretically, it is possible to assign approximate numerical weights to most aspects of a project in terms of their effects on the social return or other measure of the project's productivity,

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[1]See Agency for International Development, Feasibility Studies, Economic and Technical Soundness Analysis, Capital Projects (Washington, September 1963).

just as it is possible to investigate thoroughly every aspect of a project. All that is needed is sufficient time and resources devoted to the evaluation effort. The optimum strategy, however, would seem to be to pick out what seem to be the key issues which are likely to influence the final judgment concerning the merits of the project, and analyze them in detail. The purpose of a criterion is not to be the master of the evaluator, but rather a tool to help him pick out the important questions which affect the acceptability of a project and to evaluate their relative significance.

(3) Program Effectiveness

Because of the fungibility problem, there is no guarantee that a project which meets criterion (2) will contribute to an effective aid program unless this is independently assured. While an effective program must include projects that satisfy criterion (2), a group of projects that satisfy criterion (2) may not necessarily form an effective program since the marginal projects actually financed by the aid may not meet criterion (2). It may also be that a group of projects that satisfy (2) may not help the country to sustain the additional aid-induced growth after the termination of the program. This criterion is directed particularly at excluding the otherwise effective but isolated project.

(4) Influence

Even though the specified project may often not be the "actual" project financed, it is often possible to utilize the fact that the aid is identified with a particular project to promote the growth of the country. There are a number of ways in which this can be done. At least three are of some importance.

(a) By influencing the aid recipient's choice of projects. There will usually be a class of projects which the aid recipient regards as sufficiently marginal so that it would not finance them either out of its own resources or out of additional untied resources made available through aid, but would carry them out if aid were available for them and no other purpose. If the aid is tied to a project which the recipient country would have built in any case, the effect on the country's resource allocation will be negligible.

But if the aid is tied to those projects in this class which the aid giver regards as being worthwhile, it is frequently possible for the aid giver to promote growth by influencing the aid recipient's choice of projects. An evaluation of the extent to which influence is exerted in this way requires an analysis of which class the possible projects are located in and whether this fact influenced the project selection decisions by the aid giver.

(b) Using the project application as an opportunity to obtain detailed information concerning at least the principal techno-economic problems of the sector in which the project is located. Because of the association of aid financing with similar bank financing and the desire of the country to receive the aid, it is often possible to use the project application as an excuse for obtaining information not only about the project itself but about related activities with a minimum of hard feelings. This can be useful for suggesting specific conditions to attach to the approval of the project which will improve the efficiency of the sector concerned. It can also be useful for analyzing in greater detail the development prospects and performance in various sectors, which should form the basis of a more general analysis of development prospects in the country and therefore the desirability of giving aid to the country in the first place.

(c) Ensuring that the project itself and the bargaining process leading up to it bring to bear whatever influence is possible towards increasing growth through policy changes. While it is often very difficult to exercise enough influence through aid to change major policies such as taxation or land reform which are of major importance in domestic politics, it is often surprisingly easy to obtain comparatively smaller changes in individual projects and economic policies in related sectors. Project analysis and the subsequent negotiations over a project provide excellent opportunities for bringing influence to bear here and there which may add up to have more significant influence than can be achieved by a frontal assault on some of the major economic problems.

There are two different useful approaches to exercising influence on the micro or project level. One is through attaching conditions or strings as well as financial inducements to projects proposed by the prospective recipient country. The other is for the donor to in effect propose interesting projects which would not otherwise be undertaken by the recipient country, and, if necessary, by offering various financial inducements to increase their palatability.

While it is true that a country can simply suggest another project if it is not willing to accept the conditions proposed for acceptance of a particular project, it may also have certain constraints on which projects it finds advisable to propose to various donors. For example, certain donors may only be interested in social or economic overhead projects while others may be willing to accept public sector industry. Or in this day of country-tied aid, a country may find it advantageous to finance certain types of projects out of aid from particular countries because they offer better quality or lower prices on such goods. Any transfer of projects away from the prospective donor originally selected is likely to mean some loss to the recipient country. In addition, the country is likely to find that the project will be somewhat harder to sell to a second donor if it has once been turned down. The bargaining power of the donor can be further increased if some scheme can be devised to make the total aid made available to a country proportional to the proportion of projects examined which are accepted, or if the donor can offer on occasion to vary various financial conditions of the proposed aid financing to favor the recipient. If, for example, the recipient is short of specialized resources only available abroad, the donor can offer to provide the entire cost of the project instead of restricting aid to the foreign exchange component.

The alternative route of in effect proposing a project which would not otherwise be carried out requires considerably more skill and must rely more heavily on special inducements for acceptance. It is usually necessary to persuade the recipient government to formally propose what the donor thinks is a useful project, usually involving largely technical

aid since the object is influence rather than financial assistance. This often means that it is necessary to persuade at least one influential part of the recipient government not only that the idea is a good one, but also that it was actually their idea to begin with! One effective inducement is the offer of additional aid for the project, above and beyond what the country would otherwise have received.

