

STAFF PAPERS

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**STAFF
PAPERS**

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The authors of the papers in this issue have received considerable assistance from their colleagues on the staff of the Fund. This general statement of indebtedness may be accepted in place of a detailed list of acknowledgments.

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Possible Approaches to a Model of World Trade and Payments¹

Rudolf R. Rhomberg *

I. Introduction

THE STUDY of a number of important questions arising in international economics, particularly in connection with the design of national policies or international cooperative action with respect to the balance of payments, exchange rates, tariffs, and foreign aid, would be greatly aided by a reasonably complete analytical framework in quantitative terms expressing the interrelationships between national economic magnitudes such as measures of economic activity and prices, on the one hand, and the balance of payments and its components, as well as exchange rates and other determinants of international price relations, on the other hand. Such a model of the world economy would be useful for the following purposes:

(1) Since national economies are interdependent, it would permit improvements in the forecasting of national economic magnitudes in individual countries;

(2) It would facilitate the forecasting of regional and global developments of trade, payments, and reserves;

(3) It would improve the analysis of a country's alternative policies with respect to the balance of payments by making it possible to take account of the feedback effects emanating from these policy actions as well as of trends in the rest of the world; and

(4) It would be useful for conducting analyses of the effects of international policies or international cooperative measures such as reserve

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¹ A paper presented at the first annual working session of Project LINK, held September 16–20, 1969, in Hakone, Japan. Project LINK is an international research project with the purpose of constructing a world trade model through linking together existing econometric models and giving suitable representation to the economies of countries and regions for which models do not yet exist. At present, public and academic research organizations from eight countries and two international organizations are participating in the project, which is directed by Professor Lawrence R. Klein of the University of Pennsylvania.

creation, changes in the mechanism of balance of payments adjustment, or changes in the magnitude and geographic distribution of foreign aid or the terms on which it is extended.

Up to the present, work of this nature had to be conducted by piecing together such quantitative information as is available, typically in the form of partial or complete national economic models for a number of countries, rudimentary trade models, and sporadic research on other balance of payments components such as capital movements. The national models in existence do not typically contain a full articulation of the external relations of the economy in question, while the trade models lack an adequate representation of the national economies whose trade is to be studied. It is the purpose of the present international research project conducted under the auspices of the Social Science Research Council (Project LINK) to link together national economic models that are now available, and some that may be constructed in the future, in such a way as to achieve eventually a world economic model capable of exhibiting in sufficient detail the various relationships and interconnections between domestic economic magnitudes, national economic policies, trade and payments flows, and cooperative international action.

National models could, in principle, be linked either directly or indirectly. Direct linkage would consist of an explanation of trade and financial flows from each of the countries to be linked to any other country in the group. The method of indirect linkage would entail construction of a model of trade and financial flows as a centerpiece of the complete world model and the linkage of each national model to this central trade and financial model. There are a number of considerations, some of economic substance and others relating purely to research strategy, that must be taken into account in the decision of whether to proceed by the method of direct or indirect linkage. Some of the technical considerations bearing on this decision will be reviewed in Section II below. Here it may be sufficient to point out that a world economic model that relies on direct linkage of national models would require such a high degree of detailed attention to external economic relations in each of these models that it would be difficult to preserve a reasonable balance between the domestic and foreign sectors of these models. For this reason, the indirect method of linkage recommends itself from the point of view of research strategy alone. Moreover, the construction of a world economic model must inevitably start with existing national models. Although these will have to be in any case adapted to some extent if any linkage is to be achieved, it is impracticable to require such far-reaching reconstruction of each national model as would be necessary for direct linkage.

This consideration would suggest that work on the project will have to proceed on two fronts: one of these is the construction of a central world trade and payments model to which the national models can be linked; the other is such adaptation of the national models as is necessary in order to provide the required connecting points to the central trade and payments model. The present paper deals mainly with the first of these two tasks, and only incidentally with the second.

Any world economic model resulting from linking national models together will inevitably have some of the characteristics of these national models. In particular, since the national models that are to be connected are, on the whole, constructed so as to explain short-run variations in aggregate economic magnitudes such as economic activity, employment, and over-all price levels, the resulting world economic model will be best suited to explain short-term variations in trade and financial flows and the relationships between these flows and the policies conducted in the various countries with respect to the adjustment of demand and economic activity in the short run. To be sure, the line of demarcation between short-term and long-term models is not hard and fast. But it is clear that there are limits to the use of models, for purposes of forecasting or policy analysis, imposed by the essential characteristics that have been built into them. The existing models do not, on the whole, contain relationships designed to explain longer-term changes in the underlying economic structure. The world economic model resulting from the linkage of these national models cannot, therefore, be expected to be very helpful in connection with any analysis of long-term changes in the world economy such as movements in comparative advantage or trends in the terms of trade. It may, nevertheless, be true that the experience that will be gained from linkage of national models in general may at some future time facilitate a project in which long-run developmental models may be linked together, if and when these become generally available for many countries.

II. Basic Approaches to Model Linkage

Before choosing the structure of a world economic model that could be regarded as practicable and promising in the light of the conceptual and data problems that have to be faced in undertaking this task and in view of the aims of such a model (as stated in Section I), one may wish to consider the basic choices that are open. Each of the basic approaches has, of course, many variants and is capable of refinement. In this

section it is intended to present only the essential features of each approach.²

THE "CONSISTENCY APPROACH"

A kind of model linkage, although a rather minimal and somewhat unambitious one, could be achieved by designing a procedure that ensures consistency of national forecasts of imports and exports made in the various countries whose models are to be linked. This could be called the "consistency approach."

Imports are forecast in each country mainly with the help of domestic variables that are themselves forecast on the basis of policy parameters and other exogenous factors about which information or estimates are available to the national forecasters. By contrast, exports—which are the imports of other countries—would logically have to be forecast mainly on the basis of variables and policy parameters of other countries, with respect to which information is typically not, or not as readily, available to the national forecasters. This has two consequences: First, national export forecasts are often based on the relation of a country's exports to world exports or to some weighted average of economic activity in the economies of a country's trading partners, which must themselves be forecast by each national agency on the basis of such more or less ad hoc information as may be available to it at the time of making the forecast. Such forecasts of world exports will not necessarily be consistent with the import forecasts made by agencies in other countries, and any forecasts made in a particular country of economic activity in other countries will not necessarily be consistent with the forecasts made by the national agencies of these other countries. Second, since error is introduced in this manner into the forecasts of a country's exports, its own forecasts of national income or other economic activity variables will also be impaired. For these reasons, the outcome is typically one where the sum of national import forecasts is at variance with the corresponding sum of national export forecasts. When these forecasts are summed over all countries of the world, this amounts to a simple case of inconsistency. When they are summed for a certain group of countries, as is true of the semiannual collection of trade forecasts by the Organization for Economic Cooperation and Development (OECD), the discrepancy between the sum of forecast imports and the sum of forecast exports implies a corresponding export surplus or import surplus of this group of countries with the world outside the group.

² For a survey of existing trade models, see Grant B. Taplin, "Models of World Trade," *Staff Papers*, Vol. XIV (1967), pp. 433–55, especially the bibliography on pp. 452–53.

If consistency is aimed at in such an exercise, it would be necessary to revise the first-round forecasts made by national agencies after the extent of the inconsistency has been assessed. For instance, the OECD Secretariat checks the difference between the sum of exports and the sum of imports forecast by the national agencies against a reasonable estimate of the global trade deficit of the non-OECD countries vis-à-vis the OECD countries, derived in part from past trends and in part from an estimate of the availability of financing for such a trade deficit of the group of non-OECD countries through capital flows, foreign aid, and reserve movements. In the event of a discrepancy, the OECD Secretariat suggests revisions to the national export forecasts, taking into account market shares and expected competitive performance of the countries concerned. It is then up to the national forecasters, if they choose to do so, to accept these proposed revisions and to make corrections in their own forecasts of various economic activity variables that may be influenced by exports.

A formalization of this procedure would be a possible contribution that model linkage could make. National forecasts of imports could be summed for all countries and a suitable allowance made for imports of those countries where independent forecasts do not exist. These forecasts would be made on the basis of a first guess as to world exports—a variable affecting national estimates of exports and thus of economic activity. The sum of imports, after an appropriate adjustment to change the valuation from a c.i.f. to an f.o.b. basis, could then be used by national forecasters for revised estimates of national exports, economic activity, and imports. If, in this second round, the sum of imports yields an estimate of world exports that is quite different from the estimate found in the first round, it would be necessary to iterate the calculations in order finally to arrive at a sum of forecast imports that imply approximately the value of world exports that was used in the preceding round for the estimation of each country's exports, economic activity, and imports.³

The basic idea behind this procedure is simple. The only reason why it could be considered to deserve the name of a world trade model at all is that it would in any case be necessary to incorporate into the procedure a systematic way of estimating the imports of those countries that are not covered in the joint exercise, e.g., the non-OECD countries. A number of refinements could, however, be incorporated into this simple approach. It would be possible, for instance, to conduct the consistency

³ See also the approach to this problem chosen by F. G. Adams, H. Eguchi, and F. Meyer-zu-Schlochtern in Chapter VI of *An Econometric Analysis of International Trade* (OECD, January 1969), pp. 43–59.

exercise not only with respect to total merchandise trade but also by commodity groups in such a way that consistency is ensured for each commodity group. If this were done, it would, moreover, be possible to incorporate in the model a procedure for estimating commodity prices on the basis of estimates of demand on the part of the importing countries and of supply on the part of the exporting countries.

But, in spite of these possibilities for elaboration, this approach is essentially a rather limited one. It would neither require the establishment of a large research apparatus nor hold out much promise for policy analysis. It would be basically a marginal improvement in forecasting techniques achieved through international cooperation of forecasters. The principal reason for the limitation of this approach would be that it envisages no improvement in the usually very simple form of export equations used in national models. As soon as these export functions are improved so as to reflect a country's shares in different markets and changes in these shares over time in response to various causative factors, a world model resulting from a linkage of the individual national models would closely resemble a world trade model based on the market-shares approach (see *THE STRUCTURAL APPROACH*, pp. 9-12) without, however, affording the same advantages of consistency among countries in the treatment of shares adjustment that could be achieved by an explicit global formulation in terms of market shares.

These considerations would appear to lead to the conclusion that the simple consistency approach could be useful at best as a starting point in the project to design a world trade and payments model. It would have the advantage of giving quick results of some usefulness, but it would be too limited in the scope of its application to be considered to be a worthwhile end product of a substantial research effort.

THE BILATERAL APPROACH

The general idea of direct linkage of national models discussed in Section I could best be implemented by what will here be called the "bilateral approach" to the construction of a world economic model. The basic features of this approach are most conveniently discussed in terms of a merchandise trade model.

After deciding on the countries to be included as participants in the exercise and dividing the remaining countries of the world economy into appropriate regional groups, each participant research institution would make provision in its national model for the estimation of imports from each of the countries or regions included in the trade model. These estimates, after being corrected for the c.i.f./f.o.b. difference and summed for each supplying country over all importing markets, would establish

estimates of the exports of each country or region of the model. It would also be possible to follow a more truly bilateral procedure by inviting cooperation between the national research organizations to estimate by a joint effort the trade flow from each country to each trading partner as determined by various demand and supply factors agreed between the two respective organizations.

A mere statement of the procedure is already sufficient to convince one of its impracticability.

First, there is the problem of the large number of relationships. If there were 20 countries or regions in the model, the number of import functions to be estimated would be 380 ($= 20 \times 19$) times the number of commodity groups desired, so that the total number of import functions to be estimated and processed in the model might be in the vicinity of 2,000 (assuming five commodity groups). If the number of countries increased to 30, the number of equations would more than double.

Second, with such a large number of relationships, which presumably would be estimated independently by different research groups, it would be difficult to achieve the consistency in the form of the functions, the data being used, etc., that would be required for central processing of the model.

Third—and more important than the two practical obstacles just mentioned, which conceivably could be overcome by diligence—the bilateral approach, if conducted on a grand scale, would inevitably do violence to what might be regarded as the proper economic specification of the desired model. This point deserves further elaboration.

Any model intended to explain the trade flows among a fairly large number of countries and regions must have strong microeconomic features, that is to say, it must be more nearly Walrasian than Keynesian. Neither traditional procedures in the construction of macroeconomic models nor the partial equilibrium models covering individual product markets found in econometric work in the area of agricultural economics are an adequate preparation for the task that one faces in the proper economic specification of a large, disaggregated trade model. One point is clear from the outset: a strictly macroeconomic approach to this essentially microeconomic problem must be inadequate.

Any specification of import functions for various commodity groups by country of origin that follows essentially the macroeconomic procedure of relating these imports to economic activity variables and to one or two relative-price variables would tend to ignore or obscure the competitive relationships between similar imports from alternative countries of origin. These competitive relationships manifest themselves, *inter alia*, in variations in prices charged by different suppliers, which can-

not easily be represented in the bilateral import functions. Again, macro-economic changes in the importing country may impose over-all constraints on imports of all commodity classes and from all sources that cannot conveniently be built into the specifications of import functions explaining the imports from particular partner countries. Moreover, the imports of a particular commodity from a particular supplying country may be significantly affected by changes in supply conditions in that country, but these in turn may have resulted from changes in demand elsewhere for some other product exported by this supplying country. Even if prices fully reflected all these influences—in the manner in which this process is envisaged in the Walrasian system—the short length of time series, the unavailability of certain relevant data, and the essential clumsiness of econometric specification compared with the elegance of a proper theoretical formulation of the problem make econometric progress along these lines almost hopeless.

The practicability of building into a trade model the appropriate microeconomic features of this sort is, of course, a function of the size and degree of disaggregation of the model. In a small model, the difficulties are not insurmountable. For instance, in the Fund's three-region world trade model, which explains total merchandise trade flows among the United States, Western Europe, and the rest of the world, the bilateral approach was used.⁴ There are two separate import equations explaining imports of the United States from Western Europe and from the rest of the world, as well as two separate import equations explaining Western Europe's imports from the United States and from the rest of the world. The bilateral approach is not fully carried through, since the rest of the world's global imports are first explained by an over-all foreign exchange constraint and then divided as between goods bought from the United States and goods bought from Western Europe in accordance with an equation containing as an explanatory variable the ratio of export prices of the United States to those of Western Europe.

In this model, the relative-price variable in each of the import functions of the two industrial regions is the ratio of export prices of the supplying region to domestic prices in the importing region. In principle it would have been possible to add in each of these import functions a second relative-price variable, namely, the ratio of export prices of the supplying region to those of the third region. For instance, U.S. imports from Western Europe could be made to depend not only on the ratio of Western Europe's prices to those of the United States but also on the

⁴ Rudolf R. Rhomberg and Lorette Boissonneault, "Effects of Income and Price Changes on the U.S. Balance of Payments," *Staff Papers*, Vol. XI (1964), pp. 59-124.

ratio of Western Europe's prices to those of the rest of the world. If that had been done, then the full "microeconomic" structure would have been reflected in the model, at least as far as price effects are concerned. In fact, however, it was thought that the substitution in the U.S. market of products that could be bought from the rest of the world for products that were typically bought from Western Europe would not be high, and, similarly, that the substitutability in the European market of U.S. products for exports of the rest of the world would not be strong. Accordingly, price ratios that would reflect this sort of competitive effect as between supplying regions were not used in these import functions.

This simplification would not be legitimate in a model explaining trade flows among several industrial countries that compete in exporting manufactured goods. If the procedure appropriate in this instance were to be applied in a model with, say, 20 countries, one would end up with 19 price ratios in each bilateral import function—1 ratio for the relation between prices in the supplying country in question and domestic prices in the importing country and 18 price ratios to reflect the competitive relation between the supplying country in question and each of the other 18 supplying countries. In order to avoid such an excessive number of variables, one would have to compress the competitive price ratios into an index, perhaps by weighting the individual ratios by the shares of the various supplying countries in the global imports of the importing country. Once such a simplification is being introduced, one would be well on the way to making use of some of the essential features of the method of indirect linkage, which would be based on some sort of trade-shares approach, without, however, making use of all the advantages that such an approach would have to offer. If proper consideration is given to the other microeconomic relationships that affect the imports of a country from a particular partner country, such as the influence of various supply factors that may not in all instances find full reflection in relative prices, the option of the bilateral approach loses further in attractiveness.

What has been said about the disadvantages of the bilateral approach in connection with a trade model holds also for any possible extension of such a model to other balance of payments components, particularly capital movements. Some of the special problems that such an extension would pose are discussed in Section V.

THE STRUCTURAL APPROACH

The difficulties associated with the method of direct linkage through the bilateral approach described above can never be eliminated entirely.

It is possible, however, to get around them to some extent by designing the model in such a way as to interpose a trade structure, which could initially be assumed to be fixed, between the theoretical Walrasian model and its (essentially macroeconomic) implementation. Methodologically speaking, the idea would be similar to that of using an input/output matrix with fixed coefficients in the analysis of problems that would actually require a full microeconomic supply-and-demand model of many producing and consuming sectors. In contrast to some problems solved with the help of input/output matrices, however, the assumption of fixed coefficients—i.e., fixed trade shares—could only be an initial working hypothesis and would have to be relaxed at an early stage. This approach, which is here named the “structural approach,” may be the most promising type of implementation of the idea of indirect linkage.

The basic features of the structural approach can best be discussed in connection with a model of merchandise trade, although modified versions of such a model might eventually also be applied to service transactions and capital movements.

The first step consists of the estimation of global import functions for each country or region, that is, of equations explaining imports—either in total or by commodity group—from all countries. For the second step, it would be assumed initially that the distribution of a country's imports by country of origin tends to remain constant. Distribution of each country's imports in accordance with the estimate of shares of supplying countries would then yield an estimate of each supplying country's exports to each market. For each exporting country, summation over all markets of its exports to each market provides an estimate of its total exports. It should be noted that this method does not require estimation of an export function for each country. Indeed such export equations would be redundant. By the same token, no use would be made of variables expressing total world exports or world imports, although such totals may be derived from the solution of the model.

There are three major problems with this approach, although the first two are not unique to it.

First, any trade model that can be envisaged at the present time would not incorporate all countries of the world economy as individual sectors. There would be some countries that have to be collected into a category of “rest of the world,” and there may be some other countries grouped into regions for which it might not be practicable to estimate import functions of the traditional type. It is therefore necessary to design an appropriate method for closing such a geographically incomplete model. This problem will be further discussed in Section IV.

Second, there is a problem with respect to the valuation of trade flows.

For most countries, imports are recorded on a c.i.f. basis, while exports are valued f.o.b. Unfortunately, the cost of freight and insurance associated with each trade flow from one country to any partner country is not known. What is known in many—although not all—instances is the difference between a country's recorded imports and the sum of the recorded exports of other countries to the country in question. This difference reflects to a large extent the cost of freight and insurance but to some extent also differences in timing of the recording of imports and exports, errors in the recording of trade flows by origin and destination, and other valuation discrepancies. On the assumption that the systematic part of this discrepancy does arise mainly from the difference in valuation bases (c.i.f. and f.o.b.), and the further assumption that the total cost of freight and insurance associated with a country's imports are spread over its imports classified by origin in accordance with differences in the distance between the importing country and the country of origin, it is possible to estimate a matrix of freight and insurance cost that can be used to translate the c.i.f. imports estimated for each market into f.o.b. exports associated with each supplying country. Once the required translation from c.i.f. imports to f.o.b. exports has been made, the problem of a possible inconsistency between the world totals of imports and exports is automatically solved in this type of model: apart from this valuation difference, the two totals are necessarily equal.

Third, there is the problem of estimating the trade-shares matrix, which is the centerpiece of the model. As had already been mentioned, it would not be appropriate to proceed on the assumption that the shares matrix remains constant. To do so would not only result in inaccurate forecasts but also severely limit a number of important types of policy analysis that one would hope to be able to conduct with the help of such a model. Changes in trade shares presumably reflect to some extent changes in competitive relations influenced by relative prices or other factors of international competitiveness. A constant-shares matrix would be appropriate only in a model that did not include price influences at all. Such a model could not be used, for instance, for the analysis of effects on trade flows of changes in exchange rates, border taxes, tariffs, domestic prices, or the degree of demand pressure.

Methods must, therefore, be found for modifying the trade-shares matrix from some initial set of values (e.g., average shares during a recent period) in correspondence to relative-price changes and other factors that may be thought to influence these shares. Ideally, this process of share modification should reflect the main features of the Walrasian process which gives rise to changes in trade shares. This means that

the process of estimating the shares matrix, which would involve the taking into account of all the influences on the supply side that may induce changes in shares, would proceed jointly with the estimation of export prices of each supplying country. This topic will be further discussed in Section IV; a method suggesting a solution to the problem is contained in the Appendix to this paper.

Several possible trade models designed in accordance with the structural approach are outlined in Section IV. Extensions of such models to cover payments and receipts for services and capital flows are discussed in Section V.

A MIXED APPROACH?

There can be no doubt that it will not be possible in the course of constructing a complete world economic model to follow in all instances what might be considered the optimal approach, or even a uniform approach, to the solution of particular problems of model construction. It may be necessary, for instance, to combine an explanation of real imports for some countries with an explanation of nominal imports for others, or to mix approaches that are possible where a complete record of transactions by origin and destination exists, as in merchandise trade, with approaches that must be chosen where such complete records do not exist, as in service transactions or capital flows. In some instances it may be advisable to adopt a mixture of approaches, not because this is imposed by the character of the available data but because a mixture of principles is appropriate to the nature of the relationships that are to be approximated.

In particular, the question has been raised whether it might be beneficial to combine the bilateral approach with the structural approach. Such a combination could take the form of estimating imports into a particular country from certain important major trading partners—thus following to that extent the bilateral method—and estimating the remainder of imports as a separate function, which would then yield the input to a shares calculation in which the exports of the members of this residual group would be calculated.

It is no doubt possible to obtain satisfactory estimates of imports from certain partner countries whose shares in a country's foreign purchases are large. For instance, it would be possible to estimate separately U.S. imports from Canada, or Canadian imports from the United States, and obtain a satisfactory statistical explanation, perhaps a better one than can be achieved by estimating these trade flows in the course of calculations following the market-shares approach. Such a

combination of approaches would, nevertheless, entail considerable difficulties. First, for different importing countries the bilateral flows that it might be appropriate to estimate separately would cover different partner countries. For the United States, imports from Canada and Japan might be bilaterally estimated, but for the Netherlands, those from Germany and the United Kingdom might be so treated. The random removal of trade flows from the global shares approach would make a systematic coverage of the remainder of trade by this approach almost impossible, especially if the aim is to modify the shares matrices in the manner that has been discussed above. Moreover, the proper specification of the separately estimated bilateral flows would still remain problematical, even though a good statistical fit may be obtained. There is no escape from the fact that the variables traditionally found in import functions influence global imports but do not typically affect the distribution of imports by country of origin.

For these reasons, it would on the whole seem inadvisable to plan from the outset for a mixing of approaches. However, when allowance must be made for special circumstances affecting particular cells in the matrix of trade flows—for instance, the U.S.–Canadian automotive agreement—it may be necessary to correct such cells in accordance with information derived from a study of the bilateral trade flows in question. This could be done within the framework of the shares approach by changing the affected shares and making such offsetting changes elsewhere in the shares matrix as are necessary to preserve its consistency.

III. Data Framework

The purpose of this section is not to give a complete survey of the data needed for the world economic model, but rather to discuss certain limitations that the availability of such data will inevitably impose. This question must be raised before it is possible to propose the structure of the model in any detail, because absence of certain data will force the adoption of compromises in the construction of the model.

It may be taken for granted that for the industrial countries, which are to be included separately in the model, all the national economic variables that it may be desirable to use in estimating import functions are available. The same is true for import data in any desired commodity detail according to the Standard International Trade Classification, at any rate in value terms.

At some cost, which may not be inconsiderable, it would also be possible to construct certain volume and unit value series of imports

from the published trade statistics, where such series do not yet exist.

However, a complete coverage of global imports by commodity group in volume terms could not be achieved from internationally published series, although there may be national compilations giving volume series by major commodity groups in some instances. As regards internationally published data, volume series are available only for those subclasses for which unambiguous volume units, such as tons, can be used to measure the volume of trade.

With respect to imports of developing countries, there would be no difficulty in obtaining total imports for all these countries together or certain groups of countries in value terms and, to a limited extent, data series for the value of imports of certain broad commodity groups. Some of the published data for nonreporting countries are derived from reports by partner countries, and this technique could be used in other instances as well. Data on trade among developing countries may be available only for totals of all commodities and in value terms.

Again, the trade flows data necessary to construct shares matrices would generally be available for matrices whose rows and columns corresponded to the industrial countries, or all developed countries (a group of 25 countries consisting of 14 industrial countries and 11 "other developed countries") and a residual sector of the rest of the world derived from global totals after subtracting the trade with the individual developed countries. For the value of total trade a further division of the rest-of-the-world sector into individual countries or groups of countries can be achieved for approximately the last 10 years from the Fund and World Bank's publication, *Direction of Trade*. For shares matrices by commodity group and any such matrices, whether for total trade or for trade by commodity group, that are to be cast in volume terms, no geographic classification of the world outside the developed countries is likely to be obtainable. To be sure, detailed commodity trade statistics by country are maintained in the Statistical Office of the United Nations. But, unfortunately, these data are arranged on some 1,500 magnetic tapes in such a way that processing would involve a major effort as well as a major expenditure. For this reason some data, although they are recorded, must be judged to be effectively unavailable for purposes of model construction at this time.

This means, in practice, that data problems impose few limitations as regards the implementation of the structural approach to model construction for a model in terms of trade values covering essentially the major industrial countries and a residual sector for the rest of the world. Even for this geographic configuration, there would be difficulty in the attempt to cast the model in volume terms and in the derivation of the

requisite unit value data. Severe limitations have to be faced as regards the availability of volume and price series or commodity disaggregation whenever a general geographical disaggregation of the sector of developing countries is attempted. A structural model distinguishing major geographic areas of the developing world might at present be feasible only if constructed in terms of the value of total trade.

Data for balance of payments components other than merchandise trade are generally available only in terms of global totals. There are only a few countries (e.g., the United States) that publish or compile some limited geographical distribution of such balance of payments components. Some years ago a pioneering study on the geographical distribution of balance of payments components other than merchandise trade was undertaken by Herbert Woolley in a volume published by the National Bureau of Economic Research.⁵ The basic study covers the years 1950–54, but there was some extension of the work up to 1958. Here one would be faced with a situation like that in which researchers desiring to study the structure of the economy with the help of input/output methods found themselves when, until fairly recently, the only input/output matrix in existence for the United States was that for the year 1947. In the area of foreign transactions, and particularly capital flows, it is of course much less reasonable to rely on any constancy over time in geographical distribution of transactions. It is likely, therefore, that in any extension of the model to items other than merchandise trade quite novel methods and procedures will have to be devised in order to make progress.

There is one other question that may be disposed of in this context, namely, that of annual versus quarterly data. Most of the trade data described above as being more or less readily available are published in quarterly as well as annual form. Indeed in many instances monthly data are available. However, the magnitude of the data collection problem would increase considerably if quarterly data were desired. The increase is not merely by a factor of 4, since in many instances the quarterly or monthly data must be painfully pieced together from material that is often published in rather inconvenient form. For this reason alone—although there are others—it may be advisable to proceed initially with an annual model and to postpone work based on a shorter unit period until a later stage in the project.

There would in any case remain the question as to whether it might not be sufficient, if a period shorter than one year is to be chosen as the unit period, to select half-yearly data rather than quarterly data.

⁵ Herbert B. Woolley, *Measuring Transactions Between World Areas* (Columbia University Press, 1966).

A half-yearly unit period would conform well to the forecasting efforts now made in most industrial countries and collected by the OECD. It would also be sufficient for the study of cyclical and other short-term variations of trade, while at the same time minimizing the problem of seasonal variations.

IV. Design of Various Trade Structure Models

In this section a number of possible trade structure models are outlined, beginning with a simple model set up in terms of the value of total trade, proceeding to one that is disaggregated by commodities, and finally coming to problems associated with a statement of the model in terms of trade volumes and prices.

A VALUE-OF-TOTAL-TRADE MODEL

Data availability does not impose any limitations on the geographical disaggregation in a trade model cast in terms of the value of total merchandise trade. In particular, it would be possible to form any desired grouping of developing countries on the basis of geographical or other considerations.

As a matter of simplification, it may be assumed initially that trade prices, although they could depend on *domestic* variables in the exporting countries, are exogenous from the point of view of the trade model. For each country or region, i , there would be an import function, explaining the value of imports, of the following form:

$$m_i = \beta_i x_i + \mu_i \quad (1)$$

where

m = c.i.f. value of total merchandise imports,

x = f.o.b. value of total merchandise exports,

β = proportion of exports spent on imports (directly, or indirectly through the multiplier process), and

μ = imports not induced by exports.

What is essential in this formulation is the separation of imports into a part (βx) that depends on current exports and a remainder (μ) that does not. Apart from this requirement, the functional form of μ could differ from country to country. For developed countries, it would typically contain, in addition to economic activity variables, a ratio of import prices to domestic prices. The domestic price variable in such

a price ratio would be determined in the national model in question, while the price of imports could be represented by an index of export prices of partner countries weighted by their shares in the country's imports. The form of the function does not impose any constraints on the manner in which the value of imports could be estimated: it may be derived as the product of separate estimates, or forecasts, of the volume and the average price of imports, or, again, it may be the sum of separately estimated import values for various commodity groups. For a developing region, imports may be estimated as depending, partly or entirely, on current and past gross foreign exchange earnings from exports and net capital inflows.⁶ In this case, the part of imports that is induced by current export receipts would be contained in the term βx , and only the remainder in μ .

An estimate of the f.o.b. value of exports, x , of each country (or region) is obtained by summing over all markets the products of (c.i.f.) imports into each market and the market share, a_{ij} , of exporting country i in market j , the latter adjusted by the multiplicative factor δ_{ij} (which is, on average, in the vicinity of 0.9) indicating the scaling down of the trade flow from country i to market j necessary to change the valuation basis from c.i.f. to f.o.b. The export function of country i is thus

$$x_i = \sum_{j=1}^n \delta_{ij} a_{ij} m_j. \quad (2)$$

Indicating the adjustment of market shares for the f.o.b./c.i.f. ratio by an asterisk ($a_{ij}^* = \delta_{ij} a_{ij}$) and using matrix notation, the vectors of imports and exports of each country (m and x , written without subscripts) are related as follows:

$$\begin{aligned} m &= Bx + \mu \\ x &= A^* m \end{aligned} \quad (3)$$

where μ is the vector of imports not related to exports, B is a diagonal matrix containing the coefficients β_i , and A^* is the matrix of adjusted market shares. The solution for imports and exports is found by calculating

$$\begin{aligned} m &= (I - BA^*)^{-1} \mu \\ x &= A^* (I - BA^*)^{-1} \mu \end{aligned} \quad (4)$$

where I stands for the identity matrix and the superscript -1 signifies the operation of matrix inversion.

⁶ See Rudolf R. Rhomberg, "Transmission of Business Fluctuations from Developed to Developing Countries," *Staff Papers*, Vol. XV (1968), pp. 1-29.

The sources of error in this model are discrepancies between actual and estimated values of (1) "autonomous" imports, μ , (2) export multipliers on imports, β , and (3) adjusted market shares, a^* . Problems relating to the estimation of the shares matrix are discussed on pages 19–20. The question of estimation of μ and β are not discussed in this paper, since they relate to the adaptation of national models preparatory to linking them to the trade model to be constructed. It is worth emphasizing, however, that the procedure calls not for an estimate of total imports from the national models but rather for separate estimates of the coefficients (β) indicating the dependence of imports on exports (in the simplest case this could, for instance, be the traditional export multiplier times the marginal propensity to import) and of the value (μ) of imports that do not depend on exports.

It is clear that the assumption that trade prices are exogenous to the model and do not depend on trade is of doubtful validity. If it were to be relaxed, the simple method sketched here would not be adequate, since national forecasters could no longer take the export prices of partner countries, as forecast in the national models of these countries, as given inputs for the purpose of estimating their own imports. (See pp. 20–21.)

A VALUE-OF-TRADE-BY-COMMODITY MODEL

The extension of the model to cover trade by commodity class requires a change in the import function, since imports of *any* commodity will depend on exports of *all* commodities. This is so whether imports are affected by exports through the multiplier process or through the constraint of gross foreign exchange earnings. If there are s commodities, the import function for commodity k would be written

$$m_{ik} = \beta_{ik} \sum_{h=1}^s x_{ih} + \mu_{ik}. \quad (5)$$

There is no change in the basic form of the export function

$$x_{ik} = \sum_{j=1}^n a_{ij,k}^* m_{jk} \quad (6)$$

where $a_{ij,k}^*$ is the share of country i in the imports of commodity k by market j , adjusted for the f.o.b./c.i.f. factor, $\delta_{ij,k}$, applicable to this trade flow.

The solution for imports and exports of each commodity depends on the solution for every other commodity, and a simultaneous solution for imports and exports of all commodity classes would have to be applied.

There remains the question of how many commodity classes to distinguish. It is safe to say that, provided the essential relations and constraints in terms of total trade are preserved, any separation of trade by commodity class would be better than none, but it is difficult to foresee what the optimum separation would be. In earlier discussion it was proposed to use four commodity classes in accordance with the Standard International Trade Classification (SITC):

SITC	0,1	Food, beverages, and tobacco
	2,4	Raw materials, except fuels
	3	Fuels
	5-9	Manufactures and miscellaneous

This degree of separation may have to be accepted for the near future, since any finer classification would impose an undue burden of data collection and processing on the project.

The next step in the direction of refining the commodity classification, in order to be meaningful, would substantially increase the number of classes. For instance, a proper treatment of manufactures alone might have to distinguish about a dozen types of manufactured goods, not merely for the purpose of achieving sufficient product homogeneity within each class but also in order to remove from the subclasses certain categories to which special considerations apply or that are subject to quantitative controls, such as textiles, automobiles, aircraft, ships, and certain agricultural commodities.

FORECASTING THE SHARES MATRIX

The most severe limitation on the applications of a market-shares model results from the assumption of constant shares. This assumption can be relaxed, short of specifying a complete demand-and-supply model, by allowing market shares to be modified by changes in relative prices that are considered to be exogenous to the trade model.

Two procedures are possible: Elasticities of substitution, for each commodity class included in the model, may be computed from regression analysis with pooled time-series and cross-section data for all exporting countries and all markets,⁷ and these substitution elasticities together with the exogenous changes in export prices can then be used to compute the price-induced changes in market shares in the forecast period compared with the shares in a historical period. Alternately, elasticities of

⁷ See, e.g., Helen B. Junz and Rudolf R. Rhomberg, "Prices and Export Performance of Industrial Countries, 1953-63," *Staff Papers*, Vol. XII (1965), pp. 224-71, and Mordechai E. Kreinin, "Price Elasticities in International Trade," *The Review of Economics and Statistics*, Vol. XLIX (1967), pp. 510-16.

substitution may be calculated separately for each market, or for sub-groups of markets with presumed common characteristics, and these elasticities may then be used to modify the shares in each market.

Export prices are not the only factors affecting market shares. They may also be influenced by (1) shifts in the commodity composition of demand in the various importing countries and (2) by supply influences in exporting countries that do not find expression in relative prices. As regards the factor mentioned in (1), the only remedy lies in refinement of the commodity classification used in the model. With respect to supply shifts under (2), the matter may be more difficult. First, there may be long-run changes in the relative supplying power of various producing countries at unchanged relative prices (constant returns to scale), which, in an essentially short-run analysis, may have to be expressed in the form of time trends in shares that are not otherwise explainable in the model (e.g., the rise in Japan's market shares in manufactures). Second, there may be influences on export supplies of short-term variations in the degree of demand pressure that for various reasons are not reflected in relative supply prices. It may be possible to estimate share equations including both relative prices and relative demand pressure as explanatory variables; one could also follow the interesting suggestion by Mr. Siebrand of the Central Planning Bureau of the Netherlands⁸ for a somewhat more systematic integration of both prices and demand pressure into the model. If this were done, the model would closely resemble the "ideal" model discussed next.

A COMPLETE DEMAND-AND-SUPPLY MODEL

The ideal solution of the problem of the construction of a world trade model would call for an elaboration of the supply side of the model with the same care with which the demand side is ordinarily treated. Unfortunately, supply functions are more difficult to study than are demand functions, partly since their study requires in many instances a detailed knowledge of production processes and techniques for each commodity, as well as of patterns of interdependence in the production of various commodities. Because of these complications, econometric information about price elasticities of supply is almost completely absent.

Imagining for a moment that these difficulties could be overcome

⁸ J. C. Siebrand, "The Short-Term Impact of Pressure of Demand Fluctuations on International Trade" (a paper submitted to the meeting of the European Group of Project LINK in Paris on May 22, 1969).

to some degree, one could envisage a model specifying for each country and each commodity a demand function and a supply function, both related *inter alia* to the price of the commodity (as well as to other prices). The solution of such a model would yield the quantities traded and the prices at which trade takes place. Such a solution could take the form suggested in the Appendix, which presents a demand-and-supply model developed for a particular purpose initially unrelated to the present project, but which could be adapted to the requirements of a complete world trade model.

If it were possible to make progress in research on supply functions, on long term as well as on short term, this would go far in making the model useful for longer-run analysis and projection.

V. Service Transactions and Capital Movements

In this brief section, included in this paper essentially for the sake of completeness, a short description is given of the difficulties that loom ahead when the model is to be extended to balance of payments categories other than merchandise trade.

One problem that both of the principal remaining categories, service transactions and capital movements, have in common is the almost complete absence of published information about transactions by origin and destination. In general, it would therefore not be possible, for these balance of payments components, to rely fully on the type of structural approach that was suggested for merchandise trade.

There may be some exceptions to this statement. For instance, receipts and payments for transportation services could be related to the trade flows with which they are associated. The geographic distribution of the entries on transportation account could be derived from the published (generally global) figures on payments and receipts and the c.i.f./f.o.b. differences found for the various trade flows. Again, some regional disaggregation of service accounts of some major countries are available and could, with the help of auxiliary data, be expanded into the full geographic detail desired. In some instances it may also be possible to obtain from national sources data that are compiled although not ordinarily published.

In the Fund's three-region model mentioned on page 8, equations for four categories of service payments (demand for services) are estimated: (1) travel, (2) transportation, (3) income from investment,

and (4) other private services; ("other government services" are taken to be exogenous). Estimation of these functions presented no particular difficulties, and reasonably good forecasting results have been achieved over the years. Logic, as well as experience with these functions, suggests, however, that these categories of transactions respond to quite different variables⁹ and should be kept apart.

For the purpose of integrating into the model private capital movements and those service categories for which a quasi-structural approach is impracticable, the only method open in the near future might be what was called in Section II the "consistency approach." This means that national forecasts of global transactions, or of transactions by such geographic distribution as can be achieved from the national sources, would be collected and checked for consistency in the world totals. Any inconsistency discovered in this way would be eliminated by more or less ad hoc methods in the manner in which trade forecasts are now treated in the semiannual exercise of the OECD Secretariat.

As regards capital flows, the primary difficulty is not so much a lack of data as an absence of theoretical foundation that could be translated into testable hypotheses with respect to capital movements in a multiregional setting. Except for a small number of studies, chiefly on U.S. capital movements, econometric work in this area is not yet very far advanced, and the pioneering will have to be done to a large extent by individual research directed toward a better understanding of the determinants of the magnitude and direction of capital flows, rather than in connection with the present efforts to link existing models together.

Econometric study of the capital accounts of various countries' balances of payments presents a number of special problems, which are not equally prominent in commodity trade, including that of the consistency of classification of transactions in the accounts of different transactors, the short unit period necessary for the proper study of the effects of interest rates on capital flows, the dominant role of expectations in the determination of some of the flows, and the presence of public controls. It may, therefore, never be possible in short-term forecasting of capital movements to come close to the quality, such as it is, that can now be achieved in forecasting trade flows. It could be, however, that longer-run analysis of capital flows, which may be less subject to the difficulties just mentioned, may eventually prove more amenable to quantitative work than short-run analysis seems to be.

⁹ For instance, in the Fund's three-region world trade model, travel is related to consumption or gross national product (GNP), transportation to trade, investment income to the stock of foreign investments and rates of earnings, and other services to GNP.

APPENDIX

A Many-Country Model of Equilibrating Adjustments in
Prices and Spending

Paul S. Armington *

The trade model outlined below is part of a study on the methodology of forecasting the effects of changes in exchange rates. This fact helps to explain the present form of the model. Certain features of the model, mainly the use made of data on the structure of trade, may prove to have more general application in a model designed to study the international interaction between prices, trade, incomes, and expenditures.

MAIN FEATURES OF THE MODEL

Goods are assumed to be differentiated in use according to the country of production. Hence, if there were m goods and n countries, there would be mn different items of consumption, or "products," each supplied by only one country.¹⁰ As presently used, the model identifies n countries but only one good (i.e., n products); this one good may refer to merchandise-in-general, or (with appropriate alterations in elasticity parameters) it may refer to a particular class of merchandise, such as manufactures.¹¹

World demand for a product—that is, for the output of a single country—is related to each country's total money expenditure on the good and to each country's price. World demand here includes domestic demand, and the explanatory variables include domestic money expenditure and the domestic price, along with foreign prices and expenditures.

The variables are expressed as proportionate (or percentage) changes, and the coefficients of the price terms represent the partial direct and cross elasticities of world demand for a given country's product with respect to the price level in each country.¹² These partial elasticities depend in a complicated way on the substitution elasticities in the various markets and on market shares.¹³ Given n estimates of the

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¹⁰ See Paul S. Armington, "A Theory of Demand for Products Distinguished by Place of Production," *Staff Papers*, Vol. XVI (1969), pp. 159–78.

¹¹ Extension of the model to cover any number of goods is under study.

¹² The trade variables and the elasticities are expressed in value terms.

¹³ See Paul S. Armington, "The Geographic Pattern of Trade and the Effects of Price Changes," *Staff Papers*, Vol. XVI (1969), pp. 179–201. Data similar to

substitution elasticities in the respective n markets, and given a full n -by- n matrix of trade in the good, the price coefficients are calculated by computer.

Apart from the effects of price changes, each country of origin is assumed to maintain its share, by value, in each market—that is, its share in the total spending, on the good, of each country of destination.¹⁴ Hence, the coefficients of the expenditure terms in the demand equations are simply the market shares implicit in the initial n -by- n matrix.

For each world demand equation there is a corresponding supply equation, relating the *ex ante* supply of a product to its price level in the producing country. The n market-equilibrium equations, following the conventional procedure in comparative statics analysis, state that the initial excess demand for (or excess supply of) a country's product is exactly offset by the effects of the equilibrating adjustments in prices and expenditures.¹⁵

The $3n$ demand, supply, and market-equilibrium equations are matched by the $3n$ unknown changes in demands, supplies, and prices, leaving the n expenditure changes yet to be determined. It is assumed, broadly speaking, that changes in national expenditures (on the specified good) depend on national policies affecting the rate of saving. The model represents this assumption in two alternative ways. One way expresses the change in a country's expenditure as the sum of an exogenous component and an endogenous component—the former relating implicitly to policy change, and the latter depending on the change in money income. Alternatively, the change in expenditure (on the good) can be expressed as the difference between the change in money income (derived from producing the product) and the change in the trade balance (in the good). In this instance the trade balance is taken to be a given target of national policy. In a particular solution of the model, trade targets may be adopted for some countries and not

the elasticity coefficients used in the model are shown in Table 4 (p. 189) of that paper. Note that if the good identified in the model refers to merchandise-in-general, the parameter η^i , discussed in that article, is probably about unity. On the other hand, if the good refers to some subclass of merchandise, the model's price coefficients may depend importantly on estimates of the price elasticities of demand for this subclass, as well as on the elasticities of substitution.

¹⁴ This assumption derives from the assumed linear homogeneity of the underlying behavior functions. See Armington, "A Theory of Demand for Products Distinguished by Place of Production" (cited in footnote 10), pp. 161 and 165–66.

¹⁵ Of course, the initial excess demand might be zero, in which case the corresponding market-equilibrium equation would ensure that this balance would not be disturbed by price-expenditure changes necessitated by initial imbalances elsewhere.

for others, depending on the information available and on the questions to be answered.

Given a set of imbalances arising from policy changes (such as changes in exchange rates), or given a set of exogenous expenditure changes or trade targets, the model is solved for the changes in prices and expenditures that will remove those imbalances. These equilibrating changes, in turn, can be fed into the same computer program that was used to calculate the elasticity coefficients in the demand equations (see above), and the output of this step is the final n -by- n matrix of trade or trade shares.

THE EQUATIONS

The demand equations can be written

$$\dot{X}_j = \sum_{i=1}^n \frac{X_j^i}{X_j} \dot{D}_i + \sum_{i=1}^n \eta_{ji} \dot{P}_i, \quad \text{for } j = 1, 2, \dots, n, \text{ where} \quad (1)$$

X_j = initial world demand for the product of country j , in dollars;¹⁶

\dot{X}_j = proportionate change in X_j , i.e., $\Delta X_j / X_j$ (the asterisk over a symbol will in general indicate proportionate change);

D_i = initial expenditure of country i on the good, in dollars, and \dot{D}_i its proportionate change;

X_j^i = initial demand of country i for the product of country j , in dollars;

\dot{P}_i = proportionate change in the price level of country i 's product; and

η_{ji} = partial elasticity of world demand for j 's product with respect to a change in i 's price level. The *direct* elasticities are thus indicated by η_{jj} ¹⁷, and the *cross* elasticities are indicated by η_{ji} , $i \neq j$.

The first term on the right-hand side of (1) is the average growth in markets (including the home market) for country j 's product. The second term measures the deviation of j 's sales from constant-shares sales in all markets combined, caused by the n price changes.

¹⁶ The word "initial" here and below refers to the situation of imbalance. The initial demands, supplies, and expenditures may not refer to observed values, therefore, but rather to *ex ante* values computed on *ceteris paribus* assumptions.

¹⁷ These direct elasticities, of course, are measured in value terms: that is, they are equal to the corresponding volume elasticities plus unity.

The supply relations are written simply

$$\dot{x}_j = \alpha_j \dot{p}_j + \dot{\bar{p}}_j, \quad \text{for } j = 1, 2, \dots, n, \text{ where} \quad (2)$$

x_j = initial supply of j 's product, in dollars, and \dot{x}_j its proportionate change;

\dot{p}_j = proportionate change in the price of j 's product owing to, or causally linked with, the change in output, \dot{x}_j ;

α_j = elasticity of supply of j 's product in value terms, $(\alpha_j - 1)$ being the corresponding elasticity in volume terms;

$\dot{\bar{p}}_j$ = proportionate change in the price of j 's product owing to factors other than output variation. This variable is given exogenously and can be viewed as a vertical shift factor in the supply function.¹⁸

$$\dot{P}_j = \dot{p}_j + \dot{\bar{p}}_j, \quad \text{for } j = 1, 2, \dots, n. \quad (3)$$

That is, the actual proportionate change in the price of j 's product is the sum of the endogenous and exogenous components.

The market equilibrium equations can then be written

$$X_j - x_j = x_j \dot{x}_j - X_j \dot{X}_j, \quad \text{for } j = 1, 2, \dots, n. \quad (4)$$

On the left side of (4) is the initial excess demand for j 's product. On the right side are the changes in supply and demand, brought about by the equilibrating adjustments in prices and expenditures in each country, whose algebraic sum is an excess supply precisely equal to the initial excess demand. To these equations can be added

$$D_j \dot{D}_j = D_j \dot{\bar{D}}_j + m_j x_j \dot{x}_j, \quad (5a)$$

where $D_j \dot{\bar{D}}_j$ represents an exogenous change in spending on the good attributable to change in policy, and where m_j is the proportion of the change in money income that is spent on the good; alternatively,

$$x_j \dot{x}_j - D_j \dot{D}_j = \Delta B_j, \quad (5b)$$

where ΔB_j is a stipulated change in j 's balance of trade in the good.

In summary, there are $5n$ equations to determine the following $5n$ variables:

$$\dot{X}_i, \dot{x}_i, \dot{P}_i, \dot{p}_i, \dot{D}_i, \quad i = 1, 2, \dots, n.$$

¹⁸ In the analysis of exchange rate changes, the exogenous price variable serves to incorporate factors such as monopolistic cost-price adjustments which are occasioned by the exchange rate changes but not related directly to the output-capacity-unemployment situation.

Méthodes possibles de construction d'un modèle du commerce et des paiements mondiaux

Résumé

Cette étude a été préparée à l'occasion d'un projet international de recherche en vue de la construction d'un modèle du commerce mondial au moyen de la liaison des modèles économétriques existants et d'une représentation adéquate des économies des pays et régions pour lesquels de tels modèles n'existent pas encore. Dans l'examen des méthodes possibles, on a donné la préférence à la méthode qui consiste à lier indirectement les modèles nationaux en construisant un modèle central du commerce mondial auquel sont reliés les modèles nationaux et régionaux. Cette méthode permet d'éviter de nombreuses difficultés théoriques et pratiques, auxquelles on se heurterait si les modèles particuliers devaient être liés directement entre eux au moyen d'une détermination complète des relations bilatérales de commerce entre chaque modèle et chacun des autres. Selon la méthode de liaison indirecte, chaque modèle régional ou national contiendrait des fonctions d'importation pour un ensemble convenu de catégories de produits. Les importations calculées à partir de ces fonctions seraient intégrées au modèle central du commerce, qui consisterait principalement en une série de relations destinées à établir, pour chaque catégorie de produits, une matrice des parts de marché des pays exportateurs sur la base de parts antérieures, des variations des prix relatifs et de l'emploi de la capacité de production, peut-être aussi d'autres facteurs influant sur les parts de marché. Les importations de chaque région et ces matrices des parts de marché serviraient à calculer les exportations de chaque pays ou région du modèle. Après avoir passé en revue les données disponibles pour la construction de modèles de ce type, cette étude présente plusieurs exemples de modèles construits selon les grandes lignes de cette méthode générale. Les exemples vont d'une structure simple dans laquelle les importations sont censées n'être affectées que par l'activité économique et les parts de marché supposées constantes, à un modèle complet de l'offre et de la demande, dans lequel les prix et volumes des échanges seraient déterminés simultanément. En outre, il est fait brièvement allusion à certains des problèmes qui se poseraient si le modèle international devait être élargi pour couvrir, non seulement le commerce de marchandises, mais également les flux de services et de capitaux.

Posibles enfoques de un modelo de comercio y pagos mundiales

Resumen

El presente trabajo se preparó en relación con un proyecto de estudio de alcance internacional al objeto de construir un modelo de comercio mundial mediante la vinculación de modelos econométricos existentes, teniendo adecuadamente en cuenta las economías de los países y regiones para los cuales todavía no existen modelos. En el estudio de los diversos enfoques posibles se da preferencia al método de vincular indirectamente los modelos nacionales mediante la construcción de un modelo central del comercio mundial al cual se conectan los modelos nacionales y regionales. Este método evitaría muchas de las dificultades de índole teórica y práctica que se presentarían en el caso de que cada uno de los modelos se vinculara directamente por medio de una especificación completa de las relaciones comerciales bilaterales entre cada modelo y cada uno de los demás modelos. De conformidad con el método indirecto de vinculación, cada modelo nacional o regional contendría funciones de importación relativas a una serie convenida de clases de productos. Las importaciones calculadas a partir de estas funciones se introducirían en el modelo central del comercio, el cual consistiría principalmente en un conjunto de relaciones concebidas con el fin de pronosticar, para cada clase de productos, una matriz de la participación correspondiente a cada país exportador en cada mercado, basándose en sus participaciones tradicionales, en las variaciones en los precios relativos, en las variaciones en la utilización de la capacidad productiva y, quizás, en otros factores que ejercen influencia en las participaciones en los mercados. Las importaciones de todas las regiones y estas matrices de las participaciones en los mercados servirían para calcular las exportaciones de cada país o región que figure en el modelo. En este estudio, después de analizarse los datos disponibles para la construcción de modelos de este tipo, se presentan varios ejemplos de modelos contruidos conforme a los lineamientos de este método general. Los ejemplos varían desde una estructura sencilla, en la que se supone que las importaciones se ven afectadas únicamente por la actividad económica y que las participaciones en el mercado son constantes, hasta un modelo completo de demanda y oferta, en el que el volumen del comercio y los precios se determinarían simultáneamente. En el estudio también se hace alusión a algunos de los problemas que podrían presentarse en caso de que se ampliara el modelo internacional con el fin de que comprendiera no solamente el intercambio de mercancías sino también servicios y movimientos de capital.

The Use of Commercial Credits by Developing Countries for Financing Imports of Capital Goods

I. Introduction and Summary

THIS PAPER is a revised version of a Fund staff study prepared at the request of the United Nations Conference on Trade and Development (UNCTAD), pursuant to a Resolution adopted by UNCTAD at its Second Session held in February–April 1968.¹

The Resolution invited attention to the following questions: (1) To what extent should commercial credits be adapted to promote development as well as trade? (2) How should their acceptance and use be controlled by both recipients and lenders? (3) Should the terms be softened, and what would be the implications for both aid and trade? (4) Should the question whether any new institutional arrangements are needed to alleviate harmful developments in the field of commercial credit be further studied?

Following a description of the factual background (Section II) and of the evolution of techniques in the commercial credit field (Section III), the paper proceeds to an analysis of the issues raised in the terms of reference. The first question, concerning the extent to which commercial credits can be adapted to serve the needs of development, and the third, referring to the effects of softer terms on trade and aid, are examined together in Section IV, which deals with the adaptation of financial terms. The following two sections take account of the second question relating to the control of the acceptance and use of commercial credits. The term “acceptance” is interpreted to cover the quantitative

¹ The study was prepared under the supervision of Mr. Azizali F. Mohammed, Assistant Director in the Exchange and Trade Relations Department. It does not incorporate minor modifications suggested after the transmittal of the study to UNCTAD; these will be reflected in the version to be discussed by the UNCTAD Committee on Invisibles and Financing Related to Trade.

The UNCTAD request was contained in Decision 29(II), “Improving the terms and conditions of aid alleviating the problems of external indebtedness,” *Proceedings of the United Nations Conference on Trade and Development, Volume I: Report and Annexes* (2nd Session, New Delhi, 1968), paras. 9 and 10, p. 41; see also page 99 of this paper.

aspects of control (Section V), while the term "use" is related to its qualitative aspects (Section VI). The paper does not examine the last question raised in the terms of reference.

Trade credits, including suppliers' credits and contractor finance, have been the subject of recent studies by the UN Secretariat² and the staff of the International Bank for Reconstruction and Development (IBRD),³ and problems associated with them have been discussed in international forums for a number of years. The preparation of this paper has benefited from discussions with officials in national governments and international agencies concerned with commercial credits and from written memoranda on the subject sent by the authorities of a few countries.

SCOPE OF THE STUDY

While commercial credits are associated with the movement of all types of goods in foreign trade and range in maturity from under 90 days to over ten years, this study is concerned with the use of extended term credits in connection with the trade in capital goods. Except for transactions of small value, the trade in capital goods is usually financed with longer-term credits, i.e., credits exceeding one year. This study does not cover the trade in other goods that is normally financed with credits of up to 180 days, with somewhat longer terms extended for such commodities as agricultural inputs, road vehicles, and certain consumer durable goods. There have been instances of longer-term credits associated with the sale of certain agricultural commodities; these can be regarded as exceptions to the concept that credit terms should not exceed economic life, usually interpreted to mean the time taken for the commodity to be absorbed into the production process. There have also been sales on extended credit terms of military equipment by the major exporting countries; these credits are also not covered by the study.

The concentration of the study on the financing of capital goods should not be construed to carry any judgment that only those credits contribute to the development process. Commercial credits that finance the trade in other goods are also important in promoting the use of external funds in financing the current trade transactions of developing

² UN, Department of Economic and Social Affairs, *Export Credits and Development Financing: Part I, Current Practices and Problems* (1966), and *Part II, National Export Credit Systems* (1967 and 1969).

³ International Bank for Reconstruction and Development, *Suppliers' Credits from Industrialized to Developing Countries* (Washington, Revised Edition, April 3, 1967).

countries. This function comes to light when, for some reason, there is an interruption in the normal flows of trade credits. The affected country is forced to divert domestic savings to the financing of its foreign trade and to restrict imports when the margins for such diversion are exhausted, with disruptive consequences for orderly development processes. Despite their importance, short-term trade and banking credits have been excluded from the purview of this study, partly because statistics on them are sparse. Commercial credit flows to the developing countries from the group of countries belonging to the Council for Mutual Economic Assistance (CMEA) are also not covered; these credit flows are often merged with movements on bilateral payments accounts or are included without specific identification in bilateral economic assistance data. The study, therefore, is restricted to commercial credit flows from the other industrialized countries to developing countries.

DEFINITIONS

For purposes of this study, a working definition of commercial credits has been adopted in terms of certain typical features, viz., (1) the obligation of the buyer to make a downpayment prior to shipment; (2) the absence of explicit grace periods, with repayment generally commencing on completion of shipment; (3) an amortization schedule providing for periodic equal installments with no accumulation of maturities at the end of the repayment period; (4) the charging of a "commercial" rate of interest; (5) the confining of the credit to foreign exchange costs, exception being made only for such local currency costs as are directly associated with the implementation of a contract; and (6) the eligibility of the credit for national export credit insurance, a facility presently available in most capital goods exporting countries. With the exception of the last-mentioned, these features are also generally found in "public" export credits extended by specialized credit institutions drawing their funds mainly or wholly from official sources, such as the Export-Import Bank of the United States (hereafter referred to as the U.S. Eximbank), the Kreditanstalt für Wiederaufbau (KfW) in Germany, and the Export Development Corporation in Canada. The declared purpose of these and similar institutions is to promote the exports of their respective countries, and in formulating the terms of credit they have generally adhered to the usual terms offered by the trade.

The operations of such institutions are presently reported in statistics compiled by the Organization for Economic Cooperation and Development (OECD) and the IBRD as part of official flows, although recently

the Development Assistance Committee (DAC) of the OECD has divided official flows into "official development assistance" and "other official flows," with all "public" export credits recorded as part of the latter category. The exclusion of "public" export credits from the definition of commercial credits would, however, affect both the coverage of the statistical aggregates and the quality of the analysis, because essentially identical transactions would receive different treatment. For instance, export credits extended by the Export-Import Bank of Japan are classified as private credits on the formal ground that they are extended to Japanese exporters. There is no important difference, however, in the operations of this institution and, say, the U.S. Eximbank of the KfW when they lend directly to the buyer of capital goods. Hence, export credits from these "public" agencies are included in commercial credits for purposes of this paper.

In their upper maturity ranges, commercial credits show similarities to "aid" credits. Several exporting countries designate as "aid" certain types of transaction involving commercial funds. Their decision is made on the basis of a blending of public with commercial funds so as to bring about modifications in the terms and conditions of commercial credits, especially to reduce the rate of interest. The reduction in the cost of the credit is believed by these countries to justify the classification of such transactions as "aid."

The interaction between commercial credits and "aid" constitutes an important part of this study, and despite the inherent difficulty of adopting objective criteria for separating these transactions, it is unavoidable for purposes of this study that some basis for making a distinction be found. Aid transactions are defined as official flows having a high concessional or grant element.⁴ Because of the possible ambiguity of the term "aid," reference will be made to "concessionary" flows, in contrast to "commercial" flows. Furthermore, concessionary flows are assumed to be motivated by the interests of the recipient country (as well as those of the exporting country) and this motivation may be said to have an objective reflection in the involvement of the recipient government in the

⁴ The concessional or grant element is the face value of a financial commitment less the discounted present value of the required amortization plus interest payments. The Supplement to the "Recommendation on Financial Terms and Conditions" adopted by the Development Assistance Committee [DAC] at its 58th Session on 22nd and 23rd July, 1965, which was accepted by DAC members in 1969, stipulates that, in order to comply with the recommendation, a loan transaction must have a minimum concessional element of 61 per cent using 10 per cent discount rate. At this discount rate, commercial credits have a grant element ranging between 5 per cent and 18 per cent, with few transactions having any higher concessional value.

approval of the use of concessionary funds in the framework of inter-governmental agreements.

Finally, deriving from the definition of a "concessional" element is the usage of the terms "softening" or "hardening" the terms of credit. Given a specific discount rate, the concessional element in a transaction is increased as the rate of interest is lowered, or the maturity period lengthened, or both; hence, "softening" of terms is defined as any step that tends to raise the concessional element in a transaction. The word "adaptation" is used when, apart from "softening," it is intended to cover other changes in typical commercial terms, e.g., reducing downpayments, or increasing the percentage of associated local currency costs, or lowering insurance/guarantee costs.

SUMMARY

Commercial credits to developing countries have shown a sharply rising trend in recent years. Gross commitments for credits exceeding five years reached an annual rate of \$4 billion in 1968, compared with less than \$1 billion in 1963. The rise in credit flows has been at a faster rate than the growth of trade in capital goods; it has also reflected the changing characteristics of capital goods exports, the requests from developing countries for larger credits on extended terms, and the intensified competition among industrial countries. The geographical distribution of credit recipients indicates that the more advanced developing countries account for most of the recent flows, and there is some evidence to suggest that the flow has corresponded in a general way to the economic size and the phase of development of the principal recipient countries.

The adaptation of credit and insurance facilities to the changing needs of the export trade in capital goods has taken two lines. On the one hand the principal exporting countries have sought through legal, institutional, and other innovations to put themselves in a position to meet competition on credit terms, in particular that emanating from tied aid. On the other hand, they have sought to standardize the terms and conditions applying to the trade in capital goods through understandings of the Berne Union, and through ad hoc agreements. Other techniques of adaptation have been designed to partly insulate the costs of export credits from domestic interest rates, to facilitate the financing of large projects, and to allow greater flexibility in the use of credits in combination with other types of capital flows.

These adaptations in the commercial credit field have contributed to the rising net flow of credits from developed countries. With the demand

for imported capital goods outpacing their foreign exchange earnings, commercial credits have been providing a growing element in the net flow of financial resources to developing countries. Their importance is likely to grow as industrialization proceeds, and their contribution to the development process could be enhanced with certain adaptation to their terms. Provided that a developing country is otherwise able to carry additional credits on commercial terms, some lengthening of the maturities to correspond more closely to the payout period of projects and the introduction of appropriate grace periods would be desirable modifications in support of sound projects in developing countries. Also, the covering of a greater portion of local costs than is customary might be helpful in certain circumstances, especially where the capital structure of enterprises and the state of development of domestic financial markets in a developing country would otherwise preclude the undertaking of highly productive projects.

As for the general softening of commercial terms, the arguments are somewhat inconclusive, partly because of the inherent difficulty of predicting the likely effects of changes in the terms of commercial credits on the volume, terms, uses, and geographical distribution of concessionary flows and partly because of differences in the interests of the recipient countries at different phases of development. Deliberate action to reduce interest rates and insurance charges, while possibly alleviating the foreign debt servicing burden, would require direct or indirect subsidization and would run contrary to the efforts of the international community to avoid the use of subsidies in export trade; it might also constrain the flow of commercial funds to the developing countries, as well as leading to misallocation of resources.

Insofar as commercial credits are used to finance repetitive transactions or result from continuing relationships between financial groups in exporting and importing countries, the management of commercial flows under normal conditions requires the maintenance of sound internal policies that permit commercial debt to be "rolled over," with the possibility of the "float" rising in line with the growth of the country's economy. Where credits are associated with the financing of nonrepetitive transactions of substantial value, the holding of an appropriate relationship between the rate of accumulation of commercial debt and the various indicators of debt servicing ability is important. When balance of payments difficulties endanger the servicing of external debt, the application of limitations on the further contracting of commercial and other external debts is likely to become necessary. These limitations might range from prohibitions affecting certain categories of debt to flexible ceilings that permit the authorized level of outstanding com-

mercial debt to increase by a specified amount. In both normal and exceptional conditions, the collection and analysis of data of foreign debt obligations is an essential element of debt management, and to this end a registration procedure is recommended in normal circumstances for the private sector and a prior authorization procedure for the public sector.

Greater attention to the use of commercial credits by both recipients and lenders is necessary. In the borrowing country, the need is to adopt the right combination of economic policies (especially in regard to the pricing of capital and of foreign exchange) so as to create a general environment that is conducive to sound decision making by both the private and public sectors. In addition, problems have arisen, especially in the public sector, at the project level, and improved use of commercial credits might call for more adequate selection, preparation, and efficient implementation of projects in this sector. The lending agencies can exercise some degree of selectivity by (1) subjecting large projects to a closer scrutiny not only in respect of the creditworthiness of the recipient but also with reference to the economic returns from the project; (2) supporting joint financing arrangements under the auspices of the IBRD; and (3) experimenting with the use of general lines of export credit extended to development finance companies or similar financial intermediaries in the recipient country.

II. The Factual Background

In this section an attempt is made to analyze the main factors that have affected the trends in commercial credits during the period 1956–68, including the sources, destinations, and uses.

THE DATA

Statistics on the flow of commercial credits to developing countries are compiled by the OECD and the IBRD. OECD data relate to principal creditor countries, which are members of the Development Assistance Committee (DAC) or the Group on Export Credits and Credit Guarantees (ECG), while the IBRD data used in this study are based on regular reports from debtor countries.

The coverage of neither source of information is complete.⁵ The

⁵ An expanded reporting system inaugurated in 1967 is designed to provide detailed information to the OECD and the IBRD to permit matching of individual credits exceeding five years from both creditor and debtor sources. The work has not reached a stage where fully reconciled statistics can be published. The data used in this section have therefore slightly differing bases and definitions.

statistics from the creditor sources are restricted to transactions in respect of which the exporter has been insured and/or the institution financing the transaction has received a guarantee from an export credit insurance agency. However, many multinational firms selling to affiliates, branches, or subsidiaries in developing countries do not always use insurance/guarantee arrangements for covering commercial credits. The same is frequently true of a number of large commercial enterprises, which have long-established connections in particular developing countries. In addition to these uninsured credits, the statistics on insured credits do not always make adjustments for the noninsured portion of credits. It is difficult to estimate the uninsured component of insured credits; it usually ranges between 5 per cent and 25 per cent of the credits, depending upon the policies of various credit insurers.

The IBRD information covers external debts contracted from private sources (including suppliers and financial institutions) by governments and their agencies, or by the private sector if guaranteed by an official agency in the debtor country. However, a substantial volume of commercial indebtedness has no official links in the debtor country and thus is not reported. In addition, reporting countries have often failed to include certain transactions that are in fact conceptually covered by the system, such as credits guaranteed by publicly owned banks. IBRD reporting does not cover military credits.

The present study uses data from the two sources for different purposes: while creditor reporting is used primarily to depict *flows* of credit to developing countries over the recent past, the debtor statistics are used primarily to analyze the outstanding *amounts* of commercial indebtedness of recipient countries and the associated debt service.

TRENDS IN PRIVATE INSURED AND PUBLIC COMMERCIAL CREDITS

According to data published by the DAC, the *net* flows of guaranteed private export credits ⁶ to developing countries were at a yearly average

The series in Tables 1, 2, 4, and the first column of Table 5 as well as Tables 11, 12, and 13 are based on OECD (DAC) statistics on insured/guaranteed export credits having a maturity exceeding one year and are inclusive of interest charges. Tables 3, 6, and 9 and the first column of Table 7 are based on OECD (ECG) statistics on the contract value of officially supported transactions financed by export credits having a maturity exceeding five years and are inclusive of down-payments; both insured/guaranteed credits and "public" export credits extended by specialized public institutions, e.g., the U.S. Eximbank, KfW, and the Export Development Corporation of Canada are included. The second column of Table 5, Table 8, and Table 14 are based on IBRD statistics on debt that is officially contracted or guaranteed in the debtor country and is privately placed in the creditor country but excludes privately placed bonds. For further explanations, refer to the notes to individual tables.

⁶ See footnote 1 to Table 1 for definition.

of about \$400 million during the period 1956–59.⁷ Since 1960 the net flows have shown a steady increase, reaching an amount of more than \$1,743 million in 1968 (see Table 1 and Appendix II, Tables 11 and 12, for the distribution by lending countries).

Data on gross flows⁸ are not available on a comparable basis for the period prior to 1967, and there are statistical gaps even in the recent period. For 1967–68 available data indicate that the flows averaged US\$4.5 billion a year and in 1968 were roughly equally distributed

TABLE 1. NET CHANGES IN INSURED CREDITS¹ EXTENDED TO
DEVELOPING COUNTRIES BY MEMBER COUNTRIES OF THE
DEVELOPMENT ASSISTANCE COMMITTEE, 1956–68²

(In millions of U.S. dollars)

Year	Total	One to Five Years	Over Five Years
1956	483.3	370.8	112.5
1957	490.7	172.7	318.0
1958	229.9	170.1	59.8
1959	424.1	360.7	63.4
1960	570.9	419.5	151.4
1961	698.5	322.8	375.7
1962	657.8	232.0	425.8
1963	666.7	356.3	310.4
1964	941.4	399.8	541.6
1965	825.0	347.8	477.2
1966	1,214.8	480.6	734.2
1967	1,052.5	243.2	809.3
1968 ³	1,743.3	471.0	1,272.3

Sources: Appendix II, Tables 11 and 12.

¹ Net flows relate to commitments to insure export credits or disbursements, inclusive of interest less cancellations in respect of credits repaid in a given year.

² The OECD(DAC) classification of developing countries has been used in this paper.

³ Preliminary estimates.

between credits up to five years and credits over five years. The average gross flows for credits over five years were approximately twice the average net flows; credits over one year but not exceeding five years averaged about seven times the net flows, which is indicative of the substantial

⁷ Information for earlier years indicates an average net inflow of \$200 million a year during the period 1950–55. See UN, Economic and Social Council, Committee for Industrial Development, *Financing of Industrial Development (Export Credit Systems and Institutions)*, CE/C.5/26, March 28, 1963.

⁸ See Table 2, footnote 1, for definition; references to credits or flows in the section are to gross flows unless otherwise specified.

repayments relative to new commitments associated with credits having short-term and medium-term maturities.

An important feature in the development of commercial credits during the 1960's has been the increasing role of credits over five years. The share of *net* insured credits with maturities over five years increased from 23.3 per cent in 1956 to 26.5 per cent in 1960 and to 73 per cent in 1968. Although comparisons between credits of up to five years and over five years must be interpreted with caution,⁹ data for a few countries indicate that insured credits in excess of five years were rare prior to 1960 (for public credits, see below). In Belgium only 4 per cent of insured export credits including credits under one year were for more than five years in 1955; their share in total credits had risen to 13 per cent in 1960 and to 45 per cent in 1968. In Germany no insured credits exceeding five years were reported before 1961; their share in total credits was 26 per cent in 1965 and increased to 41 per cent in 1968 (see Table 2). In Japan credits insured over five years were 11 per cent of the total export proceeds insurance in 1956; their share had risen to 85 per cent in 1968.

The trend of insured credits over five years can also be traced from 1957 onward in data collected by the ECG. As shown in Table 3, the annual commitments to developing countries rose from small beginnings in the late 1950's to more than \$1 billion by 1965. In each year thereafter there has been a steady increase to an annual rate exceeding \$3.2 billion in 1968.

Public export credits exceeding five years increased slowly during the period 1957-59; thereafter they showed a continuous increase reaching \$760 million in 1968. The figure of \$1,080 million in 1967 reflects the

⁹ Available data for credits of over one year and up to five years may be understated. Transactions associated with longer-term credits are more likely to be insured relative to credits of up to five years. The percentage of cover provided also tends to be higher for the longer-term credits because of the greater involvement of financial institutions directly in the credit transaction and the willingness of credit insurers to extend 95 per cent to 100 per cent cover in favor of such institutions. Also, the insured amounts of credits include, for most reporting countries, the amounts of interest payable over the life of the credit. This has a more pronounced effect in overstating the amounts of credit exceeding five years, since the component represented by interest can reach up to 50 per cent of the principal amount, depending upon the length of the credit and the rate of interest; on shorter-term credits this distortion is less significant. The rate of increase in over five-year insured credits also tends to be overstated, since no account is taken in this series of the credits extended, without need for insurance, by official institutions for many years; these public commercial credits have been substantial since the late 1950's and have to some extent induced the subsequent growth of insured credits in countries that do not have similar institutions. Finally, there is some evidence that the recent growth in over five-year credits represents, in part, a shift of transactions that would in earlier years have been financed with credits of shorter length.

TABLE 2. GROSS FLOWS OF INSURED CREDITS ¹ EXTENDED TO DEVELOPING COUNTRIES BY MEMBER COUNTRIES OF THE DEVELOPMENT ASSISTANCE COMMITTEE, 1967-68 ²

(In millions of U.S. dollars)

Member Country	1967		1968 ³	
	Up to five years	Over five years	Up to five years	Over five years
Australia	2.5	0.3	3.5	0.8
Austria	55.9	35.0	14.2	61.1
Belgium	97.3	23.1	115.8	96.0
Canada	13.7	—	19.3	21.0
Denmark	14.5	4.2	26.5	32.5
France	671.0	108.7	527.0	215.2
Germany	352.5	262.4	444.9	305.1
Italy	127.0 ⁴	207.0 ⁴	193.3	494.2
Japan	44.1	585.1	127.2	711.4
Netherlands	21.9 ⁵	13.8 ⁵	23.8	20.3
Norway	1.5	3.3	8.4	16.8
Sweden ³	11.9	13.1	36.5	5.3
Switzerland	147.4	20.3	124.9	38.7
United Kingdom	687.2	348.2	738.8	382.4
United States	118.4	34.3	108.3	126.5
Gross Total	2,366.8	1,658.8	2,512.4	2,527.3
Net Total	243.2	809.3	471.0	1,272.3
Cumulative (Net)				
Total from 1956	3,876.3	4,379.3	4,347.3	5,651.6

Sources: Organization for Economic Cooperation and Development, *Geographical Distribution of Financial Flows to Less Developed Countries, 1966-1967*; Appendix II, Tables 11 and 12; staff estimates.

¹ Gross flows relate to insurance contracts in respect of credit commitments and precede disbursements by varying periods.

² Figures on insured credits over five years are not comparable with data in Table 3. The former cover the insured component of credit commitments or disbursements and are inclusive of interest maturities; the latter represent contract values and are inclusive of downpayments. Figures in Table 2 may also include amounts that were refinanced during the year.

³ Preliminary estimates.

⁴ Staff estimates.

⁵ Totals have been split between up to and over five years on the basis of the ratio applicable to other countries.

exceptional level of commercial aircraft exports from the United States. The U.S. Eximbank was the only source of such credits until 1962. Thereafter, public export credits have also been extended by way of direct loans to foreign buyers from the KfW as well as refinancing credits to national exporters and by Canada through loans extended by the Export Credit Division of the Export Credit Insurance Corporation, which was reorganized in 1969 as the Export Development Corporation.

TABLE 3. COMMERCIAL CREDITS EXCEEDING FIVE YEARS EXTENDED BY MEMBERS OF THE GROUP ON EXPORT CREDITS AND CREDIT GUARANTEES TO DEVELOPING COUNTRIES, 1957-68 ¹

(In millions of U.S. dollars)

Commitments	Insured Private Credits	Public Credits	Total
1957	14	80	94
1958	46	325	371
1959	46	167	213
1960	77	532	609
1961	238	1,046	1,284
1962	364	335	699
1963	607	351	958
1964	953	532	1,485
1965	1,172	440	1,612
1966	1,291	388	1,679
1967	2,117	1,080	3,197
1968 ²	3,200	760	3,960

Source: Organization for Economic Cooperation and Development, Trade Committee, Group on Export Credits and Credit Guarantees.

¹ Includes sales of ships to Liberia and Panama: 1968—\$580 million; 1967—\$465 million; 1966—\$245 million; 1965—\$204 million; 1964—\$125 million; 1963—\$96 million.

² Preliminary estimates.

SOURCES OF COMMERCIAL CREDITS

The cumulative net flows of private insured credits may be taken as a measure of the contribution of each creditor country and its share in the outstanding amounts. According to this measure, Japan appears as the most important source with one fifth of the cumulative net credits extended (see Table 4 and Appendix II, Tables 11 and 12). It is followed by Germany with 18.4 per cent, France 16.0 per cent, Italy 13.4 per cent, and the United Kingdom 12.5 per cent. These 5 countries account for more than four fifths of the cumulative credits; they are followed by Switzerland with 6.5 per cent, Belgium with 3.7 per cent, and the United States with 2.8 per cent.

The small U.S. share in cumulative net credits is a reflection of the relatively recent origin of its insurance/guarantee program. While such facilities were established by most European countries during the inter-war period, the U.S. program was organized by the U.S. Eximbank in collaboration with a number of private insurance companies in 1961. In effect, there has been a contrasting evolution of facilities: the United States has moved from specialized institutional financing for exports toward insurance, while a number of European countries have moved

TABLE 4. SOURCES OF INSURED CREDIT EXTENDED TO DEVELOPING COUNTRIES BY MEMBERS OF THE DEVELOPMENT ASSISTANCE COMMITTEE

Member Country	Cumulative Net Changes from 1956 to 1968			Share of Total
	Up to five years	Over five years	Total	
	<i>Million U.S. dollars</i>			<i>Per cent</i>
Australia	2.6	3.3	5.9	0.1
Austria	36.5	58.4	94.9	0.9
Belgium	141.9	231.1	373.0	3.7
Canada	52.0	18.8	70.8	0.7
Denmark	51.5	47.1	98.6	1.0
France	814.3	782.8	1,597.1	16.0
Germany	952.4	887.7	1,840.1	18.4
Italy	675.7	669.5	1,345.2	13.4
Japan	238.9	1,775.7	2,014.6	20.1
Netherlands	112.8	88.7	201.5	2.0
Norway	22.9	44.4	67.3	0.8
Sweden	43.2	64.0	107.2	1.1
Switzerland	427.0	228.3	655.3	6.5
United Kingdom	578.8	672.1	1,250.9	12.5
United States	196.8	79.7	276.5	2.8
Total	4,347.3	5,651.6	9,998.9	100.0

Sources: Appendix II, Tables 11 and 12.

from exclusive reliance on the insurance mechanism to the activation of specialized arrangements for export credits.

If gross data for both private insured and public credits exceeding five years are considered, Japan appears to be the most important source of commercial credits to developing countries, accounting for almost 28 per cent of the total credits extended in the period 1963-68. However, given the much greater share of Japan in the financing of ship exports to "flag-of-convenience" countries, its credits to developing countries are probably less than indicated by the unadjusted figures. The United States accounts for about 23 per cent of the total. These 2 countries are followed at some distance by Germany with 11 per cent, France with 10 per cent, the

United Kingdom with 10 per cent, and Italy with 8 per cent. These 6 countries account for more than 90 per cent of the total insured and public export credit flows in recent years.

DESTINATION OF COMMERCIAL CREDITS

The outstanding commercial indebtedness of developing countries at the end of 1967 is analyzed on the basis of IBRD data, which cover commercial debts¹⁰ that are officially contracted or guaranteed in 76 countries. A comparison of these data with the cumulative net flows of private insured credits reported by the DAC over the period 1960–68 for 20 countries, which account for about four fifths of the respective totals, is made in Table 5.

The IBRD figures are substantially higher than the cumulative net insured credits for 13 of the selected countries. The divergence is primarily attributable to the fact that the cumulative DAC figures exclude outstanding credits at the start of the period 1960–68. A part of the difference may be explained by reference to the age of the debt. In countries such as Argentina, Brazil, and Mexico where the differences are large, considerable flows occurred prior to 1960, and substantial repayments on older debts have tended to reduce the net increase in insured credits in the period 1960–68. Also, the proportion of insured credits in the lending country may be lower than the proportion that is officially guaranteed in the borrowing country: this results when exporters or financiers in the lending country do not ask for insurance cover. The relatively low level of outstanding commercial indebtedness of Colombia and Venezuela might be attributable partly to the fact that they have availed themselves of banking credits from the United States for import financing that generally are not insured.¹¹

For 7 countries, however, the opposite situation applies, i.e., the outstanding amounts, as reported to the IBRD, are less than the cumulative net changes in insured credits. While for 2 of these countries the IBRD data are less recent, the primary explanation appears to be the predominant weight of the private sector borrowing compared with the public sector, with the presumption that the former has no official guarantee in the debtor country. This is true for the two flag-of-convenience countries (Liberia and Panama) and is probably also true for Greece, the Philippines, and Nigeria. These discrepancies, among others, underline the need for caution in interpreting the available data.

¹⁰ Defined as all privately placed debt with the exception of bond flotations.

¹¹ See Inter-American Development Bank, *European Financing of Latin America's Economic Development* (mimeographed, 1966), p. 129.

Data on the destination of credits exceeding five years are available for the period 1963–68. These figures tend to support the evidence of geographical concentration indicated by the data on outstanding commercial indebtedness. The share of the 15 selected countries shown in Table 6 is more than 71 per cent of total credits. A substantial part of

TABLE 5. OUTSTANDING COMMERCIAL CREDITS IN SELECTED COUNTRIES
(In millions of U.S. dollars)

Region and Selected Countries	Insured Credits, 1960–68 ¹	Outstanding Commercial Debt at the End of 1968 ²
Europe		
Greece	216	99 ³
Spain	278	309
Yugoslavia	497	479 ³
Latin America		
Argentina	248	1,042
Brazil	405	710 ³
Chile	191	330
Mexico	526	1,276
Panama	37	1
Peru	376	619
Asia		
India	221	831
Indonesia	286	365
Iran	290	673 ⁴
Korea	403	981
Pakistan	156	273
Philippines	294	201
Africa		
Ghana	149	286 ⁵
Kenya	91	14
Liberia	211	44
Nigeria	130	97
Tunisia	92	163

Sources: Table 8 and Appendix II, Tables 13 and 14.

¹ Net change in guaranteed private export credits extended by members of the OECD and by Australia.

² IBRD preliminary estimates for privately placed debt excluding bonded debt.

³ On December 31, 1967.

⁴ On September 22, 1968.

⁵ On June 30, 1968.

the credit extended to Liberia and Panama has been for the purchase of ships registered in their territories but with ownership located in developed countries. The share of these 2 countries has risen from 11.4 per cent in 1963–65 to 14.6 per cent in 1968. Three countries in Europe account for 16 per cent in 1963–65, rising to 18 per cent in 1966

but declining in 1968 to 9 per cent. Five countries in Latin America account for a substantial share, rising from 18.8 per cent in 1963-65 to 19.7 per cent in 1968. In this group, Mexico alone accounts for about 8.2 per cent of total credit extended to developing countries in the period 1963-68. Finally, 5 countries in Asia account for almost one fourth of the total credits, and India alone accounts for 9 per cent. Gross

TABLE 6. MAJOR RECIPIENTS OF COMMERCIAL CREDITS EXCEEDING FIVE YEARS EXTENDED TO DEVELOPING COUNTRIES BY MEMBERS OF THE GROUP ON EXPORT CREDITS AND CREDIT GUARANTEES, 1963-68

(In millions of U.S. dollars)

Region and Selected Countries	Annual Average, 1963-65	1966	1967	1968 ¹	Grand Total
Europe					
Greece	58	73	60	61	368
Spain	57	103	212	168	654
Yugoslavia	101	129	37	112	581
Latin America					
Argentina	21	57	34	109	263
Brazil	23	4	62	324	459
Chile	35	24	344	97	570
Mexico	141	137	289	205	1,054
Peru	34	46	141	43	332
Asia					
India	173	170	255	193	1,137
Iran	15	56	198	251	550
Pakistan	55	60	66	149	440
Philippines	27	31	144	151	407
Korea, Republic of	24	98	140	272	582
"Flag-of-Convenience" Countries					
Liberia	92	161	299	432	1,168
Panama	62	83	165	146	580
Others	433	447	684	1,246	3,676
Total	1,351	1,679	3,130	3,959	12,821

Source: Organization for Economic Cooperation and Development, Trade Department, Group on Export Credits and Credit Guarantees.

¹ Preliminary.

credits exceeding five years in maturity have therefore been extended predominantly to about a dozen developing countries in recent years; these include most of the largest—in population and gross national product (GNP)—developing countries, some of which have also been the main recipients of concessionary lending. The rest of the developing world together accounts for an average inflow of about \$600 million a year.

There is some evidence to suggest that the flow of credits in recent years has corresponded in a general way to the economic size and phase of development of the principal recipient countries. Table 7 assembles the available data on the same countries selected for Table 5, except that

TABLE 7. SHARE OF SELECTED DEVELOPING COUNTRIES IN COMMERCIAL CREDITS, GROSS NATIONAL PRODUCT, AND CURRENT FOREIGN EXCHANGE RECEIPTS AND IN RELATION TO SHARE OF MANUFACTURING IN GROSS DOMESTIC PRODUCT¹

Region and Selected Countries	Percentage of Totals for Selected Countries			Percentage of Manufacturing in Gross Domestic Product
	Commercial credits	Gross national product	Current foreign exchange receipts	
Europe				
Greece	3.9	3.5	4.0	16.4
Spain	8.5	11.2	14.0	25.7
Yugoslavia	5.9	4.9	7.7	35.5
Latin America				
Argentina	3.1	9.0	7.4	33.3
Brazil	6.4	10.5	8.7	28.7
Chile	7.8	2.3	4.4	25.3
Mexico	12.0	10.8	10.4	26.1
Peru	4.1	1.8	4.1	19.1 ²
Asia				
India	12.3	22.3	9.0	14.4
Indonesia	2.5	4.7	3.7	11.1
Iran	8.1	3.5	8.8	12.0 ²
Korea	8.3	2.3	2.7	17.1
Pakistan	5.2	5.9	3.1	11.2
Philippines	5.5	3.0	4.8	18.6
Africa				
Ghana	1.6	0.9	1.5	8.0 ²
Kenya	0.6	0.5	1.8	11.1
Nigeria	2.2	2.4	2.7	5.9 ²
Tunisia	1.7	0.5	1.2	15.0
Total	100.0	100.0	100.0	

Sources: Organization for Economic Cooperation and Development; author's estimates.

¹ Commercial credits cover combined flows of insured and public export credits exceeding five years in maturity and extended by ECG members in 1963-68. Data for 1968 are preliminary, GNP figures are at factor cost for 1967. Foreign exchange receipts are for 1968. Data for share of manufacturing production in GDP are for 1966 except where specified otherwise.

² 1967 data.

Liberia and Panama have been excluded. For India, Mexico, Spain, Yugoslavia, Iran, the Philippines, Greece, Pakistan, Kenya, and Nigeria there is a reasonable correspondence between their ranking in recent credit flows and their economic size as measured by GNP and current

foreign exchange earnings. Similarly, countries attracting large commercial flows also have a relatively large manufacturing sector, as shown in the last column of the table.

Two countries—Argentina and Brazil—record much lower credit flows than their economic size would appear to warrant. This is primarily a reflection of their cautious policies after a period of rapid accumulation of commercial debt which had resulted in a multilateral rescheduling of commercial debt. India, which accounts for the largest use of commercial credits, has a lower share of manufacturing production in its gross domestic product (GDP) than most of the other important recipients: this may reflect, however, the underestimation of output of small-scale manufacturing enterprises in India's GDP.

EXTERNAL DEBT SERVICE

On the basis of IBRD data on outstanding external indebtedness that is officially contracted or guaranteed, the commercial debt of 76 countries at the end of 1967 was roughly 20 per cent of the total debt (see Appendix II, Table 14). The following frequency distribution shows the ratio of outstanding commercial credits to total debt.

Ratio of Commercial Debt to Total Debt (<i>In per cent</i>)	Number of Countries
0– 4.9	23
5.0– 9.9	4
10.0–14.9	9
15.0–19.9	10
20.0–24.9	8
25.0–29.9	9
30.0–34.9	3
35.0–39.9	3
40.0–44.9	2
45.0–49.9	3
50.0 and higher	2
Total	76

Almost three fourths of the countries represented have a ratio of less than 25 per cent. The lowest category includes 8 countries that report no guaranteed commercial debt. The high-ratio countries, i.e., those with a ratio over 25 per cent, include Argentina, Ghana, Korea, Mexico, and Peru.

Table 8 shows the structure of the outstanding foreign debt and debt servicing for the 20 selected countries. For each, the ratio of service payments on commercial debt to total debt service payments substan-

TABLE 8. CREDITS CONTRACTED OR GUARANTEED BY PUBLIC SECTOR IN RECIPIENT COUNTRIES

(In millions of U.S. dollars and per cent)

Region and Selected Countries	Outstanding at the End of 1967		As Percentage of Grand Total		1968 Service Payments		1968 Current Foreign Exchange Receipts	Debt Service Ratio	
	Total debt	Commercial credits	Total debt	Commercial credits	Total debt	Commercial credits		Total debt	Commercial credits
Europe	4,584	727	10.6	8.4	506	155	7,215.8	7.0	2.1
Greece	533	99	1.2	1.1	49	20	951.9	5.1	2.0
Spain	747	112	1.7	1.3	73	18	3,355.0	2.2	0.5
Yugoslavia	1,519	479	3.5	5.5	263	104	1,831.0 ¹	14.4	5.7
Latin America	14,694	4,432	34.2	51.0	2,008	1,075	15,277.2	13.1	7.0
Argentina	2,028	898	4.7	10.3	452	213	1,778.0	25.4	12.0
Brazil	3,469	710	8.1	8.2	426	183	2,085.0	20.4	8.8
Chile	1,725	484	4.0	5.6	150	71	1,044.0	14.4	6.8
Mexico	2,671	1,131	6.2	13.0	526	362	2,484.0	21.2	14.6
Panama	115	1	0.3	0.0	8	—	329.0	2.4	—
Peru	968	439	2.2	5.0	113	88	977.0	11.5	9.0
Asia	17,720	2,471	41.2	28.4	1,200	333	14,923.5	8.0	2.2
India	6,998	91	16.3	1.0	515	80	2,145.0	24.0	3.7
Indonesia	2,222	376	5.2	4.3	168	71	877.0	19.2	8.1
Iran	1,745	587	4.1	6.8	138	55	2,101.0	6.6	2.6
Korea	1,222	791	2.8	9.1	45	38	880.3	5.1	4.3
Pakistan	2,810 ²	230 ²	6.5	2.6	134	15	750.8	17.9	2.0
Philippines	429	134	1.0	1.5	57	34	1,156.0	4.9	2.9
Africa	6,020	1,061	14.0	12.2	432	150	6,840.4	6.3	2.2
Ghana	528 ²	286 ²	1.2	3.3	38	27	356.0	10.7	7.5
Kenya	327	16	0.8	0.2	17	2	418.9	4.1	0.4
Liberia	173	48	0.4	0.6	12	8	169.0 ³	7.2	4.6
Nigeria	586	123	1.4	1.4	43	23	649.6	6.6	3.5
Tunisia	546	159	1.3	1.8	50	31	276.1	18.1	11.3
Grand Total	43,018	8,691	100.0	100.0	4,146	1,713	44,256.9	9.4	3.9

Source: Appendix II, Table 14.

¹ 1967 data.² On June 30, 1968.³ Merchandise exports.

tially exceeds the ratio of commercial debt to total debt; this is a measure of the large difference in terms between commercial and official loans. The same conclusion is derived from data available to the IBRD for 76 countries; the ratio of service payments on commercial debt to their total debt service was 41 per cent, while the ratio of commercial debt to total debt was only 20 per cent.

The following frequency distribution gives the ratio of commercial debt service to current foreign exchange earnings; it shows that few countries had a ratio higher than 9 per cent. In certain cases, the ratio has been influenced by debt reschedulings.

Ratio of Service Payments on Commercial Debt to Current Foreign Exchange Earnings (<i>In per cent</i>)	Number of Countries
0- 2.9	49
3.0- 5.9	18
6.0- 8.9	5
9.0-11.9	2
12.0-14.9	2
Total	76

FACTORS AFFECTING GROWTH OF COMMERCIAL CREDITS

The rising flow of commercial credit to developing countries described previously is an integral part of the general extension of credit facilities associated with a growing volume of world trade. It also reflects an increase in the proportion of engineering goods in the total on which credit terms are customarily extended for periods exceeding one year. According to a study by the General Agreement on Tariffs and Trade (GATT),¹² the share of engineering products in world exports rose from 19.1 per cent in 1955 to 31.1 per cent in 1960 and to 57.8 per cent in 1966. Exports of these goods to developing countries increased from \$6.1 billion to \$13.3 billion over the period 1955-66, more than 95 per cent being exported by the Western industrial countries and Japan. However, there is evidence that the growth of credits was at an even faster rate than the growth of exports on capital goods. The proportion of credits in excess of five years to export sales of machinery and transport equipment doubled between 1963 and 1967; the propor-

¹² GATT, *International Trade, 1967* (Geneva, 1968). In addition to machinery and transport equipment (SITC section 7), the category "engineering products" includes scientific, medical, optical, measuring, and controlling instruments (SITC group 861), watches and clocks (SITC group 864), and miscellaneous manufactures of metals (SITC division 69).

tion remained virtually unchanged in the sales among developed countries, while for developing countries it rose from 8 per cent in 1963 to 20 per cent in 1968. No credits in excess of five years were extended to CMEA countries in 1963; in 1967 the proportion of credits to export sales was about one third.

An explanation for the growing proportion of commercial credits to sales is found partly in the nature of goods exported and partly in the pressure from developing countries for larger credits on extended terms and the growing competition among the industrial countries, which has led them to respond to some degree.

Requests from developing countries for purchases on extended credit terms increased as the demand for capital goods exceeded what could be financed out of their own resources. The accumulated foreign exchange reserves of a number of them in the war years were spent in the 1950's when their export earnings were increasing at a slower rate than desired. Direct private investment was attracted to countries with natural resources, such as those having petroleum and other mineral deposits, or to countries having strong historical ties with metropolitan capital markets or important associations with countries willing to provide capital. In a number of developing countries these advantages did not exist. In some, the policy of public ownership of industrial enterprises or the insistence on a high proportion of national ownership in such enterprises discouraged potential private investors.

Another traditional channel for acquiring capital, viz., bond flotations in the capital markets of developed countries, recovered only slowly from the disruption of the 1930's and 1940's. Access to capital markets was restricted prior to the achievement of currency convertibility in the late 1950's and still has not been fully restored. Moreover, many of the developing countries were newly independent and their creditworthiness was not yet well established.

Assistance from national governments or their agencies and from international institutions became the principal new source for capital flows to developing countries. Lending in this form was to a large extent to governments and often was tied to infrastructural projects. However, the developing countries also needed financing for other types of investment, e.g., the replacement of obsolete equipment, the expansion of existing industrial units, or the creation of new ones, for which the supply of government funds or those from international institutions, including the International Finance Corporation, was limited. In these circumstances, buyers in developing countries sought to cover part of their capital outlays with financing arranged by their suppliers.

Suppliers found it possible to respond to these pressures as the gradual

liberalization of exchange controls allowed them to extend credits for longer periods; suppliers also found it necessary to respond in view of intensifying competition in markets for capital goods. Sales on credit were not necessary in the sellers' market prevailing in the immediate postwar period. However, production expanded rapidly following the recovery of the economies of Western Europe and Japan, and a growing proportion of output moved into international trading channels. From the mid-1950's "international exchanges of engineering products began to grow consistently and increasingly more rapidly than production."¹³

Table 9 shows the main purposes for which credits in excess of five years were extended to the developing countries in the period 1963-68. Ships (including components and spare parts) appear as the largest single category. Credits associated with their sale increased from US\$172 million in 1963 to over US\$1 billion in 1968; sales to developing countries were in excess of US\$400 million in the latter year even after adjustments are made for the two flag-of-convenience countries mentioned earlier. While prior to 1960 the terms for ships were typically under five years, they have gradually lengthened to seven to eight years. Power plants represent a second major category, where there was an increase from US\$116 million in 1963 to about US\$650 million in 1968. There has been a trend toward the adoption of larger generating units, as power loads have grown sharply. Many public utilities have found it practicable to purchase high unit-value equipment only if payments could be met from operating revenues that accrued over considerably longer periods than five years. Another element has been the trend toward the purchase of sophisticated industrial plants on a "turn-key" basis where the supplier of equipment has also provided construction and engineering facilities. Moreover, in contrast to the pattern found in most developed countries where investment often takes the form of additions to existing plant by established enterprises, the sale, against buyers' credits, of complete plants to new enterprises has entailed the provision of extended credit facilities because of the longer time required for the construction and "running-in" of new plants.

III. Evolution of Techniques

The adaptation of credit and insurance facilities to the changing needs of the export trade in capital goods has taken different forms, depending on the structure of the financial system, the nature of the

¹³ *Ibid.*, p. 34.

TABLE 9. COMMERCIAL CREDITS EXCEEDING FIVE YEARS EXTENDED TO DEVELOPING COUNTRIES BY MEMBERS OF THE GROUP ON EXPORT CREDITS AND CREDIT GUARANTEES, BY PURPOSE, 1963-68

(In millions of U.S. dollars)

Purpose	1963	1964	1965	1966	1967	1968 ¹
Complete plants (including extensions)	449	614	665	520	1,457	1,900
Power	116	204	163	125	299	650
Chemicals and fertilizer	153	119	100	158	235	400
Steel and metal products	122	135	65	68	393	470
Wood, pulp, and paper	8	26	75	56	8	5
Cement	14	13	69	41	83	25
Mining	—	—	81	26	40	30
Sugar	10	27	48	17	108	80
Textiles	7	24	33	18	55	60
Other	19	66	31	11	236	180
Machinery, motors, and plant equipment ²	76	145	120	218	273	265
Ships ³	172	236	367	403	713	1,050
Aircraft ³	24	59	105	140	301	240
Locomotives ³	47	25	46	80	57	75
Road vehicles ³	1	5	14	27	12	10
Road, railway, and port equipment	86	61	60	63	79	135
Telecommunications and electrical equipment	38	76	49	72	158	120
Other (unspecified and multipurpose)	65	264	186	156	147	165
Total	958	1,485	1,612	1,679	3,197	3,960

Source: Organization for Economic Cooperation and Development, Trade Committee, Group on Export Credits and Credit Guarantees.

¹ Preliminary data.

² Power plant and transmission equipment included under heading "Power."

³ Including components and spare parts.

existing institutional arrangements for export financing, and the development of the insurance industry. In a few exporting countries with flexible and broad-based financial systems, the need for changes in credit arrangements has been minimal; the modifications of insurance facilities have been sufficient to ensure the availability of export credits in the form needed. On the other hand, countries with specialized institutions for financing export transactions beyond the short-term maturities of the normal trade flows have found that modifications in the statutes and operating procedures of their institutions combined with minor changes in their insurance schemes were usually sufficient to achieve the objective of maintaining a competitive position for their exporters. In the intermediate group of countries there has been a need for organizational changes in the credit institutions, involving the setting up of new credit agencies or new forms of cooperation between existing ones, combined with innovations in insurance techniques. Finally, in a number of countries public funds have been mixed with commercial financing in order to achieve needed adaptations.

Whatever the changes in the arrangements adopted in the last decade or so, the objectives have been similar: to enable credit institutions to grant credits for longer periods; to insulate, to the extent possible, the cost of export finance from changing domestic credit conditions; to allow greater flexibility in adapting commercial terms to compete against tied-aid transactions; and to enable national exporters to bid for projects sponsored by international or regional banks under "joint financing" arrangements. This section attempts to provide a brief summary of the main changes made in credit and insurance arrangements in recent years.¹⁴

FINANCING EXTENDED MATURITIES

Commercial credits were increasingly extended for periods longer than five years toward the end of the 1950's. Prior to that time, the U.S. Eximbank was almost the exclusive source of commercial financing for extended maturities. Other countries found it necessary to establish facilities for longer-term lending for reasons discussed earlier. In countries like the United Kingdom, exporters were enabled to obtain such credits following the application of the "matching principle," under which the national insurer was empowered to match, for a specific order, terms of credit exceeding five years from shipment provided that foreign compe-

¹⁴ For a full description of financing and insurance arrangements, see UN, Department of Economic and Social Affairs, *Export Credits and Development Financing: Part I, Current Practices and Problems* (1966), and *Part II, National Export Credit Systems* (1967 and 1969).

tition had official support. While some countries interpreted such support to mean credit insurance, others took the view that with aid-tying the distinction between aid and other transactions could not be drawn objectively and therefore were willing to invoke the matching principle in such cases. In some other countries, such as Canada, Japan, and Finland, either new specialized institutions for long-term export credits were established or the powers of existing ones were enlarged to the same end. In most other countries a number of "pooling" or refinancing arrangements were activated under the auspices of banking consortia or specialized agencies.

In Belgium an agency designated as Creditexport was organized to administer the funds placed in a pool by 3 public credit institutions and 13 commercial banks. A similar arrangement was organized in France under the title of Groupement Interbancaire pour les Opérations de Crédit à l'Exportation to take some of the pressure off the Crédit National in the refinancing of long-term suppliers' credits. Export credits can be refinanced by specialized institutions in Austria (through the Kontrollbank), France (through the Banque Française du Commerce Extérieur and Crédit National), Italy (through Mediocredito Centrale), Japan (through the Export-Import Bank of Japan), and Sweden (through AB Svensk Exportkredit); these institutions obtain funds either in their capital markets or from their treasuries.

BUYERS' CREDITS

The financing of long-term commercial credits for large projects and for periods in excess of five years proved burdensome for exporters who, even when benefiting from export credit insurance, remained responsible for carrying anywhere from 5 per cent to 20 per cent of the credit risk through the entire length of maturities, and also continued to bear the risk of nonpayment for those contingencies that were not covered by the insurance policy. The incidence of these contingent liabilities seriously affected the capacity of the suppliers to raise credits for their own requirements. To overcome this problem, an important innovation was introduced after 1958. In that year, the German export credit insurance company, Hermes Kreditversicherungs-Aktiengesellschaft, was authorized to guarantee credits made available by financial institutions directly to foreign buyers of capital equipment as an alternative to the usual practice of insuring national suppliers. Similar arrangements were subsequently introduced in France, Italy, and the Netherlands. The United Kingdom introduced a scheme of Financial Guarantees in April 1961 designed to enable British credit institutions to make loans direct to overseas purchasers on extended credit terms.

Since the exporter is paid in cash, under buyers' credit arrangements, his capacity to borrow remains intact. This innovation has also enabled the buyer to arrange financing with greater flexibility from a single source or from a consortium of financial agencies at uniform financial terms and thereby has facilitated negotiations with several exporters contributing to a single project. The use of the technique has been restricted to major projects because of the need for careful dovetailing between the buyer, a number of exporters, one or more financing institutions, and the insuring agency.

In the United Kingdom, "buyers' credit guarantees" are available for projects costing £1 million or more, excluding local expenditure. In Germany, the comparable figure is DM 5 million; the credits to the developing countries are extended by the KfW in the form of "back-up" credits, i.e., the KfW picks up the financing one year after the completion of the project (considered as a warranty period) in the developing country. The KfW reimburses any financing provided to cover the production and warranty period from other financial sources. In France, the sum would in principle be at least F 25 million and must involve transactions carried out within the framework of a single foreign buyer with French firms for the execution of a specific program; the credit duration must be of eight years or more.

LINES OF CREDIT

A variant of this technique has been used in an experimental way by some countries to facilitate smaller value transactions. An agreement that specifies a ceiling up to which insurance cover can be authorized in favor of buyers in a single country, and the commodities involved, is reached in advance of the settlement of the supply contracts or the selection of construction projects to which the loans would apply. This type of agreement facilitates the extension of lines of credit by financial institutions in the supplying country to a development or commercial bank or even a purchasing agency in the buying country. Examples of such agreements are found in several of the principal exporting countries. The United Kingdom has made such arrangements in recent years with Israel (for industrial projects), with Brazil (for a mercantile fleet and more recently for petroleum equipment and related services), with the Central American Bank for Economic Integration (for public utility projects), with Mexico (for ancillary equipment for the petroleum industry), and with Yugoslavia (for miscellaneous equipment). Japan has also used line-of-credit arrangements in the framework of agreements with Argentina, India, Indonesia, Iran, Korea, Laos, Pakistan, the Philippines, the United Arab

Republic, and Yugoslavia; a global ceiling is established, with the terms for individual projects to be negotiated subsequently. An exception was made in a Japanese arrangement with Argentina where the "maximum" or "most favorable" terms were agreed in advance for transactions of small value, i.e., ¥ 5 million or less.

More recently, the use of the line-of-credit technique has been broadened in at least one major exporting country. In promising markets, the export credit insurance agency has taken the initiative to seek out business opportunities, define the scope, and settle the financial terms of credit lines with overseas buyers before the latter enter into direct commercial negotiations with exporters.

FINANCIAL CREDITS

While in most countries the term "buyers' credit" is synonymous with "financial credit," the latter term has a specific connotation in a few others. In this study it refers to credits granted by banks or other financial institutions in the exporting countries to foreign buyers for financing local expenditures connected with the installation of the equipment purchased, the construction of civil engineering works by local contractors, or the purchase of supplementary material or equipment produced by local firms. While most countries' insurers are prepared to cover out-of-pocket local expenditures only up to a small percentage of the total value of the export contract, at least one country has been prepared to cover the full amount of the credit needs for this purpose.

Financial credits are also extended in some countries for meeting downpayments. In a few countries these credits can be covered by insurance if private funds are involved. It has been recognized that the buyer often falls back on borrowing from other sources within the exporting country for meeting the downpayment and that it might be preferable to have this type of borrowing under the purview of the same insurance agency. This innovation also permits national exporters to meet the competition from tied development loans, which usually dispense with a downpayment by the buyer. One major lender does not object to the downpayment being financed by borrowing, provided, however, that the funds are raised outside the exporting country.

MIXED CREDITS

In addition to private financial credits for meeting downpayments and associated local costs, at least one country has used the technique of the *crédit mixte* for the same purpose by using budgetary funds. These

public financial credits have been extended in the framework of *accord de coopération* and to some countries without such an accord.

The mixing of public funds with commercial credits has also taken other forms. In Switzerland, for instance, the earlier maturities (not exceeding ten years) are provided by private banks; budgetary funds at a lower rate of interest are linked up to cover the later maturities with a grace period equal to the length of the commercial financing. This type of link financing has also been referred to as *crédits relais* or as *crédits joints*. Another variant of the mixed credit involves the combination of public and commercial funds on different terms for a single financial package. These are designated *crédits jumelés* and differ from the *crédits relais* in that both the public and private components are repaid in parallel. The effective interest rate of the mixed financing depends on the proportion of public and private funds. Japan provides an illustration of this type of financing in the export of ships. The Export-Import Bank of Japan administers treasury funds that are offered at interest rates varying between 4 per cent and 7 per cent, while private banks provide credits to shipyards at well over 8 per cent; the combined financing covers approximately 70 per cent of the ship's price, and both loans are repaid *pro tanto*. The main purpose of such mixing is to reduce the effective rate of interest; these credits are also referred to as *crédits bonifiés*.

Another variant of mixed credit is "parallel financing," involving the provision of public funds to cover the difference between the proportion of the transaction covered by an export credit insurance policy and the lower proportion of financing provided by private banks. Such financing needs arise when the banks are not prepared to go up to the limit of insurance cover. In Germany, for example, the KfW granted parallel financing through the early 1960's in respect of the portion of the insured transactions that a private banking pool, the *Ausfuhrkredit-Aktien-gesellschaft*, did not finance.

INSULATING CREDIT COSTS

A major purpose of the various mixing arrangements described above has been to increase the available funds for export financing and to maintain interest rates relatively stable in the face of changing domestic conditions so as to meet competition from abroad on credit terms. In some countries, however, the insulation of export financing is not done in this manner but takes the form of special rediscounting privileges at the central bank or refinancing arrangements with specialized institutions. Rediscount facilities at the central bank are normally confined to short-

term and, less frequently, to medium-term credits. The United Kingdom has another technique as well; portions of export financing that can be rediscounted at the Bank of England are treated as part of the liquid assets that the commercial banks are required to maintain. Since they are in lieu of treasury bills or cash that the banks would otherwise have needed to hold, the banks have been able to maintain a rate of interest of 5½ per cent for financing under ECGD bank and financial guarantees.

Fixed preferential interest rates are frequently applied to the refinancing of export credits. In France, the *Crédit National* applies preferential interest rates to refinancing and receives government subsidies to the extent that it has to borrow on the capital market at higher rates than the preferential rate. In addition, specialized export financing institutions in a number of countries maintain fixed low interest rates, e.g., the Export-Import Bank of Japan, the *Kontrollbank* in Austria, and *Mediocredito Centrale* in Italy.

Interest rate subsidies, especially through budget appropriations, relating to commercial credits have increasingly been used to the same end. Interest rate subsidies are granted by *Mediocredito Centrale* to an export credit financing institution if it lacks sufficient funds to rediscount export bills under its normal facility. These subsidies are derived either out of net profits or through resources provided by the Government of Italy. In Belgium, the Ministry of Foreign Trade through budget appropriation can grant subsidies upon the advice of the committee for the promotion of exports of Belgian capital goods, especially established for this purpose.

As a consequence of these special financial arrangements, the average cost of financing commercial credits has become relatively uniform among major exporting countries (see Table 10). The average rates charged are usually lower than market rates and have been subject to little change in recent years, through 1968.

JOINT FINANCING

Since 1965 the IBRD has cooperated with governments and export credit institutions in major capital goods exporting countries in financing selected projects in a few countries. In 1968 these arrangements applied to three projects in Colombia and one project in Mexico. Export credits with a minimum repayment period of ten years financed a proportion of the amount of certain contracts equal to one half for Colombia and one third for Mexico. The related export contracts were negotiated under the IBRD guidelines for procurement, i.e., after full competitive bidding and independent of the terms under which the export credits were provided.

TABLE 10. AVERAGE COST OF FINANCING EXPORT CREDITS
IN JUNE 1966 AND DECEMBER 1968

(In per cent)

Country	Medium-Term Export Credits		Long-Term Export Credits	
	June 1966	Dec. 1968	June 1966	Dec. 1968
Austria	6.5	6.5	7.25 and 5.5 ¹	7.25 and 5.5 ¹
Belgium	6.25	5.75	6.5	6.0
Canada	6.0	6.0	6.0	6.0
Denmark	8.0	7.0-8.5	8.0	7.0-8.5
Finland	...	6.0-7.5	...	6.0-7.5
France	6.0-7.0	6.0	5.7	5.7
Germany	4.5-6.0	6.0	8.0	6.0-6.5
Italy	5.9	5.9	5.9	5.9
Japan	6.0 ²	6.0 ²	6.0 ²	6.0 ²
Spain	...	5.0	...	5.0
Sweden	8.0	5.75-8.0	5.75-8.0	5.75-8.0
United Kingdom	5.5 or 7.5-8.5 ³	5.5 or 8.0 ³	5.5 ⁴	5.5 ⁴
United States	6.0-7.0	...	6.0-7.0	...

Source: UN, Department of Economic and Social Affairs, *Export Credits and Development Financing: Part I, Current Practices and Problems* (1966), p. 11, and *Part II, National Export Credit Systems* (1969), p. 2.

¹ The 5.5 per cent rate applies only to transactions with developing countries and includes the insurance premium. The interest rate is 7.25 per cent for transactions with other countries.

² The Export-Import Bank of Japan participates in joint financing with the commercial banks and charges between 4 per cent and 7 per cent, while the commercial banks apply rates of between 8.5 per cent and 9.0 per cent of their portion of loans; this gives a weighted average of about 6.0 per cent.

³ Prior to 1962 the rate was 1 per cent above the bank rate, with a minimum of 5 per cent; in January 1962 the London clearing banks and the Scottish banks agreed to finance medium-term export credits backed by a bank guarantee at a rate of 5.5 per cent for a minimum period of two years for the export of capital goods. The rate for transactions carried out under an ordinary insurance policy is 7.5 per cent to 8.5 per cent. In December 1968 the interest rate for export credits of up to two years was the current Bank of England rate with a minimum of 4.5 per cent.

⁴ This rate applies to export credits of over two years.

VARIOUS CHANGES IN INSURANCE FIELD

In most countries, the terms of credit are related not only to the nature of goods but also to the contract values. In the United Kingdom, for instance, postshipment credits of two years are not usually insured unless the contract value is over £50,000; for three-year credits the amount must be over £150,000 and for four years, over £200,000.¹⁵ In a partial modification of this policy, consideration is given to the provision of cover for aggregation of orders for specific goods, such as machine tools, on repayment terms related to the total value of such orders placed.

Another area in which evolution has occurred is in the strengthening of arrangements between credit insurers for covering contracts that involve suppliers in more than one country. Among the member countries of the European Economic Community (EEC), reciprocal arrangements exist for covering up to 40 per cent of the main contract that is subcontracted in another EEC country, provided that the contract has a value of not less than \$7.5 million; the limit is up to \$3 million for contracts of between \$7.5 million and \$10 million and up to 30 per cent for contracts exceeding \$10 million. Switzerland and the United Kingdom have worked out similar collaborative agreements with a number of countries. There is increasing cooperation among credit insurers to accommodate an exporter/contractor even where the subcontracted portion is beyond the maximum specified or where the main contractor is in a country with which no formal reciprocity agreement exists.

A recent development in foreign investment insurance schemes has been the linking of such insurance to exports. In France the *Compagnie Française d'Assurance pour le Commerce Extérieur* provides cover for political and transfer risks associated with investments made by exporters in enterprises to which they have sold capital goods. The newness of the technical processes introduced and complicated installations make it difficult sometimes for the buyer to assess profitability and to operate the equipment efficiently in the earlier stages without outside assistance. In such instances he often asks his suppliers to take a share in the capital of the enterprise; the provision of insurance cover enables exporters to meet the special risks inherent in this type of participation. While the exporter is the beneficiary of the guarantee as a general rule, other parties may be given the benefit of the guarantee on a case-by-case basis, provided that the connection between the guaranteed investment and the

¹⁵ United Kingdom, Export Credits Guarantee Department, *ECGD Services* (H.M.S.O., 1968), p. 24. It is stated, however, that since these formulas were established, "terms have lengthened substantially [with] . . . a growing volume of cases requiring longer terms."

export transaction is maintained. Most export credit insurers are prepared to cover the cost of services provided by the supplier for the installation and "running-in" of equipment.

The link between foreign investment and export financing has also been recognized in the creation of facilities in Canada through the Export Development Corporation (EDC) to insure risks connected with the establishment by Canadian exporters of offshore assembly plants, distribution networks, or other investment prerequisites to the development of new foreign markets. In addition, the EDC is authorized to insure transactions requiring barter or complicated payments situations involving third parties, such as factoring firms and other businesses that assume responsibility for carrying the "accounts receivable" of exporters. Coverage of service and other invisible exports is also made possible. Whereas previously only engineering or other technical services were eligible, the EDC can insure against risks of nonpayment in the sale or licensing of patents, trademarks, or copyrights.

MEASURES TO "STANDARDIZE" CREDIT TERMS

The techniques of adaptation of export insurance and financing described above have been accompanied by efforts to develop and to maintain orderly conditions of competition in the capital goods trades generally and in specific sectors. The rationale for these attempts at coordination of the policies of export credit insurers and their governments is discussed in the following section.

Berne Union

The earlier efforts were largely channeled through the Berne Union.¹⁶ In 1953 members of the Union came to an "understanding" to limit the maximum repayment period of insured credits to five years. This limit was applicable to credits for the financing of heavy capital goods. The ceiling was three years for light capital goods (e.g., agricultural machinery, lathes, and large commercial vehicles), 18 months for consumer durables, and 6 months for raw materials and consumer goods. At the same time, rules were established to require the exporter to assume part

¹⁶ The Berne Union, established in 1934, is an organization of private and public export credit insurance institutions. Through "understandings," which take the form of recommendations to members, the Union attempts to coordinate the insurance policies of its members and to standardize the terms and conditions on which insurance/guarantee cover is granted. While the understandings are not binding, departures from them must be reported to the Union after the insurance policy is issued. In addition, members of the Union can obtain, through a question-and-answer procedure, information on terms and conditions on an insurance contract under negotiation.

of the risk himself (between 10 per cent and 20 per cent)and to require the buyer to make a downpayment of 15 per cent to 20 per cent prior to completion of delivery. It was agreed that credits for which insurance cover was provided beyond five years would be notified to the Berne Union. Common policies as to terms of payment also were adopted from time to time by interested members of the Union for trade in wool, breeding-cattle, steel products, paper and pulp, electronic sorting machines, and buses; these uniform terms were sometimes applied to trade with specific countries.

By the end of the 1950's departures from five-year limitations for heavy capital goods were becoming frequent. Longer repayment periods were granted *de facto* by adopting late "starting points" from which to count repayment periods. Credits extended direct to foreign buyers were considered as exempt on the grounds that the understanding did not cover them. In addition to increased efforts by recipient countries to maximize maturity periods, an important factor in this trend appeared to be the change in foreign assistance policies. Starting in 1958 certain countries, mainly for balance of payments reasons, decided to tie their commodity assistance to developing countries to procurement within their national territory. Procurement restrictions gradually became the general practice in most of the industrial countries, even where no balance of payments constraint was involved. Also, a number of countries that participated in aid coordination groups (such as the consortia for India and Pakistan under the auspices of the IBRD, or for Turkey under the auspices of the OECD) did not have statutory powers for providing aid; they stated that the only technique available to them was to support commercial credits on longer terms or to make other adaptations to such credits, such as permitting smaller downpayments, subsidizing interest rates, or making a more liberal provision for the financing of associated local costs. In other instances, budgetary exigencies, and particularly the difficulties of securing legislative approval for official long-term loans, made reliance on a mixing of public funds with commercial credits a method of making their contribution to the financing of development in less developed countries.

The Berne Union has continued to coordinate insurance policies among members, and until the early 1960's it also effectively helped to limit the term of export credits to certain maximum periods. Since that time, departures from commonly adopted standards have become more frequent despite the precise definitions of "starting points" in 1961 and the introduction of compulsory disclosure to the Berne Union of "tied" buyers' credits in 1962. The principle of "matching" export credit conditions has tended to spread the acceptance of more liberal terms, including

those exceeding the five-year understanding, once these terms were initiated by one member. For instance, departures from the Berne Union understanding were originally confined to export credits extended to developing countries. Exports of capital goods to industrialized countries including Eastern European countries were generally financed by credits not exceeding five years. In April 1961 the U.K. Export Credit Guarantee Department facilitated the extension of long-term export credits by introducing its Financial Guarantee facility and continued its principle of applying the same credit insurance policies in relation to exports to all countries. Soon afterward arrangements were also introduced in Germany, France, Italy, and the Netherlands to enable exporters in these countries to offer longer-term export credits to buyers in Eastern European countries. Recently, long-term export credits have also been applied to sales of heavy equipment among the industrialized countries.

A major problem in the application of the Berne Union understandings has been the increasing scale on which export credits were financed from official sources, as described earlier. With the granting of long-term export credits becoming substantially dependent on government policies, adherence to the Berne Union understandings has required more cooperation among governments in the major capital goods exporting countries.

Attempts to harmonize and to coordinate export credit and export credit insurance policies have been made among governments that are members of the GATT, the EEC, and the OECD.

GATT

In formulating a Declaration to implement paragraph 4 of Article XVI of the GATT,¹⁷ a detailed list¹⁸ was prepared of measures that were considered as forms of export subsidies by a number of contracting parties. In the sphere of export credits, the following practices were listed:

In respect of government export credit guarantees, the charging of premiums at rates which are manifestly inadequate to cover the long-term operating costs and losses of the credit insurance institutions;

The grant by governments (or special institutions controlled by governments) of export credits at rates below those which they have to pay in order to obtain the funds so employed;

The government bearing all or part of the costs incurred by exporters in obtaining credit.

¹⁷ The paragraph states, *inter alia*, “. . . as from 1 January 1958 or the earliest practicable date thereafter, contracting parties shall cease to grant either directly or indirectly any form of subsidy on the export of any product other than a primary product which subsidy results in the sale of such product for export at a price lower than the comparable price charged for the like product to buyers in the domestic market.”

¹⁸ See GATT, *Basic Instruments and Selected Documents*, Ninth Supplement (Geneva, February 1961), pp. 185–87.

The Declaration¹⁹ entered into force on November 14, 1962 after being accepted by the Governments of Austria, Belgium, Canada, Denmark, France, Germany, Italy, Luxembourg, the Netherlands, Norway, Sweden, Switzerland, the United Kingdom, and the United States. For a number of years the Declaration has helped to avoid resorting to subsidies in the export credit field, but implicit adherence to it has weakened in more recent times, as shown by the increased use of practices to insulate export financing costs from domestic credit conditions.

EEC

Member governments adhering to the Treaty of Rome are required to refrain from providing official aid to exporters selling within the Community (Article 92) and to coordinate their aid measures with regard to exports to third countries so as to avoid distorting competition among the exporters of the Community (Article 112).

Export credit insurance institutions in the EEC countries in 1959 formed a Technical Committee to study the consequences of the Rome Treaty. This committee advised, *inter alia*, that policies with regard to export credits in excess of five years should be coordinated among the members. In response to this recommendation, the Council of the EEC established the Coordinating Group for Policies of Credit Insurance, Guarantees and Financial Credits (hereafter referred to as Coordinating Group) in 1960. The purpose of the Coordinating Group is to exchange information on, and to harmonize, to the extent possible, the conditions of export credit insurance and of financial credits, taking into account the understandings of the Berne Union. The Coordinating Group is also meant to promote the multilateralization of financial resources placed at the disposal of the developing countries. In 1962 a procedure was established calling for prior consultations among the members of the EEC in case contemplated export credit transactions involved directly or indirectly, wholly or partly, a government guarantee whose terms would constitute a departure from the Berne Union understandings. Export credits financed by the public sector were made subject to these prior consultations in 1965. Member governments are required to inform each other of the conclusion of bilateral agreements providing for global lines of export credit insurance, if the terms of these arrangements exceed the Berne Union understandings.

The exchange of information prior to the extension of export credits is one of the most important aspects of the consultation procedures within the EEC and makes it possible, in principle, for export credit institutions to match the terms offered by other countries of the Community. The consultations go beyond the question-and-answer procedure that is prac-

¹⁹ *Ibid.*, pp. 32–33.

ticed in the Berne Union in that they are conducted not only with regard to the insurance of private credits but also in relation to export credits that are partly or wholly financed with the aid of official funds. The possibility of being able to match terms is thus extended over a wider range of transactions.

However, the implementation of a common policy toward export credits in excess of five years, which was recommended by the Technical Committee, but which is not required under the Treaty of Rome, has been less successful. The difficulties are due mainly to requests for matching the terms of officially supported credits extended by third countries, and to the practice of some EEC countries of using export credits as a means of channeling financial resources to developing countries. In particular, where aid consortia, consultative groups, or bilateral frame agreements exist, export credits are frequently used to supplement aid disbursements. In this connection, export credits are sometimes granted on terms exceeding the normal trade financing and approaching those of concessionary lending. Member governments also reserve the right to provide or to facilitate export financing in excess of five years in case the related contract is of special importance to an industry or area in the exporting country.

OECD

A broader cooperation with regard to export credits and export credit insurance has been sought within the OECD. On recommendation of the Trade Committee of the OECD, a Group on Export Credits and Credit Guarantees was established in 1963 with the aim of discussing policies and of improving cooperation among member governments in this field. The Group has discussed several proposals designed to promote a greater harmonization of policies and to limit credit competition among exporters. Among the more important proposals considered by the Group are (1) the establishment of an information system for credit transactions exceeding 5 years and mandatory disclosures pertaining to officially supported contracts under negotiation and (2) the setting up of a standard concerning the treatment of the local cost element in officially supported credit transactions tied to exports and an information procedure to be followed for transactions deviating from the standard.

In 1964 the Government of the Netherlands made a proposal for containing credit competition arising from tied-aid funds. Briefly, it was proposed that there be a maximum repayment period of 5 years for all export credits with industrialized countries and for small export credit transactions with developing countries; the latter would enjoy a ceiling

of 8 years for contracts exceeding \$1.5 million and of 10 years for contracts exceeding \$5 million. The normal rules for credit terms, i.e., those pertaining to percentage of downpayment, local costs, equal installments, and percentage of insurance cover, would be applied to such credits and credit guarantees. Tied-aid credits would have a minimum maturity period of 15 years. In sales to developing countries, there would be a "buffer" or "neutral" zone stretching from 5 to 15 years for small contracts, from 8 to 15 years for contracts of more than \$1.5 million, and from 10 to 15 years for contracts of more than \$5 million. The mixing of commercial credits with official aid funds in a single "package" would be prohibited, and the matching of commercial credits with aid credits would not be permitted. The proposal was discussed during the period 1964–66 in the OECD, but no agreement was reached.

One variant of the Netherlands' proposal, which has been discussed in the EEC, would provide for demarcation according to the end-use of the credit, in order to take into account the needs and circumstances of the underlying transaction. Under this variant, export credits would be reserved exclusively for industrial projects characterized by immediate profitability and rapid amortization. Tied public credits would be used essentially to finance projects with long-term profitability, particularly infrastructural projects requiring relatively long amortization periods and low interest rates. Export credits would have a maturity not exceeding 10 years. Public credits would not be granted for such maturities nor for the same purposes, except in untied form.

Attention within the OECD has shifted from a search for general solutions to the problem of credit competition to reaching agreement for standardizing the credit terms on specific commodities. Arrangements among certain governments cover aircraft and ground satellite communication stations. An agreement was adopted in June 1969 by an OECD Council Resolution relating to credit terms for ship exports. The understanding, as approved by 13 of the world's principal shipbuilding countries, provides that, for all ship export contracts to be negotiated from July 1, 1969, export credits backed by governments should conform to the following conditions: a maximum duration of 8 years; a minimum downpayment of 20 per cent; and a minimum net interest rate of 6 per cent. The working of the understanding is to be reviewed by the OECD Council at least once a year.

COMMERCIAL CREDITS FROM CMEA COUNTRIES

The preceding discussion has focused on commercial credits extended by Western countries and Japan. Credits from CMEA countries are invariably treated by the countries concerned as official loans unless they

take the form of swing limits under bilateral payments arrangements. However, certain credit facilities resemble somewhat the terms of commercial credits as defined in this study.

The CMEA countries extend three types of export credits to developing countries, namely, state credits, commercial credits, and state commercial credits; of these, the state credits are the most significant.²⁰

State credits

State credits are usually granted on a government-to-government basis within the framework of bilateral economic cooperation agreements; the creditor country agrees to provide machinery and equipment for certain projects together with engineering services, while the recipient agrees to provide labor and locally produced materials.

The state credits that are essentially for economic assistance are usually granted at an interest rate of 2.5 per cent to 3 per cent per annum and are repayable over a period of 8 to 13 years, starting one year after delivery or installation of the equipment. Repayment may be carried out in traditional export commodities or locally produced goods, including goods manufactured with the equipment purchased with the credit.

Commercial credits

Commercial credits are granted by foreign trade organizations of the CMEA countries in connection with a particular trade transaction or contract. In certain countries (Czechoslovakia, Hungary, Poland, Rumania, and the U.S.S.R.), the central bank or other credit institutions may, if necessary, refinance the credits that the foreign trade organizations or industrial enterprises have extended. In two countries (Hungary and Poland), some industrial enterprises may also grant export credits directly. The foreign trade organizations and the industrial enterprises are autonomous entities, which make decisions as to individual export credits, subject to the general guidance and supervision of the Ministry of Foreign Trade, the central bank, or other authorities.

Commercial credits proper are usually granted at an interest rate of 4 per cent to 6 per cent per annum and are repayable over a period of 1 to 8 years. A downpayment averaging 10 per cent of the contract value at the time of signature and a similar payment upon delivery

²⁰ For further information, see UN, *Export Credits and Development Financing*, Parts I and II (cited in footnotes 2 and 14), and UNCTAD, Trade and Development Board, *Review of Trade Relations Among Countries Having Different Economic and Social Systems, Part II* (Geneva, 1966 and 1969).

of goods is normally required. Each of these payments may be reduced to 5 per cent or increased to as much as 30 per cent, depending on the type of equipment and on various economic circumstances. The guarantee of the government of the buyer's country or of a reliable credit institution in that country is often a condition. Repayment may be carried out in exports or in convertible currencies. A gold clause is sometimes inserted in the credit contract.

State commercial credits

State commercial credits constitute a facility that has been developed since 1964. They are granted on a government-to-government basis and are not tied to specific projects; they are available for any transactions that are arranged between trading organizations in the supplying and buying countries. In developing countries where the private sector plays a significant role in the development process, the state commercial credits appear to offer greater flexibility than the state credits. The interest cost is close to that of commercial credits, but the terms of repayment are close to that of state credits.

IV. Adaptations of Financial Terms

The desire of lending countries to avoid or at least to moderate competition in credit terms, on the one hand, and the desire of borrowing countries to obtain better terms, on the other, have focused attention on the question of what changes or adaptations, if any, affecting the terms of commercial credits could be made. A number of ideas have been canvassed for inducing modifications designed primarily to soften the terms on which commercial credits are granted by lowering downpayment requirements, reducing interest rates and insurance premiums, lengthening maturities, introducing explicit grace periods, or meeting local currency costs associated with projects. In this section an attempt is made to outline the arguments at two levels of discourse, i.e., the merits of modifying terms generally and the merits of specific types of adaptation.

MAINTAINING NET RESOURCE TRANSFERS

Proponents of the view that the terms of commercial credits should be softened emphasize the role of these credits as an adjunct to the flow of external resources for financing economic development. The net increase in insured credits over the period 1956-68 has permitted a rising net

resource transfer to developing countries, notwithstanding the fact that the customary terms associated with commercial flows give rise to repayment flows of substantial proportions in a relatively short period of time. It is argued that if these net transfers are to be maintained or even increased, the terms of commercial credits have to be modified to prevent or to moderate the emergence of debt servicing problems and to assure an equitable distribution of benefits between developed and developing countries.

As indicated in Table 2, the net transfer attributable to insured credits is a fraction of the gross flows in the period 1967–68.²¹ If the net flow of commercial credits to developing countries is to be maintained at any particular level, the gross flows have to be continuously increasing and must reach high levels in a fairly short period of time. Chart 1 illustrates this point for different sets of terms. On “standard” terms of 6.5 per cent and a maturity of 5 years, the gross inflows required to maintain a net transfer of \$100 per annum must be doubled in 4 years and quadrupled by the eighth year. If the maturity period is lengthened from 5 to 10 years, with the interest rate unchanged at 6.5 per cent, the required gross inflow is doubled by the sixth year and more than quadrupled by the twelfth. If the interest rate is reduced to 3 per cent and the maturity period placed at 10 years, the gross inflow still has to double in the seventh year and almost quadruple in the fourteenth. By comparison, it can be shown that to maintain the same net flow on the revised “DAC average” terms (e.g., at 2.5 per cent interest with 30 years to maturity, including 8 years of grace), the required gross inflow has to be doubled only by the twenty-first year.

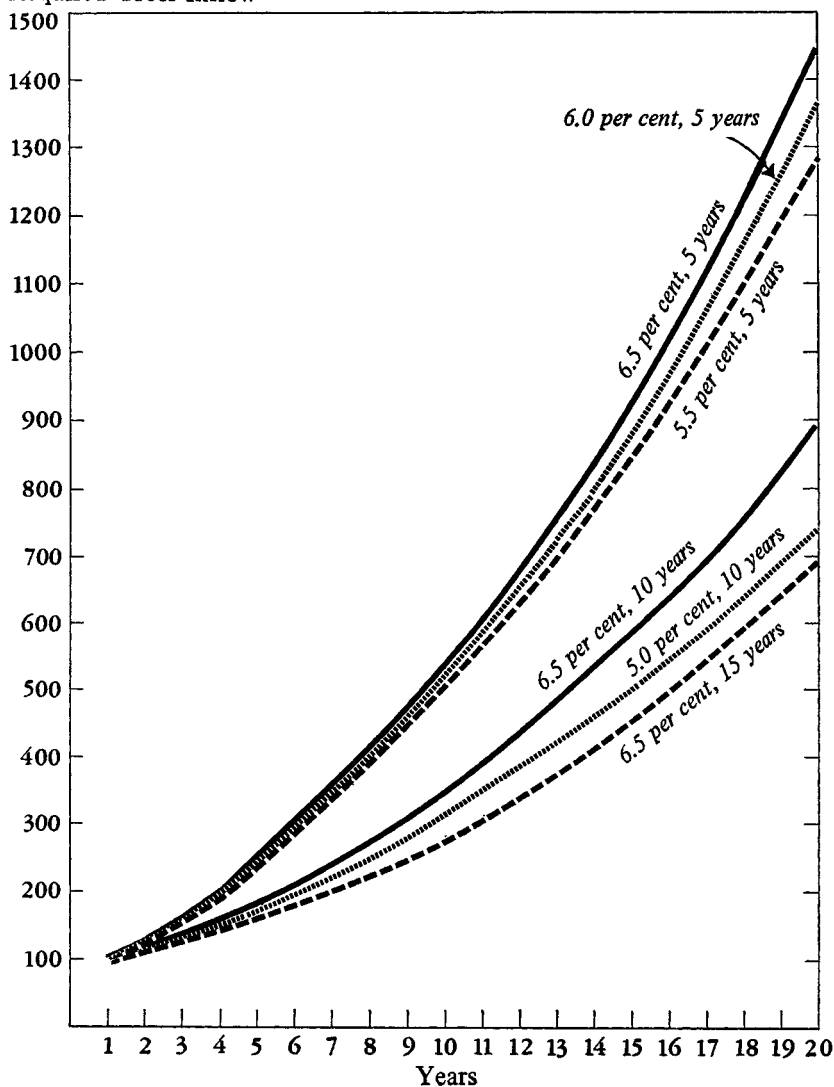
Whether a sufficient softening of terms to make a meaningful difference to net resource flows to developing countries can be achieved in the commercial credit field depends on the practicability of finding the means to this end and ensuring that the benefits of “softening” can be restricted to developing countries. The description of techniques in Section III has indicated that “mixing” of public with commercial funds has been the principal instrument for achieving any marked modification of terms. Rediscounting arrangements at central banks have generally been confined to short-term, and infrequently to medium-term, export credits. Since public funds have usually to be appropriated through legislative processes, a budgetary constraint might become a primary element in determining the growth of credits, which have hitherto responded largely to capital market forces and to the underlying flows of trade.

²¹ The actual transfer is probably less than these figures indicate because of the inclusion of interest in the insured amounts; the distortion is greater for credits over five years, owing to the larger element of interest.

CHART 1. REQUIRED GROSS INFLOWS TO MAINTAIN A NET INFLOW
OF 100 UNITS ANNUALLY

(Selected alternatives)

Required Gross Inflow



Moreover, there is no assurance that net commercial flows to developing countries would necessarily grow if softening techniques were applied. Indeed, a diversion of available commercial funds increasingly toward the more developed countries could occur with a corresponding effect on the rate of growth of lending to the less developed countries. This is based on the contention of the authorities in exporting countries that it is difficult for them to discriminate among groups of importing countries with respect to credit terms. There is pressure from manufacturers and traders dealing in given products to be allowed to extend the same credit terms regardless of the particular destination of individual transactions. To the extent that such distinctions cannot be maintained, the softening of terms, especially through the use of public funds, may involve a transfer of such funds to the developed countries and away from the developing world. Competition on credit terms has already produced, as indicated in an earlier section, a fairly narrow range of interest rates of between $5\frac{1}{2}$ per cent and $6\frac{1}{2}$ per cent. With borrowing costs rising throughout the world, the relative stability of rates in the commercial credit field resulting from official action has made it increasingly attractive for even large enterprises with dependable financial connections in their own money and capital markets to opt for commercial financing abroad when purchasing capital goods. While in earlier years the developing countries were almost the sole recipients of credits exceeding five years, a growing volume of such credit has been extended since 1963 to other countries. From about 3 per cent of total insured credits exceeding five years in maturity, the share of developed countries had risen to about 17 per cent in 1967. In the same period similar credits to the CMEA countries had risen from 7 per cent to almost 18 per cent; prior to 1963 no credits exceeding five years were reported for the latter group.²² A major softening of commercial terms might thus tend to increase the flow of commercial funds to the developed countries, which will, in any case, be seeking credit facilities for purchasing highly expensive replacement units in such areas as commercial aviation (air buses, super-

²² The same trend is illustrated by the following statistics for Japan, the largest source of commercial credits exceeding five years:

	Developing Countries	Developed Countries	CMEA Countries
	<i>Million U.S. dollars</i>		
1963/64	175	108	99
1964/65	244	236	109
1965/66	427	284	75
1966/67	439	444	171

Source: Ministry of International Trade and Industry, White Paper on Economic Cooperation.

sonic aircraft), power plants (e.g., nuclear reactor stations), and industrial chemicals (e.g., petrochemical plants).

Assuming that larger gross flows of commercial credits will be forthcoming for the developing countries, the introduction of public funds for softening commercial terms could have unwelcome distributional effects. As noted in Section II, the more advanced among the developing countries have accounted in recent years for a preponderant share of commercial credits exceeding five years. These countries have large industrial sectors capable of generating projects that are typically suited to commercial financing on present terms. Even if softer terms could bring into the ambit of financing projects not now eligible, the availability of complementary factors of production, especially of managerial and administrative talent, may pose difficulties in project formulation for the less developed among the developing countries. A softening of terms for commercial credits may not prove to be of much assistance to a large number of these countries who might need softer terms on general welfare grounds. There might be other adverse distributional effects through the interrelationship of public funds used for subsidizing commercial credits and those available for official concessionary lending, to which attention is drawn later in this section.

A separate aspect, which must be kept in mind, is the possibility that commercial credits might tend to be politicized in the course of being softened. At the present time, these flows are largely the product of market initiatives, with little interference from the national authorities who support the underlying transactions primarily for export promotion purposes. The introduction of public funds into commercial flows might result in the paying of greater attention to the political relationships with the borrowing country.

EFFECTS OF TRADE FLOWS

The proponents of the view that commercial credits should not be softened emphasize their role as an adjunct to the promotion of exports of capital goods from industrialized countries to all destinations. They point to the fact that countries exporting capital and other engineering goods have disparate capacities to provide credit that reflect, among other things, the state of development of their capital markets, their international position as net borrowers or net lenders on long-term account, and the types of institution available for financing commercial transactions. If undue weight is placed on credit terms, countries that are otherwise competitive in terms of price and quality will lose business only because they are unable to provide equivalent credit facilities. This would

mean that trade flows would be dictated by purely financial considerations, which would be damaging to the interests of developing countries as well as the developed ones.

The longer-range effects would, it is argued, be especially damaging to the developing countries. The more advanced among them are already beginning to export engineering products, and a number of others are building substantial production capacities in engineering industries and can increasingly be expected to develop a capability for exporting in the future. According to a GATT study,²³ the value of engineering products exported by eight industrializing countries (viz., Argentina, Brazil, Hong Kong, India, Mexico, Spain, the Republic of China, and Yugoslavia) amounted to almost \$0.9 billion in 1966. These countries are bound to find a particular disadvantage in competing on credit terms because of their limited financial resources and lack of appropriate institutional arrangements for providing financing on a medium-term or long-term basis. In the absence of any checks on credit competition, these and other industrializing countries would be increasingly impeded in participating in what has been characterized by the above-mentioned GATT study as "the most dynamic sector of world trade."

In evaluating the issue of the trade effects of credit, the first point to be noted is that the credit terms tend to be fairly uniform for a substantial portion of world trade in manufactured goods, including industrial "software" and consumer durable goods. While sales of surplus agricultural products by certain developed countries have created problems for exporters in countries that do not have the advantage of similar financing arrangements, there is by and large no serious problem of credit competition in the trade in raw materials. The problem can arise primarily for the trade in medium and heavy capital goods. In this instance, there is a widely accepted practice of relating terms to the value of the export contract, and extended terms are considered only for transactions of substantial value. In these transactions, it is normal for the buyer to take account of the availability and terms of credit as well as such factors as the time of delivery of equipment and the availability of back-up service facilities and of spare parts. Recognizing the weight attached to the credit aspect in decisions concerning the best source of supply, most developed countries have, as described in Section III, put themselves in a position to provide credit terms necessary to secure any export contracts that they regard as being in their own commercial interest.

The effects of competition on credit terms on the export prospects of developing countries in the medium and heavy equipment field is a

²³ *International Trade, 1967* (cited in footnote 12), Table 14, p. 60.

subject with ramifications in a number of areas, including the planning of industrial strategy, domestic institutional arrangements, and international marketing facilities. The problem has been referred to the UN Secretariat and the IBRD by the UNCTAD for further analysis. In the context of the present study, two points can be made. First, the ability of exporters in developing countries to compete on credit terms depends primarily on domestic credit facilities being made available for this purpose. Second, there is some question whether in this area the interest of developing countries may not be divergent, both within the group of countries and even within each developing country. As pointed out in later discussion, any softening of credit terms may carry advantages for some countries that are not easily balanced against the disadvantages that may accrue to other developing countries, e.g., those that are able to export capital goods. In addition, some of the countries that are either presently or potentially exporters of such goods are themselves large importers of capital equipment, and there is again a question of where the balance of national interest lies in any softening of terms.

In any case, the trade in capital goods is a highly competitive one. Efforts to hold down competition on credit terms are apt to break down from time to time as exporting countries have reason to deviate in respect of particular products or in particular markets or to initiate departures in areas not subject to standard terms. In any long-range industrial planning that developing countries undertake, it is necessary to recognize that the terms of commercial credit are likely to continue to evolve in response to intense competitive pressures emanating from the more advanced industrial nations as well as from the CMEA countries.

EFFECTS ON CONCESSIONARY FLOWS

Another set of arguments advanced against the softening of commercial terms relates to the likely effects on the volume, terms, uses, and distribution of concessionary flows. The volume of concessionary flows could be affected adversely to the extent that softening would require the use of public funds. For instance, the subsidization of interest costs would require official help; in some countries, budgetary subsidies are used to bring higher domestic lending interest rates in line with "international" rates for commercial credits; the same result is achieved in other countries through rediscounting facilities with specialized financial agencies,²⁴ which in turn depend on public funds. If the assumption is made that these would be the same funds that otherwise would have been

²⁴ As noted earlier, rediscounting facilities from central banks are usually restricted to short-term and, less frequently, to medium-term credits.

used for providing concessionary credits to developing countries, any concerted softening of commercial terms would result in reducing the volume of concessionary flows.

Other potential effects of softer terms relate to the geographical distribution as well as the uses of concessionary lending programs. There is likely to be a diversion of official funds through mixing arrangements in favor of countries with the highest credit ratings, with relatively stable sources of foreign exchange earnings (such as oil-producing or other basic mineral-exporting countries), or countries that offer the best prospects for further trade. Also, in situations where all other factors were about equal, official funds in "mixed" loans might be used for projects in the private rather than the public sector, and to that extent some developing countries might not be able to obtain financing abroad for infrastructural projects, such as roads and power facilities, which require large amounts of long-term financing.

In addition to adverse effects on volume and distribution of concessionary flows, proponents of the view that terms should not be softened in respect of commercial credits believe that there could be deleterious consequences for the terms of aid. It is argued that such credits would become a substitute for concessionary aid, because if no clear distinction is made between aid and commercial credit and if the needs of aid are regarded as being met by softening the terms of commercial credit, "harder" donors would have no incentive to soften terms further, whereas "softer" donors may feel compelled to harden their terms.

This result may ensue for several reasons. For one, countries that feel that softened commercial credits represent an intensifying element in credit competition might be forced to divert budgetary resources earmarked for aid to the protection of commercial interests, e.g., through interest subsidies. For another, countries that have applied relatively concessionary terms might find it necessary to harden them in order to improve their chances of being paid. They may feel that their own concessionary assistance increases the capacity of a debtor country to take up credit on harder terms. This is possible, for instance, for loans provided with long grace periods, which permit a debtor to undertake short-term credits during this period of relief on longer-term loans. Furthermore, if lenders are providing funds for identical purposes on different terms, it is argued that the concessionary lender, in effect, finances the repayment of harder lenders, especially if the recipient country is continuously a net borrower. The joint effect of these considerations might suggest that softening of commercial credit would reduce the over-all grant element in the aid effort.

The preceding arguments appear to carry most weight at a level of

reasoning where the resources for lending abroad are assumed to be fully transferable among uses and without any legal or administrative restraints on individual decisions of the lending country. This reasoning either abstracts from motivations or assumes that motivations for concessionary and commercial credit are the same. In practice, motivations are believed to differ greatly. A number of developed countries have made a general policy decision to provide concessionary assistance, in certain instances to developing countries with which they have close relationships. An adaptation in commercial terms by a single lending country in favor of some countries (not now receiving concessionary assistance) need not necessarily detract from the provision of the concessionary funds to countries already receiving such funds. On the other hand, even if it is assumed that some countries provide concessionary funds for much the same reasons as their support for commercial credits (i.e., they view "tied aid" as credit with terms softened beyond those that currently prevail for commercial transactions), it is not clear whether softening will necessarily be at the expense of concessionary flows. It has been argued, for instance, that there is a greater likelihood of attracting concessionary funds to countries with which strong economic connections are being built up through the provision of commercial credits. This could result from procedures established by developing countries, e.g., firms tendering for projects may be required to state what financial assistance their governments would be prepared to give in the event of their securing the contract.

The possible adverse effect of softening commercial terms on the terms of concessionary flows can be regarded, at least partly, as a semantic issue. If softer commercial credits were included in "aid," it would be easier for some developed countries that restrict themselves almost exclusively to granting such credits to developing countries to meet internationally proposed "targets" on the volume of aid (e.g., the 1968 UNCTAD Resolution) without having to grant genuinely concessionary assistance. By the same token, however, it would become more difficult for these developed countries to comply with "targets" on the terms of aid (e.g., the revised 1969 DAC Recommendation). Moreover, there is a trend of thinking in the direction of specifying a supplementary volume target for official development assistance flows (e.g., the aid target specified by the Pearson Commission), which would be clearly distinguishable from other financial flows by the concessionality of the terms and their development orientation. To the extent that such measures of "aid" performance gain operational significance among donor countries as objectives of their assistance policies, there is at least a

presumption that the motivation to improve aid terms would not be reduced by measures to soften commercial credits.

The argument that genuinely concessionary lenders would be under pressure to harden terms if a net borrowing country accepts "softened" commercial credits can be valid only under certain conditions. The fact that the country is a net borrower does not mean that it necessarily has to borrow in order to repay and that it can only repay hard lenders because of the availability of softer terms from other countries. A country's capacity to service debt is a function of a number of interrelated factors with respect to its economic growth, its rate of savings, the productivity increases associated with the use of capital borrowed in the past, the debt profile that has resulted from past actions, its internal financial policies, and the general management of its balance of payments. If capital inflows are reduced or their terms hardened, debt repayment problems could represent only one element of stress, although admittedly a very important one. At the margin, the country could curtail its consumption level or slow down its investment program while maintaining debt service, and a number of developing countries have, in fact, done so.

Finally, there are differences in views on this subject among both the lending and the borrowing countries. Those who feel strongly that the softening of commercial credits will be really at the expense of concessionary flows are in a sense assuming that other forces will not be inducing lending governments to enlarge their contributions to these flows. Other lending countries appear to act on the conviction that the use of official funds for softening the terms of commercial credits is only an intermediary step that facilitates the establishment or enlargement of programs of genuinely concessionary assistance.

There are also differences in the expectations of individual developing countries. Those that press for softer terms appear to assume that these will be in substitution for harder terms on commercial credits extended at the present time, rather than at the expense of any other kind of capital. This assumption appears realistic to some of them because they believe from past experience that they are unlikely to receive concessionary flows to any significant extent; hence, they seek only to moderate the accumulation of external indebtedness by means of softening commercial terms and may be indifferent to the prospective effect on concessionary flows to other countries. In that sense, the interests of certain of the developing countries are at variance with the interests of some others. If the volume of concessionary assistance were rising faster, there might be less emphasis by most of the developing countries on softening of commercial terms.

In any case, the strength of the contending arguments turns upon differences of view regarding future aid availabilities.

MERITS OF ALTERNATIVE ADAPTATIONS

The preceding discussion suggests that the general arguments for or against softening of commercial terms are not conclusive. It is therefore proposed to proceed with an examination of some of the specific types of adaptation of commercial terms that have been mooted, viz., lower downpayments and a greater contribution to meeting local currency costs associated with the implementation of contracts, longer maturities (including grace periods), and lower interest rates and insurance premiums. While these are discussed separately for expository convenience, it is important to emphasize that these aspects are closely interrelated both conceptually and in practice. A credit contract is the product often of a lengthy process of negotiation, and concessions obtained in one respect may be offset by harder conditions in other respects.

The arguments for such adaptations focus on problems of foreign debt burdens of the economy as a whole and the operations and cash flows of the enterprise. It is pointed out that enterprises established in developing countries are often new entities that do not have depreciation and other reserve funds to meet downpayments or even the associated local currency costs. Nor do well-developed capital markets exist where equity capital or longer-term debt can be raised by new enterprises. Therefore, dependence upon foreign financing is likely to be heavier than in the more developed countries. Moreover, since repayment capacity is acquired only in the course of operating the plant and equipment purchased from abroad, it may be desirable to obtain longer maturity terms. Also, new enterprises do not usually fit into an existing framework of established markets or have the advantages of a well-trained labor force and experienced management as they can be expected to do in developed countries. Finally, during the initial stages of operation the enterprise may incur losses, which would be compensated by future profits; such a situation would suggest the need for a grace period. Some of these considerations are examined below.

Downpayments and associated local costs

In the appraisal of credit risks, many export credit insurers tend to view downpayment and local costs of credit terms together. This is because they consider both to be a measure of the creditworthiness of the buyer, his interest in achieving a sound transaction, and his ability to carry through with it by mobilizing the local currency for buying the

foreign exchange needed for the downpayment and that needed for domestic expenditures on installation and running of the enterprise. It is also argued that the risk of collusive behavior between the buyer and the seller is greater, the smaller the downpayment or the larger the local costs advanced by the supplier. If a small downpayment is required, the supplier might find it easier, in collusion with the buyer, to raise the contract price and hand over part of the profit margin to the buyer, thereby facilitating the buyer's ability to make the downpayment.

Another point of view considers that the maintenance of standards on downpayments and local costs derives from strict application of principles of casualty insurance (of which credit insurance is a part). In this view, the experience from which insurance prescriptions have evolved relates to a long period in which the trade in capital goods was predominantly among developed countries. Thus, opposition to the easing of downpayment requirements may have its origins in preserving certain insurance principles rather than because it modifies in any essential way the risk of the transaction. The buyer might, and often does, borrow elsewhere to meet his downpayment obligation, so that the over-all credit risk of the transaction is not diminished perceptibly.

The practice of national insurers shows considerable variations in the treatment of downpayments. The normal rule at the present time is to ask for a downpayment of 20 per cent of the contract value (with 10 per cent being required at the time the order is placed). A number of insurers are prepared, however, to reduce the percentage, as a matter of course, to 15, usually by lowering the payment required when the order is signed, and a few will accept 10 per cent of the contract value. Some countries that wish to impart an aid aspect to commercial flows do so by lowering downpayment requirements. One country has provided cover for loans to public sector projects with downpayments as low as 1 per cent of contract value. Another has been prepared to cover contracts even when it was known that the buyer was borrowing for meeting the downpayment, provided only that the loan for this purpose was raised in some other country. Finally, there have been instances of the buyer being permitted to draw on concessionary funds, which may have been provided separately by the government of the supplying country.

There has been less flexibility with regard to the practice on local currency costs where ordinary insurance cover is provided only for meeting costs that are directly connected with the implementation of the contract and within a limit not exceeding a certain percentage of the contract value. Most insurers require that local costs covered by the supplier not exceed the amount of the downpayment and that, in case

of excess, it be repaid within a few months after completion of the construction of the project.

A number of reasons have been advanced in support of a strict adherence to the rules governing local currency costs. The principal one is that the link between credits and trade flows would be broken if the local costs were to be financed by the exporting country. Governments with balance of payments problems have been concerned about the additional amounts involved in such financing, which cannot be "tied" and hence can give no assurance that the foreign exchange thus acquired will be spent in the lending country. It has also been stated that the limiting of credits to the foreign exchange cost of projects would provide an incentive to the borrowers to mobilize the local cost component from domestic sources. However, the extent to which internal funds can be mobilized is a function of a number of variables and may not be significantly influenced by an exogenous inducement. If the local currency cost of the project cannot reasonably be met out of available domestic resources to which the enterprise has access because of the state of development of domestic financial markets, there is a case for the credit covering the insured domestic currency costs, provided of course that the project has been rationally chosen and that the country's over-all balance of payments prospect permits additional debt to be taken up on commercial terms.

Grace periods and maturities

These two adaptations can be examined together because the introduction of grace periods can in practice be considered only in the context of longer maturities; otherwise, the effect is to create a ballooning of maturities toward the end of the credit period. By and large, an explicit grace period is not associated with commercial credit, although it is implicit in the definition of the starting point from which the maturity of credit is counted.²⁵ For most official credits the grace period is reckoned from the date of signature or authorization of the credit. For private commercial credits, it is counted from the time physical possession is taken by the buyer in his own country; since this can be a year or even longer from

²⁵ Under Berne Union definitions, the starting point for capital goods consisting of individual items usable in themselves (e.g., locomotives) is the date when the buyer takes physical possession of the goods in his own country. When the order consists of several shipments, the "mean date" of the dates between the first and last shipment applies. For complete plants and factories, the starting point is the date when the buyer takes physical possession of all equipment (excluding spare parts) supplied under the contract. Finally, for construction or installation contracts, the starting point is the date when the seller has completed the construction or the installation of the plant. See UN, *Export Credits and Development Financing, Part I* (cited in footnote 2), para. 18, p. 4.

the date on which the commercial credit is contracted, an implicit grace period may be said to exist. There have also been recent instances where export credit insurers have provided cover for private financing to the buyer from another source (i.e., a source other than the supplier) to cover the payments to be made during the "running-in" period of the equipment.

The case for longer maturities depends essentially on the payout period of equipment. As pointed out in the IBRD staff study, sound financial practice requires that maturities "be related more closely to the useful life of the goods they finance."²⁶ While this principle is recognized by commercial lenders and insurers in the sense that credits exceeding useful life are not extended, the need for tailoring maturities to the cash flows generated by the enterprise is not usually accepted. It is argued, for instance, that the borrower can generate repayment for commercial credit from domestic borrowing or from surpluses earned in operations outside the particular enterprise. For example, the enterprise may have been established by a conglomerate-type firm or by a multinational firm, which can deploy resources from elsewhere. However, many industrial enterprises in developing countries tend to be new firms, represent pioneering investments, and do not have access to such financing as is found in most developed countries where a particular enterprise will usually fit within a framework of existing facilities. An operational rule that would tailor maturity terms to payout period is not easy to devise, because the payout period cannot be determined with precision for any particular type of equipment. There is, however, a strong presumption that equipment installed in a developing country will encounter longer delays in reaching profitable production than in a developed country.²⁷ Moreover, the longer the delays in starting up operations, the greater the need for some explicit grace period. In these circumstances a case can be made at the enterprise level for considering longer maturity periods, and including explicit grace periods, for capital goods sold to newly estab-

²⁶ *Suppliers' Credits from Industrialized to Developing Countries* (cited in footnote 3), p. 28.

²⁷ The point is illustrated in respect of durable goods industries in the UN study on export credits. "... many branches of the durable goods industries may be prevented by various factors from coming into full operation. . . . The labour force may have to be trained in an entirely new range of technical and managerial activities . . . the creation of such industries may involve the development of whole complexes of interrelated plants, [so that] production in a given plant may be impeded by difficulties encountered in establishing ancillary industries." See UN, *Export Credits and Development Financing, Part I* (cited in footnote 2), para. 175, p. 38.

lished firms in developing countries. For the economy as a whole the lengthening of maturities and the introduction of explicit grace periods may alleviate the debt servicing problem by shifting the burden of repayments to later periods when presumably the country will have an improved capacity to meet them.

The cost of credit may, however, be affected as a result of lengthening maturities. The longer the maturity, the greater is the departure from what the financial community in most industrial countries regards as the limits of term lending, and consequently the greater may be the desire to build a risk premium into financing costs. An example of this is the additional cost of insurance cover. The premium is usually calculated as a percentage of the over-all liability in respect of the insured transaction, including total interest accruing during the life of the credit. Hence, at any given rate of premium, the total premiums charged is higher because of the larger interest component in total payments in longer-term credits. In fact, the rate of premium itself is usually raised to reflect the risk of the longer maturity, and the resulting premium cost can be quite substantial.

Even where the interest rate appears to be fixed without reference to the length of credit in special refinancing arrangements, the effective cost of credit tends to rise with longer maturities, because insurance premium charges are usually levied on the maximum credit amount, including interest charges. For example, a basic rate of $5\frac{1}{2}$ per cent is charged by banks in the United Kingdom for credits extended under financial guarantees. To this basic rate must be added a number of additional charges by way of commitment fees, negotiation and management fees, insurance premiums, etc., so that the effective cost of credit at the end of 1968 ranged between 6.3 per cent and 7.2 per cent on an eight-year credit. While some of these charges are related to the over-all amount of the credit so that their cost per annum is reduced when the maturity of the credit is longer, others, such as the management fee, are levied as an annual charge.

Interest rates and insurance premiums

The arguments for lowering interest rates relate to the debt servicing capacity of the economy and the profitability of enterprises in developing countries. It is not easy, however, to disentangle the interest component of debt service from amortization of principal, because in most instances the statistics on commercial credits do not make this distinction. The fact that insurance premiums and banking fees add significantly to

over-all interest charges renders the analysis of interest costs especially difficult. With these qualifications, it can nevertheless be asserted that the rate of interest has a critical importance in the evolution of the debt service.

While the lowering of interest rates and other charges would help significantly to alleviate the debt service liabilities of countries using commercial credits extensively, substantial changes in interest cost may be difficult, if not impossible, to achieve if the predominantly private character of these credits is to be maintained. Generally speaking, if commercial rates of interest cannot be charged, private funds may not be forthcoming to facilitate some of the other adaptations of financial terms (such as meeting of local costs or the introduction of explicit grace periods) that might be found desirable under certain conditions.

At the enterprise level, a lowering of the interest rate tends to increase its profit margin and thus provides additional inducements for investment; it also facilitates the undertaking of marginal projects. However, it is also important that credit for capital goods be obtained by enterprises at appropriate terms to assure that only those investments are undertaken that promise returns sufficient to cover market interest rates.

The issue of lower interest rates also has a bearing on the allocation of resources in lending countries. As described in Section III, the insulation of interest rates on export credits has required special rediscounting or refinancing arrangements and has led increasingly to direct or indirect subsidization from budgetary funds. Any induced lowering of interest rates would probably make general reliance on subsidies almost unavoidable for most, if not all, countries and would be directly contrary to the efforts of the international community to encourage countries to forgo the use of subsidies in export trade.²⁸

Since neither the supplier nor his financier can afford to reduce interest rates unless official support is forthcoming, an insistence on lower rates by the buyer or his authorities may be met by charging a higher price than the supplier would otherwise have asked for. At the level of contract negotiations, a slight increase in the price can be effected not only by increases in the quotations for the prime contract but alternatively through higher charges on ancillary services provided or for spare parts supplied after the award of the main contract. Only slight increases in contract values are sufficient to offset the "loss" by way of lower interest rates.²⁹

²⁸ See the GATT Declaration on export subsidies, *Basic Instruments and Selected Documents* (cited in footnote 18), pp. 32–33.

²⁹ A five-year credit of \$200, for instance, at the "standard" rate of 6.5 per cent is equivalent to a credit with a face value of \$205 if the interest rate is reduced to 5.5 per cent, and to \$207 if reduced to 5 per cent.

V. The Control of Commercial Indebtedness

This section explores some of the policies and institutional arrangements at the country level that may be useful for controlling the acceptance of commercial indebtedness. The initiation of a creditor/debtor relationship requires, at the trader level, an understanding by both parties of the costs and benefits of the contemplated arrangement based on accurate information on prices and performance of the goods, the terms of credit, and the expected contribution of the goods to meeting the repayment obligations adhering to the credit. From the standpoint of the borrowing country, a prime purpose of government policy is the protection of the network of these creditor/debtor relationships in a manner that allows the flow of commercial credits to be sustained over time.

MANAGEMENT OF COMMERCIAL FLOWS UNDER NORMAL CONDITIONS

For purposes of commercial debt management, a useful distinction can be drawn between credits engaged in the financing of essentially repetitive transactions and credits extended for large and singular business ventures or investment projects. In addition to term financing of spare parts for capital goods and replacement equipment, the former type of credits covers a substantial volume of inventory financing provided by suppliers. While in many instances the borrower and the lender tend to be the same from one transaction to the next, the relationship must be understood in a fairly broad sense, because the financial nexus might be a continuing one even when the underlying transactions are not necessarily repetitive. This is seen typically in transactions between principals in exporting countries and their agencies, affiliates, or subsidiaries. Similar relationships also exist between financial institutions in exporting countries and large conglomerate-type business organizations, especially in the more industrially advanced developing countries.

The "nonrepetitive" type of credit transaction is usually associated with installation of complete industrial plants (as opposed to additions to existing capacity) or the construction of infrastructural facilities such as bridges and power stations. However, the distinction between these and the transactions listed earlier is a somewhat arbitrary one; in a rapidly industrializing country, manufacturing capacity may be regularly expanded, resulting in repetitive business for suppliers, or infrastructural facilities may be extended within a principal-to-affiliate relationship, as is often true in the oil industry. These transactions may be found in developing countries that rely primarily on new public enterprises for

implementing their investment plans, although it is by no means restricted to them.

While overlapping in practice, there is a clear-cut conceptual distinction between the two classes of credit transaction. In the repetitive type, the principal amounts owing, much like lines of credit extended by commercial banks to their correspondents, tend to be "rolled over" in the sense that new credits are extended as old credits are paid off; the amortization of principal does not, under normal conditions, constitute a charge on the borrowing country's resources. The primary element in the management of the "float" of revolving commercial debt is the pursuit of economic policies that engender international confidence in the borrowing country and that help to integrate its national economy with that of the world. Another ingredient is the avoidance of sharp changes in the "normal" structure of debt, the notion having a practical significance in relation to commercial debts at the shorter end of maturities; a rapid accumulation of these debts invariably draws the attention to the debtor country's economic management and may endanger the "roll-over" process, leading to an accumulation of commercial arrears and to the onset of a debt crisis.

For commercial credits used to finance large "nonrepetitive" transactions, it is necessary to assimilate their amortization requirements into the total debt servicing obligations of the country and to apply conventional "norms" of debt carrying capacity to them.³⁰ Since debt service competes with domestic consumption and capital formation for a share of current output, the capacity to carry external debt must be judged in the light of prospective trends in growth of output and savings and the effectiveness of policies for resolving competing claims on them. While the essential constraint on debt servicing is the ability of the economy to release resources for meeting the debt service, it may be necessary to look more closely at the stage in resource use where the constraint appears.

Since payments for external debt must usually be made in foreign exchange, the constraint may apply at the stage where domestic resources have to be transformed into foreign exchange. The most frequently used measure of debt servicing capacity, the debt service ratio relating amortization and interest payments in a given year to the exports of goods and services of the same year,³¹ explicitly draws attention to this aspect of

³⁰ An exception could be made, however, for the "self-liquidating" project, the export earnings from which are adequate to cover amortization of principal and interest payments as well as all direct and indirect import costs and other payments associated with the project; the typical example is the "enclave" project, which is financed by foreign enterprise on terms involving a mixture of equity participation and loans.

³¹ The estimation of this ratio on the basis of outstanding debt at the end of a year leads to the exclusion of indebtedness that is repaid within the year.

the constraint. Since commercial debt tends to be of shorter maturity than official concessionary debt, it may be necessary to relate debt service within the following three to five years to the expected foreign exchange earnings of the same period. This type of indicator emphasizes the need for caution in contracting debts that tax unduly the capacity of the economy to transfer resources abroad in the near-term future.

Alternatively, the constraint may appear in public sector accounts in cases in which the debt has been contracted substantially by public enterprises. Its servicing depends primarily on the ability of the government to generate the necessary revenues while maintaining an appropriate level of expenditures without recourse to inflationary financing. In these instances, the indicator to be used would relate the debt servicing obligations over a period of time to expected government revenues. This implies that the servicing of foreign debt is solely a budgetary problem in the sense that if the budgetary financing of foreign debt obligations is met there will not be any balance of payments difficulties. In practice, debt servicing difficulties have appeared in both the budgetary and foreign exchange areas and have interacted with each other to produce debt servicing problems.

MANAGEMENT OF COMMERCIAL FLOWS UNDER CONDITIONS OF BALANCE OF PAYMENTS STRAIN

When a recipient country finds itself in serious balance of payments difficulties, the problem of managing commercial debt acquires a new dimension. It becomes necessary to consider the application of limitations on the further contracting of commercial and other external debts. To be effective, however, the limitations must constitute an integral part of an over-all adjustment of economic and financial policies designed to correct the underlying imbalances that precipitated the problem in the first instance.

The need for limitations is obvious when the balance of payments problem is associated directly with an excessive and rapid accumulation of external debt. The distribution of existing debt may have led to a "bunching" of debt service maturities, or the rate of accumulation of various types of debt may have become so rapid as to require correction. Where rescheduling of maturities has been confined mainly to maturities on commercial credits, the excessive indebtedness may be said to have been, in part, the result of poor control over commercial credits by the recipient country as well as the inadequate lending criteria of its creditors.

The degree of limitation to be applied by the borrowing country depends upon the severity of the indebtedness problem. The most restrictive type is the prohibition by the debtor country of certain categories of credit for a given period. The purpose of this is to provide a

breathing spell during which the situation is prevented from deteriorating further while the magnitude of the problem is being assessed, guidelines are being evolved for limiting the accumulation of new debts, and procedures are being applied for ensuring the orderly repayment of obligations already incurred. The effect of prohibitions is to reduce the outstanding level of commercial credits by the amount of repayments that take place during the period for which the ban is in effect.

Less restrictive is a ceiling on new authorizations up to amounts that are lower than repayments during a given period. Here again, the outstanding level of indebtedness associated with commercial credits will decline. A lower degree of restriction involves a ceiling on new authorizations equal to repayments in a given period. This ensures that the outstanding level of indebtedness will not increase. Limitations of this type can be viewed as a "standstill" device, i.e., designed to prevent the level of indebtedness in the restricted category from rising. The permitting of an equivalent amount of new credit to be contracted as old credit is repaid is helpful in re-establishing the "roll-over" process while enabling the authorities to keep the debt situation under review.

Finally, the limitation may be formulated in a way that permits the total outstanding debt subject to control to increase during a given period but by a specified amount. This type of limitation is not aimed at reducing external debt but is usually intended to change the "profile" of debt by stretching out maturities over a longer period. This occurs implicitly since debts not subject to limitation are usually longer-term debts. The effect is produced explicitly by linking the debt ceiling to maturities. With heavy debt obligations in the near-term future, the over-all ceiling may be split into subceilings covering maturities up to, say, 5 years, between 5 and 15 years, and with no limitation on credits beyond 15 years.

The lifting of debt limitations is possible after varying time lags, depending on the country's debt position and the success achieved in implementing the stabilization program designed to correct the balance of payments problem. When a country is already in serious debt difficulties, heavy foreign debt payments relating to past debt have to be made; at the same time the stabilization measures will affect other items of the balance of payments only gradually. Therefore, the improvement in the balance of payments of the debtor country and the restoration of its creditworthiness may be a slow process, and only gradually can the foreign debt limitations be reduced and the normal flows of commercial credits be encouraged.

ADMINISTRATION OF DEBT POLICIES

The above discussion indicates some of the complexities of applying limitations on commercial credits in critical situations and the need for constant surveillance at all times. The institutional arrangements that recipient countries already maintain for these purposes differ from country to country, and national policies affecting accumulation of commercial credits have been neither universally nor consistently applied.

The foremost difficulty in evolving an appropriate debt policy is often incomplete statistical reporting. Frequently, lack of adequate data complicates the formulation of sound policies even when the authorities in the recipient country are aware of the need to initiate restrictive measures in situations of actual or potential excessive indebtedness. In many instances where there are several agencies responsible for collecting data or where the relevant agency or agencies are outside the span of attention of the central policy-making organs of administration, reporting of the over-all situation in a systematic way has not been attained. The first step in effective debt administration is complete reporting of all external obligations and its timely review by the authorities. Experience indicates that the centralizing of debt reporting in central banks has distinct advantages, even if responsibility for the formulation of debt policies lies elsewhere.

The provision of timely information does not in itself ensure that serious indebtedness problems will not arise. It becomes necessary to proceed with the establishment of clear procedures for the management of various categories of debt. In developing these procedures, a distinction is usually made between the private and the public sector. While limitations on private commercial credits may be difficult to implement for practical reasons, in principle there is no reason to exclude them from official scrutiny. Where public sector guarantees are given to the private sector credits, the latter become a contingent liability of the government, and control procedure can be similar to those applied to public sector credits. Credits carrying no official guarantee could, however, be subject to a registration procedure in order to secure full information on debt being contracted by the private sector.

Public sector credits and guarantees can be subjected to a prior authorization procedure at all times, which would tend to ensure stricter financial discipline and to improve the working of public entities. In addition, insofar as the implicit guarantee of the state enables most public enterprises to shift rapidly to foreign borrowing in order to escape the pressures exerted by domestic financial restraints under a stabilization

program, a limitation of their capacity to borrow abroad may be especially necessary under certain conditions.

A survey of debt administration machinery in 25 member countries indicates that for the public sector the final approval of foreign debt transactions is usually vested in the Treasury/Ministry of Finance. In some countries where investments are generally regulated in accordance with multiyear plans, the planning office plays an important role but has no final jurisdiction except in one country. In another the Ministry of Economy and Labor has final authority. The greater incidence of treasury control on credit-financed transactions is complementary to the expenditure control exercised in respect of current budgetary or cash appropriations. In countries where the bureau of the budget or similar agency in the office of the President or the Prime Minister has authority over the allocation of budget appropriations, as well as control over implementation, experience suggests that the location of final responsibility for approval of foreign credit financed transactions in the same agency is likely to produce effective implementation of debt policies.

The practice varies greatly in private sector transactions. In countries that operate exchange controls, the proximate authority may rest in the central bank or another exchange control agency but under the over-all control of the Treasury/Ministry of Finance. This is true, for instance, in sterling area countries and also in franc area countries. In countries not applying exchange controls there is ordinarily no control over foreign credit authorizations unless a guarantee is required from an official agency (including an officially supported development bank). In some countries guarantees are extended for making foreign exchange available only at the time when repayment obligations mature. In others, the official guarantee extends to making repayment in case the original borrowing enterprise is unable to meet its obligations. Control over private sector transactions has been enforced in some instances by requiring that a guarantee be obtained from an official agency before a foreign credit can be negotiated.

While the role of the central bank in respect of contracting or guaranteeing public sector borrowing is usually restricted to that of collecting data and advising the financial authorities, a more direct role can be and often is played by it in respect of private sector borrowing. This is a reflection of the close association of the central bank with the commercial banks, through which most private sector credit transactions are channeled. Given the normal reporting procedures established by the central bank for these banks, the administration of debt policies related to the private sector by the central bank is facilitated since existing channels of contact can be employed. If the central bank has an important function

in the surveillance of foreign credits, it is able to play a more effective role as a channel of communication between the financial community at home and abroad. For these reasons, the participation of central banks in the administration of external debt policies is found to strengthen effective debt management in recipient countries.

ROLE OF LENDING COUNTRIES

In view of the fact that insurance (and, often, refinancing) agencies in lending governments play a supporting role in the extending of export credits to developing countries, a question arises whether they can be expected to play a role in regulating the volume of commercial indebtedness. The consensus expressed by officials of principal exporting countries is that the responsibility for controlling commercial debt obligations lies exclusively with the importing countries and cannot be discharged by lenders. Authorities of one lending country have stated this point of view quite explicitly:

When it comes to granting commercial credits, creditor countries cannot be expected to enter into joint agreements on restricting their exports; experience down the years has shown that this is impossible as the positions of the exporting countries differ too greatly. . . . Consequently, the creditor countries themselves can hardly be expected to solve the problem of permissible volume of commercial credits, nor can it be demanded of them that they do so.

The authorities of another lending country propound a similar view. They stated that there could not be any direct role in this field for credit givers and support this by arguing that:

Any agreed restriction of offers by the individual (exporting) countries to a particular figure must imply rationing and market sharing and this is unlikely to prove politically feasible among competing exporters; it would also limit the proper scope for a developing country to shop around for the best and cheapest product.

In general, there is a feeling on the part of the national credit insurers and their authorities that they have the means of keeping the level of credit exposure in individual markets under close observation. Also, the regular exchange of information in the Berne Union, on actual commitments as well as potential commitments (in the way of "offers to insure" issued to exporters), provides a fairly reliable picture of the debt situation of selected recipient countries.

It is difficult to reconcile this position with the experience of the past decade or so, which has witnessed the multilateral rescheduling of debts in eight developing countries. In addition a number of countries have renegotiated their maturing obligations on a bilateral basis. While a few of these countries have been characterized by problems of heavy debt

service payments for many years ahead, a larger number have encountered what are essentially temporary difficulties from a "bunching" of debt maturities in two to three years. This in turn has usually reflected a surge of external borrowing on relatively short terms. Even if such surges could be detected at the time when they were occurring, rather than recognized in hindsight, there is a strong predisposition on the part of the lenders to seek to maintain traditional markets. This, in itself, is a reflection of commercial rivalries in the trade for capital goods. For instance, if commercial interests in any major exporting country are successful in securing insurance cover and financial assistance to take advantage of substantial borrowing demands of a particular developing country, which they may, in fact, have helped to promote, it is not easy for the authorities of other major supplying countries to deny similar facilities to their own exporters. A mutually reinforcing lending process may be set in train during which the normal precautions of export insurance and financial agencies may be overruled by the trade-promoting objectives of the authorities. Given the rapidity with which this process can add to the accumulating indebtedness of the borrowing country and the adverse repercussions on capital flows of emerging debt problems, there is at least a presumption in favor of achieving a greater degree of coordination of policies among the agencies within each creditor government that are responsible for commercial credits. In addition, there could be a greater willingness to support the efforts of the international institutions such as the International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (IBRD) to forestall debt crises through greater regard for lending on appropriate terms and through improved debt management policies and procedures in the borrowing country. These efforts are described in the following paragraphs.

ROLE OF INTERNATIONAL FINANCIAL INSTITUTIONS

IMF

During Fund consultations with developing countries, debt management policies are discussed, especially in countries where indebtedness problems appear to be emerging. Where a heavy debt burden has arisen or where a rapid accumulation of debts is threatening to disrupt financial stability, the Fund encourages member countries to adopt corrective measures through comprehensive stabilization programs and to exercise due care in the contracting of additional external debt. Frequently, specific measures affecting the contracting of certain categories of foreign

credits have been incorporated in stabilization programs that were supported by a Fund stand-by arrangement.

Direct Fund involvement has taken place in a number of instances where the burden of servicing had become critical and in the context of the multilateral renegotiation of debts. In others, limitations on foreign debt were necessary to reinforce the effectiveness of domestic credit and fiscal policies and thus help the authorities to counteract a particular area of weakness in the management of the economy.

Provisions concerning foreign debt obligations were first included in stand-by arrangements in 1959; they affected the authorization of credits for government imports. Since then, a number of Fund member countries have taken specific measures relating to foreign indebtedness, and specific commitments regarding foreign credits have been included in a number of stand-by arrangements. Over all, these measures have constituted an essential part of the programs designed to re-establish normal external payments; they have helped to speed up the restoration of confidence in the economic management of the member country and thereby have reduced the disruption of credit flows to it.

IBRD

The Bank keeps the external debt of countries under review and brings to the attention of the authorities any developments that may cause concern. Where necessary, it helps countries to improve their management of external debt.

The Bank keeps records of all public and publicly guaranteed debt outstanding with a maturity of more than one year, including the terms and service schedules of these loans. Where needed, it helps to establish systems of reporting external debt. The information based on quarterly and annual submissions to the IBRD by recipient countries is being extended by supplementing it with information from creditor countries in the DAC under the expanded reporting system established with the collaboration of the OECD.

In countries where the debt service is high relative to present and prospective repayment capacity, the Bank normally specifies the minimum levels of concessionary finance (e.g., grants and loans with maturities of over 30 years and interest rates of less than 3 per cent per annum) and the maximum amounts of medium-term loans (e.g., maturities of less than 5–10 years and interest rates of 6–7 per cent or higher) that are compatible with prudent debt management.

VI. Improving the Uses of Commercial Credits

The problems of excessive indebtedness that have affected certain developing countries in recent years have directed attention to the uses to which external credits are applied. In fact, misuses have occurred in respect of both investments financed partly from abroad and those financed solely by domestic resources. The analysis of this section is, however, focused on ways of improving the quality of investments financed by commercial credits.

POSSIBLE MISUSE OF COMMERCIAL CREDITS

The danger of poor investment uses arises from a number of overlapping factors. First, the normal practice on the part of commercial lenders of restricting credit to the financing of the foreign exchange component of projects can lead to resource misallocation. A country relying substantially on commercial financing has an incentive to influence its investment priorities in the direction of projects with a high foreign exchange content in order to maximize the use of foreign saving for its investment programs. Also, the choice of technology may be biased in favor of more capital-intensive uses because capital is available in the form of commercial credits from abroad.

Second, the availability of foreign credits may induce the public sector of the recipient country to enter into investment commitments for which domestic financing through savings has not been adequately provided; the local cost is then financed through excessive reliance on bank credits. A similar problem could arise when the terms of credit call for faster repayments than warranted by the cash flow from the investment; thus, when debt service payments begin before operations generate gross revenues sufficient for the purpose, there may be pressure to rely on bank credit to meet servicing obligations. In both cases an inflationary process may be initiated, with a number of distortions in the choice of investments.

Third, misuse can occur because of inadequate scrutiny at both the lending and the borrowing ends of commercial transactions. On the lending side, the basic motivation for the transaction is the promotion of export business, and this may lead to a situation in which immediate profit considerations outweigh other factors, such as an assessment of the borrower's ability to carry out the project with productive results. The supplier has, however, a certain interest in the repayment capacity of the buyer because, even with insurance cover, he is responsible for carrying part of the risk. The possibility of inflating his price when

competitive bidding procedures are not adopted may greatly reduce his own exposure to risk; this risk is substantially reduced when the foreign buyer is a state-owned enterprise.

On the recipient side there are two possibilities of slippage; the borrower may be a businessman who makes an injudicious decision, or his decision may be based on short-term profitability in a sheltered domestic market, which may not be consistent with the longer-term competitive position of the project. In some countries inefficiencies in the organization of markets or mistaken official policies affecting key relative prices can give incorrect signals to the private decision maker.

In public sector borrowing, the problem is sometimes one of inexperience in handling business relationships. The authorities may be too easily persuaded by strong selling techniques used by the supplier overstating the profitability of a project or understating the technical and managerial difficulties of operating it. Sometimes the problem may be even more serious; if there is little need to maximize profits and/or there is a desire to show results in some tangible form (e.g., the number of projects started by public officials during their tenure in office), the examination of the feasibility of projects may be perfunctory. The review process on projects subjected to scrutiny by international or bilateral official lenders may itself become a factor in inducing public officials to finance projects with commercial funds, because these have the advantage of becoming available more quickly and of being disbursed faster.

THE ROLE OF RECIPIENT COUNTRIES

The primary responsibility for the appropriate use of commercial credits must lie on the borrowing side. The testing of the economic feasibility of investments can best be done by the party to whom the benefit of investments will accrue directly. The question of what recipient governments might do to ensure that commercial credits are used to the best advantage can be discussed at two levels. At the level of the over-all economy, the need is to adopt the right combination of policies so as to create a general environment that is conducive to sound decision making. At the project level, the essential requirement is for measures aimed at adequate selection, preparation, and efficient implementation of projects financed under commercial credit arrangements. While both sets of measures are needed, the role of the over-all policy environment is sometimes neglected. If the authorities have taken steps to create the proper framework of policies, the issue of both the correct uses and the appropriate limits to the incurring of commercial indebtedness can more easily be resolved.

Past experience has indicated that in many of the instances of excessive indebtedness leading to default, inadvisable monetary and fiscal policies have been pursued in conjunction with an improper use of investment resources. These policies have been associated with serious inflationary pressures, which in turn have tended to increase reliance on short-term and medium-term commercial finance because longer-term capital has been reluctant to enter. The most frequent manifestation of poor investment policy has been in the areas of the pricing of capital and the pricing of foreign exchange. The former deficiency has resulted in a choice of projects that did not reflect the basic resource endowments of the recipient economy. The latter has tended to favor the greater use of foreign rather than domestic inputs in the investment-mix. Overvaluation of the currency has been particularly detrimental to sectoral resource allocation when sustained by severe quantitative restrictions on imports. The result has been to attract commercial funds toward import-substituting industrial activity with little potential comparative advantage and without materially helping the balance of payments because imports of raw materials, fuels, and spare parts have substantially replaced those of consumer goods.

At the project level, problems have often arisen in connection with the public sector. While a number of successful projects have been financed with commercial credits under the aegis of the public sector, many of the "unsound" projects in some of the recent rescheduling cases were undertaken by public agencies. In analyzing the reasons for these, several common difficulties were found. Inadequate preliminary appraisal of viability has been a major factor. The decision to launch a project may have been strongly influenced by the easy availability of credit. Another major deficiency is the inadequacy of competition regarding the sources of credit supply. This may be the result of a deliberate choice on the part of officials responsible for procurement—whose private interest in the transaction may override concern for competitive bidding. Many times, the lack of competitive bidding may be compounded by the "tie-ins" between suppliers of equipment, consultant firms that prepare the project design and test it for feasibility, construction firms, financiers, and the technical experts running the equipment after its installation. The infusion of competitive forces into the whole credit-negotiating process becomes difficult in the face of such "tie-ins," especially when these are covert rather than open arrangements.

In a number of recipient countries, inefficient execution of projects financed under commercial credit arrangements has also constituted a major obstacle to their productive utilization. Sometimes the defective implementation consists of poor handling of technically related aspects

of the same project—such as when credit-financed imports of equipment are scheduled for arrival at the construction site long before the erection of the associated plants. In others, the deficiency can be traced to the expansion, typically by the public sector, of credit-financed projects much beyond the limitations imposed by specific real shortages, notably technical and managerial skills. A major unfavorable feature of the experience in these cases is that a number of recipient enterprises are burdened with the servicing of external debts in respect of projects yielding little economic benefit. Therefore, the advantageous use of commercial credits in these countries is closely tied up with measures for ensuring sound execution and efficient operation of projects financed under such arrangements.

THE ROLE OF LENDING COUNTRIES

A number of considerations have deterred lending/insurance agencies from intervening in the consummation of commercial credits. To start with, the primary function of these agencies is to promote their countries' exports in an intensively competitive market for capital goods; if satisfied that the borrower (or his guarantor) can repay the credit, they may not find it necessary to question the use of the credit. Moreover, a close surveillance of the economic feasibility of transactions concluded by the private sector is ostensibly alien to the economic philosophy prevalent in many lending countries and would be regarded as constituting unwarranted governmental interference in the conduct of private transactions of their own or recipient country nationals. This reluctance also exists toward public sector projects because it would appear to intervene in the prerogative of the recipient government, whatever the merits of the project, when an official guarantee of repayment is proffered.

The interchangeability between credit and cash availabilities of the borrower makes it practically impossible for lenders to influence in a meaningful sense the use of resources in the recipient economy. Any control on the use of commercial credits by the lending countries can only be as a supplement to the surveillance applied by the authorities in the borrowing countries. Many among the latter do make a careful use of commercial credits, and any control by the authorities in the lending countries would be unnecessary. Under circumstances where more careful scrutiny of the use of commercial credits is called for, it must be recognized that a case-by-case investigation would not be warranted for the majority of credits that are used to finance normal trade transactions for small contract values. Although these transactions may in the aggregate constitute an important part of a recipient country's foreign debt

obligations, their screening would impose a rather heavy administrative burden on both the lenders and users of commercial credits.

Finally, an appraisal of large investment projects, which would constitute the only type where some degree of surveillance could possibly be exercised, must have elements of uncertainty. Assumptions about key parameters of performance can differ among experts because of the essentially forecasting element involved and standards of "feasibility" can vary among appraisers of the same project. Moreover, the provision of commercial financing is usually one of the conditions that govern the awarding of the contract, and, in view of the competitive conditions prevalent in international markets, there is considerable incentive to use the maximum freedom of interpretation of available data in order to justify the financing of marginal projects. It is here that various interests in the transactions may diverge. On the one hand there are pressures from national exporters to obtain financing for their exports on an internationally competitive basis, while on the other hand agencies in the lending countries responsible for protecting the budget from claims for rescheduling press for careful analysis as to the economic feasibility of projects before credits are approved.

For these reasons, any policy of selectivity in the choice of projects for commercial financing requires a delicate balancing of interests, attitudes, and special circumstances in each lending country. Some degree of selectivity has been exercised by lending countries to a varying extent. In some countries where official support is extended primarily through insurance facilities, the authorities have sought to discourage dubious projects by insisting on obtaining stronger financial collateral from the recipient enterprise than would normally be required, e.g., the guarantee of the central bank may be insisted upon whereas ordinarily that of a commercial bank would have been acceptable; for public sector projects, guarantees from the treasury may be required in preference to that of the sponsoring ministry.

In a number of countries insurance/lending agencies do attempt to judge large projects not only on the basis of the creditworthiness of recipients or of their guarantors but also by reference to their feasibility. In most cases, feasibility analysis is restricted, however, to a projection of the cash flows generated by the investment as a check on the viability of the repayment schedule. Finally, a few lending agencies undertake a more thorough study of the economic (as distinct from the financial) merits of large projects, the manner in which these fit the requirements of the recipient economy, and their contribution to the balance of payments. Such studies are also undertaken by or on behalf of a few credit insurers.

In recent years, the commercial financing of investment projects has

also been undertaken under joint financing arrangements with the IBRD. In this way, commercial credits have benefited from the careful feasibility studies that precede the commitment of funds by the IBRD. A number of lending countries have welcomed this approach as providing greater assurance of proper use of commercial funds, and a few others have expressed interest in supporting the enlargement of such arrangements if procedures for negotiation and administration of contracts could be simplified somewhat.

The IBRD has also enlarged its assistance to developing countries for the achievement of greater soundness in the selection of projects including those that are financed by commercial credits. At the request of recipient countries, it has reviewed the feasibility of projects for which financing from non-Bank sources was being sought. By identifying areas for which preinvestment studies are needed and by sponsoring or helping to organize such studies, the Bank has helped with the essential groundwork needed to establish an inventory of projects that are suitable for external financing. More recently, an Industrial Projects Department has been established for conducting comprehensive industrial sector reviews, which, in addition to examining the general strategies pursued and the policies for carrying them out, would be concerned with industrial projects in the process of formulation.

A considerable related effort has been carried out by the World Bank Group in assistance to national development finance companies; this has consisted not only of loans to and equity investment in such companies but also of technical assistance in connection with their organization and management, including advice on project appraisal procedures, thus contributing to the sounder selection of projects including many that may be financed by commercial credits. The useful role of development finance companies has been recognized by several lending countries, which have extended general lines of export credit or export credit insurance cover through them. Under these arrangements, investments by the recipient must be approved by the development finance company or a similar financial intermediary before the export credit funds are released. This type of "two-step" lending procedure can provide for more effective review by the authorities of the recipient country of the feasibility of proposed commercial transactions.

Each of the methods described above provides for more careful appraisals of medium-sized and large projects, and a greater willingness on the part of lenders to use them would afford better assurance of proper use of that part of their resources which is made available as commercial financing.

COOPERATIVE ACTIONS FOR IMPROVING USE

The proper use of commercial credits is a subject of concern for borrowing and lending countries alike. The problems that have arisen from unwise use are seen most clearly in countries that have to undergo rescheduling of their debts. Creditworthiness inevitably tends to be impaired, and the flow of credits including short-term financing may be temporarily suspended. The hiatus in normal commercial flows that accompanies and follows such rescheduling exercises often results in substantial dislocation of the economy of the recipient country. There is the additional problem of finding external finance to start new projects that can provide the future resources required to service the past accumulation of debts. At the same time, an unproductive use of commercial credits that leads to debt rescheduling may necessitate the expenditure of public funds in the lending country for meeting claims on past credits rather than for financing new activities in the same or other countries. The serious consequences for capital flows that result from default on contractual obligations underline the necessity, among other things, for cooperative efforts to alleviate problems arising in the use of commercial credits.

APPENDICES

I. Extract from Decision 29(II) Taken by the United Nations
Conference on Trade and Development, Second Session,
New Delhi, February 1–March 29, 1968

*29(II). Improving the terms and conditions of aid alleviating
the problems of external indebtedness*

Commercial credits including suppliers' credits

8. The Conference endorses the judgement in the Agreed Statement that commercial credits add to the flow of resources and can play a useful role, within limits, in promoting development. They are, however, no real substitute for long-term development aid.

9. It is noted in the Agreed Statement that four main questions arise:

(a) To what extent should commercial credits be adapted to promote development as well as trade?

(b) How should its acceptance and use be controlled by both recipients and lenders?

(c) Should the terms be softened, and what would be the implications for both aid and trade?

(d) Should the question whether any new institutional arrangements are needed to alleviate harmful developments in the field of commercial credits be further studied?

10. The Conference invites the IMF to prepare a study on these questions, in consultation with member Governments, with the secretariat of UNCTAD, IBRD and other appropriate institutions. This study should be made available for discussion in the Committee on Invisibles and Financing related to Trade, which will then decide whether to refer it to an inter-governmental group with equitable representation of developing and developed countries, or to deal with it in some other appropriate way.

II. Statistics

TABLE 11. NET CHANGES IN GUARANTEED PRIVATE EXPORT CREDITS WITH MATURITIES RANGING FROM ONE TO FIVE YEARS INCLUSIVE, EXTENDED BY MEMBER COUNTRIES OF THE DEVELOPMENT ASSISTANCE COMMITTEE TO DEVELOPING COUNTRIES, 1956-68

Lending Countries	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968 ¹	Cumulative Total	Share in Total
	Million U.S. dollars														Per cent
Australia	...	...	...	...	5.3	2.0	8.0	2.5	4.9	-0.4	1.0	0.9	1.1	2.6	0.1
Austria	...	...	...	...	17.4	13.3	-3.3	8.8	35.8	7.1	2.0	2.3	2.4	36.5	0.8
Belgium	-1.2	-1.2	2.4	-2.4	17.4	13.3	-3.3	8.8	35.8	12.9	16.5	13.7	29.2	141.9	3.3
Canada	7.8	2.2	8.9	-4.4	9.1	-5.1	5.6	19.9	0.9	-9.9	5.4	6.2	5.4	52.0	1.2
Denmark	...	0.1	0.2	4.1	23.6	13.4	1.2	-3.0	11.2	1.1	-3.1	-6.3	9.0	51.5	1.2
France	106.7	-12.2	21.2	75.6	88.8	129.0	82.1	61.8	75.2	44.2	26.3	43.6	72.0	814.3	18.7
Germany	216.5	169.4	122.4	235.3	60.5	9.1	-90.3	35.9	4.8	8.5	3.7	76.8	99.8	952.4	21.9
Italy	...	...	...	...	104.4	2.7	84.2	19.7	91.8	113.5	275.6	-3.2	-13.0	675.7	15.6
Japan	14.0	11.0	13.0	28.0	-1.9	12.5	3.9	2.7	46.1	71.9	12.6	-47.0	72.1	238.9	5.5
Netherlands	3.5	3.5	1.2	22.4	32.9	18.5	0.3	-3.3	-5.9	31.5	10.6	3.4 ²	-5.8	112.8	2.6
Norway	0.3	-0.1	0.8	2.1	0.1	9.4	-1.8	1.1	0.3	4.0	0.2	0.5	6.0	22.9	0.5
Sweden	...	...	...	...	11.2	6.9	2.6	5.9	7.3	-0.9	0.7	4.3	5.2	43.2	1.0
Switzerland	...	...	...	...	42.4	45.9	30.0	106.5	50.7	66.7	3.3	34.2	47.3	427.0	9.8
United Kingdom	23.2	...	...	...	26.7	65.2	96.5	71.8	39.7	-26.9	83.2 ³	74.8 ³	124.6 ³	578.8	13.3
United States	...	...	...	...	-1.0	...	13.0	26.0	37.0	24.5	42.6	39.0	15.7	196.8	4.5
Total	370.8	172.7	170.1	360.7	419.5	322.8	232.0	356.3	399.8	347.8	480.6	243.2	471.0	4,347.3	100.0

Sources: OECD, *The Flow of Financial Resources to Less-Developed Countries*, 1956-63, 1961-65, and 1966-67; OECD, Development Assistance Committee, "Statistical Annex," *Development Assistance*, 1968-69; staff estimates.

¹ Preliminary estimates.

² Figures derived by prorating 1967 totals according to 1968 proportionate shares.

³ Figures prorated according to the proportion applicable to 1967 gross credits.

TABLE 12. NET CHANGES IN GUARANTEED PRIVATE EXPORT CREDITS WITH MATURITIES OVER FIVE YEARS, EXTENDED BY MEMBER COUNTRIES OF THE DEVELOPMENT ASSISTANCE COMMITTEE TO DEVELOPING COUNTRIES, 1956-68

Lending Countries	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968 ¹	Cumulative Total	Share in Total
	← Million U.S. dollars →														Per cent
Australia	4.6	-3.4	2.3	-3.4	...	16.0	3.0	...	0.8	3.3	-0.5	...	0.5	3.3	0.1
Austria	...	...	...	...	...	...	...	...	...	2.6	1.9	1.0	33.0	58.4	1.0
Belgium	...	...	...	...	...	30.7	20.9	29.2	7.6	46.8	6.1	10.5	79.3	231.1	4.1
Canada	...	...	...	...	...	...	...	...	...	...	...	...	...	18.8	0.3
Denmark	...	...	...	...	...	...	1.4	0.8	9.0	0.6	0.4	3.4	31.5	47.1	0.8
France	...	...	...	...	...	37.7	15.5	42.4	111.0	123.0	184.9	100.9	167.4	782.8	13.9
Germany	...	...	...	...	89.9	68.2	130.4	35.9	117.0	49.9	78.3	213.7	104.4	887.7	15.7
Italy	84.7	17.6	75.3	1.2	...	25.5	27.3	81.9	33.9	-13.3	85.5	7.3	242.6	669.5	11.9
Japan	27.0	15.0	20.6	55.6	61.5	167.5	126.3	47.9	89.6	82.8	257.5	385.6	438.8	1,775.7	31.4
Netherlands	...	...	...	...	...	11.5	20.2	10.7	26.7	12.0	10.0	3.6 ²	-6.0	88.7	1.6
Norway	...	...	...	...	...	8.1	1.3	-0.6	4.1	19.9	-2.3	0.6	13.3	44.4	0.8
Sweden	-1.2	1.2	4.7	7.1	...	...	1.5	0.1	12.1	4.9	12.1	9.2	12.3	64.0	1.1
Switzerland	-1.6	22.2	-4.3	21.8	...	...	28.6	26.6	13.9	22.3	33.3	12.2	53.3	228.3	4.0
United Kingdom	...	247.4	3.2	-17.9	...	10.5	14.4	31.5	103.9	134.2	42.1 ³	38.6 ³	64.2 ³	672.1	11.9
United States	-1.0	18.0	-42.0	-1.0	...	...	35.0	4.0	12.0	-11.8	24.9	22.7	18.9	79.7	1.4
Total	112.5	318.0	59.8	63.4	151.4	375.7	425.8	310.4	541.6	477.2	734.2	809.3	1,272.3	5,651.6	100.0
Grand Total ⁴ (Tables 11 + 12)	483.3	490.7	229.9	424.1	570.9	698.5	657.8	666.7	941.4	825.0	1,214.8	1,052.5	1,743.3	9,998.9	—

Sources: OECD, *The Flow of Financial Resources to Less-Developed Countries*, 1956-63, 1961-65, and 1966-67; OECD, Development Assistance Committee, "Statistical Annex," *Development Assistance*, 1968-69; staff estimates.

¹ Preliminary estimates.

² Figures derived by prorating 1967 totals according to 1968 proportionate shares.

³ Figures prorated according to the proportion applicable to 1967 gross credits.

⁴ Excluding the nonguaranteed portion of guaranteed private export credits, except for France in 1966, 1967, and 1968; Austria in 1967; the United Kingdom in 1967 and 1968; and the Netherlands in 1968.

TABLE 13. NET CHANGE IN INSURED PRIVATE EXPORT CREDITS EXTENDED BY MEMBERS OF THE ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT AND AUSTRALIA, 1960-68

Region and Selected Countries	1960	1961	1962	1963	1964	1965	1966	1967	1968 ¹	Total	Proportion of Grand Total
	<i>← Million U.S. dollars →</i>										<i>Per Cent</i>
Europe	115.78	109.53	31.59	122.44	164.48	178.56	165.98	59.65	118.45	1,066.46	12.74
Greece	2.37	12.83	4.54	1.16	26.09	36.59	43.74	23.44	65.32	216.08	2.58
Spain	24.27	-0.51	11.57	57.78	87.60	29.50	54.17	36.21	-22.46	278.13	3.32
Yugoslavia	78.50	45.22	-1.38	38.45	69.72	140.52	50.10	28.65	47.35	497.13	5.94
Latin America	275.54	405.67	310.63	184.49	86.41	-9.22	245.31	207.20	531.35	2,237.38	26.73
Argentina	28.14	104.09	188.38	-33.99	-46.18	-64.00	2.53	-11.48	80.23	247.72	2.96
Brazil	122.94	144.01	17.80	48.40	-46.53	52.45	-13.93	-16.50	96.11	404.75	4.84
Chile	20.23	19.28	12.22	36.10	19.52	11.04	16.20	10.32	46.00	190.91	2.28
Mexico	54.78	44.37	23.02	74.37	74.31	20.24	49.25	103.77	81.67	525.78	6.28
Panama	6.91	17.00	-14.88	3.46	14.35	-10.40	3.31	11.90	5.61	37.26	0.44
Peru	-0.22	49.91	61.97	21.51	6.64	27.84	154.60	4.09	49.18	375.52	4.49
Asia	47.47	87.01	70.25	144.60	261.91	291.30	397.91	507.74	907.00	2,715.19	32.44
India	-66.24	-86.37	-24.19	5.92	104.26	49.72	107.09	40.83	89.67	220.69	2.64
Indonesia	25.30	60.45	18.72	17.64	117.37	138.49	-5.47	-67.68	-19.01	285.81	3.41
Iran	23.64	-12.86	-15.43	45.28	-107.50	-11.85	34.09	179.21	155.13	289.71	3.46
Korea	-1.28	12.34	6.04	21.02	-8.22	22.93	87.56	92.36	170.33	403.08	4.82
Pakistan	-8.73	17.12	28.20	-23.58	2.99	15.39	24.97	39.14	60.83	156.33	1.87
Philippines	31.74	24.20	0.70	-2.11	14.81	20.96	29.70	83.72	90.07	293.79	3.51
Africa	63.94	36.86	181.11	139.83	305.70	252.01	228.40	266.81	82.73	1,557.39	18.60
Ghana	5.55	14.45	40.54	45.29	69.24	21.50	-8.56	-9.35	-29.37	149.29	1.78
Kenya	9.25	0.52	4.41	-2.48	-4.87	7.30	42.74	36.11	-2.14	90.84	1.08
Liberia	-1.49	2.93	6.32	7.82	-3.21	3.56	-0.67	182.01	13.38	210.65	2.52
Nigeria	1.55	5.00	10.11	28.22	51.15	53.61	17.37	-18.63	-18.56	129.82	1.55
Tunisia	1.11	5.25	13.77	1.86	12.03	22.84	34.18	-5.59	6.96	92.41	1.10
U.A.R.	1.25	4.08	65.54	0.61	65.26	7.21	-10.76	-31.78	-31.34	70.07	0.84
Subtotal (above countries)	359.57	483.31	457.97	392.73	518.83	595.44	712.21	710.75	934.96	5,165.77	61.71
All other countries ²	211.33	215.19	199.83	273.97	422.57	229.56	502.57	341.80	808.31	3,205.13	38.29
Grand Total	570.90	698.50	657.80	666.70	941.40	825.00	1,214.78	1,052.55	1,743.27	8,370.90	100.00

Sources: OECD, *Geographical Distribution of Financial Flows to Less Developed Countries*, 1960-64, 1965, and 1966-67; staff estimates.

¹ Preliminary estimates.

² Including unspecified and unallocated.

TABLE 14. DEBT CONTRACTED OR GUARANTEED BY PUBLIC SECTOR IN SELECTED DEVELOPING COUNTRIES
(In millions of U.S. dollars and per cent)

Region and Selected Countries	Outstanding at the End of 1967		As Percentage of Grand Total		1968 Service Payments		1968 Current Foreign Exchange Receipts	1968 Debt Service Ratios	
	Total debt	Commercial debt	Total debt	Commercial debt	Total debt	Commercial debt		Total debt	Commercial debt
Europe									
Cyprus	31.3	1.2	0.1	0.0	3.8	0.4	182.3	2.1	0.2
Greece	533.1	99.0	1.2	1.1	49.0	19.6	951.9	5.1	2.0
Malta	15.3	—	—	—	1.3	—	117.6	1.1	—
Spain	747.3	112.4	1.7	1.3	72.5	17.8	3,355.0	2.2	0.5
Turkey	1,738.1	35.9	4.0	0.4	116.2	13.2	778.0	14.9	1.7
Yugoslavia	1,519.0	478.6	3.5	5.5	262.9	103.9	1,831.0 ¹	14.4	5.7
Subtotal (6 countries)	4,584.1	727.1	10.6	8.4	505.7	154.9	7,215.8	7.0	2.1
Asia									
Ceylon	254.6	46.4	0.6	0.5	19.1	5.1	373.8	5.1	1.4
China	741.3	91.6	1.7	1.0	33.5	16.1	1,041.4	3.2	1.5
India	6,997.6	90.7	16.3	1.0	515.0	79.9	2,145.0	24.0	3.7
Indonesia	2,221.7	376.4	5.2	4.3	168.2	71.3	877.0	19.2	8.1
Iran	1,744.8	587.3	4.1	6.8	137.8	54.9	2,101.0	6.6	2.6
Iraq	279.1	57.9	0.6	0.7	15.0	4.4	1,145.8	1.3	0.4
Jordan	120.1	—	0.3	—	3.6	—	104.2	3.4	—
Lebanon	92.1	20.5	0.2	0.2	5.5	—	206.1 ^{1, 2}	2.7	—
Korea	1,221.9	791.0	2.8	9.1	45.1	38.1	880.3	5.1	4.3
Malaysia	409.0	10.0	1.0	0.1	30.0	1.7	1,494.8	2.0	0.1
Pakistan	2,810.0 ³	230.3 ³	6.5	2.6	134.4	15.4	750.8	17.9	2.0
Philippines	429.2	134.5	1.0	1.5	56.5	34.1	1,156.0	4.9	2.9
Singapore	74.7	—	0.2	—	2.5	—	1,570.3	0.2	—
Thailand	323.8	34.1	0.8	0.4	33.6	11.7	1,077.0	3.1	1.1
Subtotal (14 countries)	17,719.9	2,470.7	41.2	28.4	1,199.8	332.7	14,923.5	8.0	2.2

TABLE 14 (continued). DEBT CONTRACTED OR GUARANTEED BY PUBLIC SECTOR IN SELECTED DEVELOPING COUNTRIES

(In millions of U.S. dollars and per cent)

Region and Selected Countries	Outstanding at the End of 1967		As Percentage of Grand Total		1968 Service Payments		1968 Current Foreign Exchange Receipts	1968 Debt Service Ratios	
	Total debt	Commercial debt	Total debt	Commercial debt	Total debt	Commercial debt		Total debt	Commercial debt
Latin America									
Argentina	2,027.8	898.4	4.7	10.3	451.9	212.9	1,778.0	25.4	12.0
Bolivia	342.7	97.6	0.8	1.1	11.8	4.0	174.2	6.8	2.3
Brazil	3,468.6	710.2	8.1	8.2	425.7	183.4	2,085.0	20.4	8.8
Chile	1,725.0	484.4	4.0	5.6	150.0	71.3	1,044.0	14.4	6.8
Colombia	1,168.4	221.1	2.7	2.5	103.0	43.1	776.0	13.3	5.6
Costa Rica	144.4	25.5	0.3	0.3	23.9	9.4	206.1	11.6	4.6
Dominican Republic	195.1	31.9	0.4	0.4	15.6	9.8	193.5	8.1	5.1
Ecuador	245.3	67.9	0.5	0.8	18.3	6.8	225.8	8.1	3.0
El Salvador	95.2	4.7	0.2	0.0	7.1	1.6	238.0	3.0	0.7
Guatemala	128.6	22.9	0.3	0.3	17.1	11.9	269.2	6.4	4.4
Guyana	65.9	1.1	0.1	0.0	6.7	—	134.6	5.0	—
Honduras	94.8	6.5	0.2	0.1	3.5	0.8	202.0	1.7	0.4
Jamaica	145.2	68.6	0.3	0.8	12.8	11.0	397.5	3.2	2.8
Mexico	2,670.8	1,130.5	6.2	13.0	526.2	361.8	2,484.0	21.2	14.6
Nicaragua	119.7	23.1	0.3	0.3	10.6	5.0	200.7	5.3	2.5
Panama	115.2	0.7	0.3	0.0	7.8	—	329.0	2.4	—
Paraguay	100.3	21.7	0.2	0.2	6.4	2.7	68.0	9.4	4.0
Peru	967.6	439.1	2.2	5.0	112.7	88.2	977.0	11.5	9.0
Trinidad and Tobago	88.5	23.0	0.2	0.3	12.4	7.9	560.4	2.2	1.4
Uruguay ¹	283.4	101.0	0.6	1.2	34.3	15.4	254.2	13.5	6.0
Venezuela	502.1	52.6	1.2	0.6	49.7	27.8	2,680.0	1.8	1.0
Subtotal (21 countries)	14,694.6	4,432.5	34.2	51.0	2,007.5	1,074.8	15,277.2	13.1	7.0

TABLE 14 (continued). DEBT CONTRACTED OR GUARANTEED BY PUBLIC SECTOR IN SELECTED DEVELOPING COUNTRIES

(In millions of U.S. dollars and per cent)

Region and Selected Countries	Outstanding at the End of 1967		As Percentage of Grand Total		1968 Service Payments		1968 Current Foreign Exchange Receipts	1968 Debt Service Ratios	
	Total debt	Commercial debt	Total debt	Commercial debt	Total debt	Commercial debt		Total debt	Commercial debt
Africa									
Botswana	11.1	—	0.0	—	0.7	—	10.5 ²	6.7	—
Burundi	7.1	1.4	0.0	0.0	0.6	0.1	15.7 ²	3.8	0.6
Cameroon	80.2	—	0.2	—	2.0	—	172.2 ²	1.2	—
Central African Republic	22.1	2.1	0.0	0.0	1.5	0.4	43.3 ²	3.5	0.9
Chad	37.1	8.9	0.1	0.1	4.9	1.7	41.3 ²	11.9	4.1
Congo, Dem. Rep.	385.1 ²	41.3 ²	0.9	0.5	10.9	0.7	619.0	1.8	0.1
Dahomey	42.7	10.3	0.1	0.1	2.7	1.3	36.5 ¹	7.4	3.6
East African Community	210.6	1.1	0.5	0.0	32.8	0.3	—	—	—
Ethiopia	200.0	23.1	0.5	0.3	15.8	7.5	175.2	9.0	4.3
Gabon	74.2	10.8	0.2	0.1	7.8	1.8	107.8 ^{1, 2}	7.2	1.7
Ghana	527.6 ²	286.3 ²	1.2	3.3	38.2	26.8	356.0	10.7	7.5
Ivory Coast	247.3	67.5	0.6	0.8	26.9	15.9	559.4	4.8	2.8
Kenya	326.8	15.5	0.8	0.2	17.2	1.6	418.9	4.1	0.4
Lesotho	6.4	—	0.0	—	0.2	—	16.5 ¹	1.2	—
Liberia	173.3	48.3	0.4	0.6	12.2	7.7	169.0 ²	7.2	4.6
Malagasy Republic	102.7	0.2	0.2	0.0	5.6	0.1	115.9 ²	4.8	0.1
Malawi	76.2	1.4	0.2	0.0	3.3	0.3	63.1	5.2	0.5
Mali	215.9	4.3	0.5	0.0	5.4	1.1	26.7	20.2	4.1
Mauritania	39.3	11.0	0.1	0.1	1.8	1.5	79.4 ^{1, 2}	2.3	1.9
Morocco	623.5	60.5	1.4	0.7	57.6	8.8	609.4	9.4	1.4
Niger	25.3	11.4	0.1	0.1	1.9	0.6	38.9 ²	4.9	1.5

TABLE 14 (concluded). DEBT CONTRACTED OR GUARANTEED BY PUBLIC SECTOR IN SELECTED DEVELOPING COUNTRIES
(In millions of U.S. dollars and per cent)

Region and Selected Countries	Outstanding at the End of 1967		As Percentage of Grand Total		1968 Service Payments		1968 Current Foreign Exchange Receipts	1968 Debt Service Ratios	
	Total debt	Commercial debt	Total debt	Commercial debt	Total debt	Commercial debt		Total debt	Commercial debt
Nigeria	586.5	122.6	1.4	1.4	43.0	22.6	649.6	6.6	3.5
Rhodesia	260.4	3.1	0.6	0.0	15.9	0.6	264.0 ¹	6.0	0.2
Rwanda	2.8	0.6	0.0	0.0	0.4	0.4	16.1 ²	2.5	2.5
Senegal	81.9	—	0.2	—	3.8	—	158.4 ^{1, 2}	2.4	—
Sierra Leone	61.1	23.6	0.1	0.3	7.5	5.4	108.7	6.9	5.0
Somalia	69.1	—	0.1	—	1.5	—	44.4	3.4	—
Sudan	292.1	35.4	0.7	0.4	20.5	2.1	278.8	7.4	0.8
Swaziland	41.6	16.6	0.1	0.2	4.9	3.3	58.9 ²	8.3	5.6
Tanzania	210.7	22.6	0.5	0.3	7.3	1.9	296.9	2.4	0.6
Togo	35.8	5.0	0.1	0.1	3.6	1.5	52.3 ¹	6.9	2.9
Tunisia	546.5	159.3	1.3	1.8	50.0	31.2	276.1	18.1	11.3
Uganda	144.8	5.0	0.3	0.1	5.9	0.2	238.3 ¹	2.5	0.1
Upper Volta	20.6	0.8	0.1	0.0	1.4	0.2	19.0 ²	7.4	1.0
Zambia	231.4	60.9	0.5	0.7	16.7	2.2	704.2 ¹	2.4	0.3
Subtotal (35 countries)	6,019.8	1,060.9	14.0	12.2	432.4	149.8	6,840.4	6.3	2.2
Grand Total (76 countries)	43,018.4	8,691.2	100.0	100.0	4,145.4	1,712.2	44,256.9	9.4	3.9

Sources: International Monetary Fund, *Balance of Payments Yearbooks* and *International Financial Statistics* (export data, f.o.b.); International Bank for Reconstruction and Development, debt statistics.

¹ 1967 data.

² Merchandise exports.

³ In June 1968.

Utilisation des crédits commerciaux par les pays en voie de développement pour le financement des importations de biens d'équipement

Résumé

Ces dernières années, les crédits commerciaux consentis aux pays en voie de développement ont augmenté à un taux plus rapide que le commerce des biens d'équipement, dénotant ainsi le caractère changeant des exportations de biens d'équipement, les crédits plus importants et à plus long terme demandés par les pays en voie de développement et la concurrence plus intense que se font les pays industrialisés exportateurs. La présente étude, qui est une révision d'un rapport préparé par les services du Fonds à la demande de la Conférence des Nations Unies sur le Commerce et le Développement, retrace l'évolution des flux de crédits commerciaux et évalue les arguments avancés pour et contre certaines des mesures visant à adapter ces flux de façon à promouvoir le développement, y compris l'assouplissement des conditions de crédit. Elle examine également les problèmes que pose le contrôle imposé par les pays donateurs et les pays bénéficiaires sur l'utilisation et l'acceptation des crédits.

L'adaptation des facilités de crédit et d'assurance aux impératifs changeants du commerce d'exportation des biens d'équipement s'est faite essentiellement de deux façons. 1) Les principaux pays exportateurs ont cherché, par le jeu d'innovations juridiques, institutionnelles et autres, à faire face à la concurrence qui existe en matière de conditions de crédit, tout particulièrement le crédit offert au titre de l'aide conditionnelle. 2) Ils se sont efforcés d'uniformiser les conditions de crédit appliquées à ce commerce au moyen des ententes de l'Union de Berne et d'accords ad hoc. Ces adaptations ont contribué à augmenter le flux net des crédits fournis par les pays développés, et leur importance va probablement s'accroître à mesure que l'industrialisation se poursuit.

L'étude aboutit à la conclusion suivante : une certaine prorogation des échéances et un accroissement de la proportion des coûts en monnaie locale financés par des crédits commerciaux constitueraient des modifications souhaitables à l'appui de projets viables envisagés par des pays en voie de développement dont les marchés financiers sont insuffisamment développés mais qui sont en mesure d'accepter la responsabilité de crédits supplémentaires aux conditions dont sont assortis les prêts commerciaux. Elle constate cependant que les arguments avancés en faveur d'un assouplissement général des conditions appliquées au crédit commercial ne sont guère concluants.

La gestión des flux commerciaux exige le maintien de politiques économiques rationnelles (notamment en ce qui concerne les taux d'intérêt et les taux de change) qui permettent aux pays intéressés de reconduire la dette commerciale et de laisser son volume croître en fonction de l'expansion de l'économie. Lorsque les crédits servent à financer de grosses transactions qui ne se renouvellent pas, il importe de maintenir un rapport approprié entre le taux d'accumulation de la dette commerciale et les divers indicateurs de la capacité d'un pays à assurer le service de la dette extérieure. Lorsque celui-ci risque d'être compromis par des difficultés de balance des paiements, il peut devenir nécessaire de limiter le recours à de nouveaux crédits commerciaux et autres.

Finalement, l'étude indique en conclusion que les pays bénéficiaires comme les pays prêteurs doivent accorder une plus grande attention à l'utilisation des crédits commerciaux et voit là un rôle important à jouer pour les organismes internationaux de prêt.

La utilización de créditos comerciales por los países en desarrollo para el financiamiento de las importaciones de bienes de capital

Resumen

En los últimos años, los créditos comerciales que se otorgan a los países en desarrollo han registrado un ritmo de aumento más rápido que el del comercio de bienes de capital debido a las características variables de las exportaciones de bienes de capital, las solicitudes de los países en desarrollo de un mayor volumen de créditos a plazos largos y a la intensificación de la competencia entre los países industriales exportadores. En el presente estudio, que es una revisión de un informe preparado en el Fondo a petición de la Conferencia de las Naciones Unidas sobre Comercio y Desarrollo, se describe la evolución de las corrientes de crédito comerciales y se evalúan las razones en pro y en contra de ciertas medidas encaminadas a adaptar dichas corrientes al fomento del desarrollo, entre ellas al mejoramiento de las condiciones crediticias. Se estudian también los problemas relativos a un régimen de supervisión de la utilización y aceptación de créditos por parte de los prestamistas y receptores.

La adaptación del sistema vigente de créditos y seguros a las necesi-

dades variables del comercio de exportación de bienes de capital ha seguido básicamente dos direcciones: 1) Los principales países exportadores han tratado, por la vía legal, institucional y otros medios de nueva creación, de ponerse a la altura de la competencia en cuanto a condiciones de crédito, especialmente de la que resulta de la ayuda condicionada. 2) Han tratado de uniformar las condiciones de crédito que se aplican a este tipo de comercio mediante directrices de la Unión de Berna y acuerdos especiales. Estas adaptaciones han contribuido al aumento de la corriente neta de créditos que fluye de los países desarrollados y su importancia será probablemente mayor conforme avance el proceso de industrialización.

La conclusión a que se llega en el estudio es que convendría adoptar ciertas modificaciones para dar mayor solidez a los proyectos en los países en desarrollo que tienen mercados financieros insuficientemente desarrollados, pero que se encuentran en condiciones de hacerse cargo de créditos adicionales en condiciones comerciales. Dichas modificaciones son la ampliación del plazo de los vencimientos y el aumento de la proporción de los costos en moneda nacional financiados por créditos comerciales. Sin embargo, no se puede decir que los argumentos en favor de un mejoramiento general de las condiciones de los créditos comerciales sean concluyentes.

La gestión de las corrientes comerciales requiere que se mantenga una política económica acertada (inclusive medidas adecuadas en relación con las tasas de interés y los tipos de cambio) a fin de que la deuda comercial pueda "rotar" y evolucionar de acuerdo con el crecimiento de la economía. Cuando los créditos financian importantes transacciones que no tienen carácter repetitivo, habrá de mantenerse una relación adecuada entre la tasa de acumulación de la deuda comercial y los diferentes indicadores de la capacidad de un país para cumplir el servicio de la deuda externa. Cuando se crea que no pueda cumplirse con el servicio de la deuda externa por dificultades de la balanza de pagos, puede resultar necesario reducir la obtención adicional de créditos comerciales o de otro tipo.

Finalmente, se considera necesario dedicar mayor atención a la utilización que del crédito comercial hacen tanto las autoridades prestamistas como las receptoras, y se presentan algunas sugerencias con respecto al papel de los organismos internacionales de crédito en esta materia.

The 1961 Revaluations and Exports of Manufactures

Erich Spitller *

IT IS FREQUENTLY ARGUED that small changes in exchange rates tend to have negligible effects on the balance of trade. This argument is difficult to support on theoretical grounds, and it is likely that the question could be resolved only by empirical work. An interesting illustration of a small change in the exchange rate is provided by the revaluations, by 5 per cent, of the Netherlands guilder and the deutsche mark in 1961. This paper evaluates the effects of these revaluations on the exports of manufactured goods of the two revaluing countries and estimates implicit elasticities of substitution of these exports for those of competing countries. Some indication of the reliability of these elasticity estimates is then obtained by comparing them with other estimates reported in the literature, by examining the consistency of the Dutch and German results, and by determining the extent of agreement in the estimates for different regional markets.

The effects of these exchange rate changes on imports will not be examined in this paper. Price effects on imports are difficult to isolate because changes in other variables, such as income, capacity utilization, and inventory changes, tend to overwhelm the effects of small price changes.¹

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¹ See, however, an apparently reliable estimate of the price elasticity of German demand for imports of manufactures of - 2.6 in a study by Edwin von Bventer, "Der Einfluss der Aufwertung auf die deutsche Zahlungsbilanz: Eine quantitative Untersuchung," *Weltwirtschaftliches Archiv*, Vol. 87, No. 2, 1961, pp. 54-92. In a study on the effects of the German revaluation, Werner Gatz argues that the revaluation had little effect on imports because the reduction in the deutsche mark price of imports was not passed on. In the face of rising domestic prices, unchanged deutsche mark prices of imports were sufficient to maintain the competitive position of imports. See Werner Gatz, "Grnde und volkswirtschaftliche Wirkungen der D-Mark-Aufwertung," *Weltwirtschaftliches Archiv*, Vol. 90, No. 1, 1963, pp. 379-432.

In a model of the Dutch economy constructed at the Central Planning Bureau of the Netherlands, imports are a function of total sales, the change in stocks, agricultural production, and autonomous merchandise imports. No relative price variable is included. See C.A. van den Beld, "A Macro Model for the Dutch Economy," Section 3 in *Model Building in Economics and Industry*, C-E-I-R, Incorporated, and C-E-I-R, Limited (1968).

Similar problems of disentangling price and income effects need not arise with respect to the assessment of the effects of a revaluation on exports. These effects can be inferred from an analysis of market shares, which for a relatively homogeneous subgroup like manufactures are not very sensitive to variation in import demand caused by changes in economic activity in the various markets.² Specifically, it was assumed that in the absence of relative-price changes Germany and the Netherlands would have maintained their market shares at the level observed for the years before revaluation, modified by any longer-run trend in these shares that was manifest over the period before the revaluation. The difference between actual exports and exports calculated on the assumption of these market shares is taken to be the effect of the observed change in relative prices. These computed effects were then used together with the changes in relative export prices to derive implied elasticities of substitution. In order to reduce the influence of random variations, two-year averages of the relevant data were employed in the analysis. Averages of exports and prices for the years 1959 and 1960 were taken as the observed values "before revaluation" and similar averages for the years 1961 and 1962 as the observations "after revaluation"; since the revaluation occurred in March 1961, averages of the data for 1962 and 1963 were used as alternative "postrevaluation" observations.

Revaluation and Relative Export Prices

Relative export prices are defined as the ratio of the export unit values of manufactures in the revaluing country to the weighted average of the export unit values of its competitors, all expressed in U.S. dollars. The competitors' shares in any given market are used as weights.³ Variations in these relative export prices reflect changes of export prices in local currency in the revaluing countries and in countries competing with them in international markets as well as changes in the exchange rates.⁴

² See J.J. Polak, "Note on the Measurement of Elasticity of Substitution in International Trade," *The Review of Economics and Statistics*, Vol. XXXII (1950), pp. 16-20.

³ See Helen B. Junz and Rudolf R. Rhomberg, "Prices and Export Performance of Industrial Countries, 1953-63," *Staff Papers*, Vol. XII (1965), pp. 268-69.

⁴ The approach then is an *ex post* one in that actual price changes after the revaluation are used. These price changes, in other words, are attributable partly to the revaluation and partly to autonomous factors. It is in fact difficult to separate these influences, and as a result there could be some bias in the estimation of export effects from the revaluation alone.

Percentage changes from 1959–60 to 1961–62 in Dutch and German relative export prices in various specified markets are shown in the third column of Tables 1 and 2. Although both countries revalued by the same amount and at the same time, the change in relative-price competitiveness of the Netherlands was smaller throughout than that of Germany. This difference arises in part because Germany is a major competitor of the Netherlands, whereas the Netherlands is a relatively minor competitor of Germany.⁵ The German revaluation has thus a much larger weight in Dutch relative export prices than the Dutch revaluation has in the relative export prices of Germany.

Changes in the relative prices of both Dutch and German exports are highest in the U.S. market. This can be explained in terms of the increase in the U.S. export unit values by 2 per cent between 1959–60 and 1961–62⁶ and the decrease in the export unit values of other competitors in that period.⁷ The U.S. price increase carries no weight in the U.S. market but has considerable weight in markets where the United States is a major competitor—hence, the comparatively small relative-price increase in those markets.

Since 1961 is not entirely a postrevaluation year, and since price changes may take some time to become fully effective, the average level of relative export prices of the Netherlands and Germany over the years 1962–63 might be more representative of Dutch and German competitiveness after the revaluation than the average level of these prices over the years 1961–62. The change in relative export prices of the revaluing countries was therefore alternatively computed from 1959–60 to 1962–63 (column 4 of Tables 1 and 2).

Any tendency for the effect of revaluation to be increasingly offset over time by export price changes in local currency, in the revaluing country or abroad, would result in a somewhat smaller relative-price change from 1959–60 to 1962–63 than from that base period to 1961–62. However, when the change in relative export prices is measured over this somewhat longer period it could also be affected to a somewhat greater extent by price changes that are not related to the revaluation and that could make the observed price change either smaller or larger than that for the shorter period 1959–60 to 1961–62.

In the Netherlands the rise of relative export prices in composite markets between the base period (1959–60) and the average for

⁵ Compare, e.g., Dutch and German price changes in the Austrian market, where the difference is particularly large.

⁶ See Junz and Rhomberg, *op. cit.*, Table 8, p. 267.

⁷ *Ibid.* The export unit values of Italy and Japan, for example, decreased by 4 per cent and 5 per cent, respectively.

1962-63 was smaller by between one third and one percentage point than the increase from the base period to 1961-62. This seems to have been due primarily to the fact that, although the revaluation could not contain the rise in the general price level, Dutch export prices declined. Although a similar continuation of inflationary tendencies was experienced in Germany after the revaluation, the level of export prices during the years 1962-63 was the same as during the years 1961-62. The generally larger rise in Germany's relative export prices over the somewhat longer period than over the shorter period cannot therefore be attributed to export price developments in the revaluing country and appears to be the result of improvements in competitiveness abroad.

Market Shares and Export Losses

In order to assess the effects of the revaluations on the export performance of the revaluing countries, it is necessary to estimate the volume of exports that would have been realized in the absence of the relative-price changes that are associated with the change in the exchange rates. These hypothetical exports are calculated on the assumption that the market shares of the two revaluing countries would have changed, from the years immediately preceding revaluation to the years following it, in accordance with the longer-run trend that these shares appear to have followed up to the time of revaluation. Such a trend, where it exists, could be the consequence of gradual changes in competitiveness resulting from factors other than recorded price changes or from a longer-run trend in the commodity composition of world demand that may be either favorable or unfavorable to the exports of a particular country.⁸ Trend movements in such factors were assumed to continue to affect the market shares of the revaluing countries after the revaluation.

As a first step, the market shares of the Netherlands and Germany in the aggregate volume of exports of manufactures of 11 industrial countries to selected markets were calculated for the period 1959-60 (column 1 of Tables 3 and 4). The 11 exporting countries are Belgium, the Netherlands, Germany, France, Italy, the United Kingdom, Sweden, Austria, Canada, the United States, and Japan. The markets considered are those of the 11 exporting countries themselves, Switzerland, and the rest of the world. On the basis of these shares and actual exports of the 11 countries in 1961-62 and 1962-63 (columns 2 and 3 of Tables 3

⁸ For an enumeration of factors underlying competitiveness, see, for example, J.M. Fleming and S.C. Tsiang, "Changes in Competitive Strength and Export Shares of Major Industrial Countries," *Staff Papers*, Vol. V (1956), pp. 218-48.

TABLE 1. NETHERLANDS: REVALUATION EFFECTS AND APPARENT ELASTICITIES OF SUBSTITUTION OF MANUFACTURED EXPORTS FOR COMPETITORS' EXPORTS WITH RESPECT TO CHANGES IN RELATIVE EXPORT PRICES

Market	Revaluation Effect ¹		Change in Relative Export Price ²		Apparent (Volume) Elasticity of Substitution ³	
	1961-62	1962-63	1959-60 to 1961-62	1959-60 to 1962-63	1959-60 to 1961-62	1959-60 to 1962-63
	(1)	(2)	(3)	(4)	(5)	(6)
	←————— Per cent —————→					
Belgium	12.18	14.40	2.40	1.50		
Netherlands	—	—	—	—		
Germany	10.56	3.22	5.45	5.15		
France	0.40	-0.23	3.30	2.72		
Italy	4.10	4.26	1.59	0.59		
United Kingdom	-7.07	-9.17	3.90	3.90		
Sweden	11.91	11.03	1.80	0.80		
Austria	5.74	2.87	0.86	-0.16		
Canada	-11.07	-7.53	3.06	2.03		
United States	8.96	13.88	7.56	7.60		

Japan	-1.16	-15.74	2.73	1.73		
Switzerland	7.52	8.58	2.41	1.50		
Total for the 12 industrial countries	7.45	5.81	4.35	3.90	-1.82	-1.61
EEC	9.58	7.05	3.50	2.80	-3.01	-2.80
Industrial Non-EEC	2.85	2.93	4.59	4.21	-0.64	-0.72
Rest of the World	6.02	8.92	3.91	2.90	-1.59	-3.17
Total World	7.00	6.73	4.15	3.45	-1.77	-2.04

Sources: Based on Tables 3 and 4 of this article and Helen B. Junz and Rudolf R. Rhomberg, "Prices and Export Performance of Industrial Countries," *Staff Papers*, Vol. XII (1965), Tables 8 and 9, pp. 266-69.

¹ The revaluation effect is taken to be the difference between hypothetical and actual export volumes as a percentage of hypothetical export volumes. A positive sign of the effect implies a reduction in exports. Hypothetical export volumes recorded in Tables 3 and 4, columns 4 and 5, were computed on the basis of average shares of the revaluing country in the exports of 11 industrial countries to the specified markets over the two years preceding the revaluations and the 11 countries' actual exports to the specified markets in 1961-62 and 1962-63. Where trends in shares exist in composite markets, adjustments for trend were made.

² Relative export prices are represented by the ratio of the export unit values of manufactures in the revaluing country to the weighted average of the export unit values of its competitors. The competitors' shares in any given market are used as weights.

³ The volume elasticity of substitution is obtained by dividing the percentage change in the ratio of the revaluing country's exports to the sum of the exports of its competitors in the sample—for composite markets that contain the revaluing country, exports to the revaluing country are excluded—by the percentage change in the relative export price. The percentage changes in export ratios were computed from the revaluation effects recorded in the first two columns of the table.

TABLE 2. GERMANY: REVALUATION EFFECTS AND APPARENT ELASTICITIES OF SUBSTITUTION OF MANUFACTURED EXPORTS FOR COMPETITORS' EXPORTS WITH RESPECT TO CHANGES IN RELATIVE EXPORT PRICES

Market	Revaluation Effect ¹		Change in Relative Export Price ²		Apparent (Volume) Elasticity of Substitution ³	
	1961-62	1962-63	1959-60 to 1961-62	1959-60 to 1962-63	1959-60 to 1961-62	1959-60 to 1962-63
	(1)	(2)	(3)	(4)	(5)	(6)
	← Per cent →					
Belgium	-0.10	-3.15	4.78	5.21		
Netherlands	4.64	2.67	5.78	6.29		
Germany	—	—	—	—		
France	3.27	5.08	7.29	7.92		
Italy	2.78	-2.04	4.53	4.53		
United Kingdom	7.22	9.57	6.53	7.56		
Sweden	4.91	2.73	5.13	5.23		
Austria	-0.97	0.69	6.88	7.00		
Canada	-0.15	2.14	4.44	4.31		
United States	8.80	10.24	10.65	11.92		

Japan	-7.91	-8.77	4.68	4.54		
Switzerland	1.00	2.31	6.64	6.76		
Total for the 12 industrial countries	10.39	13.06	6.95	7.65	-2.00	-2.33
EEC	8.57	9.51	5.50	5.90	-2.37	-2.48
Industrial Non-EEC	12.03	16.50	7.35	8.17	-2.08	-2.56
Rest of the World	14.83	22.49	6.23	6.24	-2.86	-4.28
Total World	12.14	16.62	6.55	6.95	-2.37	-3.06

Sources: Based on Tables 3 and 4 of this article and Helen B. Junz and Rudolf R. Rhomberg, "Prices and Export Performance of Industrial Countries," *Staff Papers*, Vol. XII (1965), Tables 8 and 9, pp. 266-69.

¹ The revaluation effect is taken to be the difference between hypothetical and actual export volumes as a percentage of hypothetical export volumes. A positive sign of the effect implies a reduction in exports. Hypothetical export volumes recorded in Tables 3 and 4, columns 4 and 5, were computed on the basis of average shares of the revaluing country in the exports of 11 industrial countries to the specified markets over the two years preceding the revaluations and the 11 countries' actual exports to the specified markets in 1961-62 and 1962-63. Where trends in shares exist in composite markets, adjustments for trend were made.

² Relative export prices are represented by the ratio of the export unit values of manufactures in the revaluing country to the weighted average of the export unit values of its competitors. The competitors' shares in any given market are used as weights.

³ The volume elasticity of substitution is obtained by dividing the percentage change in the ratio of the revaluing country's exports to the sum of the exports of its competitors in the sample—for composite markets that contain the revaluing country, exports to the revaluing country are excluded—by the percentage change in the relative export price. The percentage changes in export ratios were computed from the revaluation effects recorded in the first two columns of the table.

and 4), hypothetical Dutch and German exports for 1961–62 and 1962–63 were computed on the assumption that the 1959–60 shares had remained unchanged (columns 4 and 5 of Tables 3 and 4). Hypothetical exports to three composite markets are then obtained by summing hypothetical exports to the component countries. This method of computing hypothetical exports to a composite market takes account of differences in growth rates among the various component country markets. The composite markets are (1) the 12 industrial countries included as separate markets in the study; (2) the members of the European Economic Community (EEC); and (3) the 7 non-EEC countries included under (1). Moreover, the results for the composite market of the 12 industrial countries and those for the rest of the world are summed to obtain hypothetical exports to the world market. Insofar as trends in shares exist in composite markets, the assumption of constancy in shares in the absence of relative-price changes was then relaxed. Trend equations were fitted over the period 1953–60 for Dutch and German shares in the composite markets “Total World,” “EEC,” and “Industrial Non-EEC.” While the results for the Netherlands were in no case significant, Germany’s shares show in all three groups a statistically significant rising linear trend.⁹ Accordingly, Germany’s hypothetical exports to the composite markets were adjusted so as to reflect continuation of the observed rising trend in market shares, while no such adjustment was made for the Netherlands.

Observed exports in 1961–62 and 1962–63 to the markets specified

⁹ The equations showing linear trends over the period 1959–60 in Germany’s volume shares in three composite markets—(1) Total World, (2) EEC, and (3) Industrial non-EEC—are as follows (*t* ratios are shown in parentheses below the coefficients):

$$\begin{aligned} (1) \quad S_W &= 0.14 + 0.0107t & \bar{R}^2 &= 0.96 \\ & \quad (34.84) \quad (13.67) \\ (2) \quad S_{EEC} &= 0.28 + 0.0108t & \bar{R}^2 &= 0.82 \\ & \quad (28.62) \quad (5.65) \\ (3) \quad S_{IN-EEC} &= 0.14 + 0.0105t & \bar{R}^2 &= 0.83 \\ & \quad (15.50) \quad (6.02) \end{aligned}$$

To the extent that these rising trends in market shares could be attributed to a declining trend in prices over the period tested, they cannot be considered to have been caused by nonprice factors alone. When German relative export prices in these three composite markets are examined for downward trend, results show such a trend to be significant only in the market “Industrial non-EEC”:

$$\begin{aligned} P_{IN-EEC} &= 0.99 - 0.006t & \bar{R}^2 &= 0.42 \\ & \quad (81.14) \quad (2.48) \end{aligned}$$

On any plausible assumption with respect to the long-run elasticity of substitution, this declining trend in Germany’s relative export prices could account for only a small part of the observed rise in its market share in the industrial non-EEC area. The assumption that the rising trend in German shares could be attributed to nonprice factors was therefore retained.

are shown in columns 6 and 7 of Tables 3 and 4. The presumed effect of revaluation on the volume of exports is computed as the difference between hypothetical and actual export volumes, expressed as a percentage of the hypothetical export volume. These effects are shown for the Netherlands in columns 1 and 2 of Table 1 and for Germany in the corresponding columns of Table 2. A positive sign implies a reduction in exports. The negative sign found in some instances may indicate that the effect of revaluation was in particular markets more than offset by other influences operating simultaneously. However, individual markets were not examined for trends in export shares, and the assumption of constant shares in the absence of relative-price changes may well be even less appropriate for individual country markets than it would be for the composite market areas examined in this study.

The results show that the change in competitiveness following the revaluation appears to have led to losses in Dutch and German manufactured exports in most markets, including all composite markets. In the composite markets, Germany's losses ranged from $8\frac{1}{2}$ per cent to almost 15 per cent for the period 1961-62 and slightly higher, from $9\frac{1}{2}$ per cent to $22\frac{1}{2}$ per cent, for the period 1962-63. The smallest losses appear to have been sustained in the EEC market, the largest ones in the market of the rest of the world. The losses computed for the Netherlands were somewhat smaller, ranging from not quite 3 per cent for both 1961-62 and 1962-63 to $9\frac{1}{2}$ per cent for 1961-62 and slightly less than 9 per cent for 1962-63. In contrast to Germany, the Netherlands sustained the smallest losses in the industrial non-EEC market and the largest ones in the EEC market (1961-62) and the market of the rest of the world (1962-63).

Apparent Elasticities of Substitution

Dutch and German elasticities of substitution in the various composite markets were obtained by transforming the calculated revaluation effects into percentage changes in the ratios of the exports of the revaluing countries to the sum of the exports of their competitors in the sample,¹⁰ which were then divided by the percentage changes in relative export prices. For Germany, derived elasticities in corresponding markets are consistently larger over the longer period (1959-60 to 1962-63) than over the shorter period (1959-60 to 1961-62). While this is also true for the Netherlands in the markets of the industrial non-EEC countries,

¹⁰ For composite markets that contain the revaluing country, exports of competitors to the revaluing country are excluded.

the rest of the world, and total world, Dutch elasticities in the EEC market and the market of the 12 industrial countries are somewhat lower over the longer period than over the shorter period. The decline in Dutch elasticities for these two markets appears to reflect the decline in corresponding export losses, which can be attributed largely to the substantial lessening of the apparent export loss in the German market for 1962–63, compared with the apparent loss for 1961–62. With the exception of the non-EEC industrial market, Dutch elasticities over the shorter period range from -1.6 in the market of the rest of the world to -3.0 in the EEC market and over the longer period from -1.6 in the market composed of the 12 industrial countries to -3.2 in the market of the rest of the world. The exceptionally low elasticities in the non-EEC industrial market reflect the apparent perverse reaction to the revaluation of Dutch exports to Canada, the United Kingdom, and Japan. Estimates of substitution elasticities of Germany in the composite markets show greater consistency than corresponding estimates for the Netherlands, ranging for the period 1959–60 to 1961–62 from -2.0 for the market composed of the 12 industrial countries to -2.9 for the market of the rest of the world and from -2.3 to -4.3 for the same markets over the slightly longer period. The differences between elasticity estimates for the 2 countries are fairly small in most markets. In the market of the 12 industrial countries the elasticities are -1.8 for the Netherlands and -2.0 for Germany for the period from 1959–60 to 1961–62, and -1.6 and -2.3 , respectively, from 1959–60 to 1962–63. In the world market the estimates are -1.8 for the Netherlands and -2.4 for Germany for the period 1959–60 to 1961–62 and -2.0 and -3.1 , respectively, for the period 1959–60 to 1962–63.

The results obtained in this study contradict the findings of a study by Sherman that attempted to examine the effects on exports of the revaluation in Germany and concluded that no such effects could be found.¹¹ In that study, the apparent ineffectiveness of the revaluation was attributed to a number of factors: first, to the alignment of individual domestic prices for steel within the European Coal and Steel Community to the lowest prevailing level, which was not the German domestic price level; second, to the different regional orientation of competitors' exports of machinery; third, to the concurrent lowering of German export prices in the chemical and automobile industries; and fourth, to the European consumer goods boom that affected particularly textiles and clothing. While this apparent ineffectiveness of the revaluation on Germany's exports was also derived from an analysis of market shares, these shares

¹¹ Heidemarie Sherman, "The Effect of the Revaluation on Germany's Exports," *Economia Internazionale*, Vol. XVII (1964), pp. 721–40.

were not adjusted for trend. Moreover, composite markets were treated as if they were homogeneous regional markets characterized by a uniform growth rate. In this particular instance, this treatment results in lower hypothetical exports of Germany in the absence of revaluation and thus in a smaller apparent effect of revaluation. These factors by themselves could account for the finding of that study, in contrast to the present analysis, that the German revaluation did not have an identifiable effect on German exports.

The estimates of Dutch and German elasticities recorded in the tables do not conflict with substitution elasticities estimated in time-series and cross-section studies. Fleming and Tsiang derived an elasticity of substitution of -1.7 for the manufactured exports of 10 industrial countries for the period 1948–53.¹² Kreinin found an elasticity of substitution of -2.6 from cross-section analysis of manufactured exports of 10 industrial countries for the years 1955–57.¹³ Harberger estimated elasticities of substitution of exports of manufactures of Germany for the exports of, alternatively, the United States (-2.4), the United Kingdom (-1.6), and France (-1.7).¹⁴ From an analysis of time series covering the years 1953–63, Junz and Rhomberg obtained substitution elasticities for Germany's manufactured exports of -2.2 in the world market, -2.0 in the industrial market, -2.6 in the EEC market, -2.4 in the non-EEC industrial market, and -2.8 for the market composed of all other countries; (corresponding results for the Netherlands were not statistically significant).¹⁵ Since the sample of exporting countries used in the present study is the same as that used by Junz and Rhomberg, and since the composite markets in the two studies are also identical, the results recorded in Tables 1 and 2 correspond most closely to the results obtained by Junz and Rhomberg.

The consistency in Dutch and German elasticity estimates and the considerable agreement in these estimates for different regional markets as well as the consistency of these estimates with substitution elasticities estimated in previous studies justifies the conclusion that the revaluations had a clearly identifiable effect, corresponding to an average elasticity of substitution of approximately -2 over an average adjustment period of two to three years, on the export competitiveness of the revaluing countries.

¹² See Fleming and Tsiang, *op. cit.*, pp. 218–44.

¹³ Mordechai E. Kreinin, "Price Elasticities in International Trade," *The Review of Economics and Statistics*, Vol. XLIX (1967), p. 513, Table 2.

¹⁴ Arnold C. Harberger, "Some Evidence on the International Price Mechanism," *The Journal of Political Economy*, Vol. LXV (1957), p. 516, Table 3.

¹⁵ Junz and Rhomberg, *op. cit.*, Table 3, p. 240, and section B of Table 5, p. 246.

STATISTICAL APPENDIX

TABLE 3. NETHERLANDS: ACTUAL AND HYPOTHETICAL EXPORTS OF MANUFACTURES IN VOLUME TERMS

Market	Netherlands' Average Volume Share, 1959-60 (1)	Exports of All 11 Countries ¹ to Each Market		Netherlands' Hypothetical Volume of Exports to Each Market		Netherlands' Actual Volume of Exports to Each Market	
		1961-62 (2)	1962-63 (3)	1961-62 (col. 1 × col. 2) (4)	1962-63 (col. 1 × col. 3) (5)	1961-62 (6)	1962-63 (7)
	<i>Per cent</i>	<i>← Million 1953 U.S. dollars →</i>					
Belgium	21.23	4,005.70	4,537.50	850.41	963.31	746.86	824.58
Netherlands	—	5,646.70	6,130.10	—	—	—	—
Germany	13.09	7,644.10	8,605.70	1,000.61	1,126.49	894.90	1,090.24
France	5.00	4,955.90	6,027.90	247.80	301.40	246.82	302.08
Italy	4.10	4,049.30	5,121.50	166.02	209.98	159.22	201.05
United Kingdom	7.57	4,571.10	4,793.90	346.03	362.90	370.49	396.17
Sweden	6.80	2,896.70	3,045.20	196.98	207.07	173.52	184.24
Austria	3.68	1,647.16	1,750.60	60.62	64.42	57.14	62.57
Canada	0.59	6,277.80	6,437.80	37.04	37.98	41.14	40.84
United States	2.13	11,220.70	12,527.60	239.00	266.84	217.58	229.79
Japan	1.93	1,746.00	1,790.20	33.70	34.55	34.09	39.99
Switzerland	3.62	3,722.90	4,070.90	134.77	147.37	124.63	134.73
Total for the 12 industrial countries				3,312.98	3,722.31	3,066.10	3,506.20
EEC				2,264.84	2,601.18	2,047.81	2,417.90
Industrial Non-EEC				1,048.14	1,121.13	1,018.32	1,088.33
Rest of the World	3.18	47,935.00	49,407.00	1,524.33	1,571.14	1,432.64	1,431.02
Total World				4,837.31	5,293.45	4,498.80	4,937.30

Sources: Based on Organization for Economic Cooperation and Development, *Statistical Bulletins, Foreign Trade Series C*.

¹The 11 countries are the individual countries under the heading "Market" with the exception of Switzerland, for which no data were available.

TABLE 4. GERMANY: ACTUAL AND HYPOTHETICAL EXPORTS OF
MANUFACTURES IN VOLUME TERMS

Market	Germany's Average Volume Share, 1959-60 (1)	Exports of All 11 Countries ¹ to Each Market		Germany's Hypo- thetical Volume of Exports to Each Market ²		Germany's Actual Volume of Exports to Each Market	
		1961-62	1962-63	1961-62	1962-63	1961-62	1962-63
		(2)	(3)	(col. 1 × col. 2) (4)	(col. 1 × col. 3) (5)	(6)	(7)
	<i>Per cent</i>	<i>←</i>		<i>Million 1953 U.S. dollars</i>		<i>→</i>	
Belgium	30.03	4,005.70	4,537.50	1,202.91	1,362.61	1,204.14	1,405.58
Netherlands	35.33	5,646.70	6,130.10	1,994.98	2,165.76	1,902.46	2,107.87
Germany	—	7,644.10	8,605.70	—	—	—	—
France	38.03	4,955.90	6,027.90	1,884.73	2,292.41	1,823.09	2,175.90
Italy	36.80	4,049.30	5,121.50	1,490.14	1,884.71	1,448.69	1,923.12
United Kingdom	20.15	4,571.10	4,793.90	921.08	965.97	854.54	873.53
Sweden	40.73	2,896.70	3,045.20	1,179.83	1,240.31	1,121.86	1,206.39
Austria	65.73	1,647.16	1,750.60	1,082.68	1,150.67	1,093.18	1,142.72
Canada	3.90	6,277.80	6,437.80	244.83	251.07	245.20	245.70
United States	15.71	11,220.70	12,527.60	1,762.77	1,968.09	1,607.61	1,766.50
Japan	18.09	1,746.00	1,790.20	315.85	323.85	340.84	352.24
Switzerland	42.26	3,722.90	4,070.90	1,573.30	1,720.36	1,557.55	1,680.59
Total for the 12 indus- trial countries				14,730.00	17,116.00	13,199.20	14,880.20
EEC				6,976.00	8,412.00	6,378.30	7,612.40
Industrial Non-EEC				7,754.00	8,704.00	6,820.80	7,267.80
Rest of the World	17.79	47,935.00	49,407.00	9,562.00	10,390.00	8,143.70	8,053.70
Total World				24,292.00	27,506.00	21,343.00	22,934.00

Sources: Based on Organization for Economic Cooperation and Development, *Statistical Bulletins, Foreign Trade Series C*.

¹ The 11 countries are the individual countries under the heading "Market" with the exception of Switzerland, for which no data were available.

² The volume of hypothetical German exports to composite markets is adjusted for the rising linear trend in the German shares in the volume of manufactured exports from the 11 countries to these markets.

Les réévaluations de 1961 et les exportations de produits manufacturés

Résumé

On affirme souvent que de faibles modifications des taux de change ont généralement des effets négligeables sur la balance commerciale. Il est difficile de soutenir cette thèse en se fondant sur la théorie, et il est probable que la question ne pourrait être tranchée qu'en utilisant la méthode empirique. L'auteur de cette étude fait une tentative dans cette direction en examinant les effets à moyen terme de la réévaluation de 5 pour cent du florin néerlandais et du deutsche Mark, en 1961, sur les exportations de produits manufacturés des Pays-Bas et de la République fédérale d'Allemagne à destination de certains marchés déterminés, et en évaluant les élasticités de substitution implicites entre les exportations de produits manufacturés de ces deux pays et celles des pays concurrents.

Les répercussions de la réévaluation monétaire sur les exportations ont été calculées comme étant la différence entre le volume effectif des exportations après la réévaluation (en 1961-62 et, ou en 1962-63 selon le cas) et le volume des exportations qui eût été atteint au cours de ces deux années si la réévaluation n'avait pas eu lieu. Ces exportations hypothétiques ont été évaluées en supposant que les prix relatifs n'ayant pas été modifiés, l'Allemagne et les Pays-Bas auraient, pendant la période qui a suivi la réévaluation, maintenu leur part du marché au niveau enregistré avant la réévaluation (1959-60), compte tenu des variations de plus longue durée, qui se serait manifestée de 1953 à 1960. L'élasticité apparente de substitution peut être établie en fonction d'une part des effets calculés des réévaluations sur le rapport entre le volume des exportations des pays qui ont réévalué leur monnaie et le volume des exportations des pays concurrents et d'autre part des modifications du rapport entre les prix à l'exportation (valeurs unitaires) des pays qui ont réévalué leur monnaie et la moyenne pondérée des prix des pays concurrents, les uns et les autres étant exprimés en dollars E.U.

De 1959-60 à 1962-63, ces élasticités de substitution sur le marché de tous les pays industriels se sont élevées à environ -2,3 pour l'Allemagne et à -1,6 pour les Pays-Bas; sur l'ensemble du marché mondial, ces pourcentages sont un peu supérieurs (-3,1 pour l'Allemagne et -2,0 pour les Pays-Bas). Les mêmes calculs appliqués à des périodes un peu plus courtes (1959-60 à 1961-62) ont donné des élasticités de 15 à 30 pour cent inférieures pour l'Allemagne, alors que pour les Pays-Bas, elles étaient d'environ 15 pour cent supérieures sur le marché des pays industriels, et inférieures de 10 pour cent sur le marché mondial.

Il semble justifié de conclure que les réévaluations ont eu un effet identifiable pendant une période moyenne d'ajustement de deux à trois ans sur la position concurrentielle des exportations des pays qui ont réévalué leur monnaie. L'ampleur de cet effet correspond aux conclusions des études de séries chronologiques sur l'élasticité de substitution des exportations de produits manufacturés.

Las revaluaciones de 1961 y las exportaciones de productos manufacturados

Resumen

Con frecuencia se aduce que las modificaciones reducidas en los tipos de cambio suelen ejercer efectos insignificantes en la balanza comercial. Este argumento es difícil de corroborar con razonamientos puramente teóricos, y es muy posible que esta cuestión se pueda resolver únicamente mediante estudios empíricos. En este trabajo se intenta hacer algo en ese sentido mediante el examen de los efectos a plazo medio que las revaluaciones del 5 por ciento del florín holandés y del marco alemán, en 1961, han ejercido en las exportaciones de productos manufacturados efectuadas por Holanda y Alemania con destino a determinados mercados y, asimismo, mediante el cálculo de las elasticidades implícitas de sustitución de dichas exportaciones por las exportaciones de los países competidores.

Los efectos que ejerce la revaluación de las monedas en las exportaciones se calcularon como la diferencia entre el volumen real de las exportaciones después de la revaluación (1961-62 y, alternativamente, 1962-63) y el volumen que las exportaciones hubieran alcanzado durante estos años en caso de que no se hubieran revaluado esas monedas. Estas exportaciones hipotéticas se calcularon partiendo del supuesto de que si los precios relativos no hubieran variado, la participación de Alemania y Holanda en los mercados durante el período posterior a la revaluación se hubiera mantenido al mismo nivel que se observó antes de la revaluación (1959-60), modificada por cualquier tendencia evidente que hubieran registrado a la larga estas participaciones durante el período de 1953-60. Los efectos calculados de las revaluaciones sobre el volumen de las exportaciones de los países que revaluaron, en comparación con el de los países competidores, pueden utilizarse conjuntamente con las variaciones en la razón entre los precios de exportación

(valores unitarios) de los países que revaluaron y la media ponderada de los precios de los países competidores—expresados todos en dólares de EE.UU.—para derivar las posibles elasticidades de sustitución.

Se observó que, durante el período de 1959–60 a 1962–63, estas elasticidades de sustitución en el mercado de todos los países industriales habían sido aproximadamente de $-2,3$ en el caso de Alemania y de $-1,6$ en el de Holanda; en el mercado mundial conjuntamente considerado fueron algo mayores ($-3,1$ en el caso de Alemania y $-2,0$ en el de Holanda). En cálculos semejantes correspondientes a un lapso ligeramente más breve—de 1959–60 a 1961–62—se observó que estas elasticidades eran de un 15 a un 30 por ciento menores en el caso de Alemania, mientras que en el de Holanda fueron alrededor de un 15 por ciento mayores en el mercado de los países industriales y de un 10 por ciento menores en el mercado mundial.

Parece, pues, justificarse la conclusión de que las revaluaciones produjeron un efecto perceptible durante un período medio de ajuste de dos a tres años en la capacidad competitiva de las exportaciones de los países que revaluaron sus monedas. La magnitud de este efecto está en consonancia con los resultados obtenidos a partir de estudios de series cronológicas acerca de la elasticidad de sustitución de las exportaciones de productos manufacturados.

The Economy of Botswana

Lamberto Dini, Brian Quinn, and Lennart Wohlgemuth *

ALTHOUGH recent mineral discoveries have aroused business interest in Botswana, little published material is available on the structure of the country's economy and on its development prospects. This article presents a survey of the economy with particular emphasis on recent developments in the areas of production, investment, government finance, and monetary and trade arrangements.¹

The Republic of Botswana, the former British Protectorate of Bechuanaland, is a vast arid land of some 220,000 square miles, situated in southern Africa (see map on p. 128). It is entirely landlocked, bordering the Republic of South Africa on the east and south, South-West Africa on the west and north, and Zambia and Rhodesia on the northeast. The eastern area of Botswana is mainly a high plateau and comprises the lands between the central watershed and the Limpopo River, which forms the eastern boundary with South Africa. This is the most fertile part of the country and with about 20 inches of average annual rainfall is suitable for the growing of food crops and for cattle raising. Nearly 80 per cent of the population lives in this area, which is also traversed by the railroad running north and south between Rhodesia and South Africa. Most of the western portion of the country, about three fourths of the total area, forms part of the Kalahari Desert, a scrubgrass area of somewhat erratic rainfall. In the north the Kalahari gives way to belts of forest and dense bushland. In the northwest the Okavango River forms a swampy area covering 6,500 square miles. The climate of the country is generally subtropical but varies considerably according to altitude and latitude; summers (October–April) are hot and coincide with the rainy season, and winters are dry with wide diurnal temperature variations.

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¹ The article is based on information collected in the summer of 1969; it surveys therefore essentially developments in the economy up to that time.



A census taken in 1964 revealed a population of 543,000, comprising 535,000 Africans, 4,000 Europeans, and 4,000 others. With an estimated annual rate of increase of between 2 per cent and 3 per cent, the population is believed to have reached 600,000 in 1969, giving an average density of about 2.7 persons a square mile. The African population, apart from some 25,000 Bushmen, is essentially made up of eight principal and closely related Bantu tribes known collectively as Batswana. By far the largest of these tribes is the Bamangwato, which comprises over 200,000 people, living in the eastern region of Serowe. The principal business centers are the new capital of Gaborone (estimated population 15,000), Lobatsi (about 10,000), and Francistown (about 14,000), all situated in the eastern part along the railroad line. A large part of the population is Christian, the remainder follows traditional beliefs. English is the official language of Botswana, and Tswana is the main African language.

Upon independence on September 30, 1966, Botswana adopted a republican form of constitution. The President is both the head of state and leader of the Government. Legislative authority is vested in Parliament, consisting of the President and the National Assembly, which has 36 members. The Cabinet consists of the President, the Vice President, and eight ministers drawn from the National Assembly. The Constitution also provides for a 15-member House of Chiefs, to which must be referred bills and motions relating to tribal interests, as well as any proposal to alter the Constitution, before they are proceeded with in the National Assembly. Sir Seretse Khama, K.B.E., is President of Botswana.

Botswana's economy is still at an early stage of development. Although only rough estimates exist on national income and output, gross domestic product appears to be of the order of \$50-55 million, giving a per capita income of less than \$100. A sizable cattle population provides the principal source of income and employment, with subsistence agriculture the other main economic activity. A chronic shortage of water, coupled with frequent and extended periods of drought, has seriously handicapped the growth of the economy. Botswana does not produce enough food to meet domestic requirements, and, in recent years of serious drought, widespread famine has been avoided only by the availability of emergency supplies of food from abroad.

The prospects for economic growth have improved with the recent discovery of important mineral deposits. At present, efforts are being concentrated on the development of diamond and copper-nickel deposits involving considerable private investment in production facilities and public investment in basic infrastructure. Production of diamonds is expected to commence in 1971, and, subject to early completion of

negotiations for financing, production of copper-nickel could start in 1973. The development of other mineral deposits is planned at a later stage.

The limited capacity of the economy to generate income is imposing serious constraints on government finances. In recent years, current budgetary expenditure has increased rapidly, following the construction of primary infrastructure and the creation of a government administration. Domestic revenue has also been increasing, but at a less rapid rate. Consequently, the Government has relied heavily on grants-in-aid from the United Kingdom to finance its current budget. These grants increased to the equivalent of more than \$8 million in 1967/68, when they financed almost 50 per cent of current expenditure. Development expenditure has been determined largely by the amount of resources made available from abroad. Grants and loans from the United Kingdom for both the current and capital budgets have been averaging some \$12 million annually in recent years.

Although government revenue is expected to increase as a result of the new Customs Union Agreement with South Africa signed in December 1969, the Government's financial situation is likely to remain tight in the immediate future. The development of mining is expected to bring about a sizable increase in government revenue after 1973; this increase, in addition to improving the budgetary situation, could assist in the development of agriculture and livestock, the major sources of income and employment in Botswana. It is this sequence that underlies the present development plan of the Government.

Botswana is a member of the South African monetary and customs area and uses the South African rand as its currency. Funds and goods can move freely within the area, and current payments may be made to other countries virtually without restriction.

The Structure of the Economy

LIVESTOCK PRODUCTION AND EXPORTS

The Batswana are primarily a pastoral people, and raising cattle is their principal economic activity. Livestock and livestock products account for more than 90 per cent of total export value. As is also true in crop production, drought conditions and insufficient water supplies are important factors that limit livestock production and yields. However, the potential for improving and expanding the livestock sector is considered good, and efforts in this direction are continuing. The

objective of the Government is to increase the cattle population from 1.4 million head in 1967/68 to 2.5 million by 1975.

Africans own more than 80 per cent of the total cattle population, which is raised on tribal land on a communal basis. The remainder is held on large-scale freehold ranches, owned mostly by non-Africans, in the Ghanzi and certain other regions. According to the first broad Agricultural Survey (conducted in 1967/68 by the Department of Agriculture with the assistance of an agricultural statistician from the Food and Agriculture Organization), which covered approximately 85 per cent of the country's arable land and some 46,000 agricultural holdings, 73 per cent held livestock, and about one third of these held only cattle and did not grow crops. Most cattle owners had fewer than 50 head of cattle, and only a few hundred owners had more than 200 cattle. The serious drought of 1965-66 caused cattle losses estimated at more than 300,000 head, valued at over R 8 million.

Cattle are maintained at relatively high standards of health in Botswana, but methods of husbandry are not advanced. Generally, animals are kept by herdboys on unfenced fields called "cattle posts," situated with reference to available grazing and watering facilities. Other than the pans of water that persist after the rains, water is obtained mainly from stock dams, wells, and boreholes. Boreholes are drilled and equipped all over the country, mainly by the Government but also by tribal authorities and syndicates of cattle owners.

Within the Ministry of Agriculture, two departments are in charge of initiating and implementing policies concerning animal husbandry. The Department of Agriculture is responsible for improving the breeds and stock husbandry; the Department of Veterinary Services is charged with all aspects of animal health, as well as with taking an active part in meat and livestock marketing.

To prevent the spread of cattle infections from disrupting livestock production, Botswana has established a broad system of disease control. Control fences divide the country into four main areas, and cattle are moved between these areas and along the normal routes to the Lobatsi abattoir through special quarantine areas under the strict control of the Government. In addition, there has been mass immunization of herds against foot-and-mouth disease and other contagious diseases in recent years. Finally, with aid from the World Health Organization, a campaign for controlling the spread of trypanosomiasis (sleeping sickness), which affects both men and animals, is under way in the Okavango Delta, where some areas have even been reclaimed for resettlement and restocking.

The Botswana Meat Commission (BMC), a statutory corporation

that operates an abattoir and a meat cannery, handles all cattle to be slaughtered for export and a large number of those destined for the domestic market. In 1954 the Commonwealth Development Corporation established the abattoir, which is located close to the railway at Lobatsi. Its assets and liabilities, together with those of the canning company, were transferred in 1966 to the BMC, which is a government-controlled, nonprofit organization with the primary purpose of promoting the interests of the livestock-producing industry.

In accordance with its statutes, the BMC undertakes to buy at Lobatsi all cattle offered for sale by Botswana producers. At the beginning of each year the BMC establishes the price paid to producers, taking account of expected sales prices and the need to stimulate production in general. If the financial results of the BMC are better than forecast, a bonus is paid at the end of the year, based on the proportionate value of each producer's sales to the BMC. The price that the BMC pays to producers varies with the quality of the stripped carcass, as determined by government graders; this system tries to discourage the sale to the BMC of cattle that are immature or in poor condition. In general, the prices paid to producers in Botswana compare favorably with prices paid in neighboring countries.

The offtake of livestock through slaughtering or export of live cattle has varied greatly from year to year (Table 1). The exceptionally

TABLE 1. BOTSWANA: TOTAL RECORDED CATTLE OFFTAKE, 1963-68

	Slaughtered	Live Cattle Export	Total Offtake
1963	103,406	27,348	130,754
1964	111,758	15,045	126,803
1965	142,736	19,568	162,304
1966	132,232	16,422	148,654
1967	88,535	7,367	95,902
1968	103,776	—	103,776

Source: Republic of Botswana, Ministry of Development Planning, *National Development Plan, 1968-73*.

heavy offtake in 1965 and 1966 was caused by the drought, when cattle owners were forced to sell cattle that would otherwise have died of starvation. In addition, in years of widespread crop failure farmers are forced to sell cattle to buy food. In the past, some cattle have been exported on the hoof to Zambia and Rhodesia. Since 1968 the export of live cattle has been prohibited, and all official exports of cattle have been channeled through the abattoir at Lobatsi. However, because of

the relatively high transport costs for producers in the western and northern regions, and the losses of weight and grade that occur in moving the cattle to Lobatsi, there is still some smuggling of cattle across the border. The number of cattle slaughtered and consumed in the countryside is roughly estimated to be between 20,000 and 30,000 head per annum.

CROP PRODUCTION

Conditions are generally unfavorable to crop production in Botswana. Insufficient rainfall and sandy soil make agriculture difficult and hazardous in most regions. Of the approximately 11 million acres of potentially arable land, only a small proportion is under crop or recent fallow. Over 90 per cent of the working population is engaged in some form of agricultural pursuit. The principal food crops are sorghum, maize, millet, beans, and cowpeas and are produced for domestic consumption, essentially on a subsistence basis. Cotton and groundnuts are comparatively new crops and both are produced for export.

Comprehensive data on production and acreage planted were collected in 1967/68 under the Agricultural Survey, which estimated the planted area at some 303,000 acres, of which 53 per cent formed holdings of fewer than 20 acres. According to the Survey, sorghum is grown on roughly 47 per cent of the planted area, maize on 24 per cent, millet on 10 per cent, beans and cowpeas on 13 per cent, and cotton on 1 per cent. In the year the survey was conducted, approximately 57 per cent of the holdings covered had land under cultivation; no planting had taken place on the remaining holdings.

Productivity appears to be very low. The Survey estimated that the average yield per acre of maize was 226 pounds in 1967/68, which was only a small fraction of the yield obtained in irrigated, neighboring areas of South Africa. The methods of land allocation, the lack of an adequate water supply, the fact that the people live in villages at great distances from the farmlands, and the traditional methods of husbandry are some of the factors responsible for the low productivity. The tribal chiefs, who tend to favor traditional crops and production methods, exercise control over the allocation of land and over the production process. In addition, the present system of land tenure precludes individual land ownership and fencing.

The Government has recently passed legislation (the Tribal Lands Act, 1968) aimed at altering the system of land allocation. The rights to allocate land would be transferred from the local chiefs to Land Boards in which the local chiefs would be represented. Although owner-

ship of land would remain collectively with the tribe, the right to use the land would be registered in the name of individuals. This change is regarded as a first important step toward a more modern system of land tenure.

In order to improve farming methods, the Government conducts agricultural research and provides extension services. The principal medium of agricultural extension work is the Pupil-Farmer Scheme. In return for applying improved farming methods, the pupil-farmer is supplied with free seed and fertilizers and is also entitled to borrow for further investments. By gradual stages he can become a "master farmer," practicing high standards of crop husbandry. In 1969 there were about 4,000 farmers participating in the scheme, supervised by some 260 agricultural demonstrators (including animal husbandry pupils and demonstrators). Although results so far have been good, the scheme is costly because of the scarcity of skilled agriculturalists in Botswana. A new Agricultural College has been opened recently in Gaborone, and two Rural Training Centers have also been established with a view to relieving this shortage.

During the 1950's imports of maize were balanced by exports of sorghum, and in this sense Botswana enjoyed virtual self-sufficiency in foodstuffs. In the five crop years 1961/62–1965/66 the situation was drastically changed by droughts. In 1965/66 an almost total lack of rain caused the failure of most crops and a threat of widespread famine. The Government undertook a program of emergency feeding; it received famine relief aid mainly from the UN World Food Program, with additional assistance from the U.K. Government and voluntary agencies such as the Oxford Committee for Famine Relief (OXFAM), the U.K. Freedom from Hunger Fund, the World Council of Churches, and the Red Cross.

Under the World Food Program, the United Nations has been providing food to school children, preschool children, and expectant mothers as part of a five-year program (1966–71) involving a total cost of \$6.54 million, and to workers and their families as part of a Food for Work Program, which has averaged some \$1.5 million a year since 1965/66. Under the UN programs the food is provided free of charge; only the distribution and storage costs in Botswana are covered by the Government.

Planting remained below normal in 1966/67, but an abundant rainfall brought a good crop and, for the first time in several years, a small surplus of sorghum for export. In 1967/68 and 1968/69 insufficient rainfall led to small crops, thus necessitating the continuation of food relief aid.

MINING PRODUCTION AND PROSPECTS

Mining activity in Botswana has been carried on intermittently on a small scale; gold, asbestos, kyanite, copper, and manganese have all been produced at different times. In 1965 only asbestos and manganese were produced in any great quantity, and the asbestos workings have since been closed. In 1968 manganese production totaled 11,000 short tons, valued at R 215,000.

The prospects for developing large-scale mining operations in Botswana have improved radically in recent years with the discovery of important deposits of diamonds, copper-nickel, copper, coal, and brine, all thought to be suitable for commercial exploitation. The immediate prospects for development center on the large kimberlitic pipe, containing mainly industrial diamonds, that has been discovered at Orapa by a subsidiary of De Beers Consolidated Mines Limited; the copper-nickel deposits discovered at Selibe-Pikwe by Bamangwato Concession Ltd., a company whose main shareholders are Botswana Roan Selection Trust (RST) Ltd. and Mineral Separation Ltd., the main shareholders of Botswana RST being Roan Selection Trust and American Metal Climax, Inc.;² and the coal field at Morupule, the output of which will be used to produce the electric power required for the development of the Selibe-Pikwe deposits. This last operation will be undertaken by the Anglo-American Corporation.

The diamond pipe at Orapa, west of Francistown, is considered to be one of the largest in the world, and the prospects of discovering other smaller pipes in the surrounding areas appear to be good. An agreement has been concluded recently between the Government of Botswana and the De Beers company regulating the exploitation of these diamond resources. The company will construct and finance most of the infrastructure required, and government investment in this project will be limited to R 2.5 million for the construction of a road. The company's total investment is estimated at R 25 million. Diamond production is expected to start in 1971 and to reach 3.2 million carats by 1975.

The exploration of the Selibe-Pikwe fields, located close to the Rhodesian border to the southeast of Francistown, has revealed deposits containing some 29 million tons of proven and probable copper-nickel material. Preparatory work for the exploitation of these deposits is advancing, and mining operations could start as early as 1973, with annual production valued conservatively at R 36 million. Direct investment by the company amounts to about R 80 million and, in addition,

² Bamangwato Concession Ltd. is to be reorganized into a mining company in which the Government of Botswana will have a 15 per cent interest.

investment in basic infrastructure to be made by the Government is estimated at R 30 million. This infrastructure involves the establishment of water, power, and transportation facilities, together with a township and medical services, and forms the so-called Shashi Complex (see Development Planning, pp. 141-44).

Other mineral resources already ascertained include copper deposits at Matsitama, copper-nickel deposits in the Tati area, and brine deposits (suitable for salt, soda ash, and sodium sulphate) in the Makarikari salt pan. These deposits, however, are not likely to be developed in the immediate future.

Mineral exploration is increasing and 12 mining companies are now prospecting in Botswana. The Government is encouraging mineral exploration and offers assistance to prospecting companies. The Geological Survey Department is conducting a detailed geological mapping of the country and is providing companies with geological information and expert assistance. Furthermore, under legislation enacted in 1967 (the Mineral Rights and Tribal Territories Act, and the Mines and Mineral Act), all ownership rights to minerals in tribal lands have been transferred to the State, and previous legislation concerning prospecting and mining rights has been consolidated and amended. In particular, the new legislation provides that holders of prospecting and mining rights must keep full and accurate records of their prospecting activities, and must keep the Government informed regularly of these activities. It also gives the Government power to cancel these rights, after a period of notice, if the holder is not proceeding with the utilization of these rights in an adequate manner.

MANUFACTURING AND COMMERCE

The manufacturing sector is still small. Apart from the abattoir and meat cannery in Lobatsi, other industries include a growing game skins industry with small factories for the curing and tanning of skins in Francistown, Gaborone, and Maun; a brewery and a furniture factory in Gaborone; a maize-meal and malt mill and two small clothing concerns in Lobatsi; and a bone meal factory in Francistown.

The abattoir has the capacity to process 200,000 head of cattle a year and employs between 700 and 1,000 workers, depending on production levels. The combined capital investment in the abattoir and the cannery exceeds R 3.5 million, making it one of the largest beef-processing establishments in Africa. Since 1967 the cannery has not been operating and the abattoir has been working at approximately 50 per cent capacity.

The Government intends to promote industrial development by providing incentives and by taking direct participation in new industries. Fiscal incentives include liberal depreciation allowances and an initial investment allowance of 25 per cent on machinery. Tariff protection for infant industries may be granted under the terms of the new Customs Union Agreement. Under the Industrial Development Act of 1968, licensing of manufacturing industry has become a legal requirement by means of which the Government can exercise general control over the nature and location of industry. The Act makes provision for the granting of protection when this is considered to be in the public interest and in the interests of the efficient development of the industry concerned. The Government is also engaged in reaching Investment Guarantee Agreements with foreign governments.

To interest investors in specific projects and to assist in their implementation, the Government intends to establish a National Development Corporation. The Corporation would manage government investments and interests in industry and commerce, promote indigenous industrial and commercial entrepreneurs, issue loans to private enterprises, and appraise projects that the Government wishes to establish either on its own or in partnership with private enterprise on an equity basis.

Commercial activity has been expanding in recent years. In 1968 there were about 1,000 licensed commercial establishments, many of which were licensed "general dealers." According to the labor census of 1967/68, the wholesale and retail trade and hotels employed about 5,200 people. With the increased pace of development, it is expected that there will be a significant expansion in service industries, particularly in Gaborone, Francistown, and Lobatsi. Most trading, including the export and import trade, is in the hands of non-Africans, mainly South Africans. As a result of the limited participation by Batswana in commercial activities, there is a great lack of accounting skills, knowledge of business management, and of the techniques associated with successful entrepreneurship.

Twenty-three registered cooperative societies participate in the marketing of livestock and agricultural produce; in 1968 these societies had a turnover of some R 300,000. Eleven consumer societies have been formed to serve consumer needs in places where retail trading stores are inadequate and where competition is lacking. These societies are supported by the Botswana Cooperative Union, which acts as a wholesale supply organization for member societies. Total turnover for the consumer societies that issued data for 1968 was R 430,000. Although the cooperative movement is still at an early stage of development, it is gaining momentum. The immediate goal of the Department of Coopera-

tive Development, which has responsibility for cooperatives under the Minister of Agriculture, is to consolidate the progress achieved so far, and at the same time to establish as many new societies as can be supported by the available manpower and facilities for cooperative education. Financial resources for the development of cooperative societies are provided through the Cooperative Development Trust, established in 1965 to administer grants obtained from the United Kingdom (OXFAM), the United States, and certain voluntary agencies for specific cooperative projects.

INFRASTRUCTURE

The *transport system* is centered on the single-track railway line that crosses the eastern region of Botswana from north to south and links Bulawayo in Rhodesia with South Africa. The Rhodesian Railways owns and operates the 394 miles of railroad in Botswana.

The road network includes more than 5,000 miles of public roads, of which some 2,500 miles are classified as trunk or main roads maintained by the Central Government. The remainder is the responsibility of the district councils. The present condition of the road network is rather poor. Road surfaces are for the most part local gravel, clay, and sand, although there are some bituminous stretches in the Gaborone, Lobatsi, and Francistown areas. The two main trunk roads, the North-South road and the Francistown-Maun road, have been greatly improved over the past four years with finance provided mainly by the International Development Association (IDA), which extended a \$3.6 million long-term loan. The main purpose of this financing was to aid further development of the livestock industry by enabling the movement of cattle by road transport instead of by prolonged trekking on the hoof, which leads to considerable weight losses. Investment in the transport sector is receiving rather low priority under the National Development Plan, 1968–73. The investments that are expected to take place in the near future are concentrated in the more populous eastern region and in the mining development area. In the more remote areas, supplies can be provided more economically by air than by the costly construction of infrequently used roads. Thus, the Botswana Airways operates regularly scheduled passenger and cargo services to all the main internal centers in Botswana, with links also to South Africa, Rhodesia, and Zambia.

Shortage of *water* is a major limiting factor in the economic development of Botswana. Certain water resources do exist both on the surface and underground, but so far they have not been sufficiently developed. The largest unexploited source of surface water is the Okavango Delta,

which receives large amounts of water from the Okavango River, flowing into Botswana from Angola through the Caprivi strip in South-West Africa. However, the Limpopo watershed system in eastern Botswana is of greater immediate significance, since it is in this area that the bulk of the population lives, and since the prospects for further development are more favorable. Hydrological surveys in selected areas now being conducted under a project financed by the United Nations Development Program (UNDP) are expected to lay the foundation for the future exploitation of surface water resources. This project was started in 1967 and is to be completed by 1971. In many areas of the country, outside the central Kalahari, small sources of underground water can be found by drilling. As part of its activities, the Geological Survey Department undertakes exploration of underground water resources and operates a unit for the drilling of boreholes. In accordance with the legislation governing surface and underground water rights enacted in 1967, a Water Apportionment Board has been established for the purpose of allocating rights to different users. The Government has furthermore set forth the principle that users of water should meet its cost.

The three thermoelectric *power* stations of some size, in Gaborone, Francistown, and Lobatsi, are operated at virtually full capacity. Aside from the extension of electricity to smaller towns in the interior through small-scale stations, the future development of power is closely related to the development of the country's mineral resources. In this connection, the construction of a thermal power station, which would use the coal to be mined at Morupule, has been proposed. This station would be capable of supplying the electricity required by the mining activities and the mining townships and centers around Francistown and Tonota.

Education is not widespread but is expanding rapidly. High priority is given to the development of schools providing vocational training to meet the needs of the economy. In 1968 there were 257 primary schools with a total enrollment of some 79,000 pupils (representing approximately 70 per cent of the population of school age) and 10 secondary schools with an enrollment of about 2,300 pupils. The facilities for education, in terms of teachers and classrooms, have been increased substantially in recent years but are still scarce and often of low quality. Teacher training is provided in three Teachers Training Colleges. One of these has been established recently in Francistown with aid from the Government of Sweden and has substantially increased total training capacity. No institution provides education beyond the secondary-school level. However, Botswana operates jointly with Lesotho and Swaziland The University of Botswana, Lesotho, and Swaziland, which is located in Lesotho.

Although Botswana has possibilities for developing *tourism*, facilities are still limited. The Chobe National Park, the Okavango Swamps, and the Kalahari Desert are the three principal areas of interest. At present, an estimated 8,000 tourists visit Botswana each year, and this total is expected to increase. The Government is taking steps to develop tourism and to protect and conserve the wildlife in the country. Already nearly 30,000 square miles have been set aside for wildlife sanctuaries, and the 4,500-square-mile Chobe Game Reserve has received national park status.

EMPLOYMENT, WAGES, AND PRICES

The great majority of the working population, which totals some 240,000 persons, is employed or self-employed in the subsistence agricultural sector. Recent data on employment in the monetary sector provided by the Labor Census for 1967/68 indicate that about 28,000 persons were working for wages in 1967/68; some 27 per cent were in the agricultural sector, 18 per cent in commerce, and 21 per cent in Government. Manufacturing and mining provided employment for only some 6 per cent and 3 per cent, respectively, of the salaried labor force (Table 2). In 1967 the total wage bill was estimated to be approximately R 11 million.

TABLE 2. BOTSWANA: ESTIMATED NUMBER OF WAGE EARNERS, 1967/68

	Total	Per Cent of Total
Agricultural sector	7,671	27.3
Mining	814	2.9
Manufacturing	1,560	5.5
Construction	1,556	5.5
Electricity and water supplies	187	0.7
Commerce	5,175	18.4
Communications	1,474	5.2
Financial institutions	134	0.5
Government	5,970	21.2
Other services	3,607	12.8
Total	28,148	100.0

Source: Republic of Botswana, *Labour Census of Botswana, 1967/68*.

The Republic of South Africa is an important outlet for Botswana's labor force, providing employment for Botswana workers, mainly in the mining sector but also a limited number in agriculture. In recent years between 22,000 and 26,000 Botswana workers have been recruited yearly to work in South African mines on nine-month contracts. Remittances from these workers, together with deferred pay received on their

return to Botswana, are estimated to exceed R 1 million annually. The fact that Botswana have worked in South African mines for many years, providing Botswana with a reservoir of semiskilled labor essential to mining, may facilitate the future development of Botswana's mineral resources.

The Employment Law of 1963 governs basic employment conditions; it lays down regulations governing contracts of service, the protection of wages, the employment of women and children, recruiting, and workers' health. Administrative regulations specify the conditions of service of government workers and workers on public contracts. The Trade Unions and Trade Disputes Proclamation, which makes registration of unions compulsory, governs the operation of labor associations. Of the five registered trade unions at the end of 1965, none had a large membership or any international affiliation.

Botswana has no comprehensive minimum-wage legislation. It is the Government's policy, however, that no employee, either in the urban sector or the rural sector, should be required to work for less than a recognized minimum wage. In this respect, the minimum wages paid by the Government are intended as a guide to the private sector. Government's wage rates for tradesmen, classified, and unclassified employees in the "Industrial Class" vary from R 0.63–0.87 a day for low-skilled jobs, such as gardener or herdsman, to a maximum of R 5.50–7.90 a day for high-skilled jobs, such as a plant operator.

Reliable statistics on price developments in Botswana are not available, but prices generally appear to follow price movements in South Africa. Some data on retail prices in Gaborone and other areas have been collected in the past, but these are not sufficiently accurate to provide a realistic guide to actual price developments. Recently, the Central Statistical Office has initiated an income-expenditure survey, which is being conducted on a sample of 50 households in the principal urban and rural centers. The pattern of consumption expenditure identified by this survey will provide the basis for establishing the weights to be used in compiling price indices. For Gaborone and Serowe the survey has been completed and the results are being analyzed. A new index of retail prices for Gaborone is likely to be produced in the near future.

Development Planning

Development planning in Botswana began in 1963, when the Bechuanaland Protectorate issued a five-year public expenditure program (1963–68) calling for a total investment of R 20.4 million, which was the amount of development finance thought likely to be made available

by the United Kingdom. The main objects of the program were the transfer of the executive quarters of the Government from Mafeking (South Africa) to a new capital at Gaborone, the expansion of education, and the development of the economic infrastructure.

When Botswana became independent in 1966, the Government published a Transitional Plan for Social and Economic Development, outlining national policies and development objectives to be adopted in the initial period of independence and listing the projects to be undertaken by the Government in the three financial years 1966/67–1968/69. The Plan envisaged a total public capital expenditure of R 25.6 million to be financed largely from external sources. The Plan was transitional in two respects: it bridged the period from internal self-rule to full independence, and it was intended to cover the period of change from rudimentary public expenditure programs to full resource planning.

Work on development planning continued after 1966. In September 1967 the Ministry of Development Planning was established under the Vice President and was made responsible for the formulation and the implementation of development plans, as well as the administration of the annual Development (capital) Budget in close consultation with the Ministry of Finance. The first task of the new Ministry was to review the immediate policy objectives of the Government and hence to revise and to update the Transitional Plan. This led to the publication in August 1968 of a new five-year National Development Plan, 1968–73, which established the general investment targets for the plan period and specified the projects to be implemented during the first three years. In general, the sources of investment financing were not indicated in the Plan, but the authorities expect that most of the required financing would be provided from abroad.

Full realization of the Plan's investment aims, together with the anticipated private sector investment, would result in an annual rate of growth of the economy of about 6 per cent. Total public investment called for under the Plan amounts to R 69 million, of which R 46.2 million is for projects programed for the first three years. By far the largest part of the latter amount is to be spent on physical infrastructural projects in the so-called Shashi Complex, required for the development of mining (Table 3).

The Plan document also includes projections of government revenue and expenditure, based upon the estimated impact of the planned investment projects on the current budget. During the Plan period both current domestic revenue and expenditure of the Government are expected to increase by an average of 10 per cent a year and to leave an average deficit in the current budget of some R 7 million a year, about 50 per cent

of current expenditure. It is anticipated that this deficit will be financed by grants and loans from the United Kingdom. By 1973, however, development of the mining sector is expected to bring about a substantial increase in government revenue and to lead to the elimination of the deficit in the current budget by 1975.

In the execution of the Plan, considerable emphasis has so far been given to the preparation of mining development, and in particular to the projects associated with the Shashi Complex. A preinvestment survey of the technical and economic feasibility of providing and operating the infrastructure to service the mining areas of Selibe-Pikwe has been completed recently. The International Bank for Reconstruction and Development (IBRD) has acted as executing agency for this survey, which has been financed by the UNDP. The capital requirements for

TABLE 3. BOTSWANA: PROJECTIONS OF PUBLIC CAPITAL EXPENDITURE, 1968/69-1970/71

	Million Rand	Per Cent of Total
Physical infrastructure	31.1	67.3
Water resources	9.1	19.7
Social infrastructure	3.0	6.5
Agriculture and wildlife	1.6	3.5
Commerce and industry	0.9	1.9
General administration	0.5	1.1
Total	46.2	100.0

Source: Republic of Botswana, Ministry of Development Planning, *National Development Plan, 1968-73*.

building the proposed infrastructure are estimated to be some R 30 million. The Government of Botswana is discussing the financing with the IDA and the IBRD and also with a number of countries on a bilateral basis.³

Under the Plan, investment not related to mining development has been designed to remove certain basic limitations on the development of the economy arising from institutional and traditional factors, such as the system of land allocation, the structure of local governments, the low level of education, and the lack of trained manpower. In the first two years of the Plan, attention has thus been given to investment in education and to social and government reforms. The realization of

³ On December 17, 1969, the IDA approved a credit of \$2.5 million to finance the costs of engineering design and preliminary works for infrastructure (electric power, water, transport, and a township) required for the development of the copper-nickel deposits at Selibe-Pikwe.

these projects has given rise to capital expenditure that may not be regarded as directly productive but which is considered necessary to change rural attitudes and to prepare the way for productive activity. The Government continues to look to the United Kingdom as a major source of finance for the nonmining investment.

The Plan's investment targets and programs are kept under continuous review by the authorities, and the Plan is revised at frequent intervals. The next of these revisions is to be published in 1970. The authorities are aware of the limited impact that the development of mining might have on the broader objectives of their development effort. Hence, a primary consideration lying beyond the current revision is how to employ the resources that will be derived from mining to stimulate the development of the agricultural and livestock sectors on which the economic progress of a large majority of the population will continue to depend.

Government Finance

THE BUDGETARY SYSTEM

The government budget in Botswana, covering the period April 1–March 31, is divided into a current budget and a capital budget. Current receipts collected in Botswana are paid into the Government's current account with a commercial bank operating in Botswana. The Government also maintains a Joint Consolidated Fund (JCF) with the Crown Agents in London into which are paid the budgetary grants-in-aid received from the United Kingdom. Current expenditures are paid both from the JCF and the Government's local current bank account. The Government also has an overdraft facility at the same bank, which is used to offset seasonal shortfalls in domestic receipts. Capital expenditure is financed from a Development Fund into which all internal and external receipts for development purposes are paid.

From 1946 to 1955, Botswana balanced its budget only by forgoing expansion of the services provided. The United Kingdom made available development funds, but these were not sufficient to substantially improve Botswana's capacity to generate additional revenue. From 1956/57 onward, large-scale budgetary aid from the United Kingdom significantly altered the character of the budget and enabled Botswana to improve and to expand the government services. Over the past six years, revenue arising from domestic sources has financed roughly 55 per cent of current expenditure and budgetary grants-in-aid from the United Kingdom have financed the remainder.

The budget of the Central Government accounts for all but a small part of total public financial operations in Botswana. In 1966 a major reform of local government institutions established nine district councils and three town councils, with responsibility for district roads, maintenance of local water supplies, and other local amenities. These councils also took over from the Central Government full responsibility for primary education. Although detailed information on local authority finances is not available, total annual expenditure of the new district councils is estimated at between R 1 million and R 2 million, of which a large part represents payment of primary-school teachers' salaries. To cover this expenditure, the local authorities levy and collect a graduated local government tax, introduced on January 1, 1966; this tax was intended to provide these authorities with the major part of their revenue. In fact, receipts from this tax have covered only about 65 per cent of current expenditure, and receipts from a number of other sources, mainly licenses and fees (including school fees), a further 15 per cent. The remainder of the local council expenditure is covered by a subvention from the Central Government, estimated to amount to more than R 300,000 in 1969/70.

BUDGETARY DEVELOPMENTS, 1963/64–1969/70

As current expenditure has expanded with the increased range of services provided by the Government in recent years, the current budget deficit has tended to grow. In the period 1963/64–1967/68, domestic revenue rose by almost 70 per cent. Over the same period, however, current expenditure almost doubled, and the deficit on the current budget grew from just under R 3 million in 1963/64 to R 6.8 million in 1967/68. Preliminary budget returns for 1968/69 (not shown in the tables) indicate a reduction in this deficit, as current expenditure grew by less than 1 per cent and domestic revenue increased by some 22 per cent. In the estimates for 1969/70 the current deficit is budgeted to increase to a level slightly higher than in 1967/68; however, the estimates of domestic revenue appear to be conservative, and actual collections may cover close to 55 per cent of current expenditure, as indicated in the revised estimates for 1968/69. This percentage compares with only 46 per cent of current expenditure financed from domestic revenue in 1967/68 (Table 4).

Capital expenditure rose rapidly from 1963/64 to 1966/67, reflecting principally the construction of Gaborone, and the over-all budget deficit expanded accordingly, reaching R 11.6 million in 1966/67. Since that year, however, government expenditure on development projects has

TABLE 4. BOTSWANA: GOVERNMENT BUDGET, 1963/64-1969/70

(In millions of rand)

	Actual					Estimate	Revised Estimate	Estimate
	1963/64	1964/65	1965/66	1966/67	1967/68	1968/69	1968/69	1969/70
Current expenditure	6.36	7.50	9.07	11.04	12.59	12.64	12.88	13.87
Domestic revenue	3.40	4.41	5.44	6.20	5.75	5.83	6.97	6.88
Current deficit	2.96	3.09	3.63	4.84	6.84	6.81	5.91	6.99
Capital expenditure	1.82	4.39	6.04	6.80	3.79	4.30	2.74	7.43
Over-all deficit	4.78	7.48	9.67	11.64	10.63	11.11	8.65	14.42
Financing of deficit								
United Kingdom								
Budgetary grants-in-aid ¹	3.18	3.74	5.32	4.70	8.56	8.21	7.62	8.46
Overseas Service Aid Scheme	0.10	0.13	0.22	0.44	0.41	0.43	0.37	0.34
Special U.K. loans	—	—	—	0.28	0.30	0.28	0.23	0.26
CD & W grants	0.91	1.53	2.04	3.43	—	—	—	—
Exchequer loans	...	0.60	0.54	0.87	—	—	—	—
Other external financing								
IDA loans		0.07	0.57	1.06	0.72			—
Other		0.14	0.13	0.35	0.75			0.84
Domestic loans	0.46					2.20	0.59	
Commercial banks		1.00	0.75	0.44	—			—
Other		—	0.30	0.05	0.03			0.08
Change in other assets (net) ²	0.13	0.27	-0.20	0.02	-0.14	-0.01	-0.16	4.44

Sources: Republic of Botswana, *Annual Statements of Accounts and Estimates of Revenue and Expenditure*.¹ Including R 2.78 million for capital expenditure in 1967/68, R 2.11 million in 1968/69 (estimate), R 2.34 million in 1968/69 (revised estimate), and R 2.07 million in 1969/70 (estimate).² Residual (increase —).

declined, and the over-all budget deficit is likely to have been of the order of R 8.7 million in 1968/69. Although the budget estimates for 1969/70 indicate an increase in the over-all deficit to R 14.4 million, the actual deficit is likely to be considerably smaller, not only because of a smaller current deficit than estimated but also because the estimate of development expenditure probably overstates the actual volume of capital expenditure during the year. Financing has come from a number of sources but by far the largest has been the United Kingdom, as shown in Table 4 and explained in the section on *Financing operations* (pp. 156-58).

Domestic revenue

Taken together, receipts from import and excise duties form the largest single source of domestic revenue in Botswana. Receipts from these duties have been governed by a Customs Union Agreement concluded in 1910 between South Africa and the three High Commission Territories of Bechuanaland (now Botswana), Basutoland (now Lesotho), and Swaziland. The Agreement provided for a common external customs tariff and for a free interchange of goods of the Union and the Territories. Under the Agreement, South Africa collected all import and excise duties, with the exception of the excise tax on beer, wines, and spirits, which was collected separately by each country. From the pool of duties collected by South Africa, the three smaller countries received 1.31097 per cent of the total. Until 1965 each country's share of this amount was based upon actual customs revenue collections during the period 1907-1909, i.e., before the three territories became part of the South African customs area. Botswana's share amounted to 0.27622 per cent of the pool. In 1965 the United Kingdom decided to alter the distribution among the three territories of the resources of the pool accruing to them under the Agreement. This redistribution was intended to take account of differences in the growth of their external trade in the period since the Agreement was signed. From 1965/66 Botswana's share of the pool was increased to 0.30971 per cent. Swaziland's share was also increased, whereas that of Lesotho was reduced.

The Customs Agreement of 1910 has been renegotiated at the common request of Botswana, Lesotho, and Swaziland. The new Customs Union Agreement, signed on December 11, 1969, is designed to ensure that the arrangements encourage the development of the less advanced members of the Union and the diversification of their economies. The new Agreement, which came into operation on March 1, 1970, maintains a common external tariff for goods imported into the customs

area. It stipulates that, in general, no quantitative restrictions or duties may be imposed by the members of the Union on the importation of goods produced in the Common Customs Area. However, in order to facilitate the establishment of new industries in Botswana, Lesotho, and Swaziland, these countries may, after consultation with the other members, levy additional duties for a period not exceeding eight years on competing goods imported into their area. All revenue resulting from the common external tariff as well as from the excise and sales duties leviable and collected on goods imported into or produced in the common customs area is paid quarterly into a common pool. The shares of Botswana, Lesotho, and Swaziland in the resources of the pool are determined by a new formula based on the value of actual imports and of the production and consumption of goods subject to excise and sales duties. The application of this formula will have the effect of increasing the share of the resources accruing to the three less advanced members of the Union.⁴

Receipts from import and excise duties accounted for 23 per cent of total domestic receipts in the period 1963/64–1967/68 (Table 5). They rose more or less steadily in this period; the apparent decline in 1966/67 reflects a delay in the receipt of accounts from the customs authorities causing amounts collected in that year to be attributed to the following year. Some decline was expected in these receipts in 1968/69, and preliminary returns confirm a reduction in receipts to R 1.4 million, compared with R 1.7 million in 1967/68. This category of receipts is, however, expected to resume its growth in 1969/70, as trading conditions both in South Africa and Botswana improve.

Direct taxes on income earned in Botswana are levied in respect of both individuals and companies. Prior to 1965/66 the Government collected an African tax, which was a flat-rate tax; one half of this tax was retained by the Central Government and the other half was transferred to the local authorities. The Government also collected an income tax from Africans, calculated on the basis of cattle owned. The total proceeds of this tax were handed over to the local authorities. A gradu-

⁴ The shares of Botswana, Lesotho, and Swaziland of the resources of the pool for any financial year are calculated by expressing the c.i.f. value of their imports *plus* the value of excisable and sales duty goods that they produce and consume during the year *plus* the excise and sales duties paid on these goods as a percentage of the c.i.f. value of the total imports of the Common Customs Area during the financial year *plus* the customs and sales duties realized from these goods during the year *plus* the value of excisable and sales duty goods produced and consumed during the year in the Common Customs Area *plus* the excise and sales duties collected from these goods during the year. The percentage so derived, multiplied by a factor of 1.42, will represent each country's share of the common revenue pool for any given financial year.

TABLE 5. BOTSWANA: DOMESTIC REVENUE, 1963/64-1969/70

(In millions of rand)

	Actual					Estimate	Revised Estimate	Estimate
	1963/64	1964/65	1965/66	1966/67	1967/68	1968/69	1968/69	1969/70
Direct taxes	0.83	0.95	1.38	1.62	1.27	1.52	1.70	1.65
Income tax	0.50	0.66	1.09	} 1.62	} 1.27	} 1.52	} 1.70	} 1.65
African tax	0.33	0.29	0.29					
Import and excise duties	0.75	1.03	1.15	1.13	1.74	1.46	1.74	1.87
Customs agreement	0.52	0.79	0.91	0.75	1.22	1.01	...	1.23
Botswana excise tax	0.23	0.24	0.24	0.38	0.52	0.45	...	0.64
Export taxes	0.32	0.34	0.40	0.40	0.23	0.24	0.27	0.28
Other revenue	1.50	2.09	2.51	3.05	2.51	2.61	3.26	3.08
Revenue from government property	0.44	0.52	0.56	0.64	0.64	0.78	1.12	0.74
Posts and telegraphs	0.41	0.41	0.51	0.79	0.63	0.74	0.74	0.93
Licenses	0.18	0.21	0.26	0.28	0.31	0.35	0.39	0.31
Other ¹	0.47	0.95	1.18	1.34	0.93	0.74	1.01	1.10
Total	3.40	4.41	5.44	6.20	5.75	5.83	6.97	6.88

Sources: Republic of Botswana, *Annual Statements of Accounts and Estimates of Revenue and Expenditure*.¹ Mainly from sales of government lands and reimbursements from local authorities.

ated personal income tax was collected from non-Africans, who also paid a personal tax; receipts from these taxes were retained by the Central Government. In 1965/66 the African tax and personal tax were abolished and all personal incomes were made subject to the graduated income tax, which is collected and retained in full by the Central Government. Tax rates applied to personal income vary from 6 per cent on taxable income of less than R 600 per annum to an effective rate of about 30 per cent on taxable income of R 18,000. For all income in excess of this amount, the rate is 50 per cent. Since 1967 a 30 per cent surcharge has been in effect for all individuals paying personal income tax. In 1968 the payment of income tax on a pay-as-you-earn basis was introduced and is now operating satisfactorily.

Company income tax is levied at the uniform rate of 30 per cent of taxable income, except for indigenous companies, which pay at a rate of 20 per cent on the first R 5,000 of taxable income. Since 1961 foreign and local dividends have been included in the taxable income of individuals whose taxable income (including dividends) exceeds R 2,600 per annum. However, dividends earned by companies are not subject to income tax.

Receipts from direct taxes (comprised of income tax and African tax) almost doubled between 1963/64 and 1966/67, but fell in 1967/68. The large increase in 1966/67, amounting to over 17 per cent, was due to the high payments made by the Botswana Meat Commission (BMC) in that year. The high rate of slaughter caused by the drought created an exceptional rise in the income of the BMC. Receipts from this source fell to a relatively low level in 1967/68, as the offtake of livestock was reduced substantially. In the preliminary returns for 1968/69 and the estimates for 1969/70, receipts from direct taxes again show an increase, reflecting mainly improvements in methods of tax collection.

Export taxes are levied mainly on livestock and livestock products. Live cattle and carcasses are taxed at a rate of R 2.25 a head, bone meal at R 2 a ton, and blood meal at R 3 a ton; hides and skins are also subject to export duty. The effects of the drought can be seen in 1965/66 and 1966/67 when receipts from export duties rose to R 0.4 million and again in 1967/68 when, in the aftermath of the drought, these receipts declined by more than 40 per cent. Export duties have resumed an upward trend since 1968/69.

Revenue from government property, coming mainly from rents received from government quarters and wayleave from the railway, has grown steadily in recent years. The postal and telegraph services also yielded increasing amounts until 1966/67, principally from the sale of special commemorative issues of postage stamps. Current budget receipts

from the sale of government land, and from reimbursements by local authorities of payments made by the Government on their behalf, have declined since 1966/67. Proceeds from sales of land are now a major source of funds for the National Development Bank. Following the change in local authority responsibilities, reimbursements from local authorities since 1967/68 no longer appear in the central government budget. There has, however, been a corresponding increase in receipts from a wide variety of other small sources.

Current expenditure

From 1963/64 until 1966/67 current expenditure accelerated fairly rapidly, growing by 22 per cent in 1966/67, the year of independence. This expenditure continued to grow in subsequent years, but at a declining rate (Table 6). In 1967/68 expenditure rose by 14 per cent, but according to the preliminary results it grew by less than 1 per cent in 1968/69. The estimates for 1969/70 show an increase in expenditure of some 9 per cent over the preliminary results for 1968/69.

Most categories of expenditure shared in the growth of current expenditure during this period. Expenditure on administration, including internal security, rose from R 2.3 million in 1964/65 to R 4.3 million in 1968/69. In the latter year expenditure on administrative services accounted for one third of total current expenditure, which is somewhat more than in 1964/65. Outlays on education recorded in the budget more than doubled between 1963/64 and 1966/67. The transfer of responsibility for primary education to local authorities caused a reduction in budget expenditure on education, which is reflected in the figures for 1967/68. However, if these figures are adjusted to include subventions made by the Central Government to local authorities to assist in meeting these expenses after 1966/67, current outlays on education continued to grow and in 1969/70 accounted for more than 10 per cent of total current expenditure of the Central Government.

Expenditure on public works has also increased but less rapidly. However, the growth in the number of public buildings and other public projects is bound to result in a continuing steady expansion in this item, which represented 11.5 per cent of total expenditure on the estimates for 1969/70. The expansion of the posts and telecommunications system in Botswana has resulted in almost tripling the current expenditure in this department since 1963/64. Government expenditure on agricultural services accounted for only 3 per cent of the total in 1963/64 and for 2.5 per cent in 1966/67. However, with the Government's decision to encourage the expansion of farming in Botswana and the cultivation of

TABLE 6. BOTSWANA: CURRENT EXPENDITURE, 1963/64-1969/70

(In millions of rand)

	Actual					Estimate	Revised Estimate	Estimate
	1963/64	1964/65	1965/66	1966/67	1967/68	1968/69	1968/69	1969/70
Administration	...	2.27	2.80	3.28	4.15	4.00	4.27	4.09
Administrative services	...	1.52	1.93	2.31	2.77	2.91	3.18	2.89
Internal security	...	0.75	0.87	0.97	1.38	1.09	1.09	1.20
Of which, police	(0.57)	(0.67)	(0.76)	(0.85)	(1.25)	(0.95)	(0.93)	(1.04)
Social services	1.06	1.39	1.66	1.79	1.65	1.71	1.68	2.02
Health	0.51	0.55	0.61	0.62	0.82	0.79	0.83	0.92
Education	0.55	0.84	1.05	1.17	0.83	0.92	0.85	1.10
Infrastructure	1.38	1.71	1.78	1.87	1.87	1.86	1.88	2.27
Public works	1.13	1.34	1.32	1.28	1.27	1.27	1.29	1.60
Posts and telecommunications	0.25	0.37	0.46	0.59	0.60	0.59	0.59	0.67
Agriculture	0.95	0.86	0.88	0.89	1.60	1.76	1.71	1.90
Veterinary	0.76	0.65	0.67	0.61	0.84	0.88	0.87	0.93
Agricultural services	0.19	0.21	0.21	0.28	0.76	0.88	0.84	0.97
Financial obligations	0.58	0.61	0.90	1.37	1.52	1.45	1.40	1.58
Public debt service	0.34	0.35	0.55	0.68	0.71	0.74	0.71	0.87
Pensions and gratuities	0.24	0.26	0.35	0.69	0.81	0.71	0.69	0.71
Other ¹	...	0.66	1.05	1.84	1.80	1.86	1.94	2.01
Total	6.36	7.50	9.07	11.04	12.59	12.64	12.88	13.87

Sources: Republic of Botswana, *Annual Statements of Accounts and Estimates of Revenue and Expenditure*.¹ Includes surveys, underground water maintenance, information and broadcasting, subventions to local authorities, famine relief, community development, and cooperatives.

more land, expenditure on agricultural services is estimated at almost R 1 million in 1969/70 (between three and four times the amount spent in 1966/67), with 7 per cent of the total. Expenditure on pensions and gratuities has also expanded rapidly, reflecting increased retirements among expatriate government employees. Subventions to local authorities increased threefold in 1967/68 following the reform of local governments.

Public debt service

Expenditure on public debt has also been growing steadily in recent years and in the estimates for 1969/70 formed over 6 per cent of the total, compared with under 5 per cent in 1964/65. As a proportion of domestic revenue, outlays on this item have increased from 8 per cent in 1964/65 to almost 13 per cent in the estimates for 1969/70. This increase reflects principally the repayment and servicing of loans raised by the Government to finance infrastructural projects, particularly in connection with the development of Gaborone.

Total outstanding public debt of the Botswana Government on March 31, 1968 was some R 10.5 million (Table 7), compared with R 5.8 million three years earlier. Of the total outstanding, R 8.1 million was external debt. Apart from the loan of \$3.6 million from the IDA, to finance a road project, all external loans are repayable in sterling. Loans of about R 2.2 million have been raised on the London market as Intercolonial loans, and the proceeds have been used mainly to construct staff quarters and facilities for railway workers. Loans from the United Kingdom, principally Exchequer loans to finance infrastructural projects, have totaled R 4.4 million, of which R 3.5 million is still outstanding. Outstanding internal debt amounts to R 2.4 million, of which all but R 0.3 million relates to loans made by local commercial banks or their associated development corporations. These bank loans have assisted materially in financing the construction of Gaborone and certain power and telecommunications projects.

Three of the loans from the U.K. Government are free of interest, and the rates of interest on the Intercolonial and Exchequer loans vary from 5¾ per cent to 6¾ per cent. The rates of interest applying to the loans from local commercial banks go up to 8 per cent, and in some instances are related to the discount rate of the South African Reserve Bank.

On the basis of debt contracted up to March 31, 1968, payments for interest and amortization will continue to increase in the next five years, together reaching just under R 900,000 in 1971/72. Thereafter, debt service payments are scheduled to fall gradually, dropping below R 800,000 in 1976/77. However, since the Government is likely to

contract further loans in connection with its proposed development program, the prospect is that the annual level of debt service payments will reach R 1 million about 1971/72 and will grow to about R 1.5 million by 1975/76. If the Government's investment program produces the expected improvement in current revenue, this level of debt service would not impose an important strain on current budgetary resources.

TABLE 7. BOTSWANA: MEDIUM-TERM AND LONG-TERM PUBLIC DEBT ON MARCH 31, 1968

(In millions of rand)

	Year of Redemption	Amount Disbursed ¹	Amount Outstanding
External loans			
Intercolonial loans	1971-83	2.16	2.16
Exchequer loans	1985-91	3.32	2.63
U.K. Government (compensation) loan (interest free)	1992	0.32 ²	0.28
U.K. Government (commutation) loan (interest free)	1992	0.27 ³	0.25
U.K. Government loan (interest free)	1991	0.46	0.18
IDA loan	2014	2.43 ⁴	2.43
Total		8.96	8.15
Internal loans			
Barclays Bank loans	1973-76	1.06	1.04
Barclays Bank D.C.O. loans	1976-77	0.36	0.35
Standard Bank loans	1976-78	0.75	0.75
Post Office Savings Bank loan	1994	0.13	0.13
Bechuanaland Teachers' Provident Fund loan	1994	0.16	0.16
Total		2.46	2.43
Total (1+2)		11.42	10.56

Source: Republic of Botswana, *Annual Statements of Accounts, 1967-68*.

¹ Except where indicated, amount disbursed is identical with full amount of loan.

² Total loan agreement for R 0.982 million.

³ Total loan agreement for R 0.784 million.

⁴ Total loan agreement for R 2.570 million, including a service charge of R 0.135 million.

Capital expenditure

During the period 1963/64-1966/67, when Botswana was preparing for independence, government capital expenditure rose from R 1.8 million to R 6.8 million. In 1967/68, however, this expenditure fell by 44 per cent, to R 3.8 million, and a further decline to R 2.7 million is estimated to have taken place in 1968/69. Capital expenditure for 1969/70 is budgeted at R 7.4 million. (See Table 8.)

TABLE 8. BOTSWANA: CAPITAL EXPENDITURE, 1963/64-1969/70

(Amounts in millions of rand)

			Actual			Revised Estimate	Total	Estimate	
	1963/64	1964/65	1965/66	1966/67	1967/68	1968/69	1963/64-1968/69	1969/70	
							<i>Per Cent</i>		
Agriculture, forestry, fisheries	0.04	0.12	0.18	0.82	0.43	0.11	1.70	6.7	0.21
Livestock	0.13	0.27	0.58	0.65	0.12	0.20	1.95	7.6	0.57
Water development ¹	0.37	1.03	0.60	0.71	0.40	0.28	3.39	13.3	1.06
Roads and civil aviation	0.02	0.16	1.51	1.22	0.62	0.21	3.74	14.6	0.34
Power and telecommunications	0.38	0.61	0.66	0.13	0.10	0.09	1.97	7.7	0.92
Mineral development	—	—	—	—	0.08	0.03	0.11	0.4	1.56
Surveys	0.02	0.08	0.04	0.23	0.07	0.18	0.62	2.4	0.23
Administrative buildings, housing, and sewerage	0.41	1.42	1.46	1.43	1.07	0.92	6.71	26.2	1.12
Education	0.20	0.39	0.43	1.00	0.56	0.26	2.84	11.1	0.89
Medical services	0.04	0.17	0.22	0.20	0.15	0.18	0.96	3.8	0.18
Miscellaneous	0.21	0.14	0.36	0.41	0.19	0.28	1.59	6.2	0.35
Total ²	1.82	4.39	6.04	6.80	3.79	2.74	25.58	100.0	7.43

Sources: Republic of Botswana, *Annual Statements of Accounts and Estimates of Revenue and Expenditure*.¹ Includes expenditure for drought and famine relief.² Of the totals, expenditures attributable to the construction of Gaborone have been approximately as follows: 1963/64—R 0.7 million; 1964/65—R 2.6 million; 1965/66—R 2.1 million; 1966/67—R 1.5 million; 1967/68—R 1.3 million; 1968/69—R 0.4 million.

During the period of rapid growth in capital expenditure, 1963/64–1966/67, increases were recorded in almost all sectors of the capital budget. Spending on agriculture and livestock rose from R 0.2 million in 1963/64 to R 1.5 million in 1966/67, and outlays on water development almost doubled over the same period. The development of Gaborone absorbed almost R 7 million, and the building of the road from Francistown to Maun, with the assistance of the IDA loan, produced a substantial jump in capital expenditure on roads, especially in 1965/66 and 1966/67. The building of primary and secondary schools also caused a rapid expansion in capital expenditure on education, particularly in 1966/67, when it more than doubled.

The decline in capital expenditure in 1967/68 and 1968/69 partly reflected the effective completion of the first stage of the construction of Gaborone as the national capital and the end of the construction of the IDA-financed roads. Over the period 1963/64–1968/69, capital outlays on Gaborone amounted to R 8.6 million, or approximately one third of total capital budget expenditure in this period. Nevertheless, in addition to the termination of these two major projects, spending on most other development activities declined, notably on education, which fell from over R 1 million in 1966/67 to an estimated R 0.3 million in 1968/69. In a sense, therefore, 1966/67 may mark the watershed of Botswana's initial development effort, related to independence.

The budget estimates for 1969/70 reflect the Government's effort to re-establish its capital expenditure at a higher level, within the context of the National Development Plan, 1968–73. Capital expenditure for 1969/70 is estimated at R 7.4 million, of which the principal item is the development of the country's mineral resources. At the time the budget estimates were presented, however, financing for only R 3 million had been secured, and it seemed likely that while the total of capital expenditure would exceed the level of 1968/69 it would fall significantly short of the amount shown in the estimates.

Financing operations

As mentioned earlier, the combination of an expanding current budget deficit and the fairly rapid increase in capital expenditure resulted in a growth in the over-all budget deficit from R 4.8 million in 1963/64 to R 11.6 million in 1966/67. The reduction in capital expenditure in 1967/68 more than offset the increase in the current deficit, created partly by the drought, and the over-all deficit fell to R 10.6 million. It was further reduced in 1968/69 when the continuing decline in capital expenditure was accompanied by an increase of 21 per cent in domestic revenue, which reduced the current deficit to R 5.9 million.

The Botswana Government has relied heavily on various forms of assistance from the United Kingdom for budgetary financing. In addition, loans and grants have been raised from other external sources, reaching almost R 1.5 million in 1967/68. Financing from internal sources, principally in the form of loans from commercial banks, has varied from over R 1 million in 1965/66 to a negligible amount in 1967/68 (see Table 4).

Total official financial assistance from the United Kingdom rose from just over R 4 million in 1963/64 to R 9.7 million in 1966/67; in 1968/69 it is estimated at R 8.2 million, rising again to over R 9 million in the estimates for 1969/70. Until 1966/67 the bulk of financial assistance from the United Kingdom was divided into grants to finance the current budget, and Colonial Development and Welfare (CD & W) grants and Exchequer loans to finance development projects. Smaller amounts were also available to assist in meeting the costs of U.K. citizens working in the Botswana Government service. The current budget grant-in-aid covered 50 per cent of current expenditure in 1963/64, 59 per cent in 1965/66, and 42 per cent in 1966/67—the year of independence.

Since 1966/67 the character of assistance from the United Kingdom has been changed. A substantial budgetary grant-in-aid is still made but is now expanded to include amounts earmarked for agreed development projects. Upon Botswana's independence, the U.K. Government agreed to a three-year commitment on financial assistance to Botswana for the period 1967/68–1969/70 totaling £13 million. Following the devaluation of the pound sterling in November 1967, the U.K. authorities agreed to maintain the rand value of their aid to Botswana, and the total value of U.K. assistance over those three years is now expected to amount to £14.5 million. It is expected that the United Kingdom will continue to provide substantial assistance for both the current and capital budgets. Assistance for the current budget, however, is expected to decline after 1970/71, as Botswana's current financial prospects improve with the development of the mining industry.

As an independent country, Botswana is no longer eligible for CD & W grants, nor has it received any fresh Exchequer loans since 1966/67. Under an agreement between the two countries, however, 50 per cent of the difference between the agreed estimated U.K. grant-in-aid for the current budget and the grant-in-aid actually drawn in any financial year is made available to the Botswana Government in the following year as an additional development grant. Finally, commencing in 1966/67, the United Kingdom has made special loans to Botswana to cover the additional costs arising from the retirement of U.K. citizens from the

Botswana Government service. In total, as Table 4 shows, the amount of U.K. assistance since 1966/67 has tended to remain stable at about R 8–9 million and has covered some 50 per cent of total government expenditure.

Among other external financing, the IDA loan of \$3.6 million was by far the largest item. Smaller amounts have come from the United Nations World Food Program, the United Kingdom Freedom from Hunger Campaign, OXFAM, and, in 1967/68 and 1968/69, the Governments of Denmark and Sweden.

Local commercial banks, or their external associates, lent more than R 2 million over the period 1964/65–1966/67, principally for the construction of buildings, water, power, and telecommunications facilities in various towns. These loans were fully drawn by the end of 1966/67, and no new ones have been arranged since that time. Other sources of internal finance have been limited, although the National Development Bank lent the Government R 0.3 million in 1965/66 to assist in relieving the effects of the drought in that year. Small amounts were contributed in the form of loans by the Post Office Savings Bank and the Bechuanaland Teachers' Provident Fund in 1966/67 and 1967/68.

Money and Banking

THE CURRENCY

Botswana is part of the South African monetary area and does not maintain a separate central bank or currency. The legal tender is the South African rand issued by the Reserve Bank of South Africa. The legislation that officially established the rand as legal tender is the Currency Proclamation of December 30, 1960. There is no written agreement regarding relations between Botswana and South Africa with respect to currency or monetary matters in general. In August 1966, the only date for which a figure is available, the currency in circulation was estimated at R 2.5 million.

THE COMMERCIAL BANKS

There are two commercial banks operating in Botswana, the Standard Bank Ltd. and Barclays Bank Ltd., D.C.O., both of which are foreign owned. Although these banks are legally branches of two British banks, they are integrated in their day-to-day operations with the South African subsidiaries of the same banks, and for most matters they refer to the

regional head offices in Johannesburg. There is no legislation in Botswana regulating the operations of commercial banks. Thus, the banks are not subject to any statutory rules for their lending in Botswana. In their operations the banks are guided by their regional South African offices, although they are not required to observe the South African banking regulations for their operations in Botswana. The Botswana Government has recently suggested to the banks that they voluntarily make some effort to re-examine their policies, having in mind the needs and interests of Botswana. The Government is also envisaging the introduction of legislation to regulate the activities of commercial banks in Botswana.

Both commercial banks operating in Botswana maintain permanent offices in Gaborone, Francistown, Lobatsi, and Mahalapye, and there are 26 agencies elsewhere in the country providing weekly service. The Standard Bank Ltd. acts as banker for the Government.

The available statistics on the activities of the commercial banks in Botswana are summarized in Table 9. They show that demand deposits

TABLE 9. BOTSWANA: SELECTED ASSETS AND LIABILITIES OF THE COMMERCIAL BANKS, 1966-69

(In millions of rand)

	1966	1967		1968		1969
	Sept.	Mar.	Sept.	Mar.	Sept.	Mar.
Cash on hand	0.41	0.21	0.29	0.24	0.39	0.31
Advances	6.77	5.46	5.90	7.05	5.95	6.60
Central Government	3.94	1.90	2.35	2.31	1.80	2.13
Local governments	0.19	0.23	0.29	0.24	0.24	0.72
Advances to companies	1.40	1.74	1.92	3.20	2.52	2.42
Other advances	1.24	1.59	1.34	1.30	1.39	1.33
Other assets net ¹	1.26	3.97	6.06	5.30	7.29	6.13
Deposits	8.44	9.64	12.25	12.59	13.63	13.04
Demand deposits	4.43	5.01	5.49	5.98	5.04	5.03
Savings deposits	2.23	2.27	2.47	2.58	2.95	3.09
Time deposits	1.78	2.36	4.29	4.03	5.64	4.92

Source: Republic of Botswana, Central Statistics Office, *Statistical Abstract*.

¹ Represents the difference between deposit liabilities and the known assets, namely, cash on hand and advances.

as well as savings and time deposits (including government deposits) increased substantially in the two years ended September 1968, when they totaled R 13.6 million. The largest increase occurred in time deposits, which rose from R 1.8 million to R 5.6 million. Total deposits declined to R 13.0 million in March 1969, as time deposits were reduced.

In March 1969 credit by the commercial banks totaled R 6.6 million,

or about the same as in September 1966. Credit to the Central Government fell from R 3.9 million in September 1966 to R 2.1 million in March 1969, while credit to companies rose from R 1.4 million to R 2.4 million.

From the figures given above it appears that in recent years only about one half of the banks' deposits has been used to finance credit operations in Botswana. The remainder is presumably transferred to the banks' offices in South Africa for lending in that country. It should be noted, however, that figures of bank credit for Botswana do not include the lending operations made by commercial banks situated in South Africa to customers in Botswana, which reportedly are significant. These are included in the South African banking statistics, and they are not identified separately.

OTHER FINANCIAL INSTITUTIONS

Other financial institutions include the Botswana National Development Bank, the Post Office Savings Bank, the Cooperative Development Trust, and the Cooperative Thrift and Loan Societies.

The National Development Bank (NDB) is a statutory body established on May 1, 1964 (Law No. 13 of 1963 and subsequent amendments), designed to operate on sound business lines with a view to promoting the economic development of Botswana. The operations of the Bank are largely in the form of long-term and medium-term loans, but the Bank, with the approval of the President, may also take up share and loan capital. Furthermore, the Bank may extend short-term credit for the production and marketing of crops, and may act as an agent for the administration of funds of such persons, organizations, or administrations as may be approved by the responsible Minister. Within the framework of general national policies and objectives, the Board of the Bank considers each individual loan application strictly in accordance with its merits.

At the end of 1968 the resources of the Bank, as measured by total liabilities in the Bank's balance sheet, amounted to R 2.3 million; they consisted mainly of capital funds including receipts from the sale of government lands (R 1.2 million), special loans from the U.K. Exchequer (R 0.7 million), grants from the OXFAM Water Supply Development Scheme and the U.K. Freedom from Hunger Fund, and loans from the Post Office Savings Bank and the Botswana Government.

The lending policy of the NDB is designed to meet changes in Botswana's economic needs and priorities, although economic viability remains the basic lending criterion. Emphasis is placed on loans to small

farmers and, as far as possible, loans are issued in kind rather than cash. Since 1965 the interest rate on loans has been 8 per cent per annum. The NDB approved 436 loans for a total of R 556,000 in 1967 and 287 loans in an amount of R 440,000 in 1968. Although the majority of the loans approved has been for agricultural development, the loans to commerce and industry have so far been the largest in size. In 1968 loans for municipal housing became important for the first time (Table 10).

The National Development Plan, 1968-73 calls for increased participation by the NDB in the financing of agriculture, commerce and industry, and housing. The additional financial requirements of the NDB are estimated at some R 5 million for the five years of the Plan. It is envisaged

TABLE 10. BOTSWANA: LOANS APPROVED BY THE NATIONAL DEVELOPMENT BANK, 1966-68

(Amounts in thousands of rand)

	1966		1967		1968	
	Number	Amount	Number	Amount	Number	Amount
Water development	34	95.50	53	96.28	33	86.49
Agricultural development	330	61.19	363	93.27	243	66.01
Cooperatives	—	—	3	23.00	—	—
Commerce and industry	10	211.62	13	324.16	7	139.98
Municipal housing	—	—	—	—	3	143.00
Purchase and improvement of farm lands	1	0.65	4	19.10	1	5.00
Total	375	368.96	436	555.81	287	440.48

Sources: Republic of Botswana, National Bank, *Annual Reports*.

that the additional funds would be devoted to financing by the NDB in the following proportions: 58 per cent for housing, 22 per cent for commerce and industry, 12 per cent for agriculture, and 5 per cent for cooperatives; the remaining 3 per cent would finance seasonal agricultural credit.

The Post Office Savings Bank was established in 1963 for the purpose of providing a local depository for domestic savings. Previously, postal savings could be deposited only with the Post Office Savings Bank of South Africa. The Post Office operates 31 offices in Botswana, all of which provide savings bank facilities. Total deposits with the Savings Bank rose from R 226,000 on March 31, 1965 to R 382,000 on March 31, 1969. The increase reflected mainly transfers of accounts previously held by Botswana residents in South Africa. Prior to 1966 most of the Post Office Savings Bank's funds were redeposited with the commercial banks. Since then, the Post Office Savings Bank has lent R 130,000 to the Government for an electricity project, R 50,00 to the city of Gaborone for water and electricity, and about R 158,000 to the

NDB. On March 31, 1969 some R 63,000 was still held in the form of time deposits with the commercial banks.

INTEREST RATES

The structure of interest rates in Botswana corresponds closely to the rates prevailing in South Africa. The minimum rates of interest charged by the commercial banks on loans to the private sector and overdrafts to the Government are 1.5 per cent above the discount rate of the Reserve Bank of South Africa. In March 1969 interest rates on loans and advances of the commercial banks ranged between 7.5 per cent and 10.5 per cent, and on government loans between 6 per cent and 8 per cent. The interest rates paid by commercial banks and the Post Office Savings Bank on savings deposits were 4.0 per cent and 4.5 per cent, respectively. The first R 50 paid as interest to each individual by the Post Office Savings Bank is free of income tax.

Foreign Trade and Payments

Botswana, forming part of the South African monetary and customs area, does not itself maintain comprehensive statistics for its international transactions. As a member of the South African customs union, Botswana has no separate customs frontier. Furthermore, under the terms of a customs agreement established between the Bechuanaland Protectorate and the Federation of Rhodesia and Nyasaland in 1956, which is still in effect, goods of domestic origin may also move freely between Botswana and Rhodesia, provided that they are not intended for re-export. Figures on merchandise trade are collected indirectly from traders. Although efforts are made to adjust the data for reporting errors, these figures provide, at best, a rough indication of the magnitude of exports and imports. Information on private capital transactions and on monetary movements is difficult to collect because of the free and unrecorded movement of funds within the South African monetary area. With such limitations on the information regarding external transactions, no reliable estimate can at present be made of Botswana's balance of payments. However, work is proceeding both in South Africa and in Botswana to augment and to improve the available data with the object of producing a meaningful estimate in the near future.

FOREIGN TRADE

According to the available estimates, Botswana has a deficit on merchandise trade, the size of which has grown steadily in recent years. In 1964 imports exceeded exports by just over R 6 million, and the deficit rose substantially in 1966 and 1967. In the latter year, with exports of R 8.3 million, the trade deficit totaled R 11.7 million (Table 11). Preliminary information for 1968 indicates a further increase

TABLE 11. BOTSWANA: ESTIMATES OF EXPORTS AND IMPORTS, 1964-68
(In millions of rand)

	1964	1965	1966	1967	1968
Exports					
Cattle (live)	0.64	0.84	0.79	0.41	0.02
Cattle (carcasses)	4.77	5.80	6.91	3.86	5.83
Hides, skins, and trophies	0.58	0.80	0.93	1.75	0.63
Canned meat	0.81	0.75	0.67	0.27	—
Meat extract	0.18	0.43	0.13	1.32	—
Other animal products	0.78	1.00	0.96	0.44	0.50
Other exports	0.63	0.49	0.32	0.23	0.52
Total	8.39	10.11	10.71	8.28	7.50
Imports					
Food and nonalcoholic beverages	...	4.16	6.12	6.42	...
Alcoholic beverages and tobacco	...	0.58	1.24	1.04	...
Livestock and livestock food	...	0.32	0.76	0.34	...
Clothing and textiles	...	2.35	1.25	1.99	...
Building materials	...	2.04	2.00	2.75	...
Machinery and equipment	...	3.41	2.60	2.68	...
Fuels, chemicals, and drugs	...	2.06	2.41	2.91	...
Miscellaneous	...	1.67	2.46	1.85	...
Total	14.50	16.59	18.84	19.98	20.70
Trade deficit	-6.11	-6.48	-8.13	-11.70	-13.20

Sources: Republic of Botswana, Central Statistics Office, *Statistical Abstract, 1968*; Ministry of Development Planning, *National Development Plan, 1968-73*.

in this deficit by about R 1.5 million, as exports declined and imports continued to increase. During the period since 1964 imports have risen at an average annual rate of approximately 9 per cent, although the increase in 1968 was limited to 4 per cent. Exports, on the other hand, rose in 1965 and remained more or less stable in 1966; in 1967 they declined by 23 per cent, to about the same level as in 1964, and fell by a further 10 per cent in 1968.

The composition of Botswana's exports reflects the heavy dependence of the economy on livestock. Over 90 per cent of exports in each year consists of carcass meat and other products deriving from the livestock

sector. In recent years, some 50 per cent of total exports has been in the form of cattle carcasses, with exports of hides and skins and, in certain years, canned meat and meat extract the other important commodities. Exports of live cattle were prohibited in 1968, and these exports officially ceased in that year. The increase of 20 per cent in total exports in 1965 and the continuing high level in 1966 is attributable to the drought in those years, which caused the slaughter and export of an unusually large proportion of the national herd. In 1967, with the return of more normal climatic conditions, slaughterings were reduced to a level lower than usual in order to avoid unnecessarily heavy depletion of the national herd. Apart from livestock products, Botswana exports small quantities of groundnuts and cotton. Prior to 1965, exports of asbestos and manganese amounted together to some R 0.3 million but declined gradually until mining of these products ceased in 1967. During 1968, however, mining of manganese recommenced on a limited scale, and exports in that year amounted to R 215,000.

South Africa is the principal customer for Botswana's exports, in 1967 and 1968 taking approximately one half of Botswana's output of meat and meat products. However, South Africa emerged as Botswana's most important customer only in 1967; before that the bulk of Botswana's beef exports went to the United Kingdom. Botswana's exports provide South Africa with about 10 per cent of its total requirements for these products. All exports to South Africa are in the form of carcasses; sales are organized on a weekly quota system, and the carcasses are sold by auction. A further 20 per cent of Botswana's exports goes to Zambia and Swaziland, also in the form of carcasses; sales to these countries are made on the basis of one-year contracts. The remaining 30 per cent of Botswana's exports goes to the United Kingdom. The existence of stringent entry requirements for carcass beef into the United Kingdom, designed to reduce the risk of foot-and-mouth disease, has resulted in all of Botswana's exports to that country taking the form of prepackaged meat cuts. These exports enter the U.K. market under Commonwealth preference tax arrangements.

Food and nonalcoholic beverages are by far the largest single item among Botswana's imports, comprising roughly 25 per cent of the total in 1965 and 32 per cent in 1966 and 1967, when the drought created a large need for emergency imports of food. Imports of clothing and textiles, building materials, and fuels, chemicals, and drugs comprise other important categories. Machinery and equipment, valued at R 3.4 million in 1965 (20 per cent of total imports), formed the second largest category in that year, when development activities preceding independence were at a high level. In 1966 and 1967, as these activities moderated

somewhat, imports of machinery and equipment declined by some 20 per cent.

OTHER CURRENT TRANSACTIONS

Reliable information about other current external transactions of Botswana is scarce. Botswana appears to be a small net earner of foreign exchange from travel. External payments of interest, profits, and dividends, on the other hand, may be substantial, and on a net basis Botswana has probably incurred a steadily increasing net outflow on this item, as official debt service payments have increased in recent years.

A sizable but largely unrecorded volume of transactions occurs in remittances from foreigners resident in Botswana and Botswana citizens living and working in South Africa. Inward remittances consist in part of transfers out of current earnings by Botswana citizens working in the gold and diamond mines in South Africa; for the most part these take the form of deferred pay transfers, an arrangement under which a certain percentage of mineworkers' earnings are withheld by the mining companies and released in a lump sum when the worker returns to Botswana at the end of his contract. Deferred pay is estimated to amount to about R 1 million a year.

CAPITAL TRANSACTIONS

Information on the inflow of official foreign assistance to Botswana is available only on a financial-year basis. As explained in the section on Government Finance (pp. 144–58), the U.K. Government has been the principal source of foreign assistance. For the past ten years the total amount of assistance from this source is estimated at R 46 million (for details, see Table 4). This total excludes contributions from the Commonwealth Development Corporation and from the OXFAM and Freedom from Hunger Fund. In recent years, other official capital has been provided by the IDA in the form of a loan of \$3.6 million, which has been disbursed over a three-year period. Small amounts have come from the UNDP and from the Swedish and Danish Governments, mainly to finance educational projects.

THE RESTRICTIVE SYSTEM

Botswana's currency is the South African rand, the par value of which is 1.24414 grams of fine gold per rand or R 1 = US\$1.40. Exchange rates are based on South Africa's fixed rates for sterling against rand and the London market rates for sterling against other currencies.

Botswana is regarded as being within the South African monetary area and the sterling area. The Ministry of Finance controls all external currency transactions of Botswana. Imports are usually licensed along the lines of South Africa's import regulations. Transfers of funds to sterling area countries are not referred to the South African exchange control authorities and are normally approved, subject to the conditions that the funds have been generated in Botswana and that the transfer is being made by a bona fide resident. Where the export of funds to a country outside the sterling area is concerned, approval is given in appropriate cases by the Minister of Finance in agreement with the South African Reserve Bank.

Under the Securities Control Regulations of South Africa (as distinct from Exchange Control), residents of Botswana who purchase, sell, or hold South African shares are regarded as nonresidents of South Africa and are thus formally subject to the limitations applicable to all other nonresidents. However, special consideration is given in the application of these limitations to residents of Botswana.

L'économie du Botswana

Résumé

Cet article décrit brièvement les principales caractéristiques de l'économie du Botswana, son évolution économique récente et ses perspectives d'avenir.

Ancien protectorat britannique du Betchouanaland, le Botswana a acquis son indépendance en septembre 1966. C'est un vaste pays aride de l'Afrique méridionale qui compte environ 600.000 habitants et dont l'économie est encore aux premiers stades de développement. Les principales activités économiques sont l'élevage de bétail, qui fournit la principale source de revenu et d'emploi, et l'agriculture de subsistance. Une pénurie chronique d'eau, aggravée par des périodes de sécheresse fréquentes et prolongées, a jusqu'à présent limité sérieusement les possibilités de développement de l'économie. La production alimentaire est insuffisante pour faire face aux besoins intérieurs et pendant la période de sécheresse intense qui a sévi ces dernières années, une grande partie de la population a été tributaire des approvisionnements de secours envoyés de l'extérieur. Les perspectives de développement se sont améliorées grâce à la récente découverte d'intéressantes ressources minières. A l'heure actuelle, on s'efforce surtout de mettre en exploitation les filons de diamants et les gisements de minerai de cuivre-nickel, ce qui demande un montant considérable d'investissements privés pour la mise en place des installations de production, et d'investissements publics pour l'infrastructure de base.

La capacité génératrice de recettes de l'économie, extrêmement limitée, est pour les finances publiques une source de difficultés. Au cours des dernières années, les dépenses du budget de fonctionnement ont augmenté rapidement par suite de la construction de certains ouvrages d'infrastructure et de la création de l'administration d'Etat. Les recettes intérieures ont également augmenté, mais à un taux moins rapide. En conséquence, l'Etat a eu recours aux subventions du Royaume-Uni pour financer son budget de fonctionnement; celles-ci ont atteint l'équivalent de plus de 8 millions de dollars en 1967/68, année où elles ont financé près de 50 pour cent des dépenses courantes. Les dépenses d'équipement ont été en grande partie fonction du montant de ressources fournies par l'étranger. Les dons et prêts consentis par le Royaume-Uni pour financer les budgets de fonctionnement et d'équipement ont représenté en moyenne ces dernières années quelque 12 millions de dollars par an.

Les recettes de l'Etat devraient augmenter avec l'entrée en vigueur de la nouvelle convention d'union douanière conclue avec l'Afrique du Sud

en décembre 1969, mais la situation financière risque de rester difficile dans le futur immédiat. On s'attend à ce que le développement des industries extractives se traduise par un accroissement assez considérable des recettes publiques après 1973; outre l'amélioration de la situation budgétaire, ceci pourra permettre de développer le secteur agro-pastoral qui représente la principale source de revenu et d'emploi pour la plus grande partie de la population.

Le Botswana fait partie de la zone monétaire et douanière sud-africaine et utilise comme monnaie le rand sud-africain. Les capitaux et les marchandises circulent librement à l'intérieur de cette zone et en principe les paiements courants à destination d'autres pays ne sont pratiquement soumis à aucune restriction.

La economía de Botswana

Resumen

En este artículo se presenta una breve descripción de las características principales de la economía de Botswana, y se ofrecen indicaciones sobre la evolución económica reciente y sobre las perspectivas para el futuro cercano.

Botswana, que anteriormente era el Protectorado británico de Bechuanalandia, adquirió la independencia en septiembre de 1966. Es un extenso país árido situado en el sur de Africa y cuenta con una población aproximada de 600.000; su economía se halla aún en las primeras etapas de desarrollo. La numerosa población ganadera proporciona la fuente principal de ingresos y empleo, siendo la agricultura de subsistencia la otra actividad económica principal. La escasez crónica de agua, junto con frecuentes y extensos períodos de sequía, ha representado hasta ahora una grave limitación a la capacidad de crecimiento de la economía. La producción de alimentos es insuficiente para satisfacer las necesidades internas, y durante las graves sequías de los últimos años, una parte considerable de la población ha tenido que depender de suministros de emergencia de alimentos procedentes de fuentes externas. Las perspectivas del crecimiento económico han mejorado con el descubrimiento reciente de depósitos minerales prometedores. En la actualidad, están concentrándose los esfuerzos en el aprovechamiento de los depósitos de diamantes y cupro-níquel, efectuándose considerables inversiones

privadas en las instalaciones de producción e inversiones públicas en la infraestructura básica.

La limitada capacidad de la economía para generar ingresos está imponiendo serias limitaciones a la Hacienda pública. En los últimos años han aumentado con rapidez los gastos presupuestarios corrientes, después de la construcción de la infraestructura primaria y de la creación de la administración gubernamental. Las rentas públicas internas también han venido aumentando, aunque a menor ritmo. Por consiguiente, el Gobierno ha estado dependiendo de las subvenciones del Reino Unido para financiar el presupuesto ordinario; dichas subvenciones aumentaron al equivalente de más de US\$8 millones en 1967/68, cuando financiaron casi el 50 por ciento del gasto ordinario. El gasto para el desarrollo ha venido determinado en su mayor parte por la cifra de recursos disponibles del exterior. En los últimos años, las subvenciones y préstamos del Reino Unido para el presupuesto ordinario y para el de capital han venido representando en promedio unos US\$12 millones anuales.

Aunque se espera que las rentas públicas aumenten como resultado del nuevo Acuerdo de Unión Aduanera con Sudáfrica, firmado en diciembre de 1969, lo probable es que la situación financiera del Gobierno siga siendo difícil en el futuro inmediato. Se espera que el aprovechamiento de la minería resulte en un aumento cuantioso de las rentas públicas a partir de 1973; esto, además de mejorar la situación presupuestaria, podría ayudar a desarrollar el sector agropecuario, que constituye la fuente principal de ingresos y de empleo para la gran mayoría de la población.

Botswana es miembro del área monetaria y aduanera de Sudáfrica y utiliza como moneda el rand sudafricano. Es libre el movimiento de fondos y de bienes dentro del área monetaria de Sudáfrica, y no se aplica prácticamente ninguna restricción a los pagos corrientes hacia otros países.

East-West Trade and Payments Relations

R. J. Familton *

THERE ARE INDICATIONS that a stage has been reached in East-West trade and payments relations¹ when their development might be expected to accelerate. During the 1960's most of the Eastern European countries began to implement economic reforms, and, despite difficulties and setbacks, on the whole the movements in this direction have continued to gather momentum. The reforms were introduced and have taken shape in response to broadly similar problems and have exhibited certain common features, such as increasing decentralization of economic decision making, a greater readiness to use prices as a basis for economic decisions, and, to some extent, the reinstatement of what is in effect a modified "profit motive." A continuation of these tendencies seems likely to facilitate rather than to impede more extensive East-West economic relationships. At the same time some countries, both developed and developing, have a growing interest in the potentially large markets in the Eastern countries. In view of these trends, a selective survey of East-West trade and payments relations in recent years is of some interest; this is what the present paper provides. It also examines the role of bilateralism in East-West trade and, in particular, how some countries are able to trade with Eastern European countries without entering into bilateral trade and payments agreements and discusses

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¹ "East-West" is a convenient expression with a generally understood meaning that is, however, not geographical and therefore gives rise to difficulties in classifying and describing countries and territories and in arranging material. In this paper, Bulgaria, Czechoslovakia, Eastern Germany, Hungary, Poland, Rumania, and the U.S.S.R. are described as "CMEA countries." With Mongolia they comprise the active membership of the Council for Mutual Economic Assistance (CMEA); Albania is also a member but has not attended meetings since 1960. Unless indicated otherwise, the term "CMEA countries" excludes Albania and Mongolia. The paper generally excludes Cuba, mainland China, North Korea, and North Viet-Nam. But where the phrase "mainland China, etc." is employed, it covers Mongolia, North Korea, and North Viet-Nam in addition to mainland China. "West," where used in the paper, is arbitrarily defined as comprising Fund member countries and Switzerland. Where industrialized, or developed, areas and less developed areas are referred to, they conform to the classification in the Fund publication, *International Financial Statistics*, unless indicated otherwise.

the question whether their experience furnishes guidance for other countries.

There is an extensive literature on East-West trade. In this respect particular reference should be made to studies prepared by the Economic Commission for Europe (ECE). Problems that arise in trade relations between countries having different economic and social systems are also under study in the United Nations Conference on Trade and Development (UNCTAD). As much as possible, this paper seeks to avoid unnecessary duplication of information readily available elsewhere but, where it seems appropriate to illustrate a point, the author has not hesitated to quote from documents prepared by persons with expertise in this subject.

I. A Brief Factual Background

A variety of other than economic factors has affected the growth, composition, and direction of the CMEA countries' trade with each other and with the rest of the world. Historical, political, and cultural influences, geographical location, and transport and communications have each played a significant part, although in a manner and to an extent that cannot be assessed quantitatively. Thus, some CMEA countries comprise the traditional and most accessible markets (in terms of transport facilities) for particular exports of certain other countries. Afghanistan affords one example of such a country: one third of Afghanistan's total exports and over four fifths of its exports of cotton are to the U.S.S.R. Other examples are afforded by Greece and Finland, which export about 18 per cent of their total exports to CMEA countries but considerably higher proportions for certain of their export commodities—citrus fruit from Greece and machinery and transport equipment from Finland.

In this paper the data in tables in the text and in the Appendix, which also include information about bilateral trade and bilateral payments agreements with the CMEA countries, are generally for 1960 and 1966. While this period is relevant for most purposes of the paper, the data do not fully bring out some aspects of the CMEA countries' trade that are significant in any consideration of longer-run trends; to appreciate some changes that have occurred in the post-war period, longer-run comparisons with prewar years are helpful (see Table 12 in the Appendix). Thus, a comparison of prewar and postwar years indicates that exports of foodstuffs and raw materials now comprise a smaller proportion of the CMEA countries' total exports, while exports of

industrial and manufactured goods comprise a considerably larger one. On the import side an opposite relative shift has occurred. The CMEA countries, especially the U.S.S.R., are not only periodically major markets for such foodstuffs as wheat but also regular importers of substantial and, as Table 4 indicates, growing quantities of beverages and tobacco as well as some other primary products.

Over the period 1960–66 the foreign trade of the CMEA countries grew at about the same annual rate, approximately 8 per cent, as the trade of the rest of the world (see Table 1). Consequently, their share

TABLE 1. CMEA COUNTRIES: PATTERN OF TRADE, 1960 AND 1966

(Value in billions of U.S. dollars)

Area	1960 Value	1966 Value	1960–66
			Annual Compound Percentage Rate of Increase
CMEA countries ¹			
Imports	13.4	20.6	7.4
Exports (f.o.b.)	13.2	21.1	8.1
Total	26.6	41.7	7.7
Rest of the world ²			
Imports (c.i.f.)	119.4	192.1	8.2
Exports (f.o.b.)	113.1	180.7	8.1
Total	232.5	372.8	8.1
World total ²			
Imports	132.8	212.7	8.1
Exports (f.o.b.)	126.3	201.8	8.1
Total	259.1	414.5	8.1

Source: United Nations, Statistical Office, *Monthly Bulletin of Statistics*, May 1968.

¹ Imports of the CMEA countries except Hungary are valued f.o.b.

² Excluding Albania, mainland China, Mongolia, North Korea, and North Vietnam.

in total world trade did not alter appreciably: in 1966 their exports were equivalent to just over 10 per cent of world exports and their imports to a fraction under 10 per cent. However, since 1960 the geographical distribution of their trade has altered. Trade within the CMEA group has grown approximately at the same rate as the group's total trade, and consequently the share of intra-CMEA trade has remained more or less unchanged at slightly over 60 per cent (see Table 2). However, the trade of CMEA countries with mainland China, etc., underwent a sharp absolute contraction, and its percentage share in the total trade of CMEA countries dropped from about 11 per cent to about 3–4 per

TABLE 2. CMEA COUNTRIES¹: TRADE BY REGIONS, 1960-66

(In billions of U.S. dollars)

	Year	CMEA Countries	Mainland China, etc.	Rest of the World			Total ²
				Total ²	Developed areas	Developing areas	
Exports (f.o.b.)							
Value	1960	8.1	1.4	3.4	2.5	0.8	13.0
	1966	12.6	0.8	7.2	4.9	2.3	20.9
Per cent	1960	62	11	26	19	6	100
	1966	60	4	34	23	11	100
Rate of increase ³		7.6	-8.9	13.3	11.9	19.2	8.2
Imports (f.o.b.)							
Value	1960	8.1	1.4	3.4	2.5	0.9	12.9
	1966	12.6	0.5	6.6	4.7	1.9	19.7
Per cent	1960	63	11	26	19	7	100
	1966	64	3	33	24	10	100
Rate of increase ³		7.6	-15.8	11.7	11.1	13.2	7.4
Trade balance							
	1960	—	—	-0.1	—	-0.1	0.1
	1966	—	0.3	0.5	0.1	0.4	1.2

Sources: United Nations, Statistical Office, *Monthly Bulletin of Statistics*, March 1966 and March 1968.¹ Including Albania. Trade between the Federal Republic of Germany and Eastern Germany is excluded.² Components may not add to totals owing to imperfect coverage of data and also to rounding.³ Annual compound percentage rate of increase of trade value between 1960 and 1966.

cent; at the same time the CMEA countries' trade with the rest of the world grew somewhat faster than their total trade and the rest of the world's share rose from about one fourth to about one third of their total trade. Within this group, sharp gains were posted in the trade with developing countries, as imports from them more than doubled and exports to them nearly tripled in the six-year period. This substantial relative expansion is partly attributable to the comparatively small absolute level of trade between the CMEA countries and developing countries in 1960. In that year the developing countries supplied 7 per cent of the CMEA countries' imports and took about 6 per cent of their exports. By 1966 these proportions had grown to 10 per cent and 11 per cent, respectively; in the same year, developing countries were supplying 22 per cent of the imports of the developed areas and were taking 21 per cent of their exports.

As regards the commodity composition of the CMEA countries' foreign trade with countries outside that group (see Table 3 and Tables 13–16, in the Appendix), the growth of exports of industrial goods was appreciably faster than that of foodstuffs and raw materials and their proportion in total exports of CMEA countries rose from 43 per cent in 1960 to 51 per cent in 1966. This faster growth of industrial exports was attributable almost entirely to the shift in the composition of exports to developed areas as the relative proportions of foodstuffs plus raw materials and of industrial goods in the exports to developing countries remained unchanged. On the import side, the relative shares of industrial goods and of foodstuffs plus raw materials in total imports of CMEA countries changed only marginally in favor of the latter. However, the share of industrial goods in the imports from developing countries rose from 7 per cent in 1960 to 13 per cent in 1966, while in the imports from developed countries it dropped from 71 per cent to 69 per cent in the same period. Growth in CMEA countries' imports of some important primary commodities is brought out in Table 4. The share of their imports in total world imports of all primary products included in that table, with the exception of wool, increased in the period 1960–65. Nevertheless, for commodities such as coffee, tea, and jute, their share continued to be relatively small.

Available data on some Fund member countries' total exports and imports and the proportions of each accounted for by trade with the CMEA countries are set out in Table 19, in the Appendix. The data relate to 110 countries. As the summary in Table 5 indicates, for well over half this number trade with the CMEA countries accounted for a small proportion of their total trade in 1966.

There were 14 countries whose exports to the CMEA countries were equivalent to 10 per cent or more of their total exports in 1966: Afghan-

TABLE 3. CMEA COUNTRIES: COMMODITY STRUCTURE OF TRADE WITH THE REST OF THE WORLD, 1960 AND 1966 ¹

Standard International Trade Classification	Value			Proportion by Commodity Group		
	Developed areas	Developing areas	Total	Developed areas	Developing areas	Total
	<i>Million U.S. dollars</i>			<i>Per cent</i>		
Exports						
0-4 (Foodstuffs and raw materials)						
1960	1,670	230	1,900	66	28	57
1966	2,800	620	3,420	59	28	49
Rate of increase ²	9.0	18.0	10.3			
5-8 (Industrial goods)						
1960	845	602	1,447	34	72	43
1966	1,970	1,635	3,605	41	72	51
Rate of increase ²	15.2	18.1	16.4			
Imports						
0-4 (Foodstuffs and raw materials)						
1960	719	885	1,604	29	93	46
1966	1,442	1,658	3,100	31	87	47
Rate of increase ²	12.3	11.0	11.6			
5-8 (Industrial goods)						
1960	1,780	65	1,845	71	7	54
1966	3,200	239	3,439	69	13	53
Rate of increase ²	10.3	24.3	10.9			

Sources: Tables 13 and 15, in the Appendix.

¹ Excluding mainland China, etc.² Annual compound percentage rate of increase from 1960 to 1966.

TABLE 4. CMEA COUNTRIES: IMPORTS OF CERTAIN PRIMARY PRODUCTS, 1960 AND 1965

Product	Year	Total World Imports (A)	Imports by CMEA Countries (B)	CMEA Imports as Percentage of Total (B/A)
<i>Thousand tons</i>				
Cocoa	1960	889	101	11
	1965	1,231	160	13
Coffee	1960	2,590	58	2
	1965	2,855	106	4
Cotton	1960	3,843	675	18
	1965	3,729	712	19
Cereals	1960	6,272	803	13
	1965	10,098	1,450	14
Jute	1960	891	67	8
	1965	1,003	82	8
Rubber, natural	1960	2,473	335	13
	1965	2,466	426	17
Tea	1960	554	29	5
	1965	630	48	8
Tobacco	1960	786	133	17
	1965	938	170 ¹	18
<i>Million U.S. dollars</i>				
Wool	1960	1,890	267	14
	1965	1,956	234 ²	12

Source: Compiled from Food and Agriculture Organization (FAO), *Trade Yearbook*, 1966. The data include FAO estimates.

¹ Excludes Rumania.

² Excludes Bulgaria.

TABLE 5. FUND MEMBER COUNTRIES: PROPORTIONS OF TRADE WITH THE CMEA COUNTRIES, 1966

Proportion of Total Exports to and Imports from CMEA Countries	Number of Fund Member Countries that Were	
	Exporters	Importers
25 per cent and above	3	1
20 per cent but less than 25 per cent	2	2
15 per cent but less than 20 per cent	5	1
10 per cent but less than 15 per cent	4	7
5 per cent but less than 10 per cent	6	14
Less than 5 per cent	60	51
Data not available	30	34
Total	110	110

Source: Table 19, in the Appendix.

istan, Austria, Cyprus, Finland, Ghana, Greece, Iceland, India, Morocco, Sudan, the Syrian Arab Republic, Turkey, the United Arab Republic, and Yugoslavia. All these countries maintained bilateral trade and payments agreements with some or all of the CMEA countries. Among the countries in the "less than 5 per cent" group are all the industrialized countries as well as numerous developing countries. For many countries in both these categories the proportion of total exports that went to the CMEA countries was less than 1.0 per cent. Such a small proportion raises two obvious questions: what factors limit the value of trade with the CMEA countries? Would efforts to secure a larger proportion improve a country's total exports and foreign trade position? These, of course, are important questions, and they are considered below.

II. CMEA Countries' Trade Policies and Arrangements ²

THE ORGANIZATION OF FOREIGN TRADE AND ITS RELATION TO ECONOMIC PLANS

It is not possible to encompass all the features of each of the CMEA countries' foreign trade and payments arrangements in a paper such as this, and the following section presents a selective survey of them.

A basic feature of the CMEA countries' foreign trade is that it is an integral part of their national plans and is subject to centralized coordination and control. In the U.S.S.R., for example, the coordination and control of economic planning and its implementation is undertaken by the Supreme Economic Council, which is responsible to the Council of Ministers and coordinates the work of the various state committees including the All-Union Gosplan. Gosplan is the main planning organization and as such is concerned with wholesale and retail distribution, foreign trade and exchange, wholesale and retail prices, and the coordination of the U.S.S.R.'s economic plan with the plans of the other CMEA countries.

The foreign trade plan, which embraces imports and exports for the plan period, is designed to attain a long-term balance on goods and services account. It is drawn up by the Ministry of Foreign Trade on the basis of short-term plans prepared by the foreign trade organizations and the Gosbank and submitted to the Gosplan. In drawing up their import plans, the organizations take account of orders received from

² This section does not deal in detail with the arrangements governing trade and settlements among the Eastern European countries or with compensation arrangements.

factories and distributive organizations, the national plans for production, investment, and consumption, conditions in foreign markets, and bilateral agreements. The import requirements, couched in physical terms and geared to the national plan, are the basic determinant of exports. The export plans are based on the volume and foreign value needed to balance imports; they also take into account obligations under bilateral and barter agreements. The final trade plan, as approved by Gosplan, allows for some degree of flexibility in its implementation in response to changing needs and subsequent policy adjustments.

The Ministry of Foreign Trade is also the central administrative agency in the trade field; in addition to preparing over-all foreign trade plans, it supervises the activity of trade missions abroad and is responsible for negotiating and for supervising the implementation of trade treaties as well as payments and other foreign economic agreements. It controls the quality of exports and imports, deals with currency, tariff, and transport questions, and issues import and export licenses. In the U.S.S.R., the Ministries of the Merchant Marine and of Internal Trade, in addition to the Ministry of Foreign Trade, are concerned with trade matters, and a State Committee for Foreign Economic Relations was established to handle the export of equipment for complete factories; this Committee also supervises the activity of some foreign trade organizations.

Detailed implementation of the foreign trade plan is left to special foreign trade organizations under the control of the Ministry of Foreign Trade. The organizations generally act as juridically independent intermediaries between domestic agencies and enterprises and foreign firms. On the export side they submit requests for exportable goods to Regional Economic Councils or other appropriate agencies; on the import side they function as purchasing agents of domestic enterprises, which submit import requisitions after having received the necessary authorization. As a rule they are established to handle specific commodities or services and do not compete among themselves. In the U.S.S.R. there are 32 such organizations, each headed by a chairman assisted by several deputies who are in charge of operational offices that handle the lists of commodities or equipment for which the organization is responsible.³ Another form of trade organization is the establishment abroad of a corporation to act as an agent for the foreign trade organizations, for example, the Amtorg Trading Corporation set up by the U.S.S.R. in New York. Yet another is the establishment of a company abroad in association with foreign firms, for example, the Russian Wood Agency

³ For example, "Avtoexport" exports and imports automobiles, trucks, buses, motorcycles, motor scooters, bicycles and mopeds, spare parts, and garage equipment.

in which V/O "Exportles" and a U.K. firm participate; the agency handles the sale of U.S.S.R. timber to the U.K. market.

Trade missions are integral parts of the diplomatic representation of the CMEA countries and in addition to trade promotion activities are responsible for trade operations in the host country, including the preparation of contracts and the issuance of certificates of origin and of transit permits. Many of the foreign trade organizations also have their own foreign distributors. The national chambers of commerce of the CMEA countries are primarily interested in foreign rather than domestic trade and provide another avenue for trade contacts. However, some have established joint chambers of commerce with their counterparts in other countries, and representatives of the Chambers of Commerce in Bulgaria, Czechoslovakia, and Hungary have cooperated with Chamber of Commerce leaders from other countries in efforts to settle various technical trade questions, such as the definition of trade terminology and the arbitration of contract disputes.

A useful discussion of the impact on the planning, organization, and operation of foreign trade of economic reforms being initiated in the CMEA countries is contained in an UNCTAD secretariat report on trade relations among countries having different economic and social systems.⁴ The measures taken have led to some decentralization in decision making, greater scope for producing enterprises to participate directly in foreign trade, and an increase in the number of enterprises and agencies operating in foreign markets. In some CMEA countries the central authorities have moved away from detailed foreign trade planning and are leaving it to enterprises to operate freely within over-all export targets or import quotas. In Hungary, for instance, there is some experimentation with the discontinuation of the separation of enterprise operations into those in national and foreign markets in favor of the incorporation of export earnings and import costs into the over-all accounts of the enterprise. As a part of the trend to loosen the foreign trade operations, in some countries authorization to engage in foreign trade is increasingly being given to industrial and agricultural enterprises, cooperatives, retail trade firms, research organizations, and design bureaus. In 1968 the number of such enterprises more than doubled in Hungary and tripled in Czechoslovakia. Even in those countries where foreign trade organizations are still mainly responsible for foreign trade operations, exporting industries are increasingly being given a greater role in decisions concerning their foreign trade operations.

⁴ See United Nations Conference on Trade and Development (UNCTAD), *Trade Relations Among Countries Having Different Economic and Social Systems*, TD/B/251, August 26, 1969.

TRADE POLICIES

The first point to be made about the CMEA countries' policies on trade with countries outside their group is that the policies are not uniform, rigid, or static; they have been particularly in flux in recent years, partly as a consequence of the general trend toward a reform of economic institutions as well as operating principles and practices. Compared with the prewar years, one of the main changes in the trade policy and practices of the CMEA countries has been the shift from buying commodities on international markets to purchasing directly from producing countries. The process has been gradual and, it has been argued,⁵ did not yield significant economic gains as long as the producing countries required payment for their exports in convertible currencies. However, the inclusion of such purchases within the framework of bilateral payments agreements enabled the CMEA countries gradually to link their purchases with payment in kind, i.e., to deliveries of manufactured goods.

The preference of CMEA countries for bilateral trade based on agreements that may or may not contain bilateral payments provisions reflects several factors directly related to their systems of economic planning and management, but it is also probably attributable to the constraint imposed by their earnings and holdings of convertible currencies.⁶ The preference may be illustrated by the fact that at the end of 1967 the 7 CMEA countries maintained 184 bilateral trade and payments agreements with 42 Fund member countries; they were also parties to more than 200 trade agreements with Fund members. The first of the factors underlying the reliance of CMEA countries on bilateralism is that, although some flexibility has been introduced into the CMEA countries' foreign trade with the recent changes in economic management, foreign

⁵ Jean Royer, "Trade between Planned Economies and the Developing World," *Journal of World Trade Law*, Vol. 1 (1967), p. 494.

⁶ The CMEA countries do not publish their reserve figures. At the end of 1969, U.K. liabilities to Eastern Europe were £38 million (£39 million a year earlier); U.K. claims on Eastern Europe were £234 million in 1969 and £187 million in 1968 (see Bank of England, *Quarterly Bulletin*, March 1970, p. 105). Short-term liabilities to foreigners reported by banks in the United States in respect of the U.S.S.R. and other Eastern European countries amounted to \$53 million at the end of 1968 and to \$61 million at the end of 1969 (see the *Federal Reserve Bulletin*, March 1970, p. A 79). For some additional information, see Donald V. Petroni, "Doing Business in Eastern European Countries," Hearings Before the Subcommittee on International Finance of the Committee on Banking and Currency on Senate Joint Resolution 169 (90th Congress, 2nd Session, 1968), pp. 1046-1111. Euro-dollar liabilities and assets of the residents of Eastern Europe vis-à-vis European banks reporting to the Bank for International Settlements (BIS) were \$700 million and \$400 million, respectively, at the end of 1966; the net use of Euro-dollar funds of \$300 million compared with \$200 million at the end of 1965. (See BIS, *Thirty-Ninth Annual Report*, June 9, 1969, p. 149.)

trade remains an integral part of their national economic plans and is subject to centralized coordination and control. The reasons for central control—in addition to political considerations—are primarily to ensure that the minimum amounts of imports needed for the “material balance” are made, and that sufficient exports are made to balance imports. Bilateral trading is considered to reduce uncertainty about achieving the “material balance” and about attaining the import and export aims. A related reason is that state control allows the authorities to adjust relatively quickly the composition, geographical distribution, and total of imports to changing circumstances.

In recent years the CMEA countries in varying degrees have introduced measures designed to increase their participation in international trade and to improve their capacity to export for payment in convertible currencies. To some extent these efforts are a part of the over-all economic reform programs designed to raise productive efficiency and to make production more responsive to the requirements of the final buyer, whether domestic or foreign. They are also partly related to the dissatisfaction of some CMEA countries with the operation and results of intra-CMEA trade. The export promotion efforts have taken several forms. According to UNCTAD,

30. The U.S.S.R. has been giving special attention to some export-oriented industries, especially in respect of quality controls and after-sales servicing. Branch “export councils” consisting of production and foreign trade managers were created with a view to ensuring continuous contact in export matters. Also, deputy ministers for exports were appointed for some industries heavily involved in foreign trade.

31. In Poland, enterprises producing goods for export have obtained special facilities and priorities in respect of materials allocation, investment credit, foreign exchange apportionment, easing of the wage fund and employment regulations.

32. Czechoslovakia has been experimenting with competitive bidding for the allocation of foreign exchange to projects promising the greatest and quickest return, and more particularly, to those which were to increase export earnings. . . .

40. In one way or another, bonuses for export performance are being applied. In some cases the sharing in the export earnings [by enterprises concerned] has been the best incentive. In the U.S.S.R. foreign exchange premia are being given to producers for extra-plan exports. Fifty per cent of the foreign exchange return from exports of licenses and know-how may be retained in order to be used for imports of technology by the institution concerned and the supervising ministry.

41. Polish producers can benefit from the betterment of foreign trade results by outperforming the average index of export profitability.

42. In Eastern Germany, an enterprise which exceeds its export target acquires a claim to foreign currency for additional imports of goods or services or to conversion into national currency at a premium rate. Also, Eastern Germany has been trying to link together the import interests and export performance of enterprises which are engaged on both sides of foreign trade. In cases where imports cannot be curtailed because of binding inter-

national commitments, the enterprise incurs a debt in the so-called "Valuta Mark" and pays interest on it.⁷

The export promotion efforts have also meant a greater readiness to trade on a multilateral basis and, for several CMEA countries, to participate actively in UNCTAD and in the General Agreement on Tariffs and Trade (GATT). Czechoslovakia is an original contracting party to the GATT, while Poland acceded to the General Agreement in 1967. Rumania and Hungary have applied for GATT membership, and Bulgaria has observer status.

CUSTOMS TARIFFS

In the past, tariffs have not been used as instruments for providing protection to domestic industry in the CMEA countries but have been important in their external trade, insofar as they tend to influence the importing organizations' choice of foreign suppliers. The CMEA countries are critical of what they consider to be discriminatory treatment against them, especially by the European Economic Community (EEC) and the European Free Trade Association (EFTA), and the U.S.S.R. argues that the countries with which it has trade agreements that include the most-favored-nation (MFN) clause violate the agreements when they participate in free trade arrangements and do not extend the same advantages to the U.S.S.R. Accordingly, the U.S.S.R. administers its double-column tariff to make the higher rate applicable to imports from those countries that it considers do not grant it MFN treatment. The report of the GATT Working Party established to examine Poland's application to accede to the General Agreement noted that "the Foreign Trade Plan rather than the customs tariff was the effective instrument of Poland's commercial policy."⁸ The Working Party agreed that Poland's main concession in the negotiations for its accession would be commitments relating to an annual increase in the value of its imports from contracting parties. In the Protocol for Poland's accession to the GATT, provision accordingly was made for an annual consultation with the CONTRACTING PARTIES "with a view to reaching agreement on Polish targets for imports from the territories of the contracting parties as a whole in the following year."⁹

⁷ UNCTAD, *Trade Relations Among Countries Having Different Economic and Social Systems* (cited in footnote 4), pp. 8-10.

⁸ GATT, *Basic Instruments and Selected Documents*, Fifteenth Supplement (Geneva, April 1968), p. 110.

⁹ See *ibid.*, pp. 46-52, especially p. 49. With respect to the provisions of paragraph 6 of Article XV of the General Agreement, Poland reserved its position but undertook that, "so long as Poland is not a member of the International Monetary Fund, it will act in exchange matters in accordance with the intent of the General Agreement and in a manner fully consistent with the principles laid

However, the reorientation in recent years in the CMEA countries with respect to economic policy tools has involved tariffs, too. A dual customs tariff was introduced by Hungary in 1961 and was designed both to help establish a more realistic relationship between domestic wholesale prices and foreign trade prices and to enable Hungary to retaliate against discriminatory duties imposed on Hungarian goods.¹⁰ As part of the economic reform, a three-column tariff has entered into force comprising preferential duties (payable on products of developing countries under international agreements), MFN duties, and maximum duties. The latter are applicable to countries that discriminate against Hungary. The ad valorem MFN duties range from 0-5 per cent (raw materials) to 10-50 per cent (finished goods). Czechoslovakia is also modernizing its customs tariff so that it may become an element in determining import costs and, as such, influence economic decisions governing the choice between producing domestically and buying abroad.

THE EXCHANGE AND PAYMENTS SYSTEM AND EXTERNAL ASSISTANCE

Exchange rates and payments

As already noted, the Eastern European countries conduct their foreign trade within the framework of bilateral agreements and the volume is strictly controlled; with few exceptions it is not influenced directly, especially in the shorter run, by changes in the level of their domestic prices. Moreover, as it is conducted on the basis of world market prices denominated in convertible currencies, official exchange rates are not as important in determining the volume and composition of trade flows as they are in market economy countries. These rates, together with rates applicable to certain transactions such as tourist expenditures in the individual countries or remittances to support resident nationals, are set out in Table 6.¹¹

down in the text of the special exchange agreement as adopted by the CONTRACTING PARTIES in their Resolution of 20 June 1949" (*ibid.*, p. 50).

Paragraph 6 referred to above states, *inter alia*, "Any contracting party which is not a member of the Fund shall, within a time to be determined by the CONTRACTING PARTIES after consultation with the Fund, become a member of the Fund, or, failing that, enter into a special exchange agreement with the CONTRACTING PARTIES." See GATT, *Basic Instruments and Selected Documents*, Vol. I (Geneva, May 1952), pp. 38-39.

¹⁰ B. Csikos-Nagy, "The New Hungarian Tariff System," *International Trade Centre UNCTAD/GATT, International Trade Forum*, Vol. IV (1968), pp. 8-10.

¹¹ For detailed analytical discussions of the role of exchange rates in the CMEA countries, see Franklyn D. Holzman, "The Operation of Some Traditional Adjustment Mechanisms in the Foreign Trade of Centrally Planned Economies," *Economies et Sociétés*, Vol. II (1968), pp. 407-44, and "The Ruble Exchange Rate and Soviet Foreign Trade Pricing Policies, 1929-1961," *The American Economic Review*, Vol. LVIII (September 1968), pp. 803-25.

Transactions with most Western European and other countries with which bilateral payments agreements are not maintained are settled mainly by cash payments in convertible currencies, usually sterling or U.S. dollars, although other methods may also be used, i.e., credit or parallel trade and/or switch deals.¹² In the area of cash settlements, the London-based Moscow Narodny Bank and the Paris-based Banque

TABLE 6. CMEA COUNTRIES: EXCHANGE RATES OF CURRENCIES

(March 1970)

Country	Monetary Unit	Gold Content per Monetary Unit (in grams)	National Currency per U.S. Dollar	
			Basic rate	Tourist rates in convertible currency area ¹
Bulgaria	Lev	0.759548	1.17	2.00
Czechoslovakia	Koruna	0.123426	7.20	14.36–16.20
Germany, Eastern	Mark	0.399902	2.22	4.20 ²
Hungary	Forint	0.075758	11.74	30.00
Poland	Zloty	0.222168	4.00	24.00–40.00
Rumania	Leu	0.148112	6.00	12.00–18.00
U.S.S.R.	Ruble	0.987412	0.90	0.90

¹ These rates also apply to the exchange by nonresidents of convertible currencies for support payments to residents and for diplomatic expenditures in the country.

² Valuta-mark.

¹² On occasion gold may be sold to acquire convertible currencies. The following extract from an article by Vladimir Alkhimov, Deputy Minister of Foreign Trade of the U.S.S.R., indicates the objectives behind U.S.S.R. use of gold: "Let us also note that, for a number of reasons, gold sometimes plays a major part in payments relations between the Soviet Union and the industrial capitalist countries. First, the instability of outlook on the capitalist market, with its ups and downs in prices, may in some periods alter the volume of sales of Soviet goods earmarked for the payment of import goods which the Soviet economy requires. In such cases, there is usually an effort to substitute one export item for another or to sell gold which for the USSR, a major gold producer, is also a commodity. Second, the expediency of gold sales may depend on the advantages offered by the world market outlook, when it may be necessary to economize on foreign exchange by making urgent purchases of large consignments of goods at favorable prices. Third, the USSR, being a major gold producer, may sell gold to increase imports in order to overcome some disproportion in the national economy caused by unforeseen circumstances (crop failure, external factors, etc.)."

"The result of long-term and current planning of its balances of trade and payments is that the Soviet Union makes minimum use of gold as a universal means of payment to equalize its balance of payments. At the same time, gold may often be used in trade between the USSR and other countries as a universal purchasing means—hence the importance of the gold stock as a reserve fund of world currency in trade with foreign states." (See "International Payments of the U.S.S.R.," *The American Review of East-West Trade*, Vol. I, October 1968, pp. 39–40.)

Commerciale pour l'Europe du Nord play major roles. In October 1966 a new U.S.S.R. bank, Wozchad Handelsbank, was opened in Zürich. Both the London and Paris banks specialize in the financing of East-West trade. Judging from the trade data contained in Table 2, it would seem that approximately two thirds of the CMEA countries' total trade with other countries outside that group is conducted on the basis of convertible currencies and about one third within the framework of bilateral payments arrangements. Of that third, the trade of Austria, Finland, Greece, India, the United Arab Republic, and Yugoslavia accounts for the major share. To the extent that transactions between the CMEA countries and other countries are not bilaterally balanced over a given period, the settlement of balances in excess of swing limits may entail either deliveries of goods or the payment of convertible currency. In the absence of complete data on the CMEA countries' holdings of gold and foreign exchange, and on their balance of payments situations, it is not possible to judge whether they hold adequate reserves and are accumulating or losing reserves. However, the periodic sales of gold by the U.S.S.R., the package deals involving the provision of credit by Western European countries, special credit arrangements, and the recourse to special compensation arrangements strongly suggest that the CMEA countries, or some of them, are under periodic reserve pressure.

The problems arising from the accumulation of bilateral clearing balances have sometimes been mitigated through switch deals and through multilateral compensation procedures. Thus, the partner countries may agree to permit the creditor to utilize the balance to make payments for deliveries from a third country or to transfer the balance to its clearing account with a third country. Bilateral balances may sometimes be turned into convertible currency through a switching operation after deduction of a certain discount. Most of the CMEA countries have also on occasion participated in the multilateral compensation procedures organized under the auspices of the ECE. These procedures began in July 1957 and up until April 1968, 91 compensation circuits, comprising 348 links, with a total value equivalent to \$134.2 million, had been arranged.¹³ Other countries that have participated are Argentina, Austria, Brazil, Cuba, Denmark, Finland, France, Ghana, Greece, Iceland, Israel, Mali, Morocco, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, the Syrian Arab Republic, Tunisia, Turkey, the United Arab Republic, Uruguay, and Yugoslavia.

¹³ See United Nations, Economic Commission for Europe, *Agent's Eleventh Annual Report on the Operation of the Multilateral Compensation Procedures Organized Under the Auspices of the United Nations Economic Commission for Europe (ECE)*, E/ECE/712, July 31, 1968. The names of countries participating in each circuit are kept confidential.

The administration of control over foreign exchange transactions

In the CMEA countries all foreign exchange transactions are controlled by the State Banks (and in some instances also by the Foreign Trade Banks and the state-owned commercial banks). The management of foreign exchange holdings from the establishment of foreign exchange budgets to decisions on the distribution of exchange balances among various currencies and depositories involves close cooperation between the State Banks and the Ministries of Finance.

Resident nationals of the CMEA countries may receive foreign exchange remittances for their support or as payment for services (such as royalties), but in most countries they must convert them to the national currency or spend the foreign exchange in special stores.¹⁴

With the growth of travel among the CMEA countries and the greater contact of their nationals with other countries, the rules governing currency exchanges have gradually been relaxed, and the facilities for such exchanges have been expanded. However, the export and import of currency is prohibited in order to prevent the development of black markets in the banknotes of the countries.

Funds for travel to other CMEA countries are usually provided in the form of travelers checks denominated in the currency of the country the tourist plans to visit. These checks were introduced in 1955 and are issued by each State Bank for sale by all the other State Banks. For example, U.S.S.R. tourists going to Rumania pay rubles to the State Bank of the U.S.S.R. for the purchase of travelers checks issued in lei by the State Bank of Rumania.

In most countries foreigners may open two kinds of account in foreign currencies: one (called "Account A" in the U.S.S.R.) may be used only for domestic payments after conversion into the local currency; the other ("Account B") may also be used for payments abroad.

Development assistance and export credits

Assistance from the CMEA countries to developing countries takes the form of grants, state credits, commercial credits, and state commercial credits; of these, the state credits are the most significant. Institu-

¹⁴ In Poland and Czechoslovakia, the Foreign Exchange Banks make it possible for local residents to maintain foreign currency accounts originating from remittances in convertible currency. Such accounts may be drawn on to buy local or imported goods at advantageous prices at special stores; the balance may also be converted to local currency or used in payments abroad. Where such specialized banks do not exist, either the State Banks or the Foreign Trade Banks provide limited and strictly regulated facilities for nationals and foreigners to maintain foreign currency accounts, which may be used for payments abroad or converted to local currency.

tional arrangements and credit terms pertaining to the different types of credit, briefly, are as follows:

State credits. State credits are usually granted on a government-to-government basis within the framework of bilateral economic cooperation agreements, under which the creditor country agrees to provide machinery and equipment for certain projects together with engineering services, while the recipients agree to provide labor and locally produced materials. These are financed directly from the budgets.

The credits are essentially for economic "assistance" and are closely related to the development programs of recipient countries. The main stress is laid on the establishment of industrial complexes and branches of industry rather than on the construction of single plants. They are usually granted at an interest rate of 2.5 per cent to 3 per cent per annum and are repayable over a period of 8 to 13 years (Table 7), starting

TABLE 7. CMEA COUNTRIES: TERMS AND CONDITIONS OF STATE CREDITS ¹

Country	Interest Rate (per cent)	Maturity (years)
Czechoslovakia	2.5-3	8-10
Hungary	2.5	Up to 13
Poland	2.5-3	8 (may be extended to 10)
Rumania	2.5-3	Not known
U.S.S.R.	2.4-3	Up to 12

Source: Prepared from United Nations, Department of Economic and Social Affairs, *Export Credits and Development Financing: Part II, National Export Credit Systems* (New York, 1967).

¹ In mid-1966.

one year after the delivery or installation of the equipment. Repayment may be carried out in traditional export commodities or locally produced goods, including goods manufactured with the equipment purchased with the credit.

Commercial credits. Commercial credits are granted in connection with a particular transaction or contract by foreign trade organizations of the Eastern European countries that are authorized to trade in specific lines. In certain countries (Hungary and Poland), some industrial enterprises may also grant export credits directly. The foreign trade organizations and the industrial enterprises are autonomous entities that make decisions as to individual export credits, subject to the general guidance and supervision of the Ministry of Foreign Trade, the central bank, or other authorities. The central bank or other credit institutions in some countries may, if necessary, refinance the credits that the foreign

trade organizations or industrial enterprises have extended (Czechoslovakia, Hungary, Poland, Rumania, and the U.S.S.R.).

Commercial credits are usually granted at an interest rate of 4 per cent to 6 per cent per annum and are repayable over a period of 1 to 8 years (Table 8). A downpayment averaging 10 per cent of the contract value at the time of signature and a similar payment upon delivery of goods are normally required. Each of these payments may be reduced to 5 per cent or increased to as much as 30 per cent, depending on the type of equipment and on various economic circumstances. The guarantee of the government of the buyer's country or of a reliable credit institution in

TABLE 8. CMEA COUNTRIES: TERMS AND CONDITIONS OF COMMERCIAL CREDITS ¹

Country	Interest Rate (per cent)	Maturity (years)	Downpayments
Czechoslovakia	4-6	1-8	5-30 per cent at the time of signing and similar on delivery
Hungary	4-6	1-8 (some, 10)	Up to 20 per cent at the time of signing
Poland	4-6	Up to 6 (some, longer)	10-20 per cent at the time of signing and similar on delivery
Rumania	Not known	1-8 (some, 10)	5-10 per cent at the time of signing and similar on delivery
U.S.S.R.	4	5 (some, longer)	10-20 per cent before or on delivery (or in two installments, at the time of signing and on delivery)

Source: Prepared from United Nations, Department of Economic and Social Affairs, *Export Credits and Development Financing: Part II, National Export Credit Systems* (New York, 1967).

¹ In mid-1966.

that country is often a condition. Repayment may be carried out through deliveries of traditional export commodities or locally manufactured goods, including goods manufactured with equipment purchased with the credit or in convertible currencies. A gold clause is sometimes inserted in the credit contract.

State commercial credits. State commercial credits constitute a facility that has been developed since 1964. They are granted on a government-to-government basis but are not tied to specific projects, being available for any transactions that are arranged between trading organizations in the supplying and buying countries. In those developing countries where development efforts are concentrated mainly in the private sector, the

state commercial credits appear to offer greater flexibility than the state credits. The interest cost of state commercial credits is close to that of commercial credits, but the terms of repayment are close to that of state credits.

Comprehensive information about the composition, geographical distribution, and actual disbursements of economic assistance by the CMEA countries is not available. According to an UNCTAD study, estimates of new disbursements from these countries (and mainland China) "place them at about \$320 million per year on average during 1960-63 and at about \$350 million per year on average during 1964-67. In addition, there have been contributions to United Nations technical assistance and relief programmes of about \$10 million annually."¹⁵ Table 9 indicates that the net annual commitments of bilateral assistance to developing countries fluctuate widely from year to year and are well in excess of average annual disbursements.

TABLE 9. CMEA COUNTRIES: NEW COMMITMENTS OF BILATERAL ECONOMIC ASSISTANCE TO DEVELOPING COUNTRIES, 1960-66 ¹

(In millions of U.S. dollars)

Country	1960	1961	1962	1963	1964	1965	1966
Bulgaria	—	18	2	6	—	—	30
Czechoslovakia	115	146	1	20	118	43	192
Germany, Eastern	27	46	—	—	71	132	—
Hungary	34	111	—	14	10	42	52
Poland	65	128	88	8	54	22	—
Rumania	—	100	—	—	70	—	—
U.S.S.R.	582	302	214	205	618	330	1,033
Total new commitments	823	851	305	253	941	569	1,307

Source: Based on UNCTAD report, *External Development Finance: Present and Future* (TD/B/C.3/61, December 11, 1968), Table 6.

¹ Data refer only to credits and grants reported in announcements relating to specific countries.

BILATERAL TRADE AND TRADE BETWEEN CMEA COUNTRIES AND DEVELOPING COUNTRIES

Earlier it was mentioned that for several reasons the CMEA countries prefer to trade with other countries on the basis of trade agreements that in a significant number of cases also entail bilateral payments arrangements. After World War II most Western European countries signed both bilateral payments agreements and bilateral trade agreements

¹⁵ UNCTAD, *External Development Finance: Present and Future*, TD/B/C.3/61, December 11, 1968, p. 17.

with the CMEA countries. The trade agreements usually covered all the trade between the partner countries and contained quota lists, which constituted binding licensing commitments and, in principle, forecast the entire bilateral exchanges during the ensuing year. These bilateral trade agreements, which were renegotiated annually, gradually acquired a less rigid character when the Western European countries relaxed their import restrictions and liberalized a considerable proportion of their imports from other Western countries. With the elimination of bilateral payments agreements between Western countries and Eastern European countries (see Table 22), the former found it necessary to maintain bilateral trade agreements because of the CMEA countries' foreign trade arrangements, although the character of these agreements changed. They contained much shorter commodity lists in view of the degree of liberalization reached by the Western European countries and included more clauses of a general nature concerning the degree of access that the partner countries would accord to each other's market. There was also a growing tendency for these agreements to be negotiated for periods longer than 12 months. In recent years, trade agreements have been supplemented in some instances by arrangements involving large investment projects in CMEA countries and the extension of credit to those countries.

Another recent development in respect of the trade agreements has been the gradual extension of a considerable degree of liberalization by most of the Western European countries to their imports from the CMEA countries; at the same time various safeguards against dumping and other market disruption have been incorporated in the agreements.

At present the typical agreement maintained between two countries that are not linked by a payments agreement usually fixes a target for the expected volume of trade in each direction for each year of the agreement, and contains a few import quotas on the Fund member country's side and a lengthier list of import quotas on the CMEA country's side. The main reason for a specific target is the wish of the CMEA country to be assured of both a given volume of trade and a balance between its imports and exports. The agreement also contains clauses on financing, MFN treatment, and arbitration. Sales under these agreements are sometimes combined with the extension of export credit facilities. In recent years the granting of export credit and the coverage of export credit insurance on Western countries' exports to the CMEA countries has frequently been the subject of negotiation and is at present covered in many, if not most, of the bilateral trade agreements.

In its 1966 *Economic Survey of Europe*, the ECE has a lengthy section on developments in Western European countries' trade with the CMEA

countries and makes the point that the proportions of trade of each group with the other have grown very little over the past ten years. Trade with the CMEA countries represents about 5 per cent of Western European countries' total trade and has expanded no faster than their total trade. The *Survey* argues that the necessity of repaying long-term credits will enhance the need for the CMEA countries to secure wider acceptance of their export commodities in Western markets and also to adjust their composition. The CMEA countries have already taken steps in the commercial policy field to develop trade with Western Europe. There have been exchanges of trade agreements and industrial cooperation that take a variety of forms. These may include joint ventures, licensing agreements, service agreements, deliveries of special machines, subcontracting arrangements for the supply of semimanufactured goods by an Eastern European producer to a Western European concern, and sales agreements in respect of third markets.

The experience of the industrialized countries in Europe does not necessarily furnish firm guidelines for developing countries interested in trading with the CMEA countries. Apart from historical, political, and geographical considerations, the character of the trade and of the trading relationships is likely to be different. The sale of a complex industrial plant on credit in response to the initiative of a trading organization in a CMEA country obviously presents a markedly different case from the efforts by a developing country, