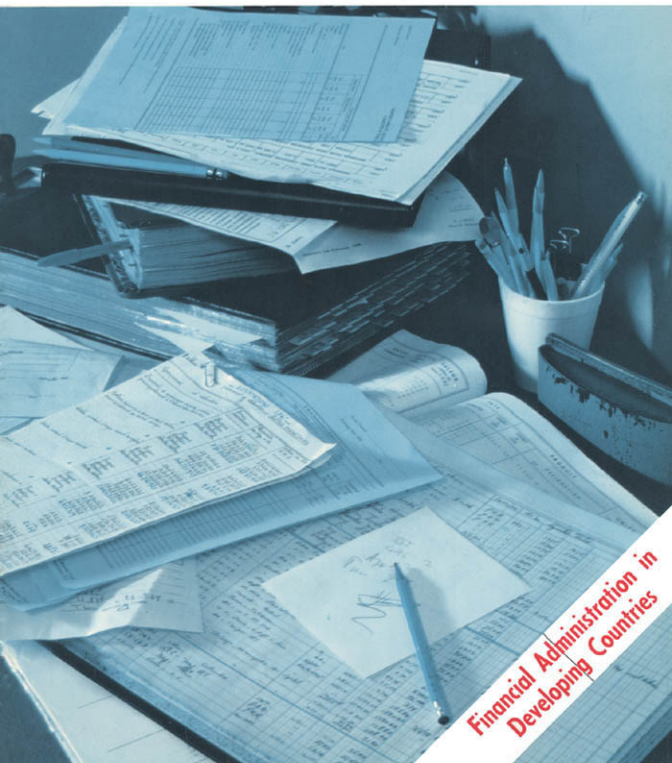


Finance and Development

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**Financial Administration in
Developing Countries**

A Publication of the International Monetary Fund and the World Bank Group

The Swedish National Bank (Riksbank) in Stockholm (right); the Parliament (Riksdag) is to the left. See Frank A. Southard Jr.'s article, "The Central Bank in the Policy Making Process," page 17.



Photo by Ed Huffman—World Bank



Cover: See Eric Himsworth's article, "Financial Administration in Developing Countries," p. 31.

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Measuring Capital Requirements

The author discusses the origins of recent estimates of capital requirements for development and highlights some of the issues involved.

E. K. Hawkins

DISCUSSIONS of the theory and practice of providing aid for development have included in recent years various calculations of the amount of capital required. Here, as an example, is one made by the World Bank:

While the amount of external finance has grown little in recent years after a substantial rise in the 1950's, the capability of the developing countries to make productive use of resources has increased considerably. A preliminary Bank inquiry, carried out country by country and based on the judgment and experience of the Bank's country specialists and area economists, suggests that the developing countries could effectively use, on the average over the next five years, some \$3 billion to \$4 billion more of external capital per year than has been provided in the recent past.¹

In a world in which it is increasingly difficult to mobilize such funds, estimates of this kind have an unreal quality for many people. Shortage of funds should not, however, be used as an argument against exploring the size of the gap that is emerging between the amount of capital likely to be available for developing countries and the amount that they could use effectively. The making of such estimates raises problems both of theory and measurement which are of interest in themselves and which involve issues central to any consideration of the development process.

Nature of Requirements

Estimates of this kind are now generally known as estimates of capital requirements. The word "requirements" is used in this context as indicating a need for a transfer of goods and services in order to achieve certain targets; these may be target rates of growth for the economies as a whole, or they may be target rates of investment, although, where this is so, investment is normally thought of as being the means by which rates of growth of income are increased. The basic idea, however, is that such estimates of capital inflow or capital requirements shall be related to a generally recognizable and agreed aim, and that this aim should include the transformation of the recipient economy in such a way as to increase permanently its ability to contribute to economic welfare. They are not normally regarded as subsidies to current consumption, although such capital flows may include such subsidies within a suitable framework of foreign aid.

Two Approaches

There are two possible approaches to making such estimates and both are based on the idea that increased

income and wealth depend fundamentally upon the application of more capital, either to increase output directly when used in combination with local resources, or indirectly when the use of such capital will lead to a more effective use of other resources.

The first approach is to make an over-all estimate of the uses that are made of the output of goods and services, with particular reference to the share that is allocated to consumption and the share that is allocated to investment. It is then argued that the future growth of the economy depends on a suitable increase in the share of goods and services allocated to investment. An attempt is made to estimate the effect upon the future growth of income of any additional investment so as to be able to assess how much capital is needed to achieve a given rate of growth. This is then compared with the estimated ability of the economy to make available such a share of resources. (In other words, how much saving can an economy at a particular stage of development carry out?) The difference between these two estimates will then give some indication of the required size of the capital inflow from abroad.

Such estimates are made without any consideration of the specific form that the investments are likely to take. By contrast, the second approach builds up such an over-all estimate from below by a detailed study, on a project-by-project or a sector-by-sector basis, of the need for capital. An examination is then made of the possible sources of such capital locally, and a discrepancy will thus emerge between the needs for the development of all the projects under consideration and the resources which can be made available. This difference is the required capital outflow from overseas, the counterpart of which can be the estimate reached by the first approach mentioned.

These two approaches are different not only in their nature, but in their provenance. The first approach corresponds to the various calculations of capital requirements which have been made in the last 20 years by the United Nations and by the U.S. Government. The second approach is, generally speaking, the one followed by the World Bank in producing the estimates which have been developed in recent years by its own thinking on the subject.

There is a further important difference, however, in the manner in which this subject has been treated by other international organizations and the way in which it has been viewed by the World Bank Group. Estimates made outside the Bank have all been concerned with the requirements aspect of capital inflows. They begin by specifying a target rate of growth which is to be the aim of the developing country and then proceed to estimate the amount of capital which would be needed to reach that target. In the estimates made by

¹ World Bank and International Development Association, *Annual Report, 1964-65* (Washington), p. 62. This inquiry was initiated by Mr. Irving S. Friedman, Economic Adviser to the President, and carried out under his direction.

the World Bank Group no explicit target is used; instead, the estimates emerge from a multidimensional examination of the economy in question and represent the amount of capital which the Bank feels might be used in an effective way in the future, provided that certain levels of economic performance are achieved and suitable policies are followed by the country concerned.

Evolution of Estimating

One of the first of the over-all estimates made was prepared in 1949 by a group of experts under the aegis of the United Nations. This group proceeded to reach a figure of capital requirements by way of an analysis of the capital that would be needed to bring about a structural change in the developing countries, defined in terms of a continuous transfer of labor from the agricultural sector of the economy to the industrial and commercial sectors. The investment per capita required to prepare a worker for employment in the industrial sector is much higher than that required for the employment of the same worker in the agricultural sector, and this is especially true where the agricultural sector has not been modernized in any way. The figure produced by this group was \$12 billion a year, defined as the net additional foreign resources required to permit the developing countries to reach a target growth rate of income of 2.5 per cent a year.

The United Nations has made subsequent estimates based on work carried out by the Secretariat and first presented in 1962.² These estimates were of some importance because they formed the basis of a submission to the first UNCTAD meeting in 1963. This approach again concentrated on the performance of the economy as a whole and was based on relationships between the rates of growth of gross domestic product, exports, imports, and investment. The basic idea is that development depends not only on investment but also on other scarce resources as well, for example the availability of skills at particular levels, or the existence of groups of the population able to act as businessmen and managers.

The "Two-Gap" Approach

Attention is also focused, however, on what is thought to be a more important limitation on development: a possible shortage of foreign exchange, as a result of which countries may be unable to acquire from abroad the goods and services necessary for promoting domestic development. This approach has become known as the "two-gap" approach because it operates in two

dimensions; while continuing to argue that development is a function of investment it also holds that such investment, which requires domestic savings, is not sufficient to ensure that development takes place. It must also be possible to obtain from abroad the goods and services that are complementary to those available at home. In most developing countries the structure of the economy is so simple that it can produce only a limited range of products when relying solely on domestic sources. In these circumstances an act of saving, by itself, even though it releases resources for investment purposes, may not make available the correct kind of resources. In physical terms a country may be unable to produce the cement, steel, or machinery which go into the various projects required to raise income in the future, although it may be able to make the necessary savings by cutting down on consumption. Unless these savings can be used to purchase the necessary goods and services from overseas no progress can be made.

Estimates made as a result of this approach start from certain basic relationships which are generally accepted as holding true for all countries. The usages of modern national accounting are designed to express the fact that the amount that can be invested in any country is identical with the amount that is saved; that is to say, only those goods and services which are not consumed can be deployed to increase future income through investment. At the same time, if these resources are to be supplemented from abroad, such a flow of resources will appear in this accounting framework as an excess of imports over exports. It will, in fact, always appear twice, first as the difference between investment and the amount that can be saved within the economy and second as an equal excess of imports and services over exports of goods and services.

The Four Important Magnitudes

Calculations of capital requirements proceed on the basis of projections of the four important magnitudes: savings, investments, exports, and imports. A target rate of growth is specified, and then the amount of additional capital that will be required in order to reach that target rate of growth is estimated. This gives a figure for capital requirements which can be compared with the likely availability of domestic savings. At the same time it is possible to make projections of the likely behavior of exports and imports. The former will depend on the supply of goods and services available, or likely to be available, for export from the domestic economy, the state of the world markets, and the economic health of the developed countries which are the markets for such exports. A similar estimate can be made for import requirements. All these projections (which are of course capable of much subdivision) can be made independently of one another,

² United Nations, *Studies in Long-Term Economic Projections for the World Economy* (New York, 1964), pp. 67-68.

and it follows that there is very little likelihood that such independent projections will all arrive at an answer which satisfies the basic accounting relationship already referred to above. Projected investments may well exceed projected savings; projected imports, on the other hand, may exceed the projected exports by a different amount. However, national income accountancy demonstrates that the excess of investment over savings must necessarily be equal to the excess of imports over exports and this must hold true at all points of time. It follows that there is something inconsistent about the projections that have been made independently. The two-gap method, therefore, is essentially a way of ensuring that inconsistencies, which may be *implicit* in other ways of making projections, are brought out into the open.

Estimates of capital requirements made by this method, therefore, yield not one, but two figures for consideration. For example, the UN estimates, mentioned above, show a savings gap of \$12 billion in 1970 (\$20 billion in 1975) and a trade gap of \$20 billion (\$32 billion in 1975). The use of this approach requires either that the projections include the necessary changes in the structure and the behavior of the economy which will make the two estimates consistent with each other, or that a decision has to be made that the larger of the two gaps will be the more significant and will be taken as the required capital inflow from abroad.

The two-gap approach was used in an important series of country studies carried out by UNCTAD to make a very elaborate calculation of the capital needs of the developing countries at various dates in the future. It was elaborate because the projections were derived from econometric calculations for the various countries concerned, so that each estimate could be said to be based on all the known factors which can be put into quantitative terms. (An additional problem was that of combining the individual country results into a consistent world total.) These studies have been used as the basis of the presentation made to the second UNCTAD Conference (New Delhi, February-March 1968) of a new set of gap estimates. Emphasis was placed on the trade gap, projecting a "low" figure of \$17 billion in 1975, and a "high" figure of \$26 billion.³

A "Three-Phase" Approach

A variant on the approach has also been followed by two American writers, Mr. Hollis B. Chenery and Mr. Alan M. Strout, who, in a study⁴ prepared for the U.S. Agency for International Development (AID),

³ "Low" and "high" refer to different assumptions as to country growth rates.

⁴ Hollis B. Chenery and Alan M. Strout, "Foreign Assistance and Economic Development," *American Economic Review*, September 1966.

employed a three-phase approach, where an attempt was made to specify in quantitative terms the constraint on development arising from the limit of absorptive capacity.⁵ This work has had a considerable influence on discussions of the subject. In their study, various constraints—a savings constraint, the foreign exchange constraint, and the limitation of absorptive capacity—come into operation for a particular developing economy at various stages of its growth. They focus special attention on two aspects: first, the savings behavior of the economy concerned, or its ability to refrain from consumption and allocate additional resources to investment; and second, the question of absorptive capacity, viewed, in this instance, as a performance factor. In other words, if absorptive capacity is increasing over the years, it can be regarded as a measure of the improved economic performance of the country concerned, and of its ability to make better use of capital from abroad. In their work they spelled out the operation of these three constraints in terms of three different stages of development. An interesting feature of this study is its extensive coverage on a country basis, since the model was applied to 50 developing countries and totals obtained for a spectrum of different assumptions. For this reason the results cannot be summarized easily, and the indicated range of capital requirements for 1970 is as wide as \$10-17 billion.

This three-phase approach can be useful for expository purposes, but it can only be an approximation to the real life problems of many developing countries where the three constraints often coexist and interact with one another. It has been found, for example, that the limitations of absorptive capacity may apply only to particular sectors of the economy, while other parts of the economy are able to absorb more capital than can be obtained from local sources of savings. This coexistence of the various constraints on development is in many ways a central characteristic of an underdeveloped country.

One limitation of all the approaches detailed above is precisely that they operate at a highly aggregate level. Any aggregative approach of this kind treats all units of investment as if each were adding to a volume of capital which is homogeneous. In practice this is only true of the monetary units in which capital and investment are measured. It is convenient to measure investment and capital in monetary terms, but the money values often only hide the significance of the specific

⁵ Absorptive capacity covers all the ways in which the ability to plan and execute development projects, to change the structure of the economy, and to reallocate resources is circumscribed by the lack of crucial factors, by institutional problems, or by unsuitable organization. Not only the structure of the economy but also the utilization of its existing capacity will have an important bearing on a country's absorptive capacity. Cf. J.H. Adler *Absorptive Capacity: The Concept and Its Determinants*, Brookings Institution, Washington, 1965.

nature of the investment item. Cement once incorporated into a highway cannot be used for other purposes; steel once built into a building must yield additional wealth in that form, otherwise the investment will have been wasted. It is the underlying importance of this aspect of development which emphasizes the project and sector approach to the measurement of capital requirements.

The estimates of capital requirements prepared by the World Bank Group over the period 1964-67, and which have already been quoted, can be best described as estimates of capital inflows, since, as already explained, there is no formal element of "requirements" behind such figures. In addition, there is an important distinction between the origin of these estimates and others which have been prepared by other international organizations.

World Bank Economic Reports

In the course of its regular work the World Bank prepares a number of different kinds of economic reports, depending upon the purpose in mind. All of them, however, have in common an analysis of the actual situation of the member country as far as the public sector, fiscal situation, and external economic relations are concerned. Generally speaking, the context and the focus of these reports would include not only the possible direct role of the World Bank Group lending in the country concerned but also the place of all such external assistance in the over-all development prospects. Considerable attention is paid, in addition, to an assessment of the economic performance and official policies.

A typical report focuses on possible developments for a period up to five years ahead. These developments will often be determined largely by events that have already taken place and changes in the structure of the economies will be largely the result of past investment decisions. Because of this it can be argued that the relatively short viewpoint taken is one of the reasons why it is possible to make plausible projections of capital inflow; the pattern of main developments in the economy is already largely determined for some years ahead, and the implications of these developments can be analyzed with some confidence. The same is true of the likely availability and quality of the factors of production which are also likely to be relatively stable over the next four or five years. As a result, it is possible to make forecasts and projections of the trends expected in the main sectors of the economy, in public revenues, expenditures, and savings, and in imports, exports, and the balance of payments. These projections, which form the basic material from which capital inflow estimates can be assembled, will often assume certain adjustments in official policies affecting exports and sav-

ings, as well as resource allocation. They will normally include direct estimates of investments, investment possibilities, and plans (often on a project-by-project or sector-by-sector basis). They take into account not only "needs" in the narrow sense of the word but also the way in which the possibilities are dependent upon a constellation of policies bearing on the efficiency with which the economy is managed, resources are employed, and savings are mobilized.

The estimates that emerge from such appraisals take into account what can actually be invested in an effective way. They rest upon the past ability of a country to prepare and bring forward economically justifiable projects; they also take into account the financial resources available to the country for that part of the costs which will not be covered by a capital inflow from abroad. The foreign capital inflow can then be regarded as a missing element required to permit a larger investment than would be possible, given all the domestic factor availabilities, local infrastructure, and the savings possibilities opened up by the policies and level of performance of the government.

Limiting Factors

In making these appraisals attention is paid to the limitations which are faced by developing economies. The first is absorptive capacity, which will express itself in terms of the amount of time required to set up and organize projects so as to be able to make effective use of a capital inflow from abroad. A second kind of constraint is that imposed by the inability to generate sufficient domestic savings, and the third is a likely shortage of foreign exchange; these last two limitations have already been discussed.

When appraising the significance of these limitations for a particular country over a short period ahead, it is usually desirable to include a realistic estimate of the amount of external capital likely to be available. (This will often be limited by factors not connected in any way with the internal characteristics of the economy.) It is clearly unrealistic to calculate needs or requirements essentially in the form of a large gap to be filled from overseas, without any consideration as to the likelihood of the financing being obtained. What may often happen is that discussions will be held with the country concerned in which the implications of a shortage or limitation on external funds is discussed so that it may be reflected in the country's internal planning.

This brief description of the manner in which the World Bank carries out its analysis of the economies of individual countries is intended to illustrate the detailed inquiries which are the raw material from which the estimates of capital inflow are derived. Since this analysis proceeds along a country-by-country approach,

there are further calculations required before global figures can be obtained for all the developing countries, or for different regions. Such calculations raise further problems of methodology that will not be discussed here, especially problems connected with reconciling the individual projections for separate countries with one another. (For example, export projections for the major commodities for individual countries must be reconciled with over-all projections that can be made for the world market for those commodities.)

The Reports' Importance in Policy Planning

The estimates that are obtained from such exercises represent, at best, orders of magnitude of the size of the problem of development. They cannot be accurate in the sense that they can be regarded as projections or forecasts of what is likely to come about. Nevertheless, they have a value for purposes of policy planning in that they indicate the size of the gap that exists between

what is and what is *possible*, given the funds and reasonable economic performance on the part of the developing countries. They are some measure of the demands made upon the consciences of the richer countries, not as demands for charity, but as the requirements to enable the poorer countries to achieve possibilities of growth that are within their grasp.



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The Magnitudes of Exchange Devaluation

In debates among economists over the relative merits of fixed and fluctuating rates it has often been assumed that postwar exchange rates have remained virtually unchanged; the business community, on the other hand, tends to focus on every change that takes place. This article examines just how extensive and how frequent these changes have been since World War II.

Margaret G. de Vries

IN RECENT YEARS a number of economists, especially in the universities, have lamented the relatively little use that countries have made of exchange rates to solve their balance of payments difficulties. For example, many of these economists have been advocating flexible rates to overcome the infrequency of change of fixed rates or have been considering how fiscal or monetary policies can be made more flexible to compensate for the rigidity of exchange rates. For the most part, these economists have focused their observations on the large industrial countries. They have been noting that, until the devaluation of the pound sterling in November 1967, few changes had been made since 1949 in the exchange rates of the major industrial powers.

On the other hand, the business community and commercial traders have had a keen awareness of all ex-

change rate changes. With an eye on their competitive positions, their fears of other countries' devaluations may have been exaggerated.

With so much current interest in exchange rates, it is worthwhile to take a brief look at the magnitudes and frequencies of exchange devaluation that have occurred in a broad spectrum of countries since World War II. It is evident that use of the exchange rate mechanism has been rather common.

Measuring the Magnitudes

Percentage changes in the exchange rates for 109 countries—by major geographic region—for the 19-year period from the end of 1948 to the end of 1967 are presented in Table 1; by using long-term data numerous small devaluations can be compressed into a single figure. The end of 1948 as a starting date has

been preferred to the end of 1946 (when initial par values were set for most of the Fund's original members) because the exchange rates of several countries were more settled by that year (or by early 1949) than they were immediately after the war, and because data for 1948 are readily available.

Because the results depend on the particular exchange rates used, and because in some instances (such as countries with multiple currency practices) a choice of rates existed, an endeavor has been made to select for these calculations currently used exchange rates as against, say, legal parities. For most countries, par values, or at least fixed official rates, could be used; but for some countries, free market rates have been used, and for a few a choice among multiple rates has been made. The percentage changes in exchange rates have been measured relative to gold, or to the U.S. dollar with gold content expressed in the weight and fineness in effect on July 1, 1944, with 100 per cent being the maximum possible devaluation.

How Much Devaluation?

Table 1 also shows the distribution of 109 countries over five major geographic regions according to the net percentages by which their currencies have been devalued. The first group shows 13 countries which have not devalued at all: the United States, 7 Central American countries, Ethiopia and Liberia, and Switzerland and Japan.¹ In Lebanon a slight appreciation occurred. The second group comprises 12 countries that have devalued less than 30 per cent—that is, approximately the amount by which sterling was devalued in September 1949; in this group are not only several major industrial nations (Belgium, Canada, Germany, Italy, Luxembourg, and the Netherlands) but also 3 Latin American countries (Costa Rica, Nicaragua, and Vene-

zuela) and Portugal, Saudi Arabia, and the Syrian Arab Republic. Germany and the Netherlands, after devaluing by about 30 per cent in September 1949, both revalued their currencies upward by 5 per cent in 1961.

The third group comprises 22 countries which have devalued a total of 30-39 per cent. This includes mainly countries which devalued along with sterling in 1949 but which did not go along in the devaluations of 1967. It also includes Denmark, which devalued again in November 1967, by 7.9 per cent—less than the 14.3 per cent of the 1967 sterling change. Apart from Australia, Denmark, Norway, and Sweden, the group includes developing countries in Asia, the Middle East, and Africa—for example, Burma, Iraq, Kenya, Malaysia, Nigeria, Pakistan, and Singapore.

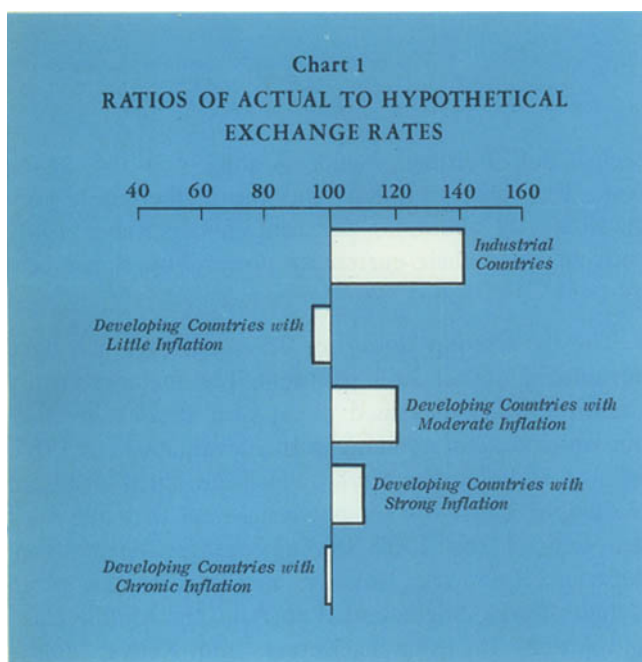
What is often not fully realized is that for 62 countries (groups four and five) the magnitude of postwar devaluation has exceeded 40 per cent. Some 38 countries have devalued between 40 and 75 per cent; this includes not only the United Kingdom and Ireland, which have devalued just over 40 per cent in total, but also Austria, Finland, India, Mexico, New Zealand, Peru, the Philippines, and Turkey, which have devalued by larger amounts.

For another 24 countries devaluation has gone beyond 75 per cent. Among European countries in this last group are France, Greece, Iceland, Spain, and Yugoslavia. Other countries devaluing by these large amounts have been 7 Latin American countries (Argentina, Bolivia, Brazil, Colombia, Chile, Paraguay, and Uruguay), as well as Ghana, Indonesia, Israel, Korea, and Viet-Nam.

¹ Japan's official rate was set in April 1949 and has since remained unaltered.

In sum, devaluations, even by the major powers, fall in all five categories. Among less developed countries two patterns of devaluation are apparent. One pattern follows that of the major currencies. Countries in Central America have conformed generally to the U.S. dollar and have devalued either not at all or very little. Many others in Asia and Africa have followed the lead of either sterling or the French franc.

The second pattern of devaluation among developing countries is related to the price and balance of payments experiences of the individual country. Many of them in all geographic regions have thus devalued independently of the major currencies, by amounts from 40 to nearly 100 per cent.



The average (that is, the arithmetic mean) devaluation of all 109 countries for these years is 48.2 per cent. The arithmetic mean for those 96 countries that did engage in some devaluation (eliminating the 13 countries of group one) is, of course, higher—54.7 per cent. The global picture is seen in better perspective, however, when account is taken of the differing importance in world trade of various countries. Arithmetic means have, therefore, been calculated (Table 2) which have been weighted by the share in 1966 of the country's exports in total world exports.

Australia, Canada, New Zealand, and the United States, as a group, have devalued by the least amounts. The weighted average for Europe is 23.5 per cent. The Latin American countries have devalued by the greatest amounts—a weighted average of 62.2 per cent—with the Middle East, Asia, and Africa in between. As would be expected (because the larger trading nations devalued less than most smaller ones) the over-all

world weighted average (calculated for 109 countries) is 22.8 per cent, much less than the unweighted average.

TABLE 1: PERCENTAGES OF DEVALUATIONS

	TOTAL	AFRICA	ASIA	EUROPE AND MAJOR POWERS	LATIN AMERICA	MIDDLE EAST
No Devaluation	13	2	1	2	7	1
Less than 30%	12	0	0	7	3	2
30-39%	22	10	4	4	1	3
40-75%	38	18	6	6	5	3
More than 75%	24	6	4	5	7	2
Total	109	36	15	24	23	11

The Frequency of Devaluation

The frequency with which devaluation occurs is also often underestimated. Admittedly some 12 countries have not devalued at all in the postwar period—1 has even slightly appreciated its currency—and another 27 have devalued only once, most of them in the general realignment of 1949. However, an impressive total of 48 countries has devalued at least once more after 1949, and another 21 have devalued quite frequently. Table 3 shows these frequencies.

TABLE 2: EXTENT OF DEVALUATION, 1948-67, BY REGIONS

REGION	NUMBER OF COUNTRIES	AVERAGE WEIGHTED DEVALUATION
Australia, Canada, New Zealand, and the United States	4	5.2
Europe	20	23.5
Middle East	12	38.4
Asia (excluding Japan)	14	46.1
Africa	36	47.6
Latin America	23	62.2
Total	109	22.8

Among the 24 countries that have devalued once again after 1949, for a total of two devaluations, are not only those which devalued in November 1967 along with the United Kingdom (such as Ceylon, Denmark, Ireland, Jamaica, and New Zealand) but several which found it necessary earlier to devalue once more the rates they had set in 1949: Austria, Ghana, Greece, India, and the United Arab Republic. France and the French franc area have devalued twice since 1949—once in 1954 and again in 1958—making a total of three devaluations.

Devaluations for countries with multiple or fluctuating rates have been even more numerous. Some five countries—Bolivia, China, Paraguay, Thailand, and Yugoslavia—had frequent devaluations until 1962, but have not changed their rates subsequently. Another 16

**TABLE 3: FREQUENCY OF DEVALUATION,
END 1948-END 1967**

	NUMBER OF COUNTRIES
Appreciation	1
No Devaluation since 1948	12
One Devaluation	27
Two Devaluations	24
Three Devaluations	24
Frequent Devaluations, but no change since 1962	5
Frequent Devaluations, including changes since 1962	16
Total	109

countries have continued to devalue fairly often, even in the last five years. These include not only several Latin American countries (Argentina, Brazil, Chile, Colombia, and Uruguay) but also a few countries in Europe and several in the Middle East and Asia.

Comparison With Prices

Interesting as these figures are, measurements of the changes in exchange rates for various countries are more revealing when juxtaposed with movements in their domestic prices. While the Brazilian cruzeiro and the Chilean peso have, for example, been devalued by 99.9 per cent between 1948 and the end of 1967, their domestic price levels have, in the meantime, gone up 100-fold. The question, therefore, arises of how much the exchange rate has changed in comparison with rises in internal prices?

Accordingly, ratios have been calculated between actual exchange rates at December 1967, and notional rates which are those which have just kept pace with subsequent inflation. A notional rate for each of 65 countries has been obtained by taking the exchange rate in 1948 and adjusting it to take account of the rise in the cost of living index in that country from 1948 to mid-1967.² This rate shows what exchange rate would have prevailed in mid-1967 had the rate been devalued since 1948 merely to the same extent as the country's consumer prices have increased.

It is thus possible to see what changes in exchange rates have occurred in something like "real terms"—that is, abstracting from differences in internal price changes. The actual exchange rate for each country in December 1967 was expressed as a percentage of the notional rate, that is, as a ratio. A ratio of 100 indicates that the exchange rate and prices are in the same relationship in 1967 as they were in 1948. Where the ratio exceeds 100, devaluation has been *less* than the increase of the country's prices of consumer goods. Where the

² Those 65 countries have been selected for which price data back to 1948 are available.

ratio is below 100, the exchange rate has been devalued *more* than the country's prices have increased.

The 65 countries have been grouped into five categories, and an average actual-notional exchange ratio obtained for each group. These average ratios are presented in Chart 1. Nineteen countries—the United States, Canada, the major powers of Western Europe, Japan, and others—have been placed in group one as "industrial countries." Most of these have had what is here labeled as "moderate inflation"—that is, the level of consumer prices in mid-1967 was about 1.4 to 2.0 times its 1948 level.

The remaining 46 countries—comprising what are usually called the developing countries—have been distributed over four groups according to the degree of inflation. Twelve—some in Central America, a few in the Middle East, and 2 in Asia—have had what can be regarded as "little inflation," using as a benchmark less inflation than that of the United States (group two). Another 10—the rest of Central America and a few countries in Asia and Africa—are in group three, that of "moderate inflation," as defined above.

Another 9 (group four)—some from each region—have had what is here called "strong inflation," that is, their price levels rose more than two, but less than three, times from 1948 to 1967. Finally, in group five, are 15 countries characterized as those with "chronic inflation"; their consumer price levels have gone up more than three times, and many by much more; half of these countries are in South America, but a few in southern Europe, the Middle East, and Asia are also included.

This arrangement of countries enables one to interpret the actual-notional exchange rate ratios with reference to the degree of inflation. Low ratios in countries with little inflation, for example, reflect their having had very little increase in prices; they may not have adjusted their exchange rates at all since 1948. On the other hand, low ratios for countries with very large inflation reflect degrees of exchange devaluation which are even greater than the rises in their internal prices.

Realignment of Postwar Exchange Rates

In Chart 1, low ratios appear on the left side of the 100 mark and high ratios on the right. It is revealed that the major industrial powers have an average ratio well above 100—indeed 141. In other words, the general level of postwar consumer prices in these countries has risen more than their exchange rates have been devalued.

The ratios for the four groups of developing countries, on the other hand, were considerably lower, and two of the four groups of developing countries were

even below 100. For the developing countries in group two, the explanation for the average ratio of only 95 is simple: their price increases have been virtually negligible. Several of them have also devalued in line with major currencies, although only two or three of them have devalued in the last few years. The average ratio of 121 for group three, developing countries with moderate inflation, is also lower than that of the industrial countries, partly because the rates of inflation in the industrial countries have been somewhat lower and also because some of these countries have devalued by larger amounts than most of the developing countries.

What is more surprising are the relatively low ratios for groups four and five, developing countries with relatively strong and even chronic inflation. This clearly reflects extensive exchange depreciation, even in real terms (apart from price rises). And the greater the inflation, the larger, on average, is the depreciation, even in real terms.

Several factors help to explain this extensive devaluation by the developing countries even relative to their greater inflation. First, the exchange rates of many developing countries may well, in 1948, have been more out of line with prices in the rest of the world, compared with prices at home, than the exchange rates of the major countries. Hence, more "correction" may have been necessary to realign their rates. Second, developing countries have used, more than industrial countries, exchange rate adjustment as a policy tool. Industrial countries have relied more heavily on monetary and fiscal policies and on other domestic measures. Third, demand for the exports of the industrial countries has, on the whole, been more dynamic than that for the exports of the developing countries. Moreover, the productivity advances in industrial countries in export industries have also been more marked than in developing countries; these have helped to keep their export prices relatively lower than their general consumer prices. Hence, the general level of prices in industrial countries could often run ahead of exchange rates without damaging their export positions; this has been much less true for developing countries.

Fourth, the mechanism by which exchange rates were adjusted also seems to have been a factor in the extent of depreciation. Countries which have used multiple rates—and these were mainly developing countries—have devalued much more in relation to their general domestic prices than have countries with unitary exchange rates. As countries have eliminated multiple rates, they have usually devalued down to the prevailing free market rate; the free market rate, at least at the time of devaluation, has usually been below that determined by general prices. Finally, it has been suggested in a Fund study that inflation itself, because of its price distorting effects, may induce a degree of

exchange depreciation in excess of the rise in domestic prices.³

Not Equilibrium Rates

These comparisons between actual and notional exchange rates based on internal prices cannot, of course, be taken as suggesting equilibrium rates. For one thing, the base period used here, 1948, is widely known to be anything but an equilibrium year to be used as a starting point. And the 1967 pattern is undoubtedly a more realistic structure. More importantly, there has been increasing recognition in the last 20 years that equilibrium exchange rates are a function not only of relative prices but also of changes in productivity, capital flows, and levels of tariffs and trade barriers considered appropriate, as well as the domestic monetary, fiscal, and employment policies a country wishes to pursue.

However, it is evident that over the long haul, from 1948 to the end of 1967, important alterations had occurred in the structure of international exchange rates. Many countries—industrial and developing alike—have devalued their exchange rates extensively since the postwar international monetary system commenced in 1946. Furthermore, compared with that starting point, the relative realignment of rates between countries that has occurred has been striking. Countries with chronic inflation have engaged in severe and frequent devaluation which has more than offset their subsequent aggregate domestic price rises. Countries with lesser amounts of inflation have also offset considerable amounts of their domestic price increases via adjustments in their exchange rates. And a substantial realignment of the exchange rates of the developing countries vis-à-vis the major industrial countries has occurred, even allowing for the price advances of the developing countries. Where their prices have risen, they have usually devalued a good deal more than the price rise. Where they have not devalued—or devalued very little—generally their price rise has been very small.

³ Graeme S. Dorrance, "The Effect of Inflation on Economic Development," *Staff Papers*, International Monetary Fund (Washington, D.C.), Vol. X (March 1963), pp. 1-47.



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The World Bank's Proposals for Supplementary Finance Measures

The Economic Adviser to the President of the World Bank describes the scheme proposed by the staff of the Bank to assist countries whose economic development may be impeded by unexpected shortfalls in their export earnings.

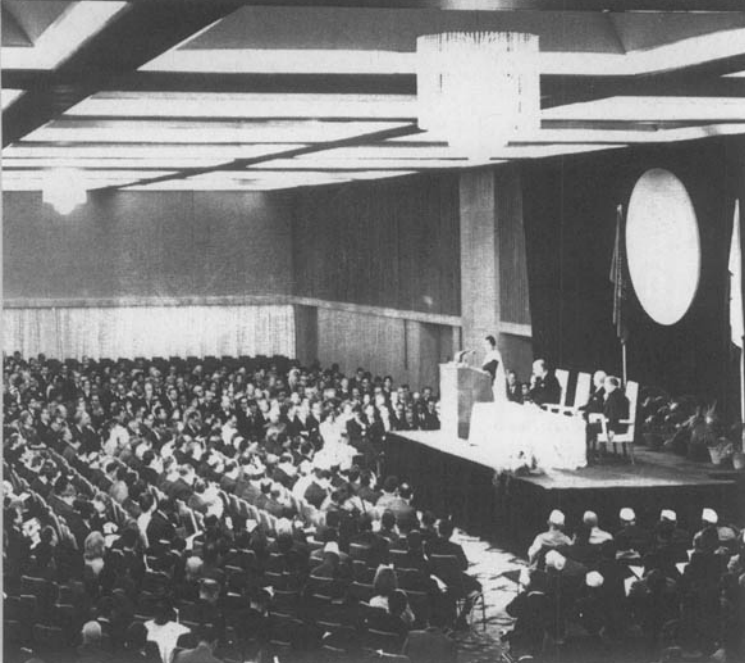
Irving S. Friedman

MANY of the balance of payments problems facing the developing countries are already familiar to *Finance and Development* readers.¹ On the payments side, these countries are faced with large and increasing needs for foreign exchange to pay for normal imports, the more specialized imports increasingly needed for development, and a growing burden of debt service. On the receipts side, their foreign exchange earnings, which are much larger than capital inflow, expand slowly and fluctuate widely. This is, to a large extent, the result of

concentration of their exports in a few primary commodities for which world demand has been growing very slowly, at a much lower rate than the demand for manufactures. At the same time, owing to the low elasticities of demand and supply with regard to price, the primary commodity trade has been subject to violent fluctuations in prices and, as a result, earnings. Finally, the less developed countries have generally such a poor foreign reserve position that they have had serious difficulties in coping with these problems on their own.

Various international efforts have been made to assist the less developed countries in dealing with these problems. The need to overcome the difficulty created

¹ See, for example, Poul Høst-Madsen, "Balance of Payments Problems of Developing Countries," Part I and II, *Finance and Development*, June and December 1967.



The second United Nations Conference on Trade and Development (UNCTAD II) was held in New Delhi in February and March.

by slow growth of exports is a major consideration in the efforts to provide assistance needed to accelerate the process of development and diversification, and also underlies the pressure to secure better access to markets for less developed countries. The operations of the International Monetary Fund are addressed to assisting countries to deal with relatively short-term disequilibria in their balance of payments; in particular, the compensatory financing facility established in 1963 has been concerned with the problem of fluctuations in export receipts by providing funds to compensate for temporary declines in export receipts from a medium-term trend.

National Planning and Export Shortfalls

However, two aspects of the development efforts of the less developed countries give rise to a special kind of balance of payments problem for the solution of which there is no international machinery available at present. One aspect is the increasing use of the planning or programing technique in organizing their development efforts. This involves fairly firm commitments to development activities extending some way into the future on the basis of certain expectations about available resources, especially foreign exchange receipts, over this period. To the extent that export earnings fall short of such expectations, the development program is put in jeopardy. Second, one of the most usual and important aims of planned development is to bring about, by deliberate policy measures, a change in past trends in export performance. An unanticipated disturbance in the export market resulting in a shortfall in export earnings from expectations may have grave consequences for the balance of payments of the developing countries. Because the aim has been to change the trend, this kind of uncertainty cannot be measured by

extrapolations of past trends, but rather from estimates of future expectations, which take account of the effects of the country's own policies.

Projections of export earnings are built into development programs in two ways: the development program contains commitments to certain policies affecting exports, which enter into the projections; the development program in turn is based on the export projection and is tested for financial feasibility on the basis of anticipated export earnings and other sources of development finance. If exports fail to materialize according to expectations, then at least the time schedule of planned expenditures is put in jeopardy unless the country enjoys an unusually high level of reserves or can rely on other sources of external capital on suitable terms.

Few developing countries, however, have sufficient reserves or adequate access to appropriate foreign funds to meet this kind of problem. As a result, an unexpected export shortfall usually leads to slowing down—and even halting—planned investment, and to hastily improvised programs of import restriction which impede efficiency, particularly in the productive sectors. Investments already made may be wasted; investments that have been started may have to be discontinued; completed plants may be only partially utilized. Contraction as well as the reshaping of domestic expenditures is usually necessary, and sometimes even desirable, when unexpected declines in export earnings occur, but too often the ax falls on long-term—but basic—investments, resulting in a loss of momentum in the development effort. The hastily improvised reduction in development expenditures becomes the counterpart to the unexpected reduction in external funds available for development.

A Case in Point

In a number of countries a disruption of development has precisely been the result of an unexpected export shortfall. What is more, in a number of these cases, the export shortfall has been due largely to unexpected movement in supply and demand conditions abroad, over which the affected country had no control. Colombia in the early 1960's is an outstanding example. In Colombia there was a significant shortfall in exports below the plan target made in 1961, largely because of the fall in coffee exports. Though some decline in coffee prices had been expected, the extent of the decline was far beyond anything that could have been reasonably anticipated. The most immediate effect of the resulting shortfall in export earnings was the slowing down of the rate of growth of industrial output. The rate of capital formation in Colombia is heavily dependent on the flow of imported machinery and equipment which increased by some 20 per cent in 1960 and 7 per cent in 1961, but declined by 13 per cent in 1962 and 19

per cent in 1963. Actual investment expenditures of the national government in 1963 were less than two thirds of the target established under the plan which had been reviewed by the World Bank staff.

The Bank Staff Proposals

In November 1965, the World Bank staff proposed a scheme, generally known as the Scheme for Supplementary Finance, to meet the problem of unexpected shortfalls which are potentially disruptive to the development efforts of the developing countries. The study incorporating the Bank staff proposals was made in response to a resolution adopted by the first United Nations Conference on Trade and Development (UNCTAD) in 1964. This requested the Bank to study the feasibility of a new scheme which "should aim to deal with problems arising from adverse movements in export proceeds which prove to be of a nature or duration which cannot adequately be dealt with by short-term balance of payments support." An adverse movement was defined as a "shortfall from reasonable expectations" and the object of the scheme was "to provide longer-term assistance to developing countries which would help them to avoid disruption of their development programs." The resolution, originally sponsored by the United Kingdom and Sweden, and adopted by a vote of 107 to 0 with 10 abstentions from East European countries, also requested the World Bank to work out such a scheme, if appropriate.

During the course of 1966/67, the Bank staff study on Supplementary Financial Measures was further examined by an expert group of governmental representatives of 14 developed and developing countries set up by the Trade and Development Board of the United Nations. All developing countries in the inter-governmental group, and some developed countries, expressed the view that the important objective to which the UNCTAD resolution was addressed could be met by a scheme with the essential characteristics of the Bank staff scheme. The view was also expressed that as a result of the deliberations of this Group, a number of points with regard to the operation of the scheme had become clearer; there were also a number of points which were left open for further consideration. The report of this Group was sent to the Second United Nations Conference on Trade and Development, which concluded its deliberation in March in New Delhi. In order to resolve the issues requiring further consideration, the Conference has recommended the continuation of the intergovernmental Group. The Group is expected to begin its further work soon and report to the Trade and Development Board as early as possible.

The Scheme Outlined

The scheme would be administered by an international agency, which might be one already existing or a new one established for the purpose. A member country wishing to benefit from the scheme would enter into an understanding with this agency about the main elements in its development program, the related policies, and its export projection. As long as the agency was satisfied that the member country was implementing these agreed policies and programs, it would be presumed that any shortfall from the agreed export projection was outside the country's control and likely to disrupt its development program. The scheme would then provide speedy relief.

Within the over-all limitation of funds available to the agency, the amount of assistance would depend on the shortfall of actual exports from the internationally agreed projections, the amount of previously accumulated earnings above expectations (so-called over-ages), the amount of financing available from other sources, and, finally, the adjustments that the country itself could undertake to absorb part of the effects of an export shortfall without disrupting its development program. The extent to which the country would be called upon to use other sources of finance, as well as the nature of the feasible domestic adjustment, would be discussed in advance with the agency.