Despite unending controversy during the ten to fifteen year history of the programs to many of the less-developed countries, detailed, serious evaluations of U.S. aid programs are scarce either inside or outside the agencies administering aid.[1] This gives the prospective evaluator the choice of nearly every recipient of U.S. economic aid, of which there are a great many. In terms of studying programs which put particular emphasis on economic development, however, perhaps the most interesting is India. India is now the largest recipient of U.S. economic aid. Furthermore, the importance of economic progress in this, the most populous of the non-Communist Asian countries, is widely recognized. As has been repeatedly pointed out, India is a test case of whether one of the poorest of the non-Western nations can improve its economic standards significantly by non-Communist methods. In addition, it is widely believed to be important to provide India with the economic resources to fight a possibly extended undeclared war against Chinese expansion by military means.

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[1]Among government documents, Congressional reports perhaps come the closest to evaluations of aid projects and programs, although some relevant information can be gained from the periodic reports by the General Accounting Office on each of the programs. Those relating to India are listed in the Bibliography. Among non-Governmental studies, perhaps the two most notable are those by C. Munkman, entitled American Aid to Greece (New York: Praeger, 1958), and Thomas S. Loeber, Foreign Aid, Our Tragic Experiment (New York: Norton, 1961), concerning the Greek and Jordanian programs, respectively. Unfortunately, however, neither of these men approached their tasks from a primarily economic viewpoint or background.

THE INDIAN PROGRAM

The remainder of the study will be concerned with an evaluation of the effectiveness of the Indian program. This will be examined at two different levels, the micro or project and the macro or program. The criteria to be used in each case are those previously developed in this chapter.

India is one of the few countries where much of the analysis can usefully be carried on at the micro or project level, at least during recent years. Because India has not had enough foreign exchange to meet even her need for maintenance imports to keep the economy operating at its present level, and because these needs are likely to take precedence over developmental uses, it can be assumed without too much error that while some of the specific projects financed by U.S. aid might have been financed by other aid sources if U.S. aid had not been forthcoming, a significant percentage of U.S. aid was actually financing the projects which it was supposedly financing. More generally, since much of the other aid would also disappear if the U.S. halted or reduced its aid, the fraction of U.S. projects which would have been financed by other recipients is fairly small.

For this reason, an examination of the effectiveness of individual projects is likely to give a fair picture of the actual effectiveness of the U.S. program as a whole. If all donors of aid to India examined the effectiveness of their projects equally carefully, and if non-project-tied aid were strictly limited to legitimate, non-developmental uses, the Indian program could be carefully and usefully monitored to insure its effectiveness. For these reasons, major emphasis will be placed on a micro analysis of the Indian program, comprising Chapters 3 and- *h.* This will be followed by a comparatively brief evaluation of the over-all program in Chapter 5, and a summary of the implications of the study for increasing the effectiveness of the program in Chapter 6.

In attempting to evaluate a large aid program such as the United States has in India on the micro level, sectors offer a convenient

level of disaggregation because many of the problems encountered in individual projects in a given sector are common to those in other projects. In addition, a considerable portion of aid to any one sector is often made in the form of semi-program loans for the total development program of the sector or for significant subsectors. Finally, it often happens that development expenditures in one sub-sector or project can substitute for those in others, with the result that it is important to examine the advantages and disadvantages of these alternatives.

The micro analysis will consist of case studies of aid to two of the more critical sectors from a developmental point of view. The method will be to evaluate aid to both sectors and to examine how it might be made more effective. The evaluation will be done along the lines of the four criteria outlined for projects. Consideration of program effectiveness, as suggested by criterion (3), will not be taken up with regard to individual sectors, however, since the over-all program is evaluated in Chapter 5. The question of how U.S. aid could be made more effective will be considered in two ways: (a) by examining specifically how the aid to the particular project could have been made more effective and (b) by examining some of the more important problems in each sector which come to light as a result of the evaluation from the point of view of how U.S. aid might be used to promote development of the sector concerned. For example, an evaluation of a particular project (a) may suggest that a better pre-project evaluation should have been made or that some particular condition might usefully have been imposed on the loan, and so on. On the other hand, (b) may suggest the importance of different types of aid or a particular emphasis in U.S. policy towards aid to the sector concerned.

The approach taken to the two case studies is somewhat different. In the first study, transportation, the approach is to concentrate on some of the problems of the sector as a whole which affect the effectiveness of most U.S. aid in this field, although a few comments are

offered on some of the more important individual uses or projects. This more general approach is necessitated by the fact that U.S. aid has largely been treated as program or semi-program aid rather than project aid in any meaningful sense of the word. While it would undoubtedly be profitable to analyze in detail every individual investment supposedly financed by the aid, where they can be identified, this would be a very large undertaking given the great diversity of the investments involved. More useful, at least as a first cut, is to place primary emphasis on analyzing aid to the sector in terms of the efficiency of Indian transportation investments as a whole and the extent to which the U.S. has influenced decisions in this sector towards a more efficient use of these resources. A detailed project-by-project analysis might ultimately raise some of the same problems, but not all of them.

In the second sectoral study, where U.S. aid has been entirely project rather than program, and where many of the problems are similar, the approach is much more project-oriented. In fact, most of the analysis is devoted to only one project, the largest single one in terms of U.S. dollar expenditures to date. Here there are substantial returns to analysis in depth, and because other irrigation projects have many of the same problems in common, an analysis of one says a great deal about irrigation problems in general, and hence about how U.S. aid might be used more effectively.

