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International Financial Consequences of Asian
Plans for Economic Growth

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International Financial Consequences of Asian Plans
for Economic Growth

Robert B. Bangs

The experience of several Asian countries with large scale programs of public investment, designed to raise output per head, is instructive in pointing up some of the international financial complications that often accompany these investment programs. The experience has been fairly uniform from one Asian country to another; it may be characterized by the phrase that such investment programs, if sufficiently large actually to accommodate national aspirations regarding economic growth, have almost invariably led to balance of payments crises. In fact, pressure on the balance of payments has been the first limitation--in point of time--on the investment expanding efforts of most Asian countries. The question to which this experience leads, therefore, is whether an accelerated investment program can successfully be carried out without inevitably disrupting the balance of payments.

The answer obviously depends in part on the amount (and even more on the rate) of foreign aid being received, either as grants or as loans, and on the net inflow of private investment during the period in question. The latter is relatively unimportant as private foreign investment in all Asian countries in recent years has been comparatively small in volume.^{1/} Moreover, there is little prospect, given the political uncertainties and the economic policies that prevail in Asia today, that this volume of private investment will expand rapidly.

Economic aid is given by the United States and by the Colombo Plan countries on the basis of complex political considerations--which are relatively unrelated either to the rate of economic growth within the recipient country or to its overall investment program. The prospect now exists that the bulk of such aid in the future will be on a loan basis.^{2/} Presumably this means that from this point forward a closer appraisal of prospective benefits and costs associated with individual projects will be made than has sometimes been true in the past. However, in breaking away

^{1/} In the 3 years 1953-55, private capital imports have been substantial only in the Philippines--where they are estimated to have averaged over \$50 million per year (or 5 per cent of commodity imports) and in Taiwan--where they have averaged \$10 million per year (or also about 5 per cent of commodity imports). In all other ECAFE countries there has either been a net outflow or a negligible inflow over this period. Moreover, in the Philippines a substantial part of the capital import represented reinvested earnings that could not be transferred home because of exchange restrictions. Such capital import is therefore forced rather than voluntary. See Economic Survey of Asia and the Far East, 1956 pp. 183-43. Since 1955, no significant rise in private foreign investment in any Asian country can be observed from current information--in spite of efforts by several Asian nations to improve the "climate" for such investment.

^{2/} In establishing the Development Loan Fund in 1957, the U. S. Congress stated an intent to change foreign aid from a grant to a loan basis wherever possible and appropriate.

from individual country programs of aid toward project loans, not primarily on a country basis, the relation of aid inflow to economic growth within particular Asian countries may become more complex in the future.

In any case, Asian countries have been obliged to program their development primarily on the basis of their own resources--without counting on given volumes of capital inflow. This is as it should be--since the burden of making the economic adjustments necessary to accelerate growth should fall primarily on the country undertaking this effort.

The aim of this paper is to pick out such common features of international financial significances as can be found in the recent experience of Asian countries with economic development, in order to inquire what further progress these countries are likely to make in the next few years, and what additional difficulties they will probably encounter. For comparable factual information on the economic status of these countries it is necessary to rely heavily on the data collected by ECAFE, the regional UN organization for this area.

Causes of balance of payments difficulties

The reasons why public investment programs have led to balance of payments crises in Asian countries are not far to seek. These investment programs invariably involve a substantial increase in imports--both of capital goods and, in the absence of controls, of consumer goods. The effect of stepped-up investment on local incomes, coupled with the high marginal propensity to consume imports in an economy where income per head is low, have together produced this import surge. At the same time that imports have been increasing rapidly, exports of most Asian countries trying to start development have been advancing slowly, if at all.

Most Asian development plans have not been geared primarily toward long-range improvement in the balance of payments. Their objectives have been rather more generally to create new industries, to raise local incomes and living standards, and frequently to replace imports by home manufactures.^{1/} In some cases, this latter objective is being pursued regardless of comparative costs. The programs of Asian countries have frequently been weak in effective plans to expand and upgrade traditional exports, in the production of which comparative advantage has already been demonstrated.

Empirical studies have shown that underdeveloped economies, with relatively static levels of per capita income, tend to have ratios of net investment to net national product of somewhere around 5 per cent. To carry out a successful development program that will raise per capita income in the face of steady population growth it is necessary at least to double this ratio. To make any real progress toward catching up with the advanced countries, it is necessary perhaps to double it again--although no Asian country except Japan, which does not belong among the underdeveloped group,

^{1/} In a sense replacing imports can be said to improve the balance of payments if the home produced goods are competitive and do not require long continued tariff or quota protection. But few newly created industries in Asia are able to meet this test--at least until now.

has succeeded in maintaining any such rate of investment over a period of time. In other Asian nations, the balance of payments crisis--and the domestic inflationary problems following on the heels of inadequate solutions to this crisis--have combined to check most attempts to maintain the rate of investment at sufficiently high levels to assure sustained economic growth.

It is desirable to study the anatomy of the balance of payments crisis--accompanying the efforts to step up investment--in order to see precisely why this crisis arises and what policy measures might be adopted to prevent its occurrence. It is thought that they will be found to lie mainly in the area of fiscal and monetary policy--on which there has been, it would appear, too little reliance by Asian countries desiring to stimulate growth.

Any low income country adopting a public investment program should recognize at the outset that such a program will inevitably have a high import content. The exact magnitude of this import content will depend on the nature of the investment to be promoted, and on the state of the economy whose output it is desired to raise. Programs devoted primarily to construction of such projects as irrigation works and roadbuilding have a relatively low import content; whereas construction of new manufacturing plants has a high one, as most of the fixed equipment and much of the technical skill for initial organization and operation must be imported. In addition, many industrial establishments are being built in Asian countries to run on imported raw materials--at least for a time until home production of these materials can be fostered.

The experience of the several Asian countries that have been operating investment programs for some years indicates that the import content of these programs may range from a low of about one-third of total investment outlay to a high of perhaps two-thirds. The smaller the economy and the larger the technical jump they are attempting, as between customary production and the new industries, the higher will this import content tend to be. As a rough rule-of-thumb and a general guide to local development planners, it is wise to figure on an import content of investment expenditure equal to about one-half the total.

Accommodating such an increase in capital goods imports will necessarily place a strain on the balance of payments and will require a substantial reorientation in a country's international accounts, if foreign exchange reserves are not to be drawn down too rapidly. The adjustment clearly calls for a cut in consumer goods imports of considerable dimensions, but the best process for bringing this cut about is perhaps not well understood. When trouble is encountered, too frequently Asian countries have simply sought additional foreign aid to keep their development programs going--rather than undertaking to make the necessary adjustments in other foreign payments to accommodate the new imports.

The alternatives for altering the composition of imports in the interests of economic growth are (a) administrative restriction of less essential imports by licensing policy, and (b) a rigorous attempt to defeat the high marginal propensity to consume imports (as money income grows) by measures that will either sharply increase the cost of consumer imports or block from expenditure much of the growth in consumer incomes--and hence in the propensity to import. The former course--administrative restriction--is the one Asian countries have almost uniformly chosen. There has been no serious effort of which this writer is aware to use fiscal policy with the force needed to bring about the required adjustment in the balance of payments.

This is merely another way of saying that deficit finance has been a prominent feature of the development programs of most Asian countries. The proportion of total public expenditure carried by the deficits has varied, but has frequently risen as high as one-third of the total or even more.

Asian countries have been concerned to find what might be called the "tolerable inflationary gap", that is the amount of excess expenditure that can be forestalled by growth in the monetized sector of the economy, and by the overall increase in output. Financially they have sought to couple growth with creeping (or even more rapidly moving) inflation, seeing in this combination some hope of raising total saving to the desired level. It would appear that most Asian countries have systematically underestimated the point at which the inflationary gap becomes "intolerable", and have in consequence been compelled sooner or later to cut their initial investment targets because of financial limitations.

A good deal obviously depends on the structure of the economy it is proposed to develop and on the main sources of public revenue that are diverted to capital investment. A few examples will perhaps make this clear.

Examples of the balance of payments crisis

Burma undertook an ambitious public investment program in 1951, at which time the balance of trade was heavily in surplus because of the extraordinarily high price of rice associated with the Korean war. The Government of Burma has a virtual monopoly over foreign trade in rice, the country's leading crop and number one export commodity. The most important single source of finance for the Government is the spread between the selling price for rice on government-to-government export contracts and the relatively low fixed buying price paid the growers of this commodity by the State Agricultural Marketing Board. A comparison by ECAFE indicates that for the post-war period as a whole the Government's share in export income was higher in Burma (29 per cent) than in any other country in the region.^{1/} Because of this dependence on a spread between a fixed

^{1/} Cf. Economic Survey of Asia and the Far East, 1957 Ch. 6 p. 6 (pre-publication mimeographed version)

buying price and a variable selling price, Burmese public revenues are highly sensitive to changes in the international level of rice prices and to variations in crop yield as well.^{1/}

Analogous conditions prevail among other primary producing countries in the Asian area that derive high proportions of their public revenues from export taxes on their principal products. Malaya, for example, imposes a progressive export tax on natural rubber--geared to the price this commodity commands in world markets. In 1955, when the price of natural rubber was extraordinarily high, more than 40 per cent of total Federation revenue came from this source. Fluctuations in Malayan public revenues are caused primarily by movements of rubber prices.

Ceylon has a similar sensitivity of its public revenues to export prices of rubber and tea. While export taxes in Ceylon average only about 16 per cent of the total value of exports they represent nearly 29 per cent of total government revenue; moreover, this latter percentage has varied from a high of 35 per cent in 1951, when prices were high, to a low of 22 per cent in 1953, when prices had fallen considerably.

India, being a larger country with a more developed fiscal system, does not exhibit this intimate connection between primary product prices and public revenue; nor do India's exports depend so heavily on a few primary products. In general, however, practically all Asian countries have revenue systems that are more closely geared to international trade than are those of more advanced countries. Consequently, changes in the terms of trade and in its volume have important domestic financial effects.

General characteristics of development planning in Asia

In recent years, virtually all the countries of free Asia have undertaken programs to accelerate their economic development. These programs have ranged from loose collections of public works projects, showing little or no integration, to well-balanced schedules for sustained investment in all the main sectors of economic activity. These programs have so far met with varying degrees of success--in the extent to which they have actually succeeded in stimulating economic growth. As might be expected, the financial effects of development have varied from country to country; but the common problems of inflation and loss of foreign exchange reserves have been experienced quite uniformly.

The countries of Asia differ considerably in the stage of their development at present and also in the extent of their dependence on outside financial assistance. At the one extreme is Malaya, newly independent and with relatively conservative plans for outlay on economic development,

^{1/} It has been pointed out that Burmese public revenue approximately doubled between 1951 and 1955 although rice prices fell somewhat. The rise was due to an expansion in GNP of more than 30 per cent in current prices, and also to new revenue sources, including reparations receipts. Without the fall in rice prices the gain in public revenue would have been much larger.

yet with large foreign exchange reserves--amounting to nearly a full year's imports at the current level. At the other extreme is India, mid-way in a second five year program which is clearly well beyond the financial capacity of the nation--unless substantial amounts of additional outside aid are received. Burma, until recently, has tried to remain independent of foreign aid and to rely principally on foreign exchange earnings accumulated from the extraordinarily high price of rice during the Korean war.

Finally, the countries heavily dependent on U. S. military aid, South Korea, Pakistan, Taiwan, and Viet Nam have made some efforts at development but cannot proceed too rapidly except as they are financed by foreign aid while maintaining military forces well beyond their own financial capacity.

At the present time, a number of these Asian countries are being adversely affected by falling prices for the materials of agricultural origin that constitute their main exports. Rubber prices have been falling since 1955. Tea prices slumped in 1957 and may go lower. Burlap prices are down and the weakness has only recently spread back to the raw jute. These raw material producing countries naturally look with concern on the signs of recession now evident in the United States and Japan--as well as in some other industrial countries; for they see in this trend diminished markets for their own products and consequently a need to cut back their own expenditures on economic development. Such cutbacks will in turn weaken the exports of capital goods from the industrialized countries.

The Asian countries show two general types of development plans; these may be characterized roughly as (a) those aiming at predetermined general goals--usually expressed in such overall terms as percentage increases in national income to be achieved and (b) those formulated with rather more careful attention to the financial and organizational capabilities of the country involved.

Examples of the former or ambitious type of development planning are the second five year plan of India and the original eight year program for Burma, formulated in 1951. An example of the second or conservative type is the program prepared for Malaya by the IBRD and so far followed fairly faithfully by the Malayan Government in its initial efforts to promote development.

It is characteristic of the ambitious development plans that they usually take too little account of both financial and managerial limitations; consequently the attempt to implement these plans produces a series of financial problems--beginning in the first instance with a foreign exchange crisis--but followed later by a serious problem of domestic inflation after imports have of necessity been curtailed. These financial problems may be attributed both to the magnitude of the development plans and to their over-reliance on deficit financing.

If the only fault in these plans were that they tend to be too ambitious, this might not be too serious. It is only natural for a low income country to want to make progress as rapidly as possible and to plan somewhat beyond its present capabilities. Unfortunately, however, those development plans that have been formulated in terms of a framework of national income analysis frequently involve a fairly high degree of misdirected investment; this can in the long run seriously interfere with the ability of the countries involved to grow. Lest this stricture be interpreted as a criticism of all attempts to cast development planning within a framework of aggregate measurements, let me hasten to point out it is not the method that is wrong, but the misuse of it--in deriving investment targets from broad national income measures without sufficient supporting analysis of specific investment opportunities, or a precise enough calculation of the comparative yields of different investment possibilities one against the other.

An example will perhaps make this point clearer. We are fortunate in having for India a fairly detailed account of the process by which investment targets for the second five year plan were set in the first instance. Prof. P. C. Mahalanobis, generally credited with being the intellectual parent of the Indian plan, has given us a fairly full account of his procedures.^{1/}

Fixing investment targets for India

The Indian plan was based on the desire to raise total national income by 25 per cent in a five year period, and in the course of this process to create enough new employment opportunities roughly to match the growth in the Indian labor force--about 10 million potential workers over this period. The objective of nearly a 5 per cent annual increase in net national output was picked simply because it represented a rate of growth that had been achieved by other economies historically, and because it would yield a substantial increase in per capita income, in spite of the fairly rapid increase in the large Indian population--about 1.5 per cent per year. Little attention was paid to the fact that this target represented a much higher rate of advance than India had ever achieved in the past, or could be expected to finance from its own resources without very substantial outside assistance.

The technique used to derive investment targets for India depended heavily on the measurement of historical capital-output ratios in Indian production--and on their application as parameters for advance planning in areas where it had been decided (by what process of reasoning is not clear to an outsider) to concentrate investment. Whether this is an accurate and a desirable method of fixing these investment targets can best be judged by looking at some of the Indian results.

^{1/} See "The Approach of Operational Research to Planning in India," Indian Journal of Statistics, Dec. 1955, pp. 3-130.

The capital-output ratio is an analytical shortcut that in recent years has enjoyed some vogue in business cycle analysis;^{1/} but one that has yet to demonstrate its usefulness as a tool even in the historical analysis of economic growth, let alone as a medium for advance planning. Capital-output ratios, whether applied broadly or within narrow economic sectors, would seem to be valuable as a planning technique only (a) if data are available for their accurate measurement, and (b) if the ratios themselves exhibit such characteristics, for example stability or regular oscillation, as would give them predictive value. The ratios used in the case of India do not appear to have been derived in such a way as to give us much confidence in their useful properties.

Specifically, what Prof. Mahalanobis did to get first approximations of investment targets was to compare financial series on invested capital in certain India industries with value added in those industries. To bring the invested capital series to replacement value, he arbitrarily doubled them--on the theory that partially amortized original cost values needed to be adjusted in this way to approximate replacement costs. This assumption clearly is appropriate for a constant capital stock (with a standard age composition) during a period of stable prices, but is not necessarily appropriate for growing industries or for those that have passed their prime.

Ratios derived in this way were found to vary over a considerable range from about 5 to 1 for heavy industry to less than 1 to 1 in certain household industries and agriculture.^{2/}

As worked out in this way, the investment target for the Indian plan frame, as it was called, was somewhat in excess of \$13 billion for the desired 25 per cent growth in national income. The magnitude of this investment target, however, depended heavily on the composition of investment as between the different sectors; specifically because of the large amount of growth that was desired in heavy industry, the investment target was considerably larger than it would have had to be had more resources been earmarked for agricultural improvement.

As is well known, subsequent adjustments in the plan-frame--prior to its adoption as the official second five year plan--both raised the overall investment goals somewhat and diminished the expectations of

^{1/} Cf. W. Fellner, "The Capital-Output Ratio in Dynamic Economics," Money Trade, and Economic Growth (Essays in Honor of J. H. Williams, N. Y., Macmillan 1951, pp. 105-134.

^{2/} Subsequent work by George Rosen of MIT resulted in his concluding that "financial data from balance sheets do not appear to give satisfactory results in computing the investment cost of additional plans, i.e. the marginal capital-output ratio. It thus proved almost impossible to get consistent results when relating additions to capacity to additions to gross fixed assets, even after lagging the two for apparently appropriate periods. Cf. "Capital-Output Ratios in Indian Industry," Indian Economic Journal, Oct. 1956, pp. 113-114.

additional employment to be provided. The final plan comprised a series of politically negotiated investment targets--in which weight was given to the geographical distribution of investment and to other factors that had been entirely left out of account in the plan-frame.

Realism of Asian development plans--The test of U. S. experience

It is interesting to compare the size of Asian development plans with what has been accomplished by more advanced countries over corresponding periods of time. Although such comparisons are extremely hazardous, due to differences in economic structure between countries and to the pitfalls of international comparisons of national income, some rough judgments about order of magnitude are possible.

The Indian second five year plan proposed to raise national income in constant prices by approximately 25 per cent or \$5.4 billion. To do this, gross investment of roughly \$15 billion in both the public and private sectors was planned. While there are no reliable estimates of capital consumption for India, the crude estimates of the Planning Commission indicate an expectation that investment (presumably net) as a percentage of national income (also presumably net) will rise from 7 to more than 10 over the plan period, averaging perhaps 8-1/2 per cent for the 5 years. As the total projected growth in national income over the 5 year period is of the order of \$5.4 billion, the implied ratio of investment to output is therefore 2.8 to 1 on a gross basis. If allowance is made for capital consumption, net investment probably averages no more than 1/2 the gross figure, giving an implied marginal capital-output ratio of roughly 1.4 to 1. This \$5.4 billion rise in national income was expected to be accompanied by a growth in total employment of approximately 8 million persons, indicating a figure of additional output per newly employed person of somewhat under \$700, a figure that incidentally also abstracts from any increases in productivity for the already employed labor force during the plan period.

This may be compared with a similar period in United States economic history--with results that may throw some light on the feasibility of the Indian targets. During the five year period 1919-23, the United States national income increased from \$57 billion to more than \$70 billion in average prices of 1929.^{1/} This is a growth over the five year period of about 25 per cent--or roughly the same as contemplated by the Indian targets.

U. S. employment during this period increased by no more than 1 million persons on a full-time equivalent basis; consequently the ratio of additional output to additional employment is about \$14,000 per head, or roughly 20 times the ratio that is expected to prevail in India.

The net investment in the U. S. economy during this 5 year period amounted to somewhat more than \$30 billion or about 2.4 times the growth of national income. If the U. S. investment figures are doubled to raise

^{1/} S. Kuznets, National Income, A Summary of Findings, N. Y. National Bureau of Economic Research, 1946.

them to an approximate gross capital formation basis, the capital output ratio is not far from 5 to 1--or about 70 per cent more than the ratio expected to prevail in India.

This particular 5 year period from 1919 to 1923 was not selected because of being a particularly rapid period of U. S. economic growth; on the contrary, it included a recession in 1920-21, which produced a temporary drop in national income. Although the Indian investment program is not scheduled out by years, it might well also contemplate at least one year of setback resulting from the possibility of a less than average harvest.

Over the period of the first five year plan, 1951-56, India succeeded in expanding national income by 18 per cent in constant prices with an investment of about \$6.5 billion--about 1.8 times the growth in national income. This expansion was accomplished within a setting of financial stability. Money supply rose only moderately, the drain on foreign exchange reserves was small, and prices generally declined slightly. Agricultural output expanded nearly 20 per cent--in large part because of favorable weather--and this growth in agriculture was approximately half the total growth in Indian national product over the plan period.^{1/}

The second plan projects a comparable increase in agricultural output for an investment of under \$2 billion, although this is 60 per cent more than was invested in agriculture during the first plan. During the first year of the second plan, agricultural output increased about 5 per cent but in the second year all indications are for a decline that will wipe out most of the gains of the earlier year.

Despite the growth in agricultural output, internal demand for foodgrains has been growing even more rapidly. Imports in 1957, for example, were more than double those in 1956, which in turn had been double those in 1955. Most of the increase in foodgrain imports has been from American surplus sold for local currency. This trend in imports is significant because nearly 80 per cent of Indian agricultural acreage is normally planted in foodgrains.

It would appear that, in the short run, Indian agricultural production is far more responsive to weather, prevailing prices, and other random influences than to prior or current investment. While the plan goals for agriculture may yet be fulfilled this is by no means assured; even if they are fulfilled, Indian dependence on food imports is unlikely to be lessened. The rising demand for food stems primarily from the plan outlays for non-agricultural purposes which make up the bulk of capital outlay.