Member governments of the agency would provide resources permitting operations during an initial five-year period; the Bank staff study estimated that \$300 million to \$400 million per year would probably be needed for the first five years. The benefits of the scheme would be available to all developing countries prepared to met the agency's requirements, and terms of assistance for each country would be essentially the same as for basic external development finance. For many countries the terms would have to be quite concessional.

Adoption of the scheme would provide developing countries with the assurance that, if policies with which the administering agency agreed were conscientiously carried out, development aims would not have to be scaled down because of a shortfall of export receipts from reasonable expectations. The agency would act quickly to fill the need for supplementary resources if a shortfall occurred which threatened disruption and could not otherwise be overcome or offset. On the other hand, if failure to pursue agreed policies were to jeopardize the country's eligibility for assistance, the government would be informed of this without delay. The scheme thus aims to provide an incentive to countries to adhere to high standards of performance in the pursuit of economic development objectives.

Building on Existing Foundations

The policy understanding between the country and the agency stipulated in the scheme builds on existing practices in the field of international development finance. Already, for example, understandings emerge in the course of day-to-day relationships between the World Bank and member countries; understandings on stabilization programs with the International Monetary Fund are a well-established practice. For successful operation, the scheme envisages close collaboration between the agency and the World Bank and the Fund and other international agencies. As a result, the understanding would reflect a realistic evaluation of the members' needs and possibilities reached after full consultation rather than imposed on the country by the agency. The ingredients of the understanding would vary from country to country. Standardized criteria would be avoided; and much reliance would be placed on the objectivity of the international agency and its competence to agree with the country concerned on policy measures adapted to the conditions of the country, yet designed to achieve the objectives of economic development.

Another basic principle is that the export projection from which shortfalls are to be calculated would not only be as objective and scientific as statistical techniques and available data permitted but also that it be agreed to between the agency and the country. This projection, usually extending over the entire period of the development program, would be arrived at in the context of an understanding on the program as a whole. Revisions in export projections would be made when conditions, other than the export shortfall, necessitated the reformulation of the development program itself.

Many developing countries are already used to making export projections, which are an integral part of the planning process, serve as the basis for assessing the feasibility of investment programs which constitute the core of countries' planned development efforts. The World Bank is similarly accustomed to making and judging the reasonableness of projections in the course of its regular country work. The quality of projections can, of course, be improved by sharpening analytical tools and strengthening the basis for technical judgments, but the improvement in projection techniques by itself will certainly not eliminate the problem of shortfalls since unexpected changes in the world economy will continue to take place.

Close cooperation between the member country and the international agency (or agencies) is really the key to the scheme. The performance criteria and export projections are to be worked out in such a way that the country concerned and the international agency can

agree on what is feasible and desirable, thus worthy of support by the international community. As a consequence, both donors and recipients would have a stake in the success of the agreed development programs.

Prices of Primary Commodities

An interesting relationship exists between the scheme for supplementary financial measures and international efforts to stabilize prices of primary commodities. Progress in negotiating international agreements on particular commodities will reduce the cost of supplementary financial measures to the extent that such agreements make certain parts of a country's earnings more predictable and thus reduce the size of export shortfalls. There will, however, still be a need for supplementary financial measures in respect of that part of export earnings not covered by agreements, and this is likely to be substantial, at least for the foreseeable future.

Because the two approaches deal with related problems, it has sometimes been suggested that the adoption of supplementary financial measures might reduce the efforts to achieve commodity agreements. This is unlikely to happen. One reason is that countries derive important advantages from earning foreign exchange by means of their own exports, subject to commodity agreements, as against obtaining foreign exchange as loans from supplementary finance, even if the loans are provided on concessional terms. Secondly, supplementary financial measures are concerned only with the extent to which actual export earnings are close to their expected values, and not with the price behavior of particular commodities.



Irving S. Friedman became The Economic Adviser to the President of the World Bank in October 1964, having previously been Director of the Exchange Restrictions Department of the International Monetary Fund since 1950. He joined the Fund staff in 1946, serving first as Chief of the United States-Canada Division and then from 1948 to 1950 as assistant for policy matters to the Deputy Managing Director. He received his Ph.D. at Columbia University. He was active in international discussions leading to the formation of the Fund and the Bank, the European Payments Union, the re-establishment of convertibility of European currencies and the review of the international monetary system and international liquidity. In the World Bank he is in charge of economic activities, policies, and mechanisms relating to development finance and is chairman of the Economic Committee.

The Central Bank in the Policy Making Process

The Deputy Managing Director of the Fund discusses the contribution that a central bank may make to a country's economic well-being and advancement, and offers some of his own views.

Frank A. Southard, Jr.

THE DEVELOPMENT of central banking in the twentieth century has been one of the most important elements in the evolution of modern monetary systems—possibly the most important. From among a number of reasons three in particular are worth distinguishing.

The whole concept of modern monetary management has come to depend upon the existence of an institution at the apex of the banking system; in most countries this institution is a central bank.

It is central bankers who have been largely responsible for developing the techniques of monetary management. Among these techniques are the setting of obligatory reserve requirements, alterations in rediscount rates and in the volume of rediscounts, various kinds of open market operations, certain more direct controls of bank credit activities, and in some countries pooling of international reserves.¹

In the development of money markets, which has become an essential element in the strengthening of modern economies, the central bank plays a salient role.

The Fund's Interest in Central Banks

The Fund's interest in the development of strong and vigorous central banks is far from being academic; where they exist in its member countries the Fund finds the whole process of collaboration with these members simplified and more effective. This is natural, for the Fund itself is a product of the same stream of monetary evolution which has given rise to the emergence of modern central banking.

It is therefore not surprising that the Fund has very close relations with central bankers. The Fund is concerned with monetary policy and its administration, with the analysis of the flow of savings and credit, and with trends in the balance of payments; all of these are, of course, the day-to-day concerns of any central bank.

There is thus a kind of natural alliance between the Fund and the central banks of its member countries. But, at the same time, neither the Fund nor the central banker can afford to take a purely monetary view of the functioning of a modern economy and of the mix of policies which is essential. It is evident today that the proper set of goals is the maintenance of a sound currency and a vigorous money market alongside a strong fiscal system and an effective incomes policy, as bases of vigorous and sustained economic development.

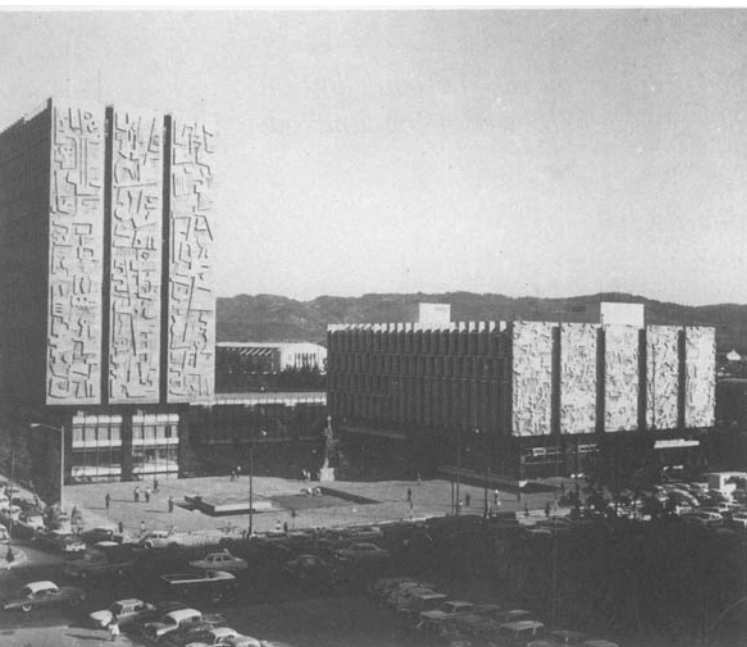
The importance of an appropriate balance in policy cannot be overestimated. We will look in vain for a country which is accomplishing its aims in the field of economic and social development and, at the same time, is continuously running a heavy fiscal deficit which the central bank is financing; which is moving from one massive wage increase to another, and throwing onto the central bank most of the burden of trying to stem the tide of inflation. The consequences of this state of affairs have become painfully evident: a destruction of the flow of savings, a frustration of monetary policy, balance of payments difficulties, low foreign exchange reserves, and an unsatisfactory rate of economic growth. Under these adverse conditions, no central bank can play an effective role.

It is not only the central banks in less developed countries that are confronted by these difficulties. The Fund has had occasion in its *Annual Report* for 1967 to urge on all countries—including many of the industrial countries, such as the United States—the impor-

¹ For an account of open market operations, see "Central Bank Open Market Operations," by David Sheppard, *Finance and Development*, Vol. V, No. 1, March 1968.

tance of more vigorous fiscal policy alongside effective monetary policy. This serves to emphasize the role which the central bank must be allowed to play as a full partner in the formulation of the over-all economic and financial policies of any country.

One development in particular during the last few years illustrates the importance which the Fund attaches to vigorous central banking. A Central Banking Service has been established which aims at helping Fund mem-



The new Bank of Guatemala building in the city of Guatemala: the murals were executed by local artists. The building is 15 stories high and contains 32,217 square meters of office space.

ber countries—especially the newly independent members—in two ways. First, Fund staff members, both economists and lawyers, assist member countries in reviewing their central banking and other banking legislation, organization, and techniques. Since the establishment of this department, 23 countries have turned to the Fund for such advice. Second, the Fund provides experienced central bankers to go to other countries to serve as officials in their central banks. These include governors and general managers, directors of research, advisors, supervisors of operations, inspectors of banks, and accountants. At the end of this fiscal year the Fund will be supporting some 50 experts in such varied assignments.

Central banks have some responsibilities which are purely operational in character and need little attention from the Fund—for example, the issuing of currency, and services as fiscal agent for the government. Central banks also collect and publish information; in a great many countries the periodic bulletins of central banks are the most valuable sources of reliable and expertly designed statistical series and general economic and financial data.

Major Responsibilities

In considering the problems faced by central bankers, we can distinguish four major areas of central bank responsibility over economic and financial policy making.

1. One overriding responsibility is participation in balance of payments management. This includes a central bank's influence over the setting of exchange rates and upon capital movements; and policies related to restrictions on international payments and trade wherever such restrictions exist.

2. Another fundamental responsibility of the central bank, closely connected with balance of payments considerations, is the determination of the total volume of the domestic bank credit. In regulating the volume of credit, central banks have to take into account the monetary impact of treasury policies and of the actions of nonbanking credit institutions.

3. A central bank, besides being concerned with the total volume of credit, is also responsible for policies and rules which tend to determine the distribution of bank credit among different economic activities, the most important of these being distribution between the public and private sectors. In some countries, central banks are more directly involved in the allocation of resources through the rationing of credits, while in other countries the structure of the banking system and the money market is such that a central bank finds little opportunity for effective intervention in directing credit toward particular economic sectors. Nevertheless, there can be no doubt that at some point in the emergence of a strong central bank and in the evolution of the banking system of a country, this third responsibility assumes salient importance.

4. The fourth major responsibility of a central bank is the formulation of policies dealing with the level and structure of interest rates and their effects on the forms and volume of saving.

A central banker needs to relate all of the policies which he must formulate and the decisions which he must make within the policy mixes agreed with the government to two overriding issues of policy: the desired level of external reserves and the desired volume of bank credit. Depending on the economic situation, the first or the second policy consideration takes precedence. The idea of stimulating economic growth by credit expansion is attractive particularly in developing countries. Credit expansion, however, when it is allowed to result in losses of external reserves can be adopted as a line of policy only in countries where such reserves are relatively ample. Unfortunately, comfortable reserves are generally the exception rather than the rule in developing countries. Experienced central bankers know

that in actual practice it is exceedingly difficult to relate accurately changes in credit and in external reserves. To begin with there is a problem of quantifying at every step the effects of the policy tools which are at the central banker's disposal. An experienced central banker knows that it is difficult to establish in quantitative terms the exact interdependence between changes in the volume of credit and changes in the volume of external reserves. He also knows that the same volume of credit (or the same rate of its growth) will influence the external reserves in different ways depending on its distribution. Because of the difficulty of attaining accurate results in calculation of the effects, the central banker prefers a margin of safety in his decision making. Finally, even where the balance of payments and credit policies have been translated into specific aims, these aims are not, as a rule, fully attainable in the face of keen competition for scarce resources. These pressures tend to be so overwhelming that the risks are high that improvisation on the part of policymakers, including central bankers, will often lead to conflicting measures adopted in relatively quick succession, and to vain attempts to increase the distributive shares of all sectors at once.

When these pressures are met in any such improvising way, the central banker abdicates his real responsibility. By allowing excessive credit demands to become effective, he passes to the market place the task of reconciling competing calls on real resources. Price increases which could have been avoided may well occur; apart from their internal effects, they may require the abandonment of exchange rate stability—with all the difficulties entailed—if the international reserve target is to be achieved. Even if excessive credit expansion does not unleash price increases, it will cause the balance of payments to suffer, in which case the international reserve target will, in all likelihood, not be attained.

Fiscal Difficulties

The greatest threat to the effectiveness of any central banker comes from a government in fiscal difficulties. Moreover, since in many less developed countries money markets are relatively weak, and the ability of the government to cover its fiscal deficit by genuine and noninflationary borrowing from the banking system and the money market in general is limited, the central banker all too frequently finds himself under extreme pressure to finance the deficit. If, in the end, he has to yield to this pressure, he gravely damages his capacity to play an effective role in the sound economic and financial development of the country. A rational distribution of bank credit is rarely possible when the government pre-empts the loanable funds. Moreover, at times the government's utilization of bank credit is

carried to the point where the international reserve policy is compromised, notwithstanding the utmost restraint in bank lending to all private activities. It follows from this that the central banker must, as far as possible, resist inroads by the government, in order to defend his most essential responsibilities.

Central Bank Independence

This brings me to the edge of an often debated aspect of central banking. Put briefly, it is the issue of central bank independence—that is, independence from the government. Without choosing my words, I must say bluntly that I am in favor of a high degree of central bank independence. This does not mean that I suppose that the central bank can live outside of the institutional framework of government (in the broader sense), is divorced from sharing the role of over-all policy making, and can go its blind way ignoring the needs of the country and the broad objectives of government. Not at all; I have already argued for full participation by the central bank in the determination of the proper mix of policies in the financial and economic fields. What is meant by independence is that the central bank must be allowed to be a full-fledged partner at the stage when major economic policy decisions are made affecting the price level, the balance of payments, and monetary and credit conditions; and must be enabled to help to carry out such policies with vigor and courage. This means, for example, that the government should avoid creating situations of *fait accompli*, where its commitments can be honored only through endorsements of public deficits by the central bank. It also means that the central banker must, with equal resolution, withstand the demands from the private sector for too easy credit. It is encouraging that in many countries strong and properly independent central banks have emerged. It is also illuminating that these tend to be economically successful countries.

This article is based on a talk given at a meeting sponsored by the Central Bank of Costa Rica, in San José, on September 8, 1967.



Frank A. Southard, Jr. received his Ph.D. from the University of California, and was a member of the faculties of that university and Cornell University. He has served in various positions in the U.S. Government, principally in the Treasury Department and the Federal Reserve Board, and was for some years Executive Director for the United States in the International Monetary Fund before becoming Deputy Managing Director in 1962.

Consultants for Agricultural Development

Agriculture is receiving increasing attention in economic development, and consulting services play an increasingly important part in its progress.

M.M.M. van Gent

IN THE BROAD FIELD covered by consultants, agricultural consulting has its own place. But because there is no common understanding between countries of basic terminology it is difficult to locate this place. "Agricultural engineering" means different things in different countries, and it is often not clearly distinguished, for example, from civil engineering. In most of continental Europe and in Latin America, all graduates in any one of the agricultural sciences are called

agricultural engineers, whereas in the United Kingdom and the United States this term is much more restricted and has become connected with agricultural machinery. Another important difference is that in several of the European countries an intermediate sector between agriculture and civil engineering has developed, which has no direct counterpart in the United Kingdom and the United States. This sector can best be described as rural engineering and it is a separate field of study



as well as a separate service, dealing with reclamation, drainage, irrigation, land reform, and settlement problems.

For the purpose of this article "agriculture" is considered as covering a broad field from rural engineering, including irrigation and drainage, through crop growing and livestock industry to agricultural economics. Therefore, although a large part of consulting in agriculture may be classified as engineering consulting, instead of using the term "consulting engineer" I propose to use for agriculture the more general term "agricultural consultant," a term which, incidentally, can represent an individual or a firm.

The use of the term "agricultural consultant" has one particular advantage in identifying the kind of responsibility carried: agriculture incorporates both physical and biological sciences; also the human element is much more involved in agriculture than it is in pure engineering which concentrates on the material. This makes the task of agricultural consultants more complex and less concrete.

Due to this close relation of agriculture with people, agricultural development includes an important social element and has therefore in the past largely been a government occupation. In most countries only specific technical problems, like the design of irrigation structures or storage facilities, have been entrusted to consultants, who often had little knowledge of agriculture itself. The result of the extensive government role is that there are only a few agricultural consulting firms: fewer than a dozen firms have more than 30 professionals and more than 10 years of international experience in agricultural consulting, compared with more than a hundred similar firms in the civil engineering field.

Since 1950, however, the role of agricultural consultants has broadened with the increasing demand for agricultural development, often complex and requiring cooperation of different disciplines. The evolution of financing by industrialized countries and international organizations has also required a steady supply of well-prepared agricultural projects and hence—once again—the services of consultants. Consulting firms have, therefore, adapted themselves to the new requirements by broadening their field of activity, and several new firms, covering the whole or part of the agricultural field, have been created; many individual agricultural consultants have also established themselves during the last 15 years.

Fields Covered by Agricultural Consultants

Agricultural consultants play many roles; their work can, however, be grouped under the general headings of projects, fields of expertise, and managerial services.

Projects cover a very wide range. The most comprehensive are those for regional development. In these, agriculture is only one among many elements, although it is in many developing countries the most important, as it provides the basis for development. There is a welcome tendency to tackle problems more and more through this regional approach. The preparation of such projects requires the close collaboration of experts in all sectors of the economy. For agriculture alone studies are needed on the natural environment (soils, climate) and the measures to make the land productive (reclamation, irrigation); on problems of land tenure, settlement and adaptability of farmers; on handling, storage and processing facilities; and on marketing and organizational matters.

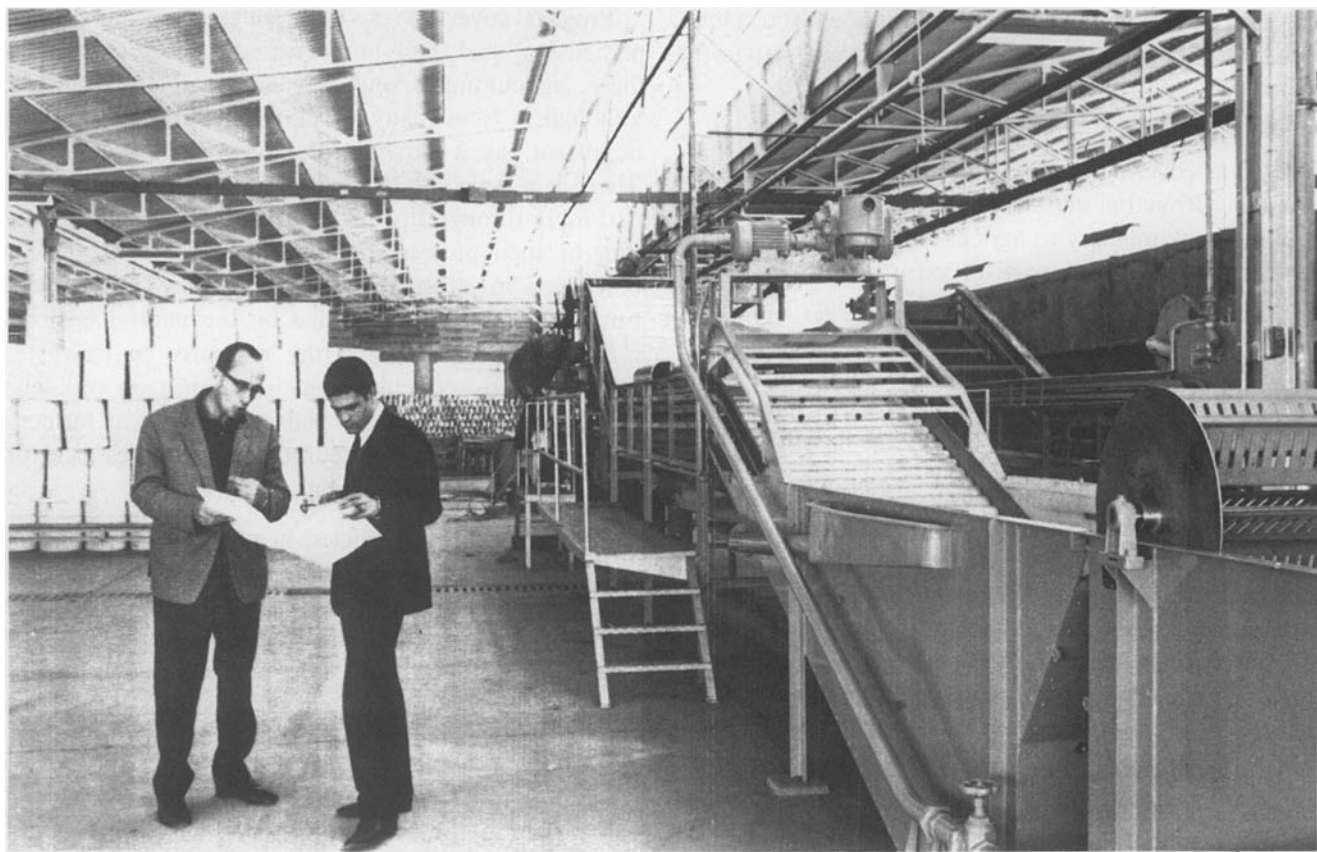
Somewhat more restricted in objectives and in area are a multitude of irrigation, drainage, reclamation, colonization, and plantation projects, while projects for storage, mechanization, fertilizer application, and plant protection need not be tied to a particular area. Finally, all programs for development of livestock, fishery, and forestry production fall under the heading of projects.



A soil technician in Lesotho: "Consulting firms may supervise the execution of projects."

A "standard" project includes the following phases: reconnaissance, feasibility study, final design, and execution. The phases can be considered to be divided by stages in terms of decisions whether to proceed or not with a following phase. Consultants, mainly firms, are involved in all the phases of a project; they may do the preliminary studies, including field work and research; prepare the general layout of the project and its justification; then make the final design and eventually draw up the contract documents. Finally they may supervise the execution of the works.

The value of this new breed of agricultural consultants is illustrated in one problem that appears especially in irrigation projects round the world. These projects have an engineering element (dam, inlet works, pumping stations) and an agricultural element (field leveling, water consumption, cropping pattern, farm



Looking over the plans in the new wing at the *Compania Industrial Del Lukus S.A.* factory in Larache, Morocco: this food processing and canning factory was expanded and modified with financing from the International Finance Corporation and the World Bank.

type, organization of water distribution). Very often the irrigation projects are prepared by engineers from public works departments or civil engineering consulting firms, who have only a slight knowledge of agriculture and the related human element. The result of this one-sided project preparation is that only the engineering aspect is adequately covered, while the agricultural aspect is either not studied at all or else studied far too late. So there are to be found in many countries completed projects with technically well designed irrigation facilities, which in practice are of much less use to the farmers than they might have been. The need for improved coordination of different specialized fields of work in project preparation cannot better be demonstrated than by visiting a frustrated irrigation project of this kind.

Fields of expertise cover an even wider range than projects; they are usually addressed to specific items or disciplines and result in the production of specialized information or recommendations, rather than in projects ready for execution. Expertise is in particular demand in all the individual fields needed for the study of a project; on all problems which are subject to agricultural research, in particular on the practical application of research results; and in fields complementary to agriculture, such as marketing, processing, credit, and

mechanics. Sometimes also the opinion of an expert is requested on a study or project report prepared by a third party. The nature of fields of expertise makes them more suitable for individual consultants than for firms, although sometimes firms provide individual experts.

Managerial services provided by agricultural consultants have tended to become more important in the last few years. They are often temporary and self-liquidating, being needed only while local successors are being trained, such training being itself an important part of the consultant's job. Examples in this field of activity are the organization and provision of extension services to rural populations, the management of co-operatives, supply and service organizations, research institutes or plantations. Under the same heading come investigations of the efficiency of such services and organizations already in existence.

Role of Consulting Firms in Managing Agricultural Projects

The number of agricultural projects in developing countries has risen steadily over the last 15 years and it may be expected that it will still rise more in the future. It is increasingly difficult to find qualified persons or teams for the management of these projects. Although many organizations are providing educational

and training programs for persons from developing countries, many of the projects will still have to be managed, directly or through advisers, by foreign experts. One reason why individual foreigners are not available in sufficient numbers is that many of the eligible persons have permanent jobs, with security and career possibilities which they do not want to lose by accepting temporary assignments abroad. Various proposals have been made and experiments carried out to improve the supply of expatriates by giving them more security for re-entry in their jobs and seniority rights and advancement opportunities after return. No doubt some of these proposals and experiments will be successful.

Another promising approach may be that of retaining a consulting firm for the management job. There are some advantages to this approach over the selection of individuals and the composition of a team by the client himself.

1. A firm can give more continuity to the mission, not only by providing the managers for a longer period, but also by continuous supervision from its headquarters and replacement of employees at the end of a tour of duty by persons with the same background.

2. A firm is responsible for all replacement of personnel, not only for normal relief, but also in emergencies or in case of unsatisfactory performance. Once a firm is chosen the client has no more trouble with these replacements, while it is usually easier to call for replacement of the firm's personnel than to dismiss individuals and find replacements.

3. A firm can often provide a more seasoned team in which the capacities of the members are better co-ordinated than in a team composed of persons who have never worked together.

4. The problem of job security and advancement is automatically solved within the firm where the managers remain normal employees. For this reason and because of the firm's supervision and the easier replacement possibilities, personal rivalries and incompatibilities between the managers and local counterparts are less likely to grow into major difficulties.

In some developed countries the practice exists of entrusting the day-to-day management of agricultural projects to consulting firms subject to regular consultation with, and inspection by, the client. This system has worked well over a long period of time and merits extension to international development projects. In some developing countries, during the last few years, the management of plantation projects (e.g., tea, sugar cane, and fibers) has been successfully entrusted to consulting firms or to commercial plantation firms.

Sources of Agricultural Consultants

It can be seen that the distinction between individual consultants and consulting firms is important, but even within these two groups further distinctions may be made.

In the group of individual consultants there are private consultants who operate on their own account full time, and temporary consultants who normally have another job and whose firm or organization makes them available for certain jobs. Private consultants in agriculture, of whom there are relatively few compared with civil engineers and architects, have now established themselves, in general after having gathered experience and knowledge of some specific field in another job. Some of them have retired from their regular employment.

There are many organizations and agencies which have temporary consultants at their disposal; some make them available only for special occasions, while for others it is a normal practice. In agriculture it is mainly government agencies and institutes that have temporary consultants available for work in developing countries, but there is an increasing number of private (often commercial) organizations which have experts

An irrigation ditch in Thailand: the management of plantation projects has been successfully entrusted to consultants in some countries.





A technician works in the laboratory of the Villavicencio Works of the ALMAVIVA Grain Company near Bogotá, Colombia.

available for certain fields, e.g., a commodity or fishery. Recently, several countries providing technical assistance have begun to employ in their agricultural and educational services a few persons as additional experts of the kind that are more than normally in demand, in order to have a small reserve pool out of which personnel can be sent to developing countries.

One international organization is outstanding in providing individual agricultural consultants: the Food and Agricultural Organization (FAO), which from its own staff, or by means of contracting, regularly provides experts to governments or other organizations; operating on a more restricted scale are the World Bank which, through its Agricultural Development Services (ADS), operating in East Africa, enters into contracts with agricultural experts whereby they are put at the disposal of governments, in principle for managerial services and in practice also for project preparation work; and the Operational, Administrative and Executive Personnel (OPEX) program of the United Nations, which transfers senior administrators to the service of developing countries.

The consulting firms can be classified according to their fields of activity, and also according to their form of organization. We can distinguish between independent, private firms, firms which have connections with contractors or manufacturers, and firms which are dependent in some way or another upon governments.

Very few of the independent, private firms have their origin in agriculture; most of them added agriculture to their interests only after 1950. In Europe, the end of the colonial period, since it terminated employment in

the colonies of many kinds of experts and at the same time increased demand for development, led to the creation of several new consulting firms in the agricultural field. The creation of the European Common Market, with its Development Fund, was another factor. These new firms can be found in all three organizational forms mentioned above.

The independent private consulting firms, and also many individual consultants, have their own national and international organizations which maintain an ethical code in the profession; through self-policing responsibilities, which must be implemented by each member, the profession guarantees its trustworthiness and observance of ethical practices. In general, and for international development work in particular, the independent firms, of which an unbiased judgment may be expected, can be retained, if technically qualified for the task, with complete confidence. In dealing with the other two categories, namely, firms with connections with contractors or manufacturers and government-controlled firms, safeguards against possible improper commercial or political practices may have to be established before contracts are signed.

Consulting firms may not be equipped to handle the broad field of disciplines, including those in connection with agriculture, which has to be covered. Most firms accordingly have arrangements with other firms or research institutes to provide the type of expert that they do not have themselves. In this way the consulting firms can maintain their advantage of sending out teams of experts who usually at least know each other and have already gained experience in collaboration during previous missions. For very large projects, such as those for regional development, often a "principal" consultant—preferably an agricultural consulting firm if the development will be basically agricultural—is retained. This principal arranges for the services of other consultants with different specialties and assures coordination among all of them.

The larger agricultural consulting firms are active throughout the world, although each firm in practice tends to concentrate on specific areas, of which it has experience or to which its home country experience applies—and also for language reasons. The establishment of branch offices in developing countries has been very helpful.

Relations Between Clients and Consultants

In agriculture, as has been indicated, clients are usually governments and their agencies or international organizations. When a government is faced with large agricultural tasks, one of the questions which arises first is: who should perform this task, the government itself or a consultant? In many countries a general un-

derstanding about the division of tasks has established itself during the years, especially in engineering. Agricultural consulting, however, developed too late in most countries for a similar division of work to have been arrived at, and almost no rules exist; the relationship has still to develop.

Already, however, some principles are recognized. It is generally accepted to be the task of the government to define the policy for the agricultural sector, to formulate the broad lines of projects and programs, and to establish their priorities. Governments also usually provide for agricultural research, education (training), and extension services. Consultants can assist with all kinds of studies needed to prepare an agricultural policy and in particular in the detailed preparation and supervision of projects and programs. The division of tasks would thus be more or less according to a criterion of duration and degree of detail.

Extension Services

The provision of extension services to farmers, which is entrusted to consulting firms in some African countries, should preferably remain a government task. In special cases consultants could handle this work temporarily, but in principle the extension service is an example of a task too little defined, and extending over too long a period, and with too much agricultural policy involved, to be entrusted on a permanent basis to consultants. On the other hand, irrigation, reclamation, plantation, and other development projects are very suitable for consultants. Unfortunately many government officials spend too much of their time on the detailed preparation of such projects, leaving the formation of an agricultural policy to politicians.

There is generally a third party involved in the preparation of development projects financed by international agencies or foreign governments. This is the financing agency. Often it is the financing agency which provides technical assistance for the preparation of the project. There is a difference, however, between cases where the agency only advises the government on how to prepare the project and cases in which it prepares the project itself. The latter procedure, more frequently adopted in agriculture than in other fields, may raise difficulties later on if the project appears not to be sufficiently justified for financing by that agency or if questions arise about the data, quality, or recommendations of the project report. The mere use of the agencies' own personnel may have unintentionally raised false hopes about financing, and hampers free discussion of the merits of the project. Financing agencies should for these reasons avoid becoming too much involved in project preparation and should leave the preparation work proper to government or consultants.

Competition Between Firms

There has been up to now little agreement about the basis of selection of consultants. The most appropriate system, used by the World Bank and already well established in some countries at least, is that competition between firms should be on the basis of qualifications rather than of price. After a firm is chosen for its suitability for the mission, the contract price is negotiated; only if the firm is unreasonable in its demands is another firm contacted. The judgment on the suitability of the consultant is based on his experience in similar missions and his proposals for the specific mission, including an appreciation of the personnel to be assigned to the task. This system implies a situation of confidence between client and consultant.

Yet, although some guidelines to the employment of agricultural consultants have been laid down, they are rather tenuous and infrequent. Clients in the agricultural branch have not enough experience in the use of consultants and are not aware of the respective professional responsibilities. Even FAO introduced only recently the above-mentioned system of selection according to qualifications. A more judicious and skilled understanding of the character of the tasks that consultants are called upon to undertake is also required. International organizations which finance projects could help here by providing an example and by teaching governments as well as consultants. The World Bank, for example, which frequently employs, or requires its borrowers to employ, consultants for technical assistance and project preparation, now encourages employment of domestic firms in the developing countries—where such firms are found to be qualified—either alone or in combination with foreign firms.

Room for Improvement

Agricultural consulting is by now definitely recognized as an important factor for economic development. Yet there is still much room for improvement in developing ways of finding the right person or firm at the right time, in establishing standards for appreciation and comparison of qualifications, and in introducing a sound relationship between client and consultant.



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National Income Accounting in Developing Countries

Despite their limitations, the national income accounts constitute in both developing and developed countries what is probably the most effective tool available for the assessment of over-all economic performance and development.

Emanuel Levy

THE WORKING of even the least developed economy involves innumerable transactions between individuals, enterprises, and organizations, and most countries today compile and publish a varying range of primary statistics reflecting these transactions in individual branches and sectors of the economy. These statistics assist decisionmaking in the branches and sectors to which they relate. They do not, however, meet the needs of economic analysts and policymakers whose concern is to understand and influence the economic process *as a whole*. For this purpose, it is necessary to organize and consolidate the mass of primary statistics and information into a system designed to bring out the main national economic aggregates and interrelationships pertaining to income, product, and expenditure. This is what is achieved by the national income accounts.

Ideally, these accounts reflect within an integrated framework the structure, level, and trend of activity in all important branches and sectors of the economy. As

a result, and depending on the diversity of the economy and the availability of data, they frequently form an intricate and complex pattern. In brief, however, the focal point of the system can be taken to be the summary account depicting the total resources available to the economy and the major end-uses to which they are put. Resources, in this context, comprise the value of goods and services produced by the domestic economy (gross domestic product) *less* goods and services sold abroad (exports) *plus* goods and services acquired from abroad (imports). The major end-uses are private consumption, government consumption, and capital formation (investment).

Details of the composition of these major aggregates are provided in separate tables relating to individual branches and sectors. Additional tables summarize the receipts and expenditures of households, government, and the foreign trade sector, from which are derived estimates of national saving and foreign capital inflow. These latter estimates can also be combined in a further account showing the absolute and

relative contributions of national saving and foreign capital to the finance of domestic investment.

The Purpose of National Accounting

To fulfill their purpose, the national income accounts should provide three categories of information on the major aggregates:

- (a) the absolute size of the aggregates;
- (b) long-term trend;
- (c) short-term (annual) changes and fluctuations.

Accurate information on the absolute size of the aggregates is obviously necessary in assessing both the degree of development and the structural pattern of the economy. It is also a prerequisite for the determination and analysis of the interrelationships existing between the aggregates, such as capital formation and national saving, capital-output ratios, private consumption and disposable income, government consumption and the gross domestic product, etc. Many aspects of market analysis and research likewise depend on this type of information.

A reasonably reliable picture of the trend over, say, the past 10 or 15 years is essential in order to form an opinion as to how the economy is performing, in which direction and at what rate it is moving, and whether medium and long-term aims are being achieved. This information is also an indispensable basis for sound projections into the future. Without reliable estimates of aggregate and per capita rates of growth of product, consumption, capital formation, etc., in the past, it is impossible to estimate what is likely to happen in the future.

The question of long-term trend is also bound up with the development process per se. In all countries, economic growth is accompanied by or gives rise to structural changes and adjustments in the economy. But whereas in developed economies these changes and adjustments are largely incidental to the growth process

and are not likely to be pronounced except over a considerable period of time, in developing countries they are fundamental to the growth process itself. A developing economy is one in which not only the national product is increasing but one in which the industrial composition of the product and the economic structure itself are undergoing considerable change. Indeed, the rate at which these changes are occurring is often in itself a measure of the rate at which development is proceeding.

The basic structural change characteristic of a developing economy is usually a relative decline in agricultural net product, and a corresponding rise in manufacturing, construction, and services. But beneath the surface, other and more profound changes occur. With the introduction of new crops and production techniques in agriculture, the composition of agricultural net output and input may change considerably, together with the absolute and relative level of farm income. This may be still more true of manufacturing, where new industries are being established and domestic production progressively increased. At the same time, the process of development will generally be reflected in the emergence of a growing wage and salary earning class whose share in the national income may be expected to increase steadily. These and similar changes occurring over time need to be reflected adequately in any properly constructed set of national income accounts.

For purposes of guiding policy, the most important set of information is that on short-term fluctuations. Up-to-date knowledge of the rate of growth of aggregate product, and also of product in the major branches, is essential, for example, if the authorities are to decide on the type of fiscal or credit policy called for. The same applies to information on income and demand. In the more developed countries, this information is frequently provided not only annually but quarterly. In most developing countries, however, quarterly

information is ruled out by lack of data and resources, and the emphasis is necessarily on the measurement of the changes occurring from year to year.

It cannot be too strongly emphasized that the provision of accurate information on annual change generally makes by far the heaviest demands on the national accounts and on those engaged in their compilation. Given a minimum of basic data and a measure of resourcefulness and initiative, it is not unduly difficult to obtain a fair picture of the orders of magnitude of the main national aggregates in a particular year. Nor do the accounts have to be very sophisticated in order to provide a general picture of trend over the past 10 or 15 years. It is quite another thing, however, for those estimating the national income to be able to state with confidence whether the national product in a given year rose by 4, 6, or 8 per cent above the preceding year. Experience indicates that, even in countries with sophisticated techniques of national accounting, the possible margin of error in this type of estimation is very great. Ostensibly minor adjustments to the estimating coefficients or to the price indices employed, for example, may often result in the emergence of a significantly different rate of real growth. Irregular factors such as drought may also be operative, the effects of which need to be measured and taken into account in order to obtain a reliable picture of year-to-year change.

The Pitfalls

With the wealth of basic and current statistics at their disposal, a problem frequently confronting national income accountants in developed countries is, first, to select the most relevant and reliable of the many data series available. Moreover, since these economies are not generally subject to marked structural change and fluctuation over the short and medium run, much of the statistical information may, from the viewpoint of the over-all reliability of the accounts, be of marginal importance only. Paradoxically, therefore, it may be possible to construct tolerably accurate accounts, at least for a limited number of years, simply by extrapolating from bench-mark data on the basis of estimating coefficients and assumptions that change very little from year to year.

In developing countries, the problems and pitfalls of national accounting are magnified severalfold by the paucity of statistical information and the necessity to reflect in as much detail as possible the structural changes and adjustments indicative of the development process itself. Developing countries are by definition changing countries. To the extent that these changes are not reflected in the national accounts, the result is not only a loss of vital information but the emergence in many instances of a distorted picture of economic

performance. It is, therefore, precisely in developing countries that the employment of fixed estimating coefficients and assumptions, such as the percentage of value added in the various branches, is to be avoided except in marginal cases and for limited periods only. Developing countries cannot use the shortcuts that are open to highly developed countries, which may need them less. Use of the short cuts must mean in practice that estimators are begging the question they should be answering: to what extent are the assumed relationships actually undergoing modification as a result of the development process?

Among the factors contributing to the outdating of the standard economic coefficients and static relationships frequently employed for estimating are changes in technology and capital intensity, changes in production and input patterns, changes in the geographical distribution of population and capital formation, and so on. An important influence may also be exerted by changes in relative prices. Value added in a particular branch of manufacturing, for example, is determined by, among other things, the relative prices received and paid per unit of output and input. To the extent that these prices move differently, the percentage of value added in the branch is also affected. The same applies to relative changes in wage, interest, and profit rates, which affect the distribution of the national income. The importance of such price changes may be especially great in developing countries, where prices in general, and relative prices in particular, are frequently less stable than in developed countries.

Estimating Procedures

In most developing countries, the absence of information about expenditure on private consumption rules out the possibility of deriving an estimate of product from the expenditure side of the accounts. Estimators must, therefore, rely all the more heavily upon the net product estimate obtained as the sum total of value added in each economic branch, i.e., they must try to measure primarily what is produced rather than what is consumed. It may be worthwhile, therefore, to review briefly the procedures commonly employed for obtaining these estimates.

Except in a relatively small number of countries, the factor payments making up value added in each branch of the economy (i.e., compensation of employees, interest, rent, and net profit) are not generally estimated independently. Instead, value added is obtained, explicitly or implicitly, as a global figure calculated as a percentage of the estimated value of gross output in each branch. The principal exception is the government sector, where information on factor payments is generally available from the government accounts. The percentages used to derive value added are generally

updated at infrequent intervals only, and in not a few countries remain unchanged for a decade or more.

The drawbacks of the "fixed percentage" method are fairly obvious: for each subbranch the annual percentage change in value added is simply identical to that of gross output and is not obtained as a distinct calculation. The size and accuracy of the value-added estimates are likewise directly determined by that of gross output.

The method thus rules out in advance the possibility of detecting or reflecting changes in the aggregate size and relative factor composition of value added by branch, caused by technological and relative price changes, irregular short-term fluctuations, etc. Agriculture is particularly sensitive in this respect. With a given pattern of inputs, value added in agriculture will generally constitute a considerably higher proportion of the value of gross output in years of good harvest than in years of crop failure. In such circumstances, the use of fixed estimating coefficients may result in a seriously distorted picture of what is in fact happening. Moreover, given the relatively high weight of agricultural production in total net product in developing countries and the fact that agricultural output in these countries is particularly subject to the vagaries of nature, the effect on the aggregate picture of growth may be very considerable.

Few Systematic Annual Surveys

It is also unhappily true that the estimates of gross output which form the basis for calculating the size and change in value added in the various branches are themselves often seriously deficient. Although there may be an occasional agricultural census, few developing countries carry out systematic annual surveys of agricultural production, whether on the basis of sample crop cutting and area estimates or representative farm units. In some countries, the intercensus estimates are built up from partial data on marketing and a framework of assumptions about what the farmers themselves consume. In others, they are little more than guesses, informed or otherwise, based on presumed changes in crop areas and average yields. While these methods may perhaps provide rough estimates of the absolute level of production in particular years, the implicit picture of annual change can seldom be relied on.

Manufacturing is hardly in better shape than farming, although owing to the smaller weight of manufacturing in total net product, the effect on the over-all growth rate for the economy is less pronounced. With all too few exceptions, the annual estimates of gross output in manufacturing are obtained by extrapolating from bench-mark census or survey data relating to remote years, updated on the basis of current indices or other indicators of output in the branch. The census data

themselves are often deficient owing to incomplete coverage of the branch and/or because the information provided was itself incorrect. But here too, the most serious source of error undoubtedly lies in the current indicators employed. In a surprisingly large number of instances, the manufacturing indices employed for current extrapolation are compiled from returns sent in by a fixed sample of establishments selected in a comparatively remote base year. This means that the index reflects the growth of output only in those establishments which were already operating at that time. On the other hand, there is a lack of information on new establishments commencing production. It is quite possible, however, especially in developing countries, for output in a particular branch of manufacturing to increase considerably through the opening of new establishments even if output in older-established enterprises remains unchanged. Over a period of years, the cumulative downward bias resulting from this omission can be very considerable indeed. To this must be added the fact that the index frequently turns out to be based not on a genuine "sample" of enterprises but on those enterprises that chose to cooperate in the inquiry—mainly, in any country, the larger enterprises.

Crude Construction Estimates

In the absence of systematic information, the estimates of construction are in almost all developing countries extremely crude. Few countries maintain comprehensive and effective systems of building licensing which could provide reliable information on the level and trend of activity in the branch. At best, licensing is effective only in the larger towns and is restricted to the issue of building permits. Little if any follow-up is practiced, with the result that information on actual building starts and completions in a given period is generally unavailable. In order to arrive at an estimate of building construction for the country as a whole, estimators are thus reduced to reliance on a flimsy framework of assumptions about the geographical distribution of construction, the time-lag between the date of issue of permits and actual implementation, etc. The sole component for which direct information is available is generally public sector construction, which is derived from the government budgetary accounts. Here, too, the reliability of the estimate depends to a large extent on the system of government accounting employed and the possibility of adjusting from a cash payment to an implementation (accrual) basis. Yet the aggregate estimate of the value of building and construction thus derived not only serves as the basis for computing value added in the branch but constitutes a major component of the estimate of gross capital formation.

As a rule, the estimating procedures outlined for the three major branches of agriculture, manufacturing,

and construction may be taken as typical of the other branch and sector estimates making up the national income accounts. In most countries, indeed, the estimates for the trade and services branches are even cruder. Most frequently, they are obtained not through direct measurement at all but as a function of the level and movement of output in other branches, estimated in the manner already described.

Measuring Real Change

For the most part, the deficiencies outlined so far have been associated with the compilation of estimates at current prices. But these provide a measure of nominal change only. For many purposes, the most important information provided by the national income accounts is the picture of *real* change derived from estimates at constant prices. Where detailed commodity and sector indices of prices are available, it may be a matter of comparative indifference whether the estimates at constant prices underlying the picture of real trend are compiled directly from quantitative data on production and expenditure, or by deflation of estimates derived in the first place at current prices. However, where the requisite price indices are not available, as in most developing countries, it becomes especially important to compute the constant price series directly, as far as possible, from data on physical production or consumption. In practice, they are all too frequently derived by the deflation of current price series by inappropriate global indices, such as the general wholesale or cost of living indices. Since the annual rates of growth in developing countries are often quite small, the distorting effect of this procedure on the picture of real trend may be very considerable. For example: an error of 2 per cent only in the estimated price rise in a particular year could mean that a calculated growth rate of 2 per cent should in fact read either zero or 4 per cent, depending on the direction of the error in the estimate of prices.

Given the objective difficulties in the way of obtaining accurate production statistics in most developing countries, it is vital that greater efforts be made to arrive at estimates of aggregate product also from the expenditure side of the accounts. Since the major gap in information on expenditure relates to private consumption, this would necessitate among other things the initiation and development of systematic surveys of household expenditures. In many, if not most, developing countries, the estimate of private consumption is obtained at the present time as a residual balancing item in the national accounts framework (i.e., as the difference between domestic product and net imports, on the one hand, and government consumption and domestic investment, on the other), with the result that it incorporates the entire net estimating error of the

other items in the accounts. Apart from providing direct information on consumption and a much-needed check on the aggregate product estimates obtained from the production side of the accounts, this approach would also facilitate a bypassing of the conceptual and practical difficulties involved in estimating value added at constant prices, which is generally the basis of the present estimates of aggregate product at constant prices in developing countries.

Initiative and Resourcefulness

With such a formidable array of pitfalls and difficulties, the burden and responsibility thrust on national accounts estimators in developing countries is particularly great, and it is hardly surprising that the national accounts in most of these countries still remain very crude tools indeed. It is true that a major contributing factor is undoubtedly the generally meager resources allocated for statistical purposes and the resulting dearth of reliable and detailed information on developments in the various branches and sectors of the economy. Any radical improvement in the situation will therefore depend on the willingness of governments to make the requisite funds available—especially for the collection and compilation of current basic statistics. (In this context, the carrying-out of expensive and time-consuming censuses for isolated years is probably not a high priority for most countries.) But despite this, often much more can be done, even with existing resources, to produce accounts capable of depicting at least in general terms the major changes and fluctuations characteristic of developing economies. To accomplish this, however, estimators in these countries are called upon to display an even greater degree of initiative and resourcefulness in seeking out sources and techniques of estimation than is required of their counterparts in the more developed countries. While this is admittedly not an easy goal, experience in a number of developing countries gives grounds for hope that it is far from being unattainable.



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Financial Administration in Developing Countries

Taking “financial administration” to mean budget making, payments procedures, the accounting and reporting of expenditures and receipts and the final auditing, but not monetary policy itself, which is the sphere of the central bank, the author seeks to determine how and why this kind of financial administration has so often gone wrong in developing countries.

Eric Himsworth

IN ALMOST ALL countries the task of compiling the annual budget is the function of the budget agency or agencies, although it is not uncommon to have one agency responsible for compiling the annual recurrent budget and another for planning the development budget.

Where is the best place for the budget agency in a government? Logically it would seem that it should be located (1)—and this is the vital requirement—with the supreme decision-making body. It follows from this that it should be located (2) where it has easy access to all fields of government action, (3) where it can continuously review the programs of the government as may be required from time to time, and (4) where it can answer the inquiries of the legislature about the budget.

Some Common Disadvantages

In many less developed countries, the budget agency may be weakened because of the following:

1. It is not associated with the supreme decision-making body, which may take decisions without consulting it.

2. The Minister of Finance is not first among equals but just another minister, so that the budget agency of the Ministry of Finance, which, in order to assist in program formulation and reviewing, must have access to information from all departments, is denied that information. In such circumstances, the budget agency becomes merely a clerical compiler.

3. Programing is sometimes allocated to a ministry having a separate development budget. This division of responsibility hinders financial coordination. In those countries where it exists it sometimes results in disagreements between the Ministry of Finance and the Ministry of Economics of a kind which reduce efficiency. Moreover, plans tend to be considered and accepted for the economic or social benefits that they are

expected to produce, with little consideration of the residual annual costs that they bring in their wake, and have to be accepted more or less as a *fait accompli*.

4. More often the budget agency is stultified by lack of financial discipline in the administrative service. If ministers are a law unto themselves and do not have to take cognizance of financial regulations, the country is likely to find itself with large expenditures for which no provision can be found. Recently a number of countries have set up a system of one-party rule, which often vests the executive functions of the government in the leader of the party. It is a point for consideration whether, in these circumstances, the responsibility for the budget agency should not be transferred to the office of the President, who is usually also the party leader, and away from the Ministry of Finance.

Compiling the Estimates

The exercise of compiling the budget itself usually starts with the issuance from the budget agency of the “call circular” which asks the various ministries or departments to forward their estimates for the forthcoming year. It is desirable to issue this circular early, but the tendency in most countries is to leave it until very late—say, three months before the beginning of a new financial year; then all departments and the budget agency are under pressure to get the document completed, submitted to the legislature, and approved in time for the opening of the new year. When the deadline is not met, alternative arrangements for expenditure have to be made, and often these have not been carefully provided for in advance; so there is more ad hoc accounting, adding to the strain on an administrative machine which at the best of times finds it difficult to cope with the normal routine.

Another reason for an early start is that the issuance of the “call circular” is regarded by many ministries as the signal for beginning the discussion of proposals for

additional staff and plans for the forthcoming year. If the circular is late there is no time for this vital process. Many budgets in less developed countries do, in fact, suffer severely from the fact that consideration of the estimates begins too late.

Since most recurrent expenditure is routine—it is the same as that of the previous year—calculations of this class of expenditure can begin early at a fairly low level in the budget agency. But requests that call for increased staff and for new programs of expenditure should be permitted only in exceptional circumstances at the time of compiling the budget. These are matters which the budget agency should be discussing with the departments throughout the whole year; and, when agreement between the various departments and the budget agency has been reached, they can be approved for “inclusion in the preliminary estimates”—the intention of the budget agency being to accept the proposals as agreed if resources are available.

A timetable is usually fixed for the submission of estimates, which are then examined by the budget agency and re-examined by a higher, ministerial committee under the chairmanship of the Minister of Finance. Normally, it is found that, because there is not constant contact between the budget agency and departments, inflated estimates are submitted in the first instance in the expectation that they will be cut—as indeed they usually are. Hence, in the time available, little but indiscriminate slashing of estimates is possible even in dealing with items of expenditure that it is known in advance will have to be supplemented later in the year.

This situation may be remedied by:

1. refusing to admit proposals for additional posts, extension of services or new services that have not been thoroughly thrashed out before issuance of the call circular;

2. ensuring that the call circular is issued early;

3. organizing the budget agency so that one section deals with “formal,” or repeated, annual expenditure while another section handles “special” or new items of expenditure;

4. creating the practice within the government of constant communication on programing between the budget agency and the department concerned. It is more difficult to counter opposition from ministers themselves who, for political reasons, oppose economies, refuse to abandon work of lower priority, insist upon the retention of their own projects, and inflate their budget portfolios, the size of which is supposed to indicate both to ministerial colleagues and to the public at large the importance of the work of the ministry and hence of the minister himself.

It will be seen that the remedies suggested for this situation are not primarily financial, but administrative and political. Ministers must submit to the same type of discipline as government officials of lower rank; the overriding authority of financial laws and regulations must be wholeheartedly accepted by all if any government is to perform its job effectively.

Single or Multiple Budgets

In most developing countries the question arises whether there shall be a double-headed budget—a budget for development (sometimes called a capital budget) and a recurrent (ordinary) budget for annually repeated expenses. In favor of separate budgets, it is said that current expenditure should be financed from current receipts; that if a surplus on current account is inadequate, loan finance is justified for projects which will earn their service charges; otherwise, if the surplus on the ordinary budget is inadequate, capital schemes should be reduced. A special “capital” budget permits flexibility in the apportionment of capital resources and enables clearer decisions to be made with reference to current expenditure.

On the other hand, there are those who point out that although the capital and development budgets are supposed to be synonymous, all development expenditure is not of a capital nature, e.g., the annual costs in an agricultural extension scheme. Moreover, it is not necessarily justifiable that all loans should be spent merely on the creation of physical assets or that capital works should be financed exclusively by borrowing. In a development plan, expenditure on education and health pays dividends to a state which sometimes justifies these dividends being financed from loan funds. In addition, it may be difficult to coordinate development and recurrent budgets, especially if, as often happens, they are compiled by two different agencies, which may mean that the long-term financial implications of a development plan (the responsibility of the planning agency) will be decided without reference to revenue projections and may, therefore, cause embarrassment to a future recurrent budget. Again, in a dual budget system there is a temptation to believe that if the regular budget has been financed from current resources, expenditure on the capital or developmental projects can be financed in large part from the normal expansion of money or quasi-money. Any attempt by the authorities to appropriate this finance for a planning budget will almost certainly result in the creation of additional bank credit with its attendant inflation.

Since a writer on this subject will be expected to give his own view, this is in favor of a double budget: a recurrent budget compiled by the Finance Division of the Ministry of Finance; and a development budget by the Economic Division of the same ministry, which

should also control the Department of Statistics and the Organization and Methods Division. In this way the close and effective coordination of the two budgets and of the resources available for their financing without inflationary pressures, essential for good budgetary administration, would be achieved at the highest departmental level below the minister; in British parlance "at Permanent Secretary level." The difficulties which often arise when the Minister of Finance is called upon to decide between competing claims of two equally important divisions of his own ministry, or to effect coordination with a separate Ministry of Planning, are thereby avoided.

Execution of the Budget

Once the budget has been given approval, usually by the legislative authority, the next stage in financial administration is the "execution of the budget" or spending by the departments. In the British practice the normal way is for the Accountant-General to issue a "General Warrant," which is the signal that departments may proceed to spend the money allocated to them in the budget without further ado. Some governments, such as that of the United States, make quarterly allocations to the various departments; but this is an additional step and in some countries may cause delay. Other countries, particularly those following the French tradition, require spending departments to seek an "authority to incur expenditure" (*fiche d'engagement*) before any expenditure can take place, even though such expenditure has already been authorized by the budget; and authority will be withheld if adequate funds are not available within the budgeted provision. The "mandate" or pay order can only be issued after the *fiche d'engagement*, and the procedure on both must be finalized before cash can be disbursed.

Payment

Once expenditure has been incurred, there are a number of ways in which payment can be made. It may be made from a departmental or ministerial account which will be kept in funds by the central treasury. This involves the department's handling cash and keeping both cash books and the appropriate ledgers, and has the advantage of making the department the unit responsible for government accounts, a responsibility which tends to develop within the department a sense of the importance of finance and its place in practical administration. But there are dangers also, for if accounts are brought under the control of ministers with anything less than the highest sense of their public responsibilities, finance intended for one purpose may be diverted to another, possibly one for which no budgetary provision has been made.

A centralized system of payments is much more usual. Cash is disbursed from central or regional treas-

uries or paymasters' offices, which work on the imprest-accounts system, their cash balances being replenished from central funds as required. This limits the number of points at which cash is available, which increases security and at least tends to reduce delay and paper work.

In nearly all less developed countries, there is delay in the payment of official bills, usually because the process of verification takes so long. In theory, all that should be required is the signature of a responsible officer that the goods and services have been received in good order, a certification from the departmental accountant that funds are available in the budget (or in the allocation for the period) after which the bills can be passed to the cashier for payment. In many developing countries, however, a pay order must pass through a remarkable number of stages and checks before it reaches the cashier. Often, additional documents are attached to the original pay document; the particulars are recorded in department after department, in book after book, when all that is required is one entry in the vote ledger of the department and another in the cash book of the cashier, the latter entry being subsequently transferred to the appropriate ledger. The object of these innumerable recordings is said to be to obviate fraud, but in fact such complexity probably delays the discovery of fraud where there is any; for the large number of recordings increases the number of points at which mistakes in postings can be made, and the reconciliation of a large number of ledgers almost invariably means that the books do not all agree, with resultant checking and rechecking and long delays during which real fraud may go undetected.

Accounting and Reporting

One of the major weaknesses in nearly all less developed countries lies in the accounting system. The first essential to any method of keeping accounts is that items of receipt or expenditure should be posted quickly—cash receipts or disbursements as they are made, ledger accounts preferably daily but at the very least weekly. A general weakness in any administrative system will nearly always betray itself in the circumstance that, notwithstanding the financial regulations, accounts are posted weeks and sometimes months after they are incurred. The minimum degree of supervision is lacking, and often disciplinary action cannot be taken against defaulting clerks because they hold their positions, as do the supervisors, at the pleasure of the minister in power. Closely allied with the failure to post accounts is the failure to report expenditures when completed at the periphery. It is obvious that, if a payment has been made to a contractor in some remote part of the country, the payment voucher has to be receipted, posted in an account book, and reported to some central

authority. Failure to comply with the regulations at any one of these points means that accounts cannot be closed, and therefore that vital information, which the budget agency must have if it is to operate effectively, is not forthcoming. It is usually to this level that one can trace a decisive cause of ineffective financial administration in less developed countries. Vouchers are not posted to the appropriate cash books and ledgers; reporting to the central accounting authority is delayed and often incomplete when done, so that the collation and the production of periodic accounts become impossible. Accounts are less than complete when published and sometimes are not published at all. The net result is that a government can never be sure of its financial position at any given moment, and this is often a hindrance to the formation of decisive policies. On the other hand, it is worth noting that discipline in this mundane but important field can be attained; in Malaysia, for example, discipline in financial matters is strictly maintained and has contributed much to that country's success since independence.

Auditing

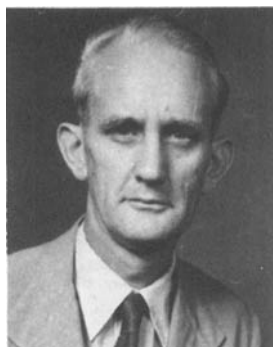
The final stage of financial procedure is the *ex post facto* auditing, which may take various forms. It may be done by special accounts committees of the legislature, which usually examine one or two important heads of expenditure, for example, those of education and health. Such committees are often helpful in maintaining a strict watch on public expenditures, especially that of public corporations which may be subject to no more than ordinary commercial accounting, and this type of inquiry has the added advantage that the committee may examine and question the whole policy that lies behind the expenditure. Experience, however, shows that this aspect of financial administration gets little support in less developed countries. In the legislatures of at least some of these countries, an observer has the impression that the educated elite that composes them is more interested in law and academic pursuits than in the rough and tumble of the commercial and financial world. In any event the system has the weakness that, being *ex post facto*, by the time the reports are published, the period to which they relate belongs to history, and thus fails to attract much interest.

More effective is the annual report of the comptroller and auditor-general, where such an officer exists. This official is usually an officer of the legislature, to which he reports; and his tenure of office is guaranteed like that of the senior judges. He is required to certify that the money voted by the legislature has been spent in accordance with the wishes of the legislature as expressed in the budget or supplementary votes; but he is also permitted to express his personal views on the manner in which expenditure has been effected. He

may, for example, indicate that certain contracts seem to him to have been unduly expensive or that there has been undue delay in the completion of contracts, or that the executive has not enforced penalty clauses where this is possible. His reports also suffer from being a post mortem examination of events which have lost much, if not all, their interest for the legislature to which his reports are made. Moreover, an auditor-general is only as effective as the legislature permits him to be. If the legislature takes little or no interest in financial control the auditor-general will spend much of his time baying at the moon.

Perhaps the best known alternative system is the French Court of Accounts (*Cours des Comptes*). This is as much a judicial as an administrative body, whose task is to make an examination of the national accounts, call to task, where necessary, accountable officers of the executive, and issue an annual report on its findings. It plays an important part in the system of financial control, but it is not, as in many countries which follow the Anglo-Saxon pattern, an organization of the legislature. It probably represents another aspect of the doctrine of the separation of powers, and being independent of both legislature and executive, with freedom from political pressures, is thought to be capable of exercising a greater degree of impartiality than might be the case if it were more closely allied to the other two divisions of the sovereign power.

It is my opinion that administration of finance is the main factor which determines the general quality of government administration, for if the financial progress of a country goes wrong or is unknown throughout the year, little else in the field of government activity can be expected to go right. The interest of officials in exercising the disciplined control and constant supervision that a good system of financial administration requires is sometimes difficult to excite on behalf of what appears a routine and prosaic exercise. It is important that they should understand that it is the efficiency of the machine which processes government endeavor, as well as the quality of the input, which eventually determines the measure of the resultant product. And it is this product that we call "economic development."



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Economies of Scale and Economic Integration

Moves toward the economic integration of neighboring countries are being made in many regions of the world. Various advantages are urged by those involved in such moves; this article discusses one of these.

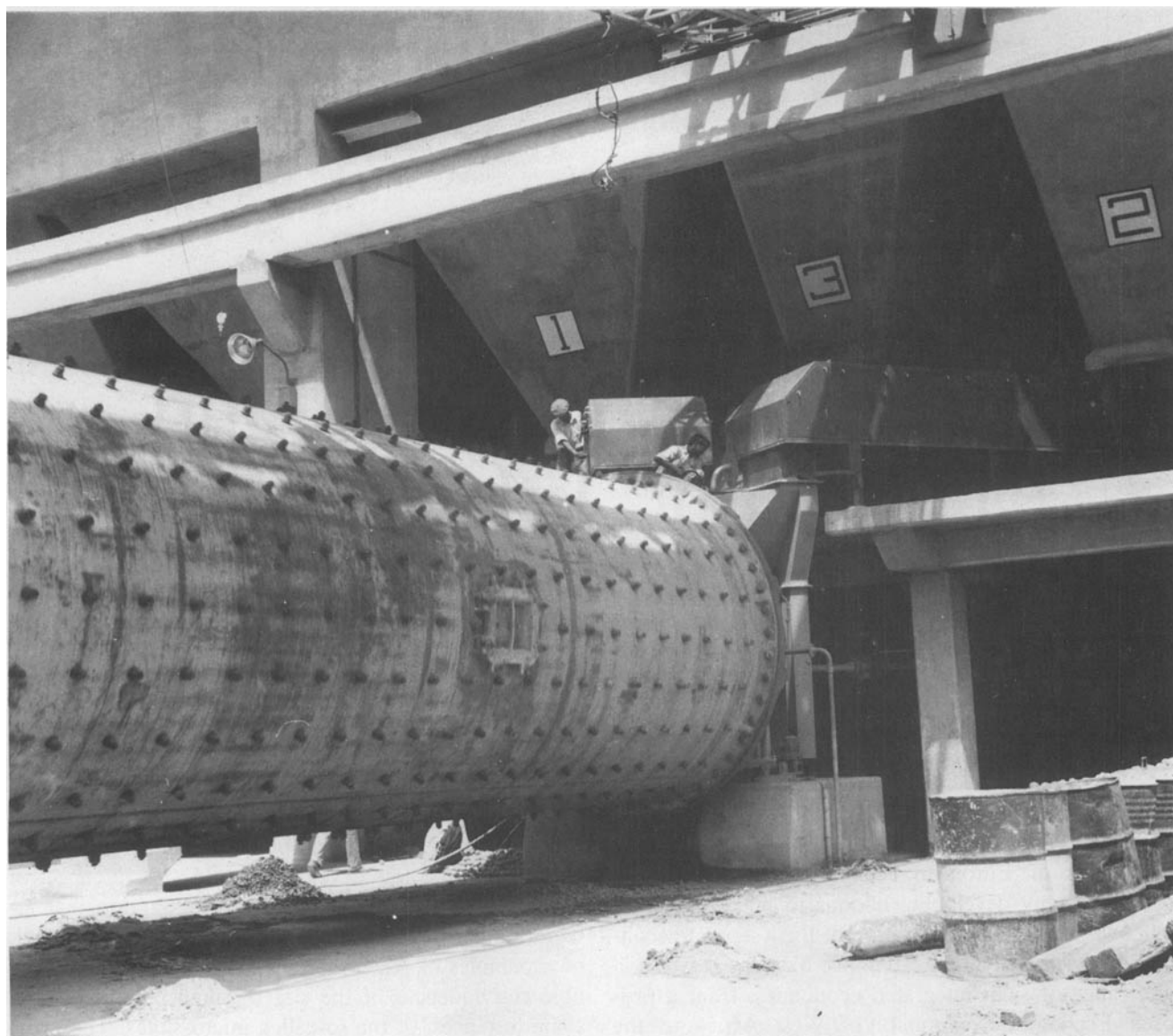
G. Nguyen Tien Hung

OVER THE LAST FEW YEARS, the striking results of European economic integration have prompted many developing nations to make efforts of their own toward the integration of their separate economies. Africa has made attempts to move toward a wide range of such integrated economies, from a proposed Economic Community of West Africa to the Central African Customs and Economic Union; in Latin America a Free Trade Association and a Central American Common Market have been established. An ambitious Mekong River regional project has been undertaken in Asia, and the Southeast Asian Association has recently been expanded. Economic integration has taken place on all the continents. As Frank A. Southard, Deputy Managing Director of the International Monetary Fund, pointed out in his August 1967 address to the Central American Union, this is because "What they [developing nations] have come to conclude is that in the longer evolution the accelerated economic progress within an integrated area will increase its income and enable it to trade more effectively and on a grander scale with the rest of the world. It is at this point where the regional grouping and the international economy are harmonized."¹

Moreover, it has often been said that, in addition to "trade creation" (i.e., an increase in the efficiency with which resources are allocated, with a consequent increase in welfare), the prospect for economic develop-

ment offers an attractive argument to support economic grouping in the less developed world. The prospect of development, in turn, rests on the assumption that integration will present the opportunity to gain the benefit of economies of scale, thereby overcoming the unfavorable consequences of the size of small nations and, in some instances, of the so-called micro-states. The prospect of economies of scale is regarded by the proponents of integration as a dynamic aspect of development that tends to outweigh other standard requirements for the success of economic integration which the developing nations may not seem to meet fully. The developing nations involved in integration projects do not generally have a high proportion of intraregional trade and a low proportion of trade with the outside world, or a low proportion of foreign trade in relation to domestic product and a high degree of complementarity of the members' economies. Yet these nations press on, for they argue that economic integration would dismantle the national economic frontiers to provide a wider market for expanding existing industries as well as for establishing new industries. Generally speaking, they are sure that this reward is more important than the collective deficiencies that might prevent them from seeking it. In this article, I propose

¹ Southard, Frank A., Jr., "The Fund and Economic Integration Movements," address given at a meeting sponsored by the Executive Secretariat of the Central American Union, Guatemala City, August 31, 1967.



A rotary kiln at the Ismail Cement factory in Ismailwal in West Pakistan. This plant, which is providing large amounts of cement for the vast Indus Basin Development project, has been expanded with the assistance of funds made available by the World Bank and the International Finance Corporation.

to discuss only the economic concept of economies of scale and some of its implications in the framework of regional economic cooperation; I do not, therefore, attempt to appraise the validity of other issues related to the theory of international exchange.

The Concept

It is a well-known element in economic theory that, as an enterprise expands its scale of operation, i.e., increases the size of its plants, the cost of production per unit generally decreases. There are forces within as well as outside the firm that tend to make larger and larger production less and less costly. The great economist, Alfred Marshall, maintained that "the chief advantages of production on a large scale are economy of skill, economy of machinery, and economy of mate-

rials." There are several factors which have a bearing upon the reduction of cost when output is large.

First, the labor cost would be reduced as a result of the increase in labor productivity; "mass production" necessitates specialization and increases the worker's efficiency, since his job performance over a small range of duties is generally better than that of a worker with a wider range. In economic literature, the so-called labor learning curve or progress ratio indicates considerable gains in efficiency of the worker by repetition of his work when the "production runs" are long. An attempt to measure the relationship between man-hour requirement and scale of operation has been made in the air frame industry, the result indicating that the number of labor hours expended in the production of an air frame of one type decreases as the number of air frames produced increases; generally, the rule is that

the marginal labor cost is one sixth when output doubles.²

Second, a larger scale of production normally makes possible the employment of more advanced machines and equipment which, because of their "indivisibilities," cannot be used efficiently in a smaller operation. Indivisibility implies that certain machines, which may not be built in small sizes, often operate at less than full capacity in a smaller-scale operation. When this happens, then the expansion of production merely uses up the excess capacity; this is particularly true in manufacturing that requires heavy initial investment cost, such as steel mills, railroads, and hydroelectric plants. In the capital intensive industries, one convenient way to measure the reduction in capital cost is the "0.6 rule," which helps to estimate the increase in capital cost when the plant grows. According to this rule, the increase in cost is equal to the increase in capacity multiplied to the scale coefficient. Scale coefficient is generally equal to 0.6 for a number of products such as chemical processes, gas holders, etc.: for calcium carbide, sulfuric acid, the coefficient is 0.8; for aviation gasoline, 0.9; for natural gasoline, 0.5.

Third, costs may be reduced by an increase of efficiency in management, which tends to be better organized in large enterprises owing to the specification of functions as well as the more scientific approach to the task of coordination.³ Management would also be expected to apply more technical methods of production, or better techniques of combining and transforming resources, so as to bring about a new production function, as was emphasized by the late J. A. Schumpeter; the saving of management is especially important in developing countries because managerial skill is scarce.

Fourth, large-scale production often permits the firm to buy materials in large quantities, with the possibility of discount as well as bargaining advantages. Saving also occurs in handling, marketing, and transportation.

Fifth, the statistical law of large numbers implies the possibility of cost reduction in larger-scale operations because of the so-called stochastic economies of scale. For example, when a department store expands and expects twice as many customers as before, it does not have to double its inventory since it can predict from the behavior of the original customers what the new ones will mostly want; a firm doubling the number of machines in operation may not have to keep twice as many spare parts over a given period of time, nor

² For a further discussion of this matter, see, for example, Arrow, Kenneth J., "The Economic Implication of Learning by Doing," *Review of Economic Studies*, Vol. XXIX (June 1962), pp. 155-73.

³ For an interesting treatment of the subject, see Bechman, M.J., "Some Aspects of Returns to Scale in Business Administration," *Quarterly Journal of Economics*, Vol. LXXIV (August 1960), pp. 464-71.



The Baton Rouge alumina producing facility in Louisiana, U.S.A.

employ twice as many maintenance workers, since the expected number of breakdowns is not likely to double in that period.⁴

Finally, the cost of financing production, i.e., interest on capital, may also be reduced not only because of the economies in inventory but also because the credit standing of a large enterprise is usually better than that of a small one on account of the size of its collateral as well as its capacity to repay. In the same way, a large project that is undertaken by a group of nations may have better access to capital; a "Borrower Club" would be in a better position to secure loans from the "Lender Club."

In Industrialized Countries

Economies of scale are, then, diverse and important, and an aim clearly worth the closest attention of the developing world. When the leaders of these countries look at the economies of the industrialized countries, they see such economies of scale achieved in every field. Empirical studies of different types of manufacturing in the industrialized countries generally suggest that various degrees of economies of scale are to be found in many industries, especially cement, farm machinery, and the milling, smelting, refining, rolling, and drawing of metals, while automobile and typewriter manufacturing are also believed to be among those which benefit most from the cost reducing factor of large-scale operation.

Hundreds of examples could be given of the actual effects achieved, but one may suffice (Table 1). The operating cost of the Baton Rouge Company, which produces alumina in Louisiana, was reduced by 9 per cent a ton by increasing output from 300 tons a day to

⁴ A brief summary of the principle behind the stochastic models is presented in Haldi, John and David Whitcomb, "Economies of Scale in Industrial Plants," *Quarterly Journal of Economics*, Vol. XLVII (August 1967), pp. 373-85.

500 tons; at 1,000 tons, the cost was reduced by 16 per cent.

TABLE 1. OPERATING COST OF ALUMINA PRODUCTION: BATON ROUGE CO.

Production	Operating Cost
(Tons per day)	(\$ per ton)
300	32.43
500	29.63
1,000	27.28

Source: F. T. Moore, "Economies of Scale: Some Statistical Evidence," *Quarterly Journal of Economics*, Vol. LXXIII, (May 1959), p. 241.

A study of the power industry in the United States by Reytaro Komiya shows that economies of scale are very important in steam power generation. Komiya demonstrated that "the reduction in the fuel requirement to produce steam power in recent years is due primarily, and in the capital requirement, solely, to the expansion in the scale of production."⁵

Other examples of economies of scale may be found in the railroad transportation and shipping industries, where it is often possible to avoid waste of freight capacity and to spread heavy overhead expenses.

Implications for Economic Integration

Nearly two centuries ago, Adam Smith contended that the size of the market is the chief ultimate check on the development of high productivity. A quick glance at the economies of the developing nations, especially in Africa and Asia, indicates that one of the main factors limiting investment, and therefore the development of industries, is the small size of the markets. According to Professor Tibor Scitovsky, "the economy is too small when, technologically, it is too small to provide an adequate outlet for the full capacity output of the most efficient plant (i.e., the plant which provides the lowest unit cost) in a given industry." The manufacturing sector of the less developed countries has often been characterized as the sector of cottage and small-scale industry. Cottage industry is that which is carried on wholly or partly with the help of the members of the family, either as a full-time or part-time occupation; small-scale industry is that which is operated mainly with hired labor usually not exceeding 50 workers in any establishment.

Economic integration makes large-scale production possible, not only by widening the market for existing plants as well as new industries but also—as long as integration has an outward orientation—by improving the welfare of the region and, thus, in turn, the level of

demand for manufactured products. This is obviously very important, since in less developed countries people are commonly too poor to buy what they need, which is a major obstacle to the growth of industry. Poor people need all their money for food and have little or none left over for manufactured goods. By its expected effect of raising income, economic integration is likely to produce a higher demand for manufacturing, which in turn favors the growth of industry. A further advantage of large-scale production lies in the behavior of consumers' choice. In the markets of the less developed nations, consumers pay more attention to low prices than to style or quality. In the developing countries with small markets, it is precisely the low-quality product which appears to be suited for mass production techniques.

However, there is no difficulty in either enumerating the various kinds of economies of scale or in demonstrating what has been achieved by their attainment in the industrialized countries. Those who advocate economic integration as a means of achieving such economies of scale in the less developed countries must go further and demonstrate some more concrete possibilities. Among the examples of potential economies of scale in the integration schemes of developing nations which are actually under consideration are the cement and steel industries, oil refinery, and hydroelectric energy.

Cement Industry in Asia

Large quantities of cement are used in power installations, housing construction, flood control and irrigation work, roads, and port and highway building in Asia. Insofar as large plants can be located in places where a supply of raw materials is available, it seems that cement may be produced at a much lower cost than it is now in the region. Empirical studies of the industry have shown that cement is among the products that could enjoy large economies of scale in Asia. In a United Nations estimate of the hypothetical cost of cement production in the continent, potential economies of scale were found (Table 2). From the level of output of 50,000 tons a year to 900,000 tons, both operating cost and capital charges decrease by some 39 per cent. Looking at the cement industry in Asia, one finds that many cement factories now operating in a number of different countries are in the range of output of 100,000-230,000 tons. At the same time, excluding Mainland China and Japan, the region consumes some 10 million tons a year. There is obviously much to be achieved here; although, in view of the high transportation cost of cement, a decision on the number of cement plants within the region as well as their scales of operation requires further analysis and careful planning.

⁵ Komiya, R., "Technological Progress and the Production Function in the U.S. Steam Power Industry," *Review of Economics and Statistics*, Vol. XLIV (May 1962), p. 156.

TABLE 2. ECONOMIES OF SCALE IN CEMENT PRODUCTION

	Capacity of Plant in Thousand Tons					Decrease in Cost from Capacity of 50,000-900,000 Tons	
	50	100	230	450	900	U.S. dollars	Per cent
Operating cost per ton	15.5	15.2	14.7	11.0	9.4	6.1	39.4
Capital charges per ton	11.5	10.8	10.0	8.8	7.0	4.5	39.1
Total cost/ton	27.0	26.0	24.7	19.8	16.4	10.6	39.3

Sources: Data from United Nations, *Formulating Industrial Development with Special Reference to Asia and the Far East* (Bangkok, 1961), p. 46.

Production of Rolling Flats in Latin America

Steel products are considered as the backbone of modern industry. As the developing nations advance along the road of industrialization the production of steel has been given priority in many development plans. An example of cost and capacity in the production of rolling flats in a hypothetical integrated mill in Latin America is illustrated in Table 3. Among the factors of production, all of which show substantial reduction in cost per ton at an annual output of 1.5 million tons compared with 100,000 tons, capital charges decrease by 60 per cent, the cost of ferrous material by nearly 38 per cent, labor cost by 79 per cent, and total per unit cost by 46 per cent. Between 100,000 tons and 400,000 tons, costs are critically reduced. The benefits of cost reduction would then call

for joint projects undertaken by a number of countries within the region. Here again, consideration must be given to the high cost of transportation of steel in a dispersed regional market; however, even after allowance is made for this factor, the benefit of scales in steel production may still be seen when the import cost of flat products, which is about \$182 a ton in Latin America, is compared with the unit cost of production at various levels of output in Table 3.

Hydroelectric Energy in Central Africa

Another example of potential gain in large-scale production is hydroelectric energy in Central Africa. Considerable hydroelectric potential exists throughout the region. At present, there are several installed hydroelectric power plants—the Edea complex with 160 (to be

**TABLE 3. COST OF ROLLING FLAT PRODUCTS IN
HYPOTHETICAL PLANTS OF DIFFERENT SIZES**

Cost Item	Annual Capacity of Plant in Thousands of Tons of Finished Products				Decrease in Cost from 100,000-1,500,000 Tons	
	100	400	800	1,500	U.S. dollars	Per cent
	U.S. dollars					
Cost of ferrous material	120.71	92.58	82.94	75.47	45.24	37.5
Salaries and wages	15.52	6.22	4.51	3.30	12.22	78.6
Other conversion cost	12.30	10.67	8.60	7.30	5.00	40.7
Total direct cost	148.53	109.47	96.05	86.07	62.46	42.1
Capital charges	43.46	29.70	19.80	17.37	26.09	60.0
Total cost	191.99	139.17	115.85	103.44	88.55	46.1

Source: Data from United Nations, *Interregional Symposium on the Application of Modern Technical Practices in the Iron and Steel Industry to Developing Countries*, "The Iron and Steel Industry of Latin America, Plans and Perspectives" (New York, 1964), p. 107.

increased to 180) megawatts output in Cameroon, the Djoué hydroelectric plant with 15 megawatts in Congo (Brazzaville), and the South Katanga plant with 470 megawatts in the Democratic Republic of Congo. These, combined with others, may soon be adequate to supply energy to other countries in the region. The reduction in cost installation when a large-scale project is undertaken is illustrated in Table 4, which shows the estimate of price per kilowatt installed at the planned Inga Project in the Democratic Republic of Congo; from an output of 100 to 300 megawatts, installment cost per kilowatt is expected to be reduced by one half since the cost of civil engineering does not increase in proportion to the capacity of the plant.

TABLE 4. ESTIMATE OF COST PER KILOWATT INSTALLED IN THE INGA HYDROELECTRIC PROJECT

	Capacity in Megawatts				Decrease in Cost From 100 to 300 Megawatts	
	100	150	200	300	U.S. dollars	Per cent
Cost per kilowatt installed	500	370	300	250	250	50

Source: Data from United Nations, Economic Commission for Africa, *Report of the ECA Mission on Economic Cooperation in Central Africa*, (New York, 1966).

Are Economies of Scale Unlimited?

How far can economies of scale be pushed? They are of course not unlimited. At one extreme, large-scale production may not by itself offer a guarantee of *any* economies of scale. In economic literature, this is called constant returns to scale, where total cost varies proportionately with production: when output is doubled, the cost will be doubled because twice as many resources will be required. The condition of constant returns to scale is not rare in reality and is actually believed to be present in many industries. Paul Douglas, whose name was associated with the famous Cobb-Douglas production function, believed that constant returns to scale are a prevalent characteristic of manufacturing in U.S. industry. There are also instances of decreasing returns to scale where higher average cost will result from larger scale of production, but a description of these instances would go far beyond the scope of this article. In economic literature, the plant which is just large enough to enjoy fully the benefit of large-scale production is called the "optimum plant." In developing nations, it appears also that, given low wages and disguised unemployment, there may be a quite proper preference for labor intensive industries which may employ "optimum plants" smaller than those in the capital intensive industries.

Three Observations

This is only a brief study of a large subject, but it can support three general observations:

First, the benefits of large scale present an attractive case for economic cooperation among the less developed countries; second, in the highly delicate and technical task of regional planning, the possibility of economies of scale deserves great attention from the planners in their attempt to formulate joint industrial plans, so that the priority and types of projects, as well as the location of the plants, will assure the maximum benefits for the region and the best allocation of resources; and third, since economies of scale are not unlimited, it is also important to decide the number of plants and their scale of operation in a given industry that will secure the maximum economies. This last decision also involves careful analysis of the actual and potential demand—the supply of the product in question, the supply of resources in the region, and the social cost. Also involved in the judging of the appropriateness of size are considerations of other related aspects of an integrated plant, such as technological adaptation, training of management and labor, establishing supplies of raw materials and other inputs, and developing markets for the output of the plant.

To these three observations, which would probably be widely accepted by those who have studied the subject, I shall add a more personal opinion. It is that the benefits of economies of scale considered in conjunction with the smallness of small nations also suggest there is a greater interest on the part of the aid-giving nations as well as the international institutions in pursuing a regional approach to development and in the financing of selected joint projects for a number of countries with a view to developing entire regions of the world and on a longer-term basis.

The regional approach to development, though not without difficulties, is advocated not only in terms of cost consideration but also because of its side effect in helping developing nations to strengthen their quest for cooperation in all fields.



G. Nguyen Tien Hung, a citizen of South Viet-Nam, is an economist in the African Department of the Fund. Before joining the Fund in 1966, he taught at North Carolina Wesleyan College, Howard University, and Trinity College, Washington, D.C. He studied at the University of Saigon and the University of Virginia, where he received his Ph.D.

Book Notices

Sayers, R.S., *A History of Economic Change in England, 1880-1939*, New York, N.Y., The Oxford University Press, 1967, 179 pp., \$1.35.

In this short book Professor Sayers surveys the main forces that determined the increase in economic well-being in England between 1880 and 1939, as well as the different forms that this well-being took. He ranges over major factors which influenced the British economy—the swings in populations, international migration, national income, foreign trade, etc.—as well as providing detailed analyses of crucially important industries which, with their changing pace of technological innovation, not only significantly altered the face of England in a comparatively short period of time but also determined the rate of economic advancement in future decades.

There is no chapter on economic policy as such, though the main lines are drawn by the description of various legislative programs, particularly those concerned with labor and unemployment, the evolution of the welfare state, and generally increased government participation in economic affairs; there are, too, some tantalizing asides on certain aspects of monetary policy. Professor Sayers is, however, more concerned to outline the changing economic contours of the period than to provide a detailed analysis of

economic interrelationships; for, as he says, this "book will be the first rather than the last they [children in their last year at school, and first year university students] read in this field." He achieves his aim admirably.

During the period covered in this book—a period essentially of decline in the economic position of England in relation to the rest of the world—the discontinuity of economic progress was marked. Out of the 60 years between 1880 and 1939, economic improvement, i.e., per capita increases in real income, was confined to "as few as 20 . . . years, for . . . [there were] . . . many years of back sliding or stagnation in the level of real income." From one point of view it could be inferred that the domestic economic readjustments which often occurred with brutal severity are an indictment of the manner in which economic policy was conducted over much of the period. But what is perhaps more important, the discontinuity in economic progress was also a matter of the extent to which England needed to adjust, and, for long periods, did not adjust, to changes in the international economy.

Herein, perhaps, lies the general appeal of Professor Sayers' slim and elegantly written book. For it is not only a fascinating account of English economic (and socio-economic) change, but a vivid example of the

vagaries of international economic relationships.

David Williams

Simha, S.L.N., *Essays on Finance*, Bombay, India, Vora and Co., Publishers Private Ltd., 1967, x + 340 pp., Rs. 20.