Indian Factor Prices

It is important to treat three further topics before plunging into the analysis. One is a brief historical introduction to the U.S. aid program to India, found in Chapter 2. The second concerns the accounting prices for capital, labor, and foreign exchange mentioned earlier, which, if they are not reflected in market prices^ can result in distortions of the various project criteria. Since the practical determination of these accounting prices is a very difficult problem, it will only be possible to make a few generalizations.

(1) Labor. While there are many who believe that the marginal productivity of labor in India is either zero or very close to zero, the position taken here is that the productivity of labor is reasonably well reflected by wages. The evidence, while hardly overwhelming, is perhaps best in the case of agriculture.[1] In the case of the modern industrial sector, wages are probably somewhat above marginal productivity. Arnold Harberger has recently suggested that the wages paid by modern industry in India exceed the alternative earnings of the workers involved by about 25 per cent.[2] The resulting distortions in the economy as a whole may not be too great, however.

(2) Foreign Exchange. More than a few of the many Western economists who have visited India in the last few years have commented on two principal distortions which they see in modern Indian market prices.[3] One is the return to capital in Government-operated enterprises; the other is the official foreign exchange rate. While many agree that the rupee is overvalued, there is much less agreement about what the accounting price is or what should be done (if anything) to correct the situation. This latter question will be briefly touched on in Chapter 6. The present official rate does not adequately reflect the value of imported goods to the economy, as seen by the fact that demand for imports greatly exceeds supply. What an equilibrium price is can only be a matter of speculation since there is considerable doubt whether the exchange rate would reach an equilibrium if a free rate were established. Some categories, such as luxury consumer goods of certain types, would command a much higher premium than others, such as capital goods and raw materials. The

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[1]Some evidence, together with further references, is given by Theodore W. Schultz in Transforming Traditional Agriculture (New Haven: Yale University Press, 1964, pp. 53-70.

[2]"Investment in Man Versus Investment in Machines: The Case of India," mimeographed, p. 33, a paper prepared for the Conference on Education and Economic Development at the University of Chicago on April 4-6, 1963.

[3]See, for example, T. Balogh, Some Aspects of Economic Growth of Under-Developed Areas (New Delhi: National Council of Applied Economic Research, 1962), pp. 11-15.

value of the latter to the economy, however, which is the crucial question, may be as much as double that reflected in the present rate. The external black market rate is somewhat less than this, but it is influenced mainly by the domestic price of gold rather than the value of imported commodities to the economy. The final uncertainty is introduced by the large proportion of Indian foreign exchange provided by aid. The amount of aid "needed" depends on the accounting rate for foreign exchange used, while the amount supplied through aid depends partly on the amount "needed."

The general strategy in the analysis which follows is to value imported goods at the official exchange rate. This is probably justified for the period preceding the foreign exchange crisis of 1957-1958. For more recent periods, it is, of course, more questionable. Except as noted, however, use of a higher rate would only strengthen the arguments made. Since the additional uncertainties introduced into the analysis by using higher rates are so great, it seems best to rely on the reader's subjective assessment of the effects in the cases where it might alter the conclusions.

(3) Capital. Any simple-minded attempt to estimate what the approximate marginal return on capital is in India must face the problem that the return appears to vary markedly from one sector of the economy to another. The marginal return from relatively risk-free investments in the modern private industrial sector is very high — probably of the order of 20 per cent before taxes but after depreciation.[1] The return in small scale industry, from all reports, is probably substantially less. The return to capital invested in

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[1]Louis Lefeber cites some calculations which suggested to him that the marginal return was between 19 and 21 per cent between 1950-1951 and 1957-1958 (see Louis Lefeber and M. Datta Chaudhuri, "Transportation Policy in India," p. 12, a mimeographed paper available from the Perspective Planning Division of the Indian Planning Commission). Further, he says, "Our private investigations and discussions have convinced us that the expected return in no branch of manufacturing industries is less than 13 per cent after depreciation and taxes."

traditional agricultural production, on the other hand, may be very low -- perhaps as little as 3 per cent.[1]

One interesting sidelight is the question of what limits the flow of private capital out of agriculture under these circumstances. Recent reports suggest that a limited flow of this kind has in fact been taking place in recent years. Some of the limitations on this type of ovement, which makes possible such a diversity in the rate of return, is illustrated by this quotation from a forthcoming article by David Hopper, based on his observations in an Indian village[2] in Eastern Uttar Pradesh in 1953-1954:[3]

> The marginal product of land was...about 3 per cent.... This compares favorably with the $2\frac{1}{2}$ to $3\frac{1}{2}$ per cent return on bank time deposits, postal savings, and government bonds. However, the villagers were quick to point out that over time land was the better investment as its price more or less kept pace with the general level of inflation, a factor of considerable importance during and after World War II. But the rate does not compare well with the rate of return on money lending which brought a nominal 25 to Uo per cent, or a real return, after adjusting for probable inflation rates, of from 18 to 35 per cent. No information was available on bad debt losses to money lenders, but undoubtedly these were of significant magnitude, although far from enough to reduce the actual economic return to the level of three per cent. However, money lending in India is not an occupation which can be openly followed by high caste landowners without considerable social censure. When the landowners in the village did lend money it was confined mainly to an accommodation of their hereditary employees.
>
> Other investment opportunities for the villagers were limited. Gold and silver ornaments and solid silver "Victoria" rupees were held by many. Because their value

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[1]See Theodore Schultz, op. cit., pp. 83-101, particularly pp. 94-96. Schultz cites the Hopper article quoted below as well as Hopper's thesis, which was also based on his observations in Senapur.

[2]Senapur, not too far from Benares. Uttar Pradesh is located in North Central India.

[3]"Allocation Efficiency in Traditional Indian Agriculture," Journal of Farm Economics (forthcoming).

> moved with the general price level, they were regarded as "good" investments. In recent years education for children and support of small family connected businesses in nearby cities have commanded attention as alternative outlets for savings. But land was considered the most satisfactory form in which to hold wealth, and as it provided an opportunity to gain an assured return to one's labour, made a return in excess of its inflationary appreciation, and gave its owner prestige, power, and independence, there were good economic reasons for holding this attitude.

Fortunately, the immediate problem faced in the succeeding chapters is not that of determining an over-all marginal productivity of capital for the economy. Rather, the problem is to establish a minimum rate of return for Government enterprises. The economically correct answer to this is that the Government should allocate its funds to the available projects according to their relative social marginal products until its funds are exhausted. Since foreign exchange and organizational capacity rather than ability to mobilize domestic resources have probably been the major limiting factors on the expansion of Government development expenditures to date, and since there are ample opportunities for the Government to use its available organizational talents and foreign exchange on projects in the modern sector, there can be little reason for investing in projects with a social rate of return below those available in the modern sector. It seems probable, given the earlier remarks concerning the level of returns in modern industry, that the marginal social rate of return to investments in the modern sector, including modern agriculture, is not less than 10 per cent. The Government should therefore insist that its enterprises earn returns of at least this amount.[1]

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[1]There is considerable unanimity on this figure among certain sections of the Planning Commission, the World Bank, and a number of American economists, although the reasons advanced are often very different. Obviously, one bonus from using the same figure is that it is possible to draw on a number of the other recent studies which have used it. Louis Lefeber bases his opinion on his previously quoted conclusions regarding the marginal return in the private sector together with the fact that Indian corporation profits taxes take over 50 per cent of profits. Investments, he says, "are

The Voluntary Agencies Program

It should be stated at the outset that the object of this study was not to discover the extent of misappropriation or other criminal misuse of aid funds, although this could presumably affect the effectiveness of the aid. Such investigations are the province of the auditor rather than the economist, and appear to be one of the

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made in the expectation of at least ten per cent yield after deduct-ing income taxes,...and the government should obtain on its capital holdings at least a similar rate." (Louis Lefeber and M. Datta Chaudhuri, op. cit., pp. 13-14.) Further, he says, "the artificially maintained rates on loans offered by government agencies are not pertinent as they do not reflect conditions prevailing in Indian capital markets. For instance, hire-purchase agencies operate with effective rates between 18 and 22 per cent. Rural interest rates are even in excess of these figures."

Arnold Harberger, on the other hand, lays great stress on the (average) return reported by 1001 companies to the Reserve Bank of India, and has made elaborate adjustments in these calculations which suggest that the return to physical capital in Indian industry (before taxes) is from 13.0 to 17.7 per cent, using conservative assumptions (see A. Harberger, "A Note on the Rate of Return to Capital in Indian Industry," Appendix II of Price Policy for Electricity Undertakings, June 1962, an unpublished paper by the Planning Unit of the Indian Statistical Institute in New Delhi). In a more recent version of this paper, he attempts to correct for the inflated wage rates in industry mentioned earlier, and concludes that the "marginal productivity of capital in Indian industry" is from 17.2 to 26.1 per cent (see "Investment in Man Versus Investment in Machines? The Case of India," op. cit., p. 34). More recently, Alan Manne has suggested an entirely different approach (see Plant Size, Location, and Time-Phasing: Report Number 1. Introduction, pp. 3-4, an unpublished paper prepared in February 1964 under the India Project of the M.I.T. Center for International Studies):

> Although economists tend to agree that there is some positive rate at which future costs and benefits should be discounted, there is widespread disagreement on the elements that are relevant to the determination of that rate. In the Indian context, I myself am impressed by the arguments in favor of self-financing -- taking the public and private sectors as a whole. Making the further assumptions of (1) a constant aggregate capital-output ratio, (2) a desired GNP growth rate in the neighborhood of 5% per annum, and (3) a reinvestment coefficient of 50% out of profits, one comes up with a magic number to be used in investment and pricing decisions: a rate of return of 10% per annum. No theoretical significance can be attached to the coincidence that this rate happens to be in the neighborhood of the after-tax return on net worth in the private sector as measured by financial accountants. Generally, this 10% rate will be the one applied in subsequent calculations.

functions which the U.S. Aid Mission to India carries out relatively effectively. In the course of the study, I stumbled upon only one such major problem. This concerned the little-knovn P.L. 480, Title III or voluntary agencies program for the distribution of surplus U.S. food to "needy" persons by U.S. charitable organizations.

From all I could learn, both in New Delhi and in the field, a substantial proportion of the food, particularly the dried milk powder,[1] was not reaching the "needy," and still less was actually consumed by them. The principal problem is that except in the case of CARE distributions after 1960,[2] the food is distributed by a long chain of distributors, sub-distributors, and sub-sub-distributors, usually without the benefit of a government accounting system. Since no payment is made for the goods, anyone can profit by appropriating them anywhere along the chain.

In 1962, the first detailed field audit of the program was undertaken by the Controller's Office of the U.S. AID Mission to India.[3] Although a large proportion of their audit staff was occupied with the program during the summer and fall months, only a tiny percentage of the ultimate distributors could be checked. From all reports,

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[1]The program has averaged about $20 million per year in recent years (see Table 2.1), and powdered milk has constituted well over half the dollar value of the program until recently. The estimated fraction of milk powder lost before reaching the needy was usually expressed in terms of something closer to one-half rather than one-tenth by the small number of knowledgeable people interviewed outside the large cities.

[2]When CARE introduced a school feeding program in India. CARE stands for Cooperative for American Relief Everywhere.

[3]An audit of the program was made in 1957, but did not include field investigations of the ultimate use of the commodities. For a summary of some of the 1957 findings, see Comptroller General of the United States, Examination of Economic and Technical Assistance Program for India, International Cooperation Administration, Department of State, Fiscal Years 1955-58 (Washington: General Accounting Office, September 1959), pp. 76-78.

this audit confirmed the existence of substantial losses.

As a result of an earlier preliminary check of the files and central office procedures of the India-wide headquarters of the four voluntary organizations, the Mission succeeded in pursuading Catholic Relief Services (CRS), Church World Services-Lutheran World Relief (CWS-LWR), and UNICEF to make large voluntary cuts in the requests for FY 1963 supplies and to employ additional and better trained auditors. At the same time, further shipments of milk powder were temporarily suspended.

All this is not to say that the program is not helping many needy people or being used for other worthwhile purposes. Two ultimate distributors were interviewed who had used the food (illegally at the time) to pay workers on apparently very useful, labor-intensive rural self-help projects. But as long as the program is handled by a chain of voluntary distributors, and possibly even if channeled through the Government (as CARE is now doing), there are going to be some losses. In addition, as long as the distribution is handled by church-related organizations, there will be a continuing question of whether the food is being used to further their particular interests.[1]

With these introductory remarks out of the way, it is time to plunge into the history of the program, followed by the actual evaluation.

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[1]One American engaged in ultimate distribution who was interviewed by the author, for example, stated that food distribution was carried out only after some missionary activity. Unverified reports suggest that this may be one of the less important problems of this type. By far the largest (at least until recently) food distributors (in terms of dollar value) are church-related, namely, CWS-LWR and CRS. Recently, with the expansion of the school feeding program to more and more states, CARE distributions have increased rapidly.

Chapter 2

HISTORY

In order to put this evaluation of the U.S. aid program to India in proper perspective it is well to begin by briefly outlining the principal variations in the size, administration, and sectoral allocation of the program — in short, its history. The evaluation and therefore the history are concerned with the period from the inception of the program in U.S. Fiscal Year 1951 through FY 1962. The significance of 1962 as a breaking point is that as a result of the Chinese attack in the fall of that year it was the last year of entirely economic aid to India, and will probably be regarded by historians as a major turning point in Indo-U.S. relations. The most convenient way to treat the period prior to 1962 is by major sub-periods. The clearest discontinuity in the aid program occurred between U.S. Fiscal Years 1957 and. 1958 as a result of the Indian foreign exchange crisis of that period. Somewhat less marked but perhaps equally important discontinuities occurred between U.S. Fiscal Years 1953 and 1954 and between 1961 and 1962. The best way to divide up the period as a whole would appear to be to treat separately FYs 1951-1953, 1954-1957, and 1958-1962.

1951-1953 — THE PERIOD OF "TECHNICAL AID"

U.S. aid began in Fiscal Year 1951 as a very modest technical aid program together with somewhat more substantial amounts of special food aid to meet a food shortage (see Table 2.1). The technical aid obligated in that year amounted to less than $700,000 under the Act for International Development (Point Four Program) passed by Congress in June 1950, and administered by the Technical Cooperation Administration (TCA). The aid was extended under an agreement signed between the U.S. and the Government of India in December 1950, and was about equally divided between agriculture, industry, and health, The special food aid consisted of $4.5 million towards the purchase

Table 2.1

SOURCES OP U.S. GOVERNMENT AID TO INDIA: NET COMMITMENTS DURING U.S. FISCAL YEARS[a]

($ millions)

	U. S. Fiscal Year												
	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	Total
Mutual Security Program/AID													
Technical assistance	.7	52.8	44.3	27.0	13.1	12.8	3.8	6.2	7.4	7.7	7.2	8.3	191.3
Development assistance[b]				60.2	72.5	47.2	61.5	-.1[c]	-.6[c]				240.7
Development Loan Fund/AID loans								75.0	100.0	89.2	159.1	479.8	903.1
Other[d]	4.5				.1	.9		28.7	10.2	15.6	13.5	10.1	83.6
Wheat loan[e]	189.7												189.7
Public Law 480													
Title I[f]						354.5	55.3	259.8	1,667.7				2,337.3
Title II[g]						3.5	1.3				.3	4.0	9.1
Title III[h]		.6	.8	1.7	27.9	29.3	17.8	17.7	19.4	10.0	18.4	22.8	166.4
Other[1]								4.0		2.5			6.5
Export-Import Bank								151.8		13.6	80.7	25.7	271.8
Total	194.9	53.4	45.1	88.9	113.6	448.2	139.7	543.1	1,804.1	138.6	279.2	550.7	4,399.5