Agriculture's contribution in the U. S. to national income actually decreased during 1919-24, both absolutely and relatively. Gross farm production was practically the same in 1924 as in 1919 while the

^{1/} Government of India Planning Commission, Second Five Year Plan, 1956
pp. 71-3.

the non-agricultural sector of the economy grew considerably. Although we do not have object of expenditure data for these years, and therefore cannot directly compare food outlays, it would appear that in the U. S. a sharp increase in demand for food was not a feature of this particular period of expansion.

What the current Indian plan hopes to achieve, therefore, is a growth in national product outside of agriculture exceeding \$4 billion over 5 years for an investment of about \$13 billion. In 1919-23, the U. S. gained \$14.7 billion in non-agricultural output (1929 prices) with an investment of nearly \$60 billion. But whereas in 1919 about 25 per cent of the gainfully occupied labor force of the U. S. was already in manufacturing, in the India of 1956 only 2 per cent of the work force was similarly engaged.

It would appear from these very crude comparisons that while the Indian program may be somewhat optimistic with regard to the amount of expansion in total output that can be expected from a given amount of investment, it is at least not too far out of line with previous Indian experience. However, it would seem to have grossly overestimated the employment effects of such a volume of investment. The real weakness in the comparison is of course the question of whether or not India in 1956 had the structural, technical, and financial basis for growth that the U. S. possessed in 1919. The Indian target is for a growth in manufacturing output of more than 60 per cent in 5 years; the U. S. gain in manufacturing production during 1919-23 was less than 30 per cent.

If the capital-output ratio for present day India is actually something like 1.5 to 1 on a net basis, the amount of additional production generated, even by successful completion of the 5 year plan according to its original targets, would produce far fewer employment opportunities than expected and would, therefore, contribute much less to reducing the underemployment problem in India than has been hoped. As already noted, the Indian labor force over this 5 year period will increase (gross) by approximately 10 million persons; this figure can be predicted with fair accuracy from the size and composition of the existing population.

Another way to look at the problem is in terms of the amount of investment needed to provide an additional job. This varies considerably depending on the capital intensity of industries that are to be expanded and on the nature of the productive processes to be adopted. In the Indian plan, it is apparent that one new job is expected on the average for each \$2,000 of gross investment. In more advanced countries, the ratio is, of course, much higher. For example, in the U. S. of 1919-23, it took nearly \$60,000 of gross investment for each new job. It would be helpful in judging the feasibility of Asian development plans if we had some measure of investment per head of work force in various industries. Unfortunately such figures are almost non-existent.

Distribution of investment by sectors

Just as the development plans of Asian countries show a considerable variation in their overall magnitude, not only absolutely but also in relation to the financial and administrative capabilities of the countries involved, so also these programs differ considerably in the way they plan to direct investment into different areas. It would be possible to examine the various development plans at some length on this point alone; but what is proposed here is merely to note the relative weight being given (a) to agricultural improvement, (b) to extending the economic overheads in the form of transportation, communication and power facilities, and (c) to investment in industry.

Although all the Asian countries are predominantly agricultural--in the sense that at least 50 per cent or more of the national income originating is attributable to the agricultural sector--in no case is public investment directed this heavily toward expansion and improvement of agricultural production. This is so despite the fact (1) that agriculture in most of the Asian countries has the lowest capital-output ratio or the highest rate of increase in production for a given amount of investment, and (2) that agricultural improvement also promises the quickest returns from additional investment in the form of readily exportable products.

It is part of the folklore of economic development planning in Asia to desire to lessen each country's dependence on the export of primary products and also to increase its employment in non-agricultural pursuits. In part, this view is derived from the experience of more advanced countries which have, in the course of their progress, become less agricultural and more industrial; moreover, Asian countries that have exported only one or two primary products are familiar with the disruptive effects which changes in world demand or world price for these materials can have on their offshore earnings and their general economic prosperity. There is a natural desire in one or two crop countries to diversify economic activity--even though this diversification may not be wholly warranted by judgments as to the efficiency with which available economic resources can be utilized in non-traditional ways.

The formal public investment plans of the Asian countries show outlays in the agricultural sector ranging from a low of about 15 per cent of the total to a high of nearly 45 per cent. Pakistan and Afghanistan are on the high side--but both countries are arid and require extensive outlays for irrigation facilities in order to extend the cultivated area. In the countries not so heavily dependent on irrigation, public investment in agriculture ranges from roughly 20 per cent of the total of planned capital outlay--in the case of the Philippines, India, and Taiwan--to roughly one-third of the total in Cambodia and Nepal. Burma--despite the fact that its exports consist wholly of rice, timber and minerals--is spending less than 20 per cent of public capital outlay in the agricultural sector.

To look only at the public investment plans is undoubtedly to under-estimate total investment in agriculture. But from what is known of private investment in Asia, it would appear to be directed more into trade, service, and handicraft manufactures than into agriculture. In part, this may be because most force account improvements in agriculture are inadequately represented in the official statistics of underdeveloped countries. Even if private investment could be properly estimated, however, it is doubtful whether the ratios would be changed significantly.

In part, the relatively small outlay on agriculture in these countries is due not only to the desire to diversify production but also to the inability to organize more massive investment programs relating to agriculture. What is needed in most Asian countries for agricultural improvement is the type of program that depends for its effect on a well organized extension service--one capable of demonstrating to the farmers throughout the country the advantages of using selected seed, better methods of cultivation, increased use of fertilizer, and similar details of farm management. Without this effective extension service, which simply does not exist in most Asian countries, only limited capital outlays in this type of program are possible.

In most Asian countries, the contemplated public investment in industry--that is in manufacturing and mining--is at least as great as it is in agriculture, if not several times as large. In India, for example, about 45 per cent of the prospective second five year plan outlay--or more than twice as much as is being spent on agriculture--is going into manufacturing. Cuts in the plan to bring it to its "hard core" will increase rather than diminish this percentage.

Taiwan and Indonesia also have high ratios of manufacturing to total investment, ranging from 25 to 30 per cent of the total--somewhat more in each case than is devoted to agriculture. In the Philippine program the relative weight given to agriculture and manufacturing is about equal, whereas in the case of Burma, Ceylon, Pakistan, and Viet-Nam considerably less is being devoted to manufacturing than to agriculture.

This is not to suggest that there is any simple standard that one may apply to these investment proportions, or that the appropriate distribution of investment in one country would be equally appropriate in some other. Account must, of course, be taken of the available investment opportunities and of the ability present in a given country to organize development efforts in different sectors of the economy. But it does seem clear that agricultural investment in Asian countries is being relatively neglected--in favor of other programs whose potentialities for contributing to the long-range growth of these countries is more questionable.

Still another notable feature of the economic development plans of the Asian countries is the large proportion of investment going into economic overhead--especially transportation and power. In transportation alone the proportions range from a low of about 11 per cent in the case of

Taiwan to a high of 40 per cent or more in Afghanistan and Burma. Nearly 30 per cent of the Indian investment program is in transport, whereas about one-fourth of the planned outlays in Indonesia and the Philippines is in this area.

Investment in fuel and power ranges from a low of less than 5 per cent of the total in Cambodia, to nearly one-fourth the total in Burma. For the area as a whole, 10 per cent would be a good average figure.

What the Asian countries all should be striving for is a balanced economic growth, in which advances in agriculture, in transportation, and in industry should be in proper relation to one another. Little is accomplished by improving transportation facilities faster than there is an overall increase in goods to be moved, and an increasing improvement in the process of distribution.^{1/} Similarly, although power facilities in the long run create their own demand, it is uneconomic to build them at a more rapid rate than this demand can be expected to develop without expensive subsidies or rate concessions.

Burma once more is an excellent case in point. The original plan there was to electrify very rapidly an entire country which had been virtually lacking in these facilities, save in the two largest cities. While electrification of the country was pressed as a spectacular evidence of development--productive of much political support for the party in power--a real danger existed of raising the output of electric power much faster than consumption could be expected to develop. Thus, when a shortage of foreign exchange in 1955 and 1956 forced a rapid curtailment in the electrification program, a substantial misdirection of investment in power facilities was probably prevented.

The point to be made is simply that, however much the greater use of electricity may contribute to living standards in Asian countries, increasing the output of power faster than the nonresidential use of it can profitably grow, does not directly contribute to overall economic growth--at least in the short run.

Perhaps a final reason for the concentration of investment on transportation and power facilities is that lending agencies such as the World Bank have established a pattern of financing these investments to a much greater extent than they do agricultural improvement. There has undoubtedly been a tendency on the part of development planners whose countries are seeking outside financial assistance to give a high priority to projects of the type considered suitable for attracting outside financial support.

The task of weighing off relative investment opportunities one against the other, and deciding exactly what the marginal efficiency of capital is likely to be when invested in different ways, is far from an exact science. Government planning boards are not necessarily the agencies best equipped to make this determination either; their decisions

^{1/} We need to distinguish, of course, between investments that are capacity expanding and those that are merely cost saving without adding to capacity.

may be motivated by other than economic considerations. Yet in most Asian countries the scope for private investment decisions is being reduced, while that for government decisions is being widened.

Measures to forestall the balance of payments crisis

Among the steps an underdeveloped country may take when it embarks on an ambitious program of public investment, we may notice several that can help to postpone the date when shortage of foreign exchange compels a cutback in the investment program. Among these measures are (1) use of a foreign exchange budget to program outpayments in an orderly fashion, assuming that foreign exchange controls are already in force, as they are in virtually all Asian countries, (2) imposition of high customs duties on imported consumer goods, especially those of a luxury nature and, (3) use of restrictive monetary policy to deter speculation and unproductive investment.

There is nothing novel about these remedies; in fact the Asian countries that have gotten into difficulties with their development programs have in nearly every case eventually turned to one or more of them for assistance. What is here suggested is simply earlier and more aggressive use of these measures to restrain demand.

If the foreign exchange budget is worked up at the time a development program is first adopted, it will usually become clear that detailed timing of the investment program is required in order to make this budget work. This is in itself helpful, because too frequently Asian countries embarking on investment programs have paid inadequate attention to the timing of their investment outlays. This inadequate phasing has resulted, for example, in excessive forward ordering of imported materials and components, in lack of properly detailed construction scheduling, and in excessive delays in the completion of projects--to the point where they become benefit producing. Numerous examples might be given but the purpose is not here to dwell on the shortcomings or the mismanagement of public investment programs. A certain amount of waste and misdirection of resources is inevitable when a country undertakes to change its economic structure in a fairly brief period. Use of a foreign exchange budget from the beginning can help by pointing up the necessity for carefully scheduling out individual development projects.

If a foreign exchange budget is employed, the requirements for import of investment goods for public programs can be deduced from the plan itself. Private capital imports are more difficult to estimate but approximate magnitudes can be worked out based on past experience and on the investment intentions of local businessmen. What is sometimes still more difficult is to develop reasonable allocations for consumer goods imports. All too frequently in foreign exchange budgeting this element of consumer requirements is derived as a residual--from the prospective export earnings and the commitments for investment projects. A rational allocation would involve a study of (a) how consumption patterns are changing under the influence of accelerated investment and (b) what allowance should be made for consumer goods imports to prevent the rundown of stocks and the emergence of critical shortages.

A foreign exchange budget in itself does nothing to solve the foreign exchange crisis that is associated with increased investment; but it is a convenient vehicle for anticipating the magnitude and timing of influences that will lead to the emergence of a foreign exchange crisis--in sufficient time for corrective action to be taken.

Countries that have used the technique of the foreign exchange budget at an early stage have encountered less formidable problems of readjusting their exchange position than other countries that have been forced to adopt this device belatedly--after being confronted with a full scale foreign exchange crisis. Most of the Asian countries now use this technique as an incidental feature of their administration of import controls. The foreign exchange budget might be used as a forecasting medium in the process of development planning--rather than as a restrictive device to ration scarce foreign exchange.

Because the adoption of a public investment plan usually involves, at the outset, both increasing the government fiscal deficit and curtailing imports of consumer goods, an appropriate fiscal policy move would be to impose high revenue duties on imported consumption goods as an initial method of financing the public investment. Again this is a step a number of Asian countries have been driven to take--but only after they have gotten into financial difficulties. The aim has usually been to restrict imports rather than to raise funds for the investment program.

Customs duties, if properly used, can be an appropriate means of progressive taxation, with fewer administrative problems that are involved in (say) an income tax. Equitable administration of direct taxation is extremely difficult in most underdeveloped countries, where widespread concealment of income and evasion of legal tax liability are altogether too common. Since customs duties are far easier to enforce and far more difficult to evade than an income tax, the use of appropriate rates and classifications can both raise substantial amounts of revenue and discourage unnecessary imports. What is involved is setting the level of customs duties just below the prohibitive point or point of smuggling profitability. These duties likewise have the incidental advantage that they do not bear on saving, and from this standpoint are preferable to an income tax in a country where saving is in need of encouragement.

The use of restrictive monetary policy is often considered inconsistent with the promotion of economic development and has seldom been tried in an aggressive way by Asian countries--even if the bulk of the investment they are trying to promote is in the public sector. In more developed economies, to be sure, credit restraint is employed as a deterrent to investment while liberal credit policies are favored to encourage investment when economic activity is declining.

With public investment programs the situation is rather different. Here the investment goals are set as national objectives and some types of investment not included in the plan need to be discouraged. Restrictive credit policy can, for example, limit the accumulation of imported goods in

inventory by adding to the cost of carrying stocks; it can also help by checking the availability of bank credit for trade and speculative purposes not connected with real investment. Countries that have been led by their investment programs into an inflationary spiral have often discovered that too much of local saving tends to get tied up (a) in holding goods off the market in anticipation of price rises and (b) in construction of a luxury type that does little to promote production.

That a restrictive monetary policy can be quite effective in restraining over-importing and preventing the balance of payments from getting out of adjustment is clear from the experience of such countries as Japan that have recently relied heavily on this technique. The usual course, however, is to assume that efforts to expand investment require an easy money policy, and that any contrary course by the central bank is merely an effort to forestall development or to slow down the rate of growth. The counter suggestion offered here is that a restrictive credit policy is a necessary early step in programming for development--if what is wanted is a maximum sustainable rate of growth rather than progress by fits and starts.

Appropriate exchange rate policy

Countries that embark on economic development programs, and that go through an inflationary spiral because of inadequate measures to finance these programs, frequently discover after a time that the real value of their currency has fallen in terms of other currencies. This is simply a reflection of the rise in prices and incomes--relative to value of exports--within the country and of the associated progressive difficulty of making outpayments--in view of the administrative restrictions that have to be placed on availability of foreign exchange. If the country in question is maintaining a fixed exchange rate, this depreciation can go on for some time--simply piling up pressure against the controls and expanding the profits of those importers who are successful in obtaining licenses.

What is important about the overvalued exchange rate in the present connection is the undesirable effect it has on the effort of the country to develop. In the first instance, it steadily weakens the incentive of exporters to expand their shipments, because the proceeds of foreign sales--when surrendered or converted at the official rate--represent a steadily diminishing purchasing power over goods and services within the country. In the second place, currency overvaluation encourages importers to accumulate stocks and to hold these for further price increases--thus diverting attention of the local businessmen from productive investment into mere speculative trading in commodities. Currency overvaluation also encourages capital flight and retards new capital inflow.

Underdeveloped countries frequently cling to an overvalued exchange rate for relatively long periods--in the mistaken belief that this course cheapens the cost of capital imports needed for development and consequently lessens the strain on the budget to finance public

investment. This is a narrow and frequently mistaken view. What it means is simply that inflation, rather than deliberate financial policy, is being relied on to force, in real terms, those economic adjustments that are necessary because of the development program. The increasing reliance on administrative restriction of imports for current consumption that is involved in clinging to an obsolete exchange rate also means a steady loss in public revenue from customs duties. Moreover, the systematic expansion of imports for investment purposes at an overvalued rate progressively understates the real costs of this investment--in terms of foregone purchasing power and alternative opportunities for its use.

A country interested in developing economically would be better served to make the opposite mistake in exchange rate policy, namely to systematically undervalue its currency in terms of others rather than to overvalue it. This undervaluation would provide a continuous stimulus to exports and a progressive restraint on imports for non-essential purposes. The cost of the development program would rise but this financial increase would merely be a recognition of what is happening anyway in real terms. Moreover, undervaluation of its currency would promote imports of capital funds whereas overvaluation causes capital to flee the country in search of safer havens. Undervaluation also has economically distorting consequences but on the whole they are less serious than the results of overvaluation.

No administrative regulations can be devised that will wholly prevent capital flight if businessmen and others are convinced that the country's currency is weak and will depreciate further. Under-invoicing of exports and over-invoicing of imports are the commonest and most obvious methods of accomplishing this capital flight. Other methods are limited only by the ingenuity of those with funds to transfer.

A good case can indeed be made for a country that is embarking on an economic development program allowing its exchange rate to float or to seek its own level during the investment expanding process. A floating rate can be accomplished, e.g. by use of a certificate system under which exporters are allowed to sell their proceeds in a relatively free market to importers and others with payments to make abroad. The Government can always commandeer sufficient foreign exchange for its own essential purposes but it ought not to have access to this exchange on more favorable terms than other importers.

This is not to suggest that a country ought, as a component of economic development policy, to seek systematically to depreciate its currency and in this process to encounter retaliatory action from its trading partners. Countries that have accepted the obligations of membership in the International Monetary Fund are, in fact, precluded under Fund rules from engaging in competitive exchange depreciation; but the Fund has generally taken a fairly liberal attitude toward floating rates, especially where this has meant a simplification in the exchange rate structure.

The chief alternative to a floating rate for a country in financial difficulty is often times a complex multiple rate system--in which frequent changes and adjustments are necessary to supply export incentives of enough strength. This road leads to a proliferation of economic controls--with growing possibilities for wide-spread evasion and with built-in subsidization of certain economic groups at the expense of others less favorably situated. When a country has passed down this road a critical distance there is no real remedy except to unify the exchange rate at a realistic level. This generally involves allowing the rate to float--at least for a temporary period until other stabilization measures have had time to work.

Currency devaluation by itself is no permanent cure for the maladjustments arising from an economic development program; but exchange rate adjustment from time to time may be a necessary adjunct of financial policies designed to promote development. The suggestion here is simply that an unrealistic exchange rate will certainly not help a country to prosper over a long period and may indeed hold it back very substantially. Devaluation, although a drastic step when a currency has been overvalued for some time, may nevertheless provide the occasion for courageous revenue and other measures that will correct the deficit and any other factors (such as overexpansion of credit) that have contributed steadily to inflation.

If an example be needed to prove this point, the case of Thailand before and after adopting a unified exchange rate in 1955 will serve. Prior to September 1955, all imports were licensed and exports were on the basis of varying retention quotas for individual products--yielding complex multiple rates. With unification of these rates and abolition of licensing for more than 85 per cent of all imports, export performance improved, imports increased only slightly, foreign exchange reserves held steady, and the free market value of the baht gradually strengthened. Progress in that country under the unified exchange rate policy has been somewhat more rapid than it was previously. Other factors, such as the inflow of U. S. aid, have of course contributed, but the basic strength has come from a rising level of export earnings during a period when the exports of Thailand's competitors were not doing so well. Thailand's export earnings would have been even better if quotas had not been placed on rice exports to reserve supplies for the domestic market.

Indonesia, following its devaluation in mid-1957, also came nearer to financial stabilization than previously, although this progress was upset by the campaign to eliminate Dutch influence and the revolution of the outer islands against the central government later in the year.

Among the Asian countries that could benefit from more realistic exchange rates at the present time are Taiwan, Korea, Burma, and the three nations formerly comprising Indo-China.

The role of financial policy in promoting economic growth

By realistic exchange rates and other appropriate fiscal and monetary policies, underdeveloped countries can support permanently higher rates of capital investment than they have yet succeeded in attaining. What matters in an economic development program is not the maximum rate of progress that can be made for definite short periods, such as five years, but rather the creation of an economic climate in which investment, as a proportion of national product, can increase gradually but perceptibly in each year of a 25 to 50 year period. If development is measured over decades, slower annual rates of progress may be consistent with better rates of overall growth from one generation to the next.

The more experience with public investment programs tends to accumulate, the clearer it becomes that non-economic factors play a very important role in determining whether and to what extent these programs succeed. Among the non-economic factors that are important are (a) whether the local population adjusts quickly to expanding economic opportunity by developing new skills and local entrepreneurial talent; also (b) whether an initial increase in living standards retards or accelerates population growth; finally, (c) whether the general public correctly understands what an economic development program involves. It means in the first instance--and unless there is a sharp increase in outside financial assistance--foregoing a rise in the standard of living, accepting increased taxation, and perhaps also higher prices for the sake of creating capital that will eventually raise production.

Many development programs have probably been oversold--in the sense that local populations have been led to expect quicker results in the form of broader employment opportunities and higher living standards than they had any right to hope for--given the nature of the investment programs.

In fact, economic development is a painfully slow and laborious process that can be accelerated only by bringing into use resources previously unemployed or underemployed or by shifting resources from less into more productive employment. Deficit finance is not the proper remedy for combatting less than full employment in an underdeveloped country--in spite of the fact that prices can be kept from rising for a considerable time. It leads only to external disequilibrium and overreliance on outside financial assistance.

If U. S. policy toward the underdeveloped countries is to be consistent over a long period, we should first develop a formula--indicating to the world the extent to which we are prepared to underwrite these development programs. Aid should then be available not in proportion to a given country's difficulties, but rather in relation to the success of local efforts at formulating plans and programs consistent with long-run economic growth within a framework of financial stability. Our foreign economic policy is in need of a critical reappraisal in these terms.