This is a collection of twenty essays written for the most part over a period of three years. Seventeen of these are on problems of monetary policy, development finance, and international finance, thus justifying the title of the book. The remaining three deal with problems of planning.

The author began his career as a teacher, and has been connected, subsequently, with the Reserve Bank of India, the Industrial Development Bank of India, and the International Monetary Fund. The essays collected in this volume reflect this combination of academic and practical background. They are analytical without being pedantic and practical without being incorrect.

While many of the essays are concerned with Indian experience, they are in most cases discussed in a context which gives them a wider interest for all those concerned with the problems of the developing economies. From this point of view the essay on "Monetary and Credit Policy in the Framework of an Economic Plan" will be found of special interest. This paper deals with monetary policy in a developing economy in general terms and was in fact prepared by the author as a basis for his discussions in Latin America.

Most of the essays in the field of international finance included in this volume are of general interest. The author's suggestion for the use of gold certificates in payment of gold subscriptions in connection with Fund quota increases attracted considerable attention at the time. His discussion of the Fund's drawing policy and of its stand-by arrangements reflect a freshness of approach to questions that are of continuing interest. This volume is, therefore, likely to be found interesting and useful by many readers.

Hannan Ezekiel

The Ninth Annual Yearbook of The Far Eastern Economic Review, published as a supplement to *Far Eastern Economic Review*, The Far Eastern Economic Review Co., Hong Kong, 352 pp., \$5.00.

Violence is the main theme of this edition of the *Far Eastern Economic Review Yearbook*. The various conflicts and disturbances which marred 1967 are reviewed against the backdrop of the two major upheavals which have dominated the area—the Cultural Revolution in China and the war in Viet-Nam.

As in past editions, the *Yearbook* provides a survey of the events of the last 12 months in 26 countries of Asia and of the international developments which affected the region as a whole. It further attempts to place these events and developments in perspective and to use them as a base for the review for the prospects of 1968.

Derek Davies, the editor of the *Yearbook* and of the weekly *Far Eastern Economic Review* magazine, states that violence bred violence in the region in 1967. "China's rejection of the possibility of a peaceful road to revolution and the fate of the United Front tactics in Indonesia encouraged pro-Peking elements elsewhere in Asia to attempt to achieve their ends by force."

Mr. Davies, however, also suggests that the general revulsion from this violence inspired a collective reaction to the internal and external threats it appeared to pose and drew nations together for collective security. "For the first time, the phrase 'regional cooperation' began to take on real meaning," he states. "ASEAN, the Association of Southeast Asian Nations, comprising five hitherto divided countries, Malaysia, Singapore, the Philippines, Indonesia, and Thailand, was founded in Bangkok. Japan mounted several initiatives aimed at uniting the region in some sort of free trade area and, more significantly, Mr. Sato embarked on unprecedented tours of Asia that were widely interpreted as indicating a new anti-Peking, pro-Washington policy."

The volume contains the usual sections on banking and finance (which this year evaluate the work done by the newly created Asian Bank, and by the World Bank Group). A Business Survey section covers development in major selected industries and commodities, and a section labeled *Economy* evaluates performance and prospects of the national plan, data on national income, capital formation, and rate of growth of each of the 26 countries covered. There is a large section at the end of the volume devoted to special tables giving economic indicators of those countries on which adequate statistical data is available.

Finance and Development does not attempt to evaluate books or contributions thereto by members of the staff of the International Monetary Fund or the World Bank Group, but notes them as likely to be of interest to its readers.

Baranson, Jack, *Manufacturing Problems in India: The Cummins Diesel Experience*, Syracuse, N.Y., U.S.A., Syracuse University Press, 1967, xix + 146 pp., \$5.95.

Utilizing the case study approach, the author describes the experiences of Cummins Engine Company of the United States, in establishing and operating a diesel assembly plant in Poona, India.

The author points out the numerous pitfalls to be avoided by any company planning to begin operations in a less developed country, and he offers a suggestion to the governments of developing nations; if they expect to receive the benefits from having technically advanced manufacturing firms located in their countries, they should be more realistic and responsible in reconciling measures to manage the economy with the corporate need to maintain efficiency and profitability.

In the Introduction, Professor Harry G. Johnson notes that the volume is an important contribution to the extremely small research literature on the operations of international

companies in the less developed countries.

Jack Baranson is a lecturer in the Economic Development Institute of the World Bank. His first book, *Technology for Underdeveloped Areas: An Annotated Bibliography*, was also published in 1967.

Hirsch, Fred, *Money International*, London, U.K., Allen Lane, The Penguin Press, 1967, 443 pp., 70s.

Fred Hirsch's new book is concerned with the international financial system in its broadest context—what it means, how it developed, how it works, where it creaks, and what should be done to improve it.

Its underlying purpose is to provide a perspective and a textbook for current policy questions in this field. These have moved increasingly into the public eye and the political arena, and judgments about many of them depend on an understanding of either the work of financial markets or of basic economic concepts; and very often of both together.

Money International is divided into five parts. The first sets out the main issues in terms which should be understandable to those who are neither economists nor bankers. Part 2 delves into domestic (primarily British) financial issues. Parts 3 and 4 are basically institutional, describing and assessing the main developments in the markets, central banks, and international financial organizations—interspersed are several diversions, including a discussion of some contrasts in national financial attitudes, and a chapter entitled "Is Gold Money?" Part 5 goes into greater detail on the issues discussed earlier, and puts forth the author's interpretations and recommendations.

Among the topical chapters is one on the nature of the balance of payments, with an explanation of why this has currently achieved such importance; another on the relationship between the balance of payments and economic welfare; the role of speculation and the bankers of Zurich; and a chapter on "New Reserves: Which, Why, and to Whom."

Mr. Hirsch is the author of *The Pound Sterling: A Polemic*, and of numerous articles, including a much-quoted "argument" on gold with Jacques Rueff.

The author was graduated from the London School of Economics in 1952, when he became a financial journalist. He was financial editor of *The Economist* from 1963 to 1966.

In 1966 he joined the staff of the International Monetary Fund as a Senior Advisor in the Research and Statistics Department. "Since this book has been finished in midstream between my old position on *The Economist* and my new one at the International Monetary Fund," he notes in the Preface, "it is plain that neither organization can have any responsibility for the text."

Leon, Paolo, *Structural Change and Growth in Capitalism—A Set of Hypotheses*, Baltimore, Md., U.S.A., The Johns Hopkins Press, 1967, xiv + 162 pp., \$6.75.

Originally published in Italian under the title of *Ipotesi sullo sviluppo dell'economia capitalistica* in 1965 by Editore Boringhieri Torino, the English version has been translated and revised by the author. His central theme is that the rate of profits in the capitalist system is not uniform, but instead is permanently differentiated industry by industry and sector by sector, with resulting monopolistic tendencies.

The author claims that this differentiation is derived from the varying growth pattern in the consumption of commodities. His concept of a series of profit rates differs drastically from the traditional theories about the long-run functioning of the system and suggests a system of prices dominated by demand.

The author concludes that the workings of capitalism cannot be discussed within the framework of traditional methodology. He suggests a new method of "dialectical economics" and provides examples of its possible application.

Paolo Leon, who was a staff economist with the World Bank until March, has returned to Italy to work in private industry.

Views and Comments

Excerpts from the statement of the Secretary-General of the United Nations Conference on Trade and Development (UNCTAD), Raul Prebisch, at the 39th plenary meeting of the Conference in New Delhi, February 2, 1968.

"In my opinion, the starting point here must be recognition of the following principles:

"Development is the primary responsibility of the countries that propose to develop.

"In order to discharge this responsibility, the peripheral countries need the cooperation of the centers.

"The cooperation of the centers should not be residual—as it has been so far—but should be given a high priority; and it cannot be based on the immediate trade interest of this or that industrial country, nor on its particular intention to secure certain political concessions, but on the aim of solving a great common problem, namely, the problem of development.

"All this, as well as meeting a compelling human need, is of paramount political importance for the whole world and opens up vast prospects for the expansion of world trade to the mutual advantage of industrial centers and peripheral countries.

"This solution of the common problem of development requires both groups of countries to adopt a series of converging measures aimed at clear and definite targets which should be progressively quantified at the level of the peripheral countries and at the international level.

"These converging measures are indispensable for tackling the three main obstacles that make it difficult to accelerate the rate of development: the persistent trend toward external disequilibrium—the trade gap—the chronic disparity between savings and mounting investment requirements—the savings gap—and the external vulnerability of the peripheral economies.

"As regards this combination of converging measures, it is essential that the industrial centers should afford greater access to their markets for the exports of the peripheral countries.

"Similarly, the centers must increase their flow of financial resources in order to accelerate the rate of growth of the peripheral countries. These resources should be accessible to countries showing their determination to shoulder this responsibility. Their determination to develop will be very limited in scope unless this flow of resources is adequate. And these resources will be largely wasted without an energetic policy of internal development.

"This policy of internal development makes it absolutely necessary for the peripheral countries to undertake with determination a series of internal transformations of their structures and attitudes, where this has not already been done; and it also requires them to be prepared to adhere to the reasonable discipline of a development plan, to spur on their reciprocal trade by means of regional or subregional groupings aimed at economic integration, and to promote interregional measures for the expansion of trade.

"All these converging measures are geared to the need to quicken the pace of development of the peripheral countries until such time as they manage, one after the other, to achieve a high growth rate and to maintain it with their own investment resources."

The following are excerpts from the printed report of the Secretary-General of UNCTAD presented to the Second Session in New Delhi, February 1, 1968.

"The conception of development policy and its requirements has made great strides, but a difficult stage of controversy had to be

gone through before a certain basic consensus emerged on the nature of the process and the significance of the action required to deal with it.

"Neither the concept of a global strategy nor the conviction that it is necessary to formulate one came about suddenly. They experienced some vicissitudes. The stubborn resistance to which the very idea of industrialization gave rise up to the early 1950's may be remembered, as also the dispute over economic planning and the repeated objection to financing public enterprises, even when they were well run. All these difficulties have been overcome, as has the reluctance to recognize the fact that, although inflation intensifies the trend towards external disequilibrium, the latter is a consequence of the development process itself and cannot be remedied by monetary mechanisms alone.

"The fund of knowledge accumulated so far is now enough to define the key elements of an internal development policy, including those transformations on which such great stress has been laid. This material could now help governments themselves to decide in a general way, at the United Nations level, on the main guidelines of a development policy and on the criteria on which international financial cooperation should be based.

"The twofold pledge to mobilize international and domestic resources is an interesting case of demarcation between the aims of a strategy and the exclusive responsibilities of each country, because, in pledging to mobilize its resources, a peripheral country does not waive its right to determine what kind of internal action it will take to fulfill it. Similarly, it is the prerogative of the industrial centers to decide on the ways and means which suit them best for making the financial contribution to which they have committed themselves.

"The inflow of international finance for a development plan should, as a rule, be greater, the higher the proportion of additional income a country proposes to set aside for savings and productive investment.

"This would be the most effective and economical way of using international finance, because, if these resources were to be concentrated over a relatively small number of years and with a great multiplier effect, a smaller total amount of them would be required than would be necessary if they were employed in smaller annual quantities with less multiplier effect for a relatively long period. Herein lies the most serious defect of international cooperation in this decade: it has not been forthcoming on a scale large enough to generate the many times larger amount of domestic savings and the corresponding acceleration of growth.

"This all goes to show that, whatever efforts are made to demarcate the objective elements of a plan and to limit to them the conditions that might be established for granting to a peripheral country the supplementary resources it requires for financing it, there is an undefined zone in which examination of a plan may go beyond the limits of objectivity and intrude into the private preserve of a country's political decisions. It must be recognized that this examination, together with the influence that the suppliers of international finance naturally wield, exposes a country to the risk of unacceptable interference in decisions affecting its sovereignty. This is a point which causes the developing countries the utmost concern, as was evident in the discussions on supplementary financing and at the Algiers Conference.

"This concern is very legitimate and while, as stated earlier, it is true that the examination of a development policy is carried out chiefly by the International Bank, it is equally true that the more comprehensive requirements of a development strategy make it advisable to raise a specific question, namely, whether it might not be convenient and feasible to choose new procedures, in view of the delicate responsibility involved in examining a plan and in following its implementation as regards the honoring of pledges to provide basic and supplementary financing.

"It has thus been thought that a body of independent experts, equidistant from the parties involved, might meet these requirements better."

Excerpts from a speech by the Secretary-General of the United Nations, U Thant, to the Second Session of the United Nations Conference on Trade and Development, in New Delhi, on February 9, 1968.

"The intimate relationship between the political and economic aspects of world problems was the subject of a remarkable statement by the President-designate of the International Bank for Reconstruction and Development at Montreal nearly two years ago. As he pointed out at that time, there is a direct and constant relationship between the incidence of violence and the economic situation of the countries afflicted, and he drew attention to the danger of assuming that problems of security could be dealt with by purely military means. The most important ingredient of international security is economic and social development, and not the armaments and armed forces, however powerful the latter may seem to be. Mr. George Woods, who is here with us this morning, has, of course, expressed similar sentiments and viewpoints on several occasions.

"What can we say about progress since the first Conference in 1964 in creating the conditions for economic and social development? It must be admitted that to a large extent it has been a period of frustrated hopes. The countries that agreed in 1964 to the establishment of UNCTAD are well aware that the building of a new institution, however necessary and important, cannot be a substitute for substantive measures. Nevertheless, the setting up of UNCTAD has unfortunately not yet led to the adoption of the measures which the situation patently requires.

... "Unfavorable as the circumstances have been, it was found possible by the major

trading nations to agree on an unparalleled program of tariff disarmament in the middle of last year. This was quickly followed by agreement at the annual meeting of the International Monetary Fund at Rio de Janeiro on an outline scheme for international monetary reform. What is it that made it possible for success to be achieved in these two major areas at a time when it was considered impossible to expand the efforts being made in the much more basic problem of world economic development?

"If we are frank with ourselves, I think we may identify two main reasons for the difference. The first is that, although both the Kennedy Round and the outline scheme for international monetary reform will tend to benefit the developing countries to some extent, their main significance is in regard to the economic relations among the developed countries. And it is simply a fact of life that the developed countries have a larger volume of trade and monetary exchanges with one another than with the developing world.

"But there is a second and perhaps even more significant reason for the difference. While the new developments in trade and monetary relationships among the developed countries involve an exchange of reciprocal obligations, the developed world continues to regard its economic relationships with the less developed countries as a one-sided affair in which concessions are granted but not received. Human nature being what it is, countries are much more willing to consider concessions for which there is some quid pro quo than those which are, or at least appear to be, unilateral."

Excerpts from a speech by the Governor of the Bank of Italy, Dr. Guido Carli, to the Overseas Bankers Club, London, on February 5, 1968.

"The events of November show that the international monetary system suffers damage when the business community reckons that the process of adjustment in important countries cannot be carried out without resorting to an alteration in the rate of exchange. On

the other hand, clearly the maintenance of existing parities requires that each country be provided with an adequate volume of reserves, particularly countries, such as the United Kingdom, which hold external reserves of third countries. In this connection I should like to repeat the proposal, advanced some time ago, whereby at least part of the variations in the sterling balances would be financed by the international community; it continues to be valid. This is necessary if we wish to keep the international payments system safe from shocks caused by events taking place in distant countries.

"The experience your country is undergoing seems to confirm that the variation in the parity of the pound sterling will play a part in the improvement of the balance of payments, to the extent to which it is coupled with a reallocation of the real resources that are available to Britain. I think one might say that the variation of parity is no alternative to an incomes policy; it can be a contributory element, but does not constitute an exemption from the obligation of freeing a greater quantity of resources for exports. All the more so in a country that must acquire surpluses on balance of payments at least for some years, in order to reconstitute a sufficient volume of reserves. To make this possible, the rest of the world must collaborate, widening the receptivity of the market by policies supporting domestic demand. An authoritative personality, the French Finance Minister, M. Debré, acknowledged at recent talks in Rome that 'il convient, sans tomber dans l'inflation, d'avoir dans chacun de nos pays une politique pour soutenir et accueillir l'expansion.'

"In these conditions, with the United States set to eliminate their deficit, and the United Kingdom engaged in acquiring surpluses, the way to make the process of readjustment less painful for the international community is to proceed urgently to the reform of the international monetary system according to the principles stated at the Rio de Janeiro conference and with the willing participation of all the IMF countries. Here I should like to say that the greater the number

of countries participating in an institution, all the more easy it is to ensure respect for its decisions. And this is a consideration in favor of the admittance to the Fund of the socialist economies of Eastern Europe, provided, of course, they accept the statutory obligations.

"The evolution of the international monetary system is about to enter a new phase with the reform of the Fund and, above all, the creation of reserves in the form of special drawing rights. To me it seems evident that the meaning of these recent developments is the acceleration of the process, already under way for some time, whereby the importance of the role played by gold in the system is decreasing. I underline this point because some continue to insist on the need for an increase in the price of gold and a return to the gold standard. The defenders of this thesis hold that the assumed inability of the United States to repay their short-term debts in gold is the main fault of the present system, but to correct it they suggest, paradoxically, that the United States pay only half their debts and refrain from contracting new ones in the future!

"The process of creation of reserves must be in the hands of the countries responsible for making the system work, so that each may take part in the decisions in proportion to its importance and to the role it plays in international economic relations. Conversely, a system mainly centered on gold—and this would inevitably happen if its price were raised—would hand over the helm to forces operating in a way quite unconnected with rational decisions. There is a saying that gold is the policeman who ensures international monetary order; but why should this duty be entrusted to a robot instead of human beings? Furthermore, to the extent to which national currencies continue to be used as a reserve instrument, a strengthened multilateral surveillance or a harmonized policy of reserve management should prevent the relevant decisions from being exclusively entrusted to the countries which issue these currencies."

Recent Activity

INTERNATIONAL BANK FOR
RECONSTRUCTION AND
DEVELOPMENT

INTERNATIONAL FINANCE
CORPORATION

INTERNATIONAL
DEVELOPMENT ASSOCIATION



On April 1, Mr. Robert S. McNamara (left) succeeded Mr. George D. Woods (right) as President of the World Bank, and its two affiliates, the International Development Association, and the International Finance Corporation. Mr. Woods retired after five years of service as President of the World Bank Group.

Proposal for IDA Replenishment

By December 1967, IDA had extended credits totaling \$1,713 million to help finance development projects in 38 of its 98 member countries. These commitments had virtually exhausted all usable resources available to IDA at that date and negotiations were being actively conducted for their replenishment.

In March 1968, the Executive Directors of IDA recommended and transmitted to member governments for approval a proposal for the second replenishment of IDA's resources by \$1,200 million. The first replenishment, agreed to in 1964, amounted to \$750 million.

Eighteen member countries, plus Switzerland, propose making available to IDA \$400 million annually for three years. The proposal is now before member governments. The proposal would enable IDA to increase its commitments by an average of 60 per cent annually over the level which the first replenishment was designed to achieve.

Sweden's Special Contribution to IDA

In addition to its ordinary and supplementary contributions, Sweden proposes to make a special supplementary contribution to IDA's resources amounting to \$21.36 million. The special contribution, to be paid in freely convertible currencies over the next three years, is included in a special bill on Swedish development assistance which is to be submitted for approval to the Swedish Parliament in the near future.

If the proposal is approved by the Swedish Parliament, Sweden will have paid or pledged to IDA a total of \$104.22 million—including its initial subscription, participations in the First and Second Replenishment and numerous supplementary contributions. With the exception of Kuwait, Sweden has been and would continue to be the largest contributor to IDA on a per capita basis.

Loan Interest Rate Increased

Early in 1968 the rate of interest charged on Bank loans was raised from 6 per cent to 6 1/4 per cent. The rise reflected the general increase in interest rates in the main capital markets and the consequent rise in the cost of the Bank's borrowings.

World Bank Bond Issues

In January, the World Bank entered the Canadian market with an issue of Can\$15 million 7 per cent 25-year Canadian dollar bonds. The issue was offered by a syndicate of investment dealers and banks headed by Dominion Securities Corporation Limited, A.E. Ames & Co. Limited, and Wood Gundy Securities Limited. The issue was offered at 97.50 and accrued interest. This was the Bank's seventh offering of its bonds in Canada.

In March, the Bank arranged the sale, entirely outside the

IDA CREDITS DURING THE THIRD QUARTER OF FISCAL 1968

COUNTRY	PURPOSE	AMOUNT (\$ MILLIONS)
Cameroon	Engineering	0.55
Ethiopia	Roads	7.70
Malawi (two credits)	Agriculture	9.70
Malawi	Roads	11.50
Tanzania	Roads	3.00
Credits extended during the third quarter of fiscal 1968		32.45
Credits extended during the first half of fiscal 1968		19.40
Total credits extended during the nine months of fiscal 1968 ended March 31, 1968		51.85

United States, of a \$125 million issue of U.S. dollar bonds. The sale, at par, was made by private placement with central banks and other governmental institutions of 47 countries and with two international organizations. The bonds bear interest at 6 $\frac{1}{8}$ per cent payable semiannually, with the first payment due September 15, 1968.

In the same month, the Bank offered in Germany a new issue of DM 120 million (U.S. equivalent \$30 million) of 6 $\frac{3}{4}$ per cent ten-year Deutsche mark bonds. It was offered by a group of some 70 leading German banks headed by the Deutsche Bank A.G. as the principal manager and the Dresdner Bank A.G. as the co-manager. The new issue was offered at 98 $\frac{1}{2}$ per cent and accrued interest.

Morgan Stanley & Co. and the First Boston Corporation, as managers of a nation-wide underwriting group in the United States, announced in March a public offering of \$150 million 26-year, 6 $\frac{1}{2}$ per cent World Bank bonds of 1968, due March 15, 1994, at 99 $\frac{1}{2}$ per cent to yield 6.54 per cent.

Tarbela Project

In March, representatives of the Governments of Canada, France, Italy, Pakistan, the United Kingdom, and the United States met under the chairmanship of the Bank and reached accord on the terms of an agreement providing for the setting up of a fund to finance the cost of constructing the Tarbela Dam in Pakistan. The World Bank is also expected to provide financing for the project and to act as Administrator of this fund.

The total costs of the Tarbela Dam are estimated to be about \$827 million, with a foreign exchange component of \$492 million. The Government of Pakistan will provide the local currency costs. A large part of the foreign exchange costs, about \$324 million, will be financed by a carry-over from the Indus Basin Development Fund. Canada, France, Italy, the United Kingdom, and the United States have promised, subject to any necessary governmental and parliamentary

action, to finance expenditures in their countries on the projects.

Tarbela is a strategic element in the integrated development of West Pakistan. The first major dam constructed under the program to develop West Pakistan's water resources, the Mangla Dam, was inaugurated in November 1967.

Ceylon Aid Meeting

A meeting of a group of seven countries—Australia, Canada, France, Germany, Japan, the United Kingdom, and the United States—interested in aid to Ceylon met in Paris in March under the chairmanship of the Bank. The group was encouraged by the continued progress made by the Government of Ceylon since the last meeting of the group in April 1967 in overcoming basic obstacles to economic growth. In particular it welcomed the increases in agricultural and industrial production although it

recognized that continued declines in the prices of Ceylon's principal exports had hindered growth.

The Group noted that the holding operation started in early 1965 had been transformed into a growth effort. It discussed the longer-term prospects and endorsed the basic development strategy of the Government in continuing to promote efficient production for domestic use with particular emphasis on increased food production.

Preliminary indications by members of the Group of their aid intentions during the rest of 1968, together with aid from earlier commitments, suggest that Ceylon can expect a higher level of aided imports during 1968 than in 1967. A number of development projects would be ready for financing shortly, some of which were expected to be suitable for Bank/IDA financing.

WORLD BANK LOANS DURING THE THIRD QUARTER OF FISCAL 1968

COUNTRY	PURPOSE	AMOUNT (\$ MILLIONS)
Argentina	Electric Power	55.00
Brazil	Industry	22.00
China (Taiwan)	Railways	17.50
Ethiopia	Roads	13.50
Greece	Development Finance Company	12.50
Korea	Development Finance Company	5.00
Mexico	Irrigation	25.00
Mexico	Roads	27.50
Nicaragua	Education	4.00
Sudan	Electric Power	24.00
Yugoslavia	Railways	50.00
Loans made during the third quarter of fiscal 1968		256.00
Loans made during the first half of fiscal 1968		341.10
Total amount lent during the 9 months of fiscal 1968 ended March 31, 1968		597.10

IFC INVESTMENT COMMITMENTS ANNOUNCED DURING THE THIRD QUARTER OF FISCAL 1968

COUNTRY	TYPE OF PROJECT	AMOUNT \$
Korea	Development Finance Company	702,043
Mexico	Steel	7,338,886
Nicaragua	Textiles	2,071,428
Investments announced during the third quarter of fiscal 1968		\$10,112,357
Investments announced during the first half of fiscal 1968		19,998,000
Total investments announced during the 9 months of fiscal 1968 ended March 31, 1968		\$30,110,357

Recent Activity

INTERNATIONAL MONETARY FUND

During the first quarter of 1968 the Fund's resources were utilized by 14 countries. They drew currencies equivalent to \$791.5 million, over twice the amount of drawings in the same period last year. Repayments during the quarter totaled \$238.4 million. Total drawings in the Fund reached an aggregate of \$14,571.8 million on March 31, 1968. (This last figure includes the Fund's repayment of its 1965 borrowing of \$35 million from Canada.)

Drawings

Canada drew the equivalent of \$391 million in February, an amount corresponding to that country's gold subscription of \$185 million to the IMF augmented by the amount of Canadian dollars which the Fund has provided to other members. This was the first use of Fund resources by Canada since June 1962. At the same time, the Fund made a repayment of its indebtedness to Canada, (see above) under the provisions of the General Arrangements to Borrow, of the equivalent of \$35 million. In four currencies, also in February, equivalent of its gold subscription, in four currencies also in February. This was the first use of Fund resources by Iran since October 1964. In March the United States made its first drawing on the Fund since December 1966. It drew the equivalent of \$200 million in four currencies.

A drawing by the United Arab Republic equivalent to \$40 million was approved in March. This was in support of the U.A.R.'s efforts to strengthen its domestic economy and its payments position. The U.A.R. economy, which has experienced serious payments difficulties in recent years, suffered from the Middle East hostilities last June. The Suez Canal closure and a virtual standstill in tourist traffic led to a severe drop in

DRAWINGS BY FUND MEMBERS DURING THE FIRST QUARTER OF 1968

Member	Month	Amount (\$ million)
Bolivia	February, March	12.00
Canada	February	391.00
Chile	January, March	25.25
Colombia	March	7.50
Indonesia	February	16.00
Iran	February	31.25
Liberia	January	.50
Philippines	January	27.50
Somalia	March	2.50
Sudan	February	2.50
Tunisia	January	3.00
United Arab Republic	March	63.00
United States	March	200.00
Uruguay	February	9.50
Total drawings in the first quarter of 1968		791.50
Total net drawings at the end of the first quarter of 1968		4,555.30

exchange earnings. The situation was weakened further by loss and damage within the oil production and refining sectors. To deal with these developments, the U.A.R. authorities have acted to control the expansion of demand and credit and to reduce spending. Simultaneously with its \$40 million drawing, the U.A.R. also drew \$23 million under the Fund's compensatory financing facility (see below).

Other Developments

In January, Zambia introduced a new currency unit, the kwacha, to replace the Zambian pound. The new unit, which was made equivalent to 10 shillings of the previous currency, did not reflect any appreciation or depreciation of Zambia's currency. A par value of 1 Zambian kwacha = US\$1.40 was established.

Developments in International Liquidity

At its September 1967 Annual Meeting in Rio de Janeiro, the Fund's Board of Governors requested Fund Executive Directors to proceed with work relating to the establishment of a new facility for special drawing rights (SDRs)

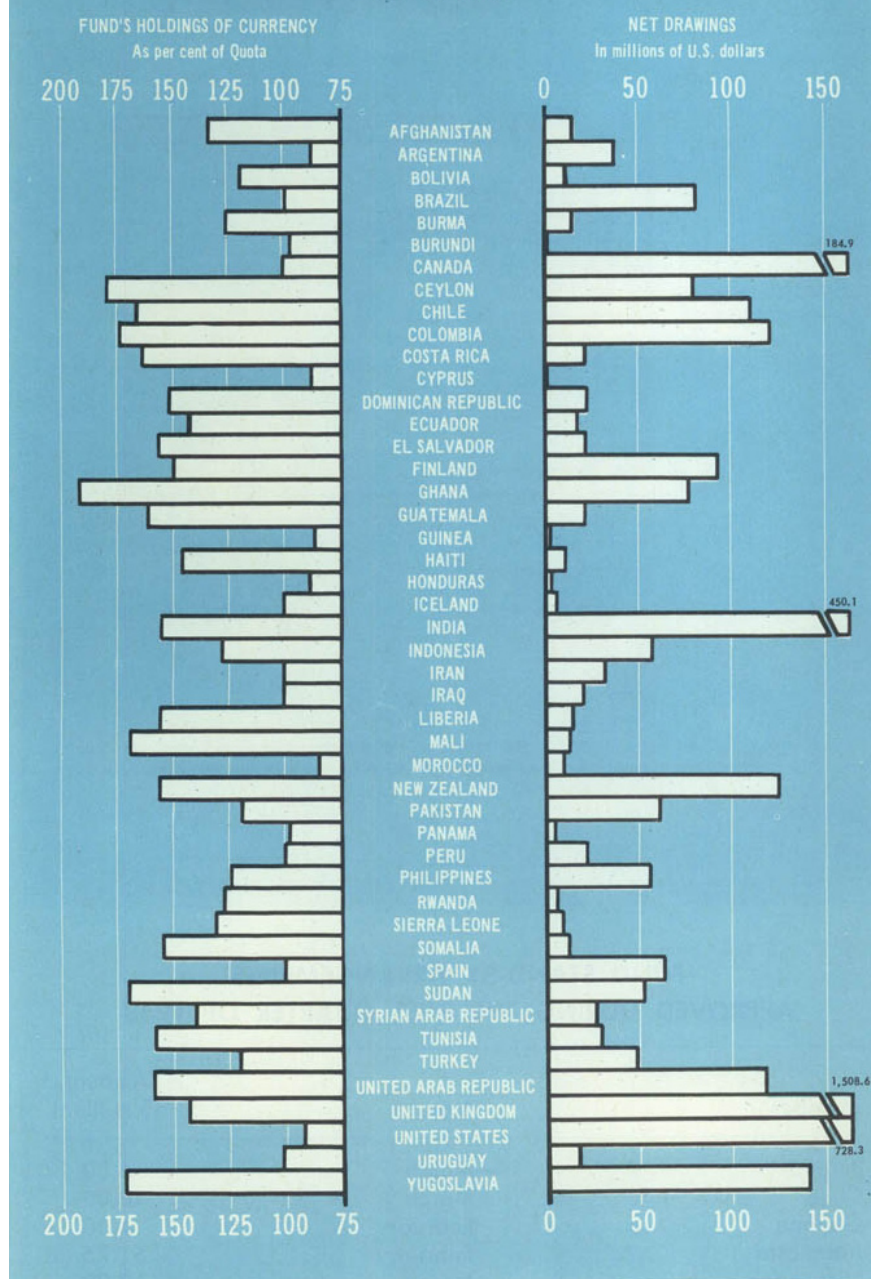
to be operated in the Fund. An outline scheme for them was approved at the Rio meeting, a culmination of discussions which had been in progress for several years both within the Fund and outside of it. After the Rio meeting, Executive Directors and Fund staff took up the task of drafting the necessary amendments to the present Fund Articles of Agreement.

In March 1968, Ministers and Central Bank Governors of the ten nations which participate in the Fund's General Arrangements to Borrow met in Stockholm to consider the amendments proposed. The Fund's Managing Director, Mr. Pierre-Paul Schweitzer, took part in these discussions. In a communiqué issued at the conclusion of the Stockholm meeting, the Ministers expressed agreement on the special drawing rights facility and also approved other modifications in the existing rules and policies of the Fund. France reserved its position pending the final text of the amendments.

Earlier in March, the Governors of the central banks of seven gold pool nations (Belgium, Germany, Italy, the Netherlands, Switzerland, the United Kingdom, and the United States) met in Washington,

USE OF FUND'S RESOURCES

AT MARCH 31, 1968



agreed that it would no longer be necessary to buy gold from markets or to sell gold to monetary authorities to replace gold sold to private markets. The Governors pointed out that their decision involved no departure from the obligation of Fund members to maintain the par values of their currencies established with the Fund. They stressed the importance for all member countries of conducting gold transactions consistently with their undertaking to collaborate with the Fund in promoting exchange stability and orderly exchange agreements. The Governors' statement concluded with the hope that the special drawing rights facility will enter into force "with the least possible delay in order to make it possible to supplement existing reserve assets as and when needed."

Compensatory Finance Drawings

Uruguay made a \$9.5 million drawing in February under the Fund's policy of compensatory financial assistance to countries experiencing a temporary shortfall in total export earnings largely attributable to circumstances beyond their control. Uruguayan export earnings are derived primarily from animal husbandry and the drawing reflects losses in this sector from drought and a severe winter during the fiscal year ended October 31, 1967.

The \$23 million drawing by the United Arab Republic in March under this facility was to help meet a shortfall in export earnings during the year ended November 30, 1967. This resulted from damage to the U.A.R.'s raw cotton crop by pests and from adverse weather conditions.

D.C. to examine the operation of the pool. Their meeting followed a period of uncertainty and intense activity in international gold markets. It was attended by the Managing Director of the Fund as well as the General Manager of the Bank for International Settlements. At the conclusion of the Washington meeting, the Governors issued a communiqué noting the efforts being made by the United States and the United Kingdom in the defense of the value of their currencies. They gave their support

to the declared U.S. policy to maintain the existing gold price of \$35 an ounce in transactions with monetary authorities. They also decided that henceforth officially held gold should be used only to effect transfers between monetary authorities. The Governors announced their intention to halt supplies of the metal to gold markets in London and elsewhere. The existing stock of monetary gold was considered sufficient by the Governors in view of the Fund's prospective special drawing rights facility. They also

Monetary and Fiscal Libraries for Latin America

The Fund is currently working with the Inter-American Development Bank and the Center for Latin American Monetary Studies (CEMLA) to provide financial and educational institutes in Latin America with collections of publications in Spanish on monetary and fiscal affairs. Over 200 sets of these publications are to be distributed to assist the study and understanding of financial problems relevant to economic development in Latin America.

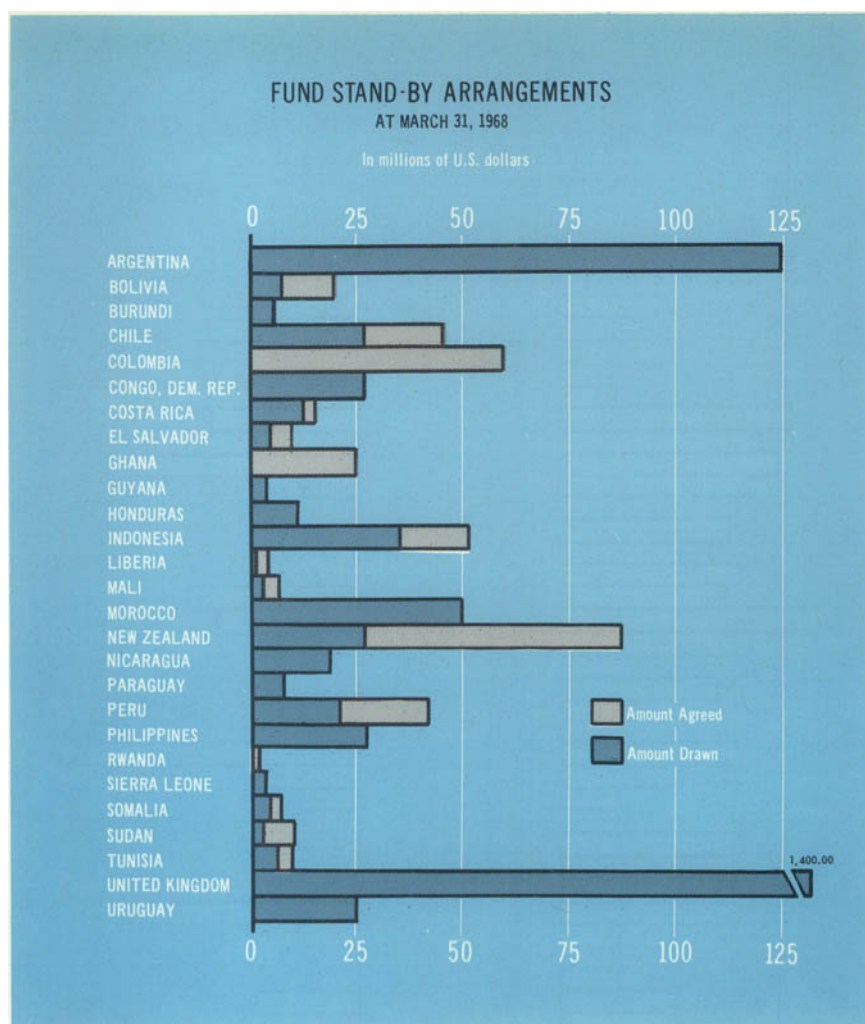
Stand-By Arrangements

Stand-by arrangements totaling \$216.85 million were approved during the first quarter for ten countries in Africa, Asia, Europe, and Latin America. Undrawn balances available to members under such arrangements stood at \$1,861.06 million on March 31, 1968.

A stand-by arrangement for Indonesia of the equivalent of \$51.75 million was the largest arrangement approved during the quarter. The Indonesian arrangement will assist a program of measures to stabilize and rehabilitate the country's economy. Major features of Indonesia's 1968 program are strong measures against inflation, steps to revive domestic production (with an emphasis on rice), and restraints on monetary expansion. Chile received the Fund's approval for a \$46 million stand-by arrangement in support of a fiscal and credit program to promote continued economic growth.

Nicaragua (\$19 million), the Philippines (\$27.5 million), Turkey (\$27 million), and Uruguay (\$25 million) also figured in arrangements approved in the first quarter. The Nicaraguan arrangement was in support of efforts designed primarily to balance the country's external payments, which have suffered from two years of poor crops and sagging exports. The arrangement with the Philippines is to sustain economic development and exchange rate stability while steps are taken to curb credit expansion and to reverse the decline in international reserves. Turkey begins a Second Five-Year Plan in 1968, aiming at a 7 per cent annual increase in real gross national product. The arrangement provides a secondary line of reserves to help Turkey meet temporary payments difficulties because of the country's heavy dependence on agricultural exports.

The stand-by arrangement with Uruguay will support policies to improve Uruguay's internal and external finances. Uruguay took



FUND STAND-BY ARRANGEMENTS APPROVED DURING THE FIRST QUARTER OF 1968

Member	Month	Amount (\$ million)
Burundi	March	6.00
Chile	March	46.00
Guyana	February	4.00
Indonesia	February	51.75
Nicaragua	March	19.00
Philippines	March	27.50
Sierra Leone	January	3.60
Somalia	January	7.00
Turkey	March	27.00
Uruguay	March	25.00

the first step toward the restoration of more stable economic conditions when it adjusted the official exchange rate for the peso in November 1967 from Ur\$99 to Ur\$200 per U.S. dollar.

Measures to stabilize and improve payments positions were also prominent in the economic programs supported by the stand-by arrangements approved for Burundi, Guyana, Sierra Leone, and Somalia.

Agricultural Development in Tropical Africa

Vol. 1, The Synthesis

Vol. 2, The Case Studies

by John C. de Wilde et al

THE PROFITABLE employment of people on the land is one of the most important aims of the underdeveloped countries today. Agriculture has lagged behind other sectors of the economy in practically all of them, but still absorbs the greater part of their populations; it will remain the basis of their economies for a long time. This study analyzes selected experiences with a view to providing data and guidelines for future agricultural development.

Tropical Africa was chosen as the area for study because it offered the most diverse selection of programs, societies, soils, and climatic conditions. Case studies were made of five areas in Kenya, two in Mali, two in Uganda, and one each in Tanzania, Upper Volta, the Republic of Chad, and Ivory Coast; and a number of experiences elsewhere in Africa also were evaluated. Volume I draws certain conclusions regarding the factors conditioning successful agricultural development in tropical Africa; Volume II presents the case studies on which this assessment is based.

These volumes were published for the International Bank for Reconstruction and Development. Volume I costs US\$6.50 and Volume II costs US\$12.50. The combined price for both volumes is US\$15. They may be ordered from The Johns Hopkins Press, Baltimore, Maryland, 21218, U.S.A.

STAFF PAPERS

Staff Papers is a publication through which the Fund makes available some of the studies on monetary and financial problems prepared by members of its staff. The studies published thus far have dealt with such subjects as international liquidity, balances of payments and exchange rates, inflation in relation to economic development, and national monetary and fiscal policies. Summaries in French and Spanish are appended to each article. There are three issues each year.

The subscription is \$6.00 a year or \$2.50 for a single copy; university libraries, faculties, and students may obtain it for \$3.00 a year or \$1.00 a single copy.

Orders may be sent to

The Secretary

INTERNATIONAL MONETARY FUND

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PROGRESS REPORT OF THE INTERNATIONAL INSTITUTE FOR EDUCATIONAL PLANING

Progress Report, a booklet describing the work of the International Institute for Educational Planning (IIEP) since its creation in 1963, has just been published.

The Institute, located in Paris, is a world center for research and advanced training in educational planning. Its purpose is to help all member states of UNESCO in their social and economic development efforts, by enlarging the fund of knowledge about educational planning and the supply of competent experts in this new and fast-growing technical field.

The booklet is available free of charge in English, French, or Spanish, only from:

The International Institute for Educational Planning
7, rue Eugène-Delacroix
Paris 16^e, France

Second Printing Just Out

Development Planning: Lessons of Experience

by Albert Waterston

A two-part comparative study that assesses the results of planning experience in more than 100 mixed-economy and socialist countries in Africa, Asia, Europe, and the Americas.

Part I describes and analyzes the process in the countries under review, with special emphasis on the problems of implementing development plans. Part II deals with organizational and administrative structures and functions. Theoretical information is included, but the approach is essentially pragmatic.

Appendices contain a comprehensive listing of national development plans, a list of central planning agencies and their addresses, and a bibliography on development planning.

The author is Advisor on Planning Organization in the Development Services Department of the World Bank. He is also the author of *Planning in Pakistan*, *Planning in Yugoslavia*, and *Planning in Morocco*, and coauthor of *The Economic Development of Mexico*.

The U.S. edition of *Development Planning* is priced at \$10.75, the English edition at 86s. 0d. An edition in Italian is now available from Guiffre Editore, Milan, at 8.000 Lit.

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The Hope Estate Farming Development in Tobago; the World Bank made a \$5 million loan to the Government of Trinidad and Tobago for the first stage of this agricultural land settlement scheme. See "Consultants for Agricultural Development," page 20.