(Notes on next page)

Table 2.1 (continued)

Notes:

a. To the extent possible, obligations and commitments are shown in the year in which the loan or project agreements were signed covering the aid, i.e., at the time at which the U.S. agreed to give the aid to India rather than the time at which the relevant U.S. agency involved authorized or obligated the money. This is of particular importance in the case of Development Loan Fund (DLF) and Agency for International Development (AID) loans. P.L. 480, Titles II and III have been shown on a transfer authorization basis for lack of relevant Indo-U.S. agreements.

b. Called "special economic assistance" in FY 1954.

c. Prior year funds de-obligated but not reallocated.

d. Aid during 1951-56 consisted of $5.0 million for emergency food and famine relief and $0.5 million ocean freight for P.L. 480. Aid during 1958-62 represented special development grants for malaria control and eradication, except for $20 million in 1958 from the Asian Economic Development Fund used for an iron ore project in Orissa.

e. The first $5 million of interest repaid by India was used to establish a fund for educational assistance to India, of which $4.9 million had been obligated by June 30, 1961. $0.1 million was obligated in FY 1962.

f. "Sales" of surplus agricultural commodities for rupees.

g. Donations of surplus food to meet famine or other extraordinary relief requirements. Represents transfer authorizations issued to the Commodity Credit Corporation (CCC) by AID and predecessor agencies.

h. Donations to U.S. voluntary agencies for distribution to "needy" persons. The program began in FY 1952 under Section 416 of the Agricultural Act of 1949, as amended. In 1954, the authorization for such donations was incorporated in Title III of P.L. 480. Data represents transfer uthorizations for donations at CCC cost. Ocean freight is shown only for FYs 1957-62, when it was financed from P.L. 480, Title II funds; in prior years, ocean freight for this program was financed from mutual security funds.

i. Sales for rupees of commodities purchased in third countries with U.S.-owned local currency proceeds of P.L. 480 sales.

Source:

Information supplied by U.S. AID, Washington.

of milo in the United States granted in August 1950, and a $190 million wheat loan approved by Congress in June 1951, although largely obligated in Fiscal Year 1952.

The non-food aid was greatly expanded in Fiscal 1952, which can be regarded as the effective starting date of the program as it is known today. Hie origins of this expanded program are somewhat obscure but appears to have been part of a desire for a larger effort in South Asia as a whole, following by a year the initiation of U.S. aid to Southeast Asia under the Economic Cooperation Administration (ECA) and coinciding with the appointment of Chester Bowles as Ambassador to India.

The expanded U.S. program was originally expected to be administered by ECA and appears to have been finalized only a few weeks before presentation to Congress in early 1951 by a State Department survey mission sent to South Asia. Hie expanded program faced many and varied difficulties, of which two had unusual significance.

(1) Technical Aid Versus Capital Assistance. Much of the fall of 1951 was devoted to a fight within the U.S. Government as to whether the expanded U.S. program was to be administered by ICA or ECA. As developed and presented to Congress, the expanded program was much more than technical aid as encompassed by the Act for International Development, TCA's operating statute. On the other hand, there was considerable feeling in both the Executive and Legislative branches that the program should continue under TCA.

The President finally assigned the program to TGA. The Comptroller General's first audit report on the Indian aid program lists three reasons for this decision:[1]

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[1]The Comptroller General of the United States, Report on Audit of Foreign Operations Administration, U.S. Assistance Program for India (May 1954), pp. 18-9.

> Congress had expressed its reluctance to have MSA/ECA increase its geographical scope or extend its termination date; TCA already had a small program going in India and was to retain administrative control following the principle one country — one agency; and India maintained a strong nationalistic attitude and expressed a desire to remain independent in its foreign policy and not to be associated with military aid programs.

There vere undoubtedly other factors involved in the decision. It is probably significant, for example, that TCA was an agency within the State Department and therefore directly under its control while ECA was an independent agency which reported directly to the President and had not always worked very closely with the State Department. This feature of TCA may have been particularly attractive to Ambassador Bowles, who took such a direct interest in the program.

However desirable the assignment of the program to TCA may have been for bureaucratic reasons, it raised many practical problems for the program itself in 1952 and particularly 1953 since the agency was forced to try to justify the program on essentially technical assistance grounds. An analysis of Fiscal 1952 obligations shows that not more than $2.50 million out of $52.76 million of Fiscal 1952 obligations were for salaries and allowances for U.S. technicians, administrative personnel and Indian participants. Analysis of the projects themselves suggests that the commodities Imported under many of the projects could hardly be construed as demonstration or technical support supplies.[1] This did not escape the notice of Congress in its consideration of Fiscal 1953 requests ($115 million for India), and was used as a reason for reducing the appropriation below Fiscal 1952 levels.[2] It was not until Fiscal 1954 that the problem was largely remedied by the inclusion of a new aid category called "special

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[1]Comptroller General, op. cit., pp. 1, 2, 4, and 19.

[2]Charles Wolf, Jr., Foreign Aid: Theory and Practice in Southern Asia (Princeton, 1960), pp. 147-8.

economic assistance" in the Mutual Security Act of 1953 to permit additional assistance to India and Pakistan. It was only in Fiscal 1954 that appropriations exceeded the 1952 level.

As if these problems were not enough, Bowles and TCA were faced with serious problems in persuading the Indians, who were only interested in capital assistance, in accepting any significant amount of technical aid at all. One manifestation of this was the refusal of the Indian Government to finance salaries and expenses of technicians, participant training costs, and contractual services (i.e., anything except commodities) out of the jointly-administered Fund A set up under the 1952 Indo-U.S. agreement. These had to be financed directly out of a separate, entirely U.S.-administered fund, later designated Fund C. One effect of this was that technical aid expenditures were not attributed to individual projects during the early period.

(2) The Pressure of Time. Once the TCA vs. ECA decision had been made, the Indian aid program faced two further hurdles in 1952. The first was to reach a new agreement with the Government of India as a basis for carrying out the expanded program. This was finally signed in New Delhi in January 1952. But even when this had been done, there remained the not simple task of obligating $50 million on essentially new projects by June 30, 1952. This task was made almost impossible by the lack of American administrative and technical personnel, who had not started to arrive in any numbers.

The greatly expanded program was concentrated almost entirely in agriculture in 1952 and 1953, with emphasis (in terms of financing) on irrigation, fertilizer, and community development. There was also a large obligation for "iron and steel for agricultural purposes," half of which may have been used for other purposes.[1] Other relatively large programs were in fisheries, power, and malaria eradication.

The 1952 allocation probably largely reflects Indian interests at the time the program was discussed early in 1951 by a State

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[1]Comptroller General of the United States, Examination of Economic and Technical Assistance Program for India, International Cooperation Administration, Department of State, Fiscal Years 1955-1958 (September 1959), p. 48.

Department mission, when the Government's principal preoccupation was the food shortage. It is also consistent with the general agricultural orientation of India's First Five Year Plan and the agricultural extension orientation of some of the more highly placed administrators within TCA. TCA did not intend to confine the program largely to agriculture in 1953* but found that most of the projects it proposed in industry and transportation were cut out by Congress, largely because they looked even less like technical assistance programs than did the agricultural projects.[1] The $115 million program proposed to Congress for 1953 can only be said to have been somewhat ambitious in light of the 1952 performance.

1954-1957 -- PROLIFERATION AND DIVERSIFICATION

In Fiscal 1954, with the help of the new "special economic assistance" category, the program broke away from its largely agricultural orientation into a number of other fields, particularly economic infrastructure such as transportation. This process continued and accelerated in succeeding years with the addition of many and varied projects in nearly every possible field. In general, this period can be characterized as one of increasing proliferation and decreasing selectivity and control. The approximate number of new projects for which money was obligated in any Fiscal Year is shown in Table 2.2. While these figures must be regarded with caution due to the imperfect data available, and various administrative changes over the years, they do suggest the rapid proliferation during the period, particularly in 1956.[2] Projects with such improbable titles as "Social Welfare Education," "School Building Improvement," and "Assistance to Home Science Education and Research," were started during the period.

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[1] Charles Wolf, Jr., op.cit., pp. 145-47 and 172-73.

[2] The small number of projects during 1952 and 1953 partially reflects the fact that Fund C (technical aid) obligations were not attributed to individual projects until after 1954. Many of these Fund C expenditures correspond with the small, exclusively technical aid projects of later years. After 1958, some exclusively capital assistance DLF loans were included as projects, while the uses of the Export-Import Bank loans were not, so that the project number rapidly loses significance as an index of the number of new projects.

Table 2.2

APPROXIMATE NUMBER OF HEW PROJECTS
DURING U.S. FISCAL YEARS 1952-58

Year	Approximate Number of Last Project Financed	Number of New Projects
	(1)	(2)
1952	11	11
1953	16	5
1954	37	21
1955	52	15
1956	100	48
1957	122	22
1958	154	32

Note:

Numbers refer to International Cooperation Administration project numbers rather than the numbers of the operational agreements with the Government of India.

Source:

Complied from information supplied by Controller's Office, U.S. AID Mission to India.

The principal reason for this loss in selectivity appears to have been a gradual transfer of power out of the program office and into the hands of the various technical divisions within the Technical Co-operation Mission to India, which gradually grew in each of the major project areas such as agriculture, education, industry, and health. The divisions in turn tended to set up new projects to suit the interests of their various personnel or of their opposite numbers in the various Indian ministries. With little or no analysis of their proposals by the program office or the Mission director, many of them were finally approved. In addition, since the U.S. either abstained from supporting public sector Industry during the period, or the GOI avoided asking for U.S. aid in this field, which was the principal emphasis of the Second Plan, the U.S. was left with a large number of largely unrelated, scattered bits and pieces. Even if it is assumed that this was a wise strategy, the particular choice of projects cannot be said to have been very discriminating.

1958-1962 -- THE EXPANSION PHASE

The rapid expansion of the non-P.L. 480 Indian aid program in the period 1958-I962 came in two major stages. The first, in Fiscal Year 1958, occurred as a direct result of the foreign exchange crisis of 1957-1958, which saw the elimination of most of India's foreign exchange reserves built up during World War II. The second occurred in FY 1962 as a combined result of a more ambitious Third Five Year Plan which began in March 196I, and the assumption of power by a more sympathetic U.S. Administration.

Stage One -- 1958

The rapid rise in non-P.L. 480 aid in 1958 as well as some of the accompanying changes in the administration and the sectoral allocations of the aid can be traced to the apparent desire of the Eisenhower Administration to prevent a shortage of foreign exchange from seriously affecting the Second Five Year Plan. Every effort was made to extend as much aid as possible with as few restrictions as possible. To do this, the rules laid down by Congress were stretched if not broken in a number of ways.

To the extent possible, funds vere made available from the newly-created Development Loan Fund (DLF);[1] apparently, however, it was considered unwise to authorize more than one-quarter of the initial appropriation to the Fund to any one country,[2] so that most of the additional funds came from the Export-Import Bank in the form of a $150 million line of credit to the Government of India. Both the DLF and the Bank funds were approved before the detailed use of the funds had been decided,[3] and without even the formalities of loan applications and new evaluations. In some cases, the GOI was reimbursed for goods purchased before the loans were signed.[4] In many cases, the ultimate use of the funds will not be known until after they have been expended and then sometimes only with considerable effort.[5]

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[1]Although these funds simply replaced the earlier "development assistance" category to a considerable extent.

[2]U.S. House of Representatives, Committee on Government Operations, Operations of the Development Loan Fund, House Report No. 1526, 86th Congress, 2nd Session (1960), p. 27.

[3]Ibid.; also Comptroller General of the United States, Audit of Development Loan Fund, Fiscal Year 1958 (August 1959), p. 32, in the case of DLF. The statement with respect to the Export-Import Bank is based on interviews with knowledgeable Indian and Bank officials in New Delhi and Washington.

[4]Committee on Government Operations, Operations of the Development Loan Fund, op. cit., pp. 29-30; Comptroller General of the United States, Audit of Development Loan Fund, Fiscal Year 1959 (February 1960), p. 33.

[5]The uses of the Export-Import Bank Loan has frequently changed in the years since it was first negotiated. Information on this is compiled by the Ministry of Finance, however. In the case of the DLF loans, the only source is again the Government of India. Their information on DLF loans is not maintained in any centralized location, however, but must be requested from the relevant ministries or other GOI agencies. In the case of steel imports, for example, which make up a considerable proportion of the early aid, the information as to the ultimate recipients and therefore uses of the aid is maintained only in the detailed records of the Iron and Steel Controller in Calcutta. The Controller's Office of the U.S. AID Mission to India has found it necessary to actually send its own auditors to Calcutta in order to laboriously compile the information from the Controller's files, and then only for a sample of the total steel under any loan.

Congress and. the U.S. Comptroller General raised numerous objections to the prior earmarking of DLF funds before the submission and evaluation of specific projects and because the "projects" were not projects as they understood the term. The Export-Import Bank was not subjected to the same treatment, although their funds were, in fact, even less carefully administered. While all the money was used for the purchase of capital as opposed to maintenance imports (in contrast to DLF), the use of the funds was left largely to the GOI, and has been repeatedly varied. Probably as a result of the Congressional criticism, most of the FY 1960 and 1961 DLF loans were made for somewhat more easily identifiable "projects," particularly in the electric power field.

The sectoral allocation as well as the magnitude of the aid was considerably altered after 1958, principally because a large proportion of the new DLF and Export-Import Bank funds went to the long untouched industrial field.[1] At the same time, the center of gravity of the administration of the program moved closer to Washington. As capital aid became further divorced from technical aid, the field was effectively shorn of all responsibility for other than technical aid. India established a Commission-General for Economic Affairs in Washington whose principal function was to negotiate directly with the various U.S. aid agencies.

In the case of the technical aid, initial moves were made during the late Eisenhower years to eliminate sane of the myriad of technical aid projects which had been established in increasing numbers over the years. With the establishment of AID in 1961, all but a few projects in each field were marked for early termination (or In some cases consolidation).

Stage Two -- 1962

It was undoubtedly a happy coincidence for India that the start of the Third Five Year Plan and the change of power in Washington occurred within a couple of months of each other in early 1961.

[1]Including the public sector in some cases.

This coincidence was made even happier by the fact that the new administration in Washington was visibly more sympathetic to the Indian case than the previous one. In any case, India took good advantage of these factors to ask for (first by means of a "Draft Outline" of its Third Plan) and receive a much higher level of assistance. The U.S., in turn, attempted to apply considerable pressure on its Western European allies to bear part of the additional burden through an Indian aid Consortium organized under the auspices of the World Bank.

The Kennedy Administration also made some marginal changes in the administration of the program by consolidating the DLP and the International Cooperation Administration (ICA) into the Agency for International Development (AID). The original idea of merging AID and DLF appears to have been to coordinate their activities. On the whole, this coordination has been more on paper than in substance, at least in India. Little effort has been made to emphasize technical aid projects in areas receiving large amounts of capital, nor has technical and capital aid been used in a coordinated fashion to achieve any U.S.-desired objective in specific fields. Some effort has been made to decentralize some of the administrative aspects of capital aid to the field, but this has consisted largely of moving one or two loan officers to New Delhi, where they handle loans largely in areas which they are relatively familiar with (as opposed to loans which particularly require field work). The basic decisions are still made in Washington, and probably always will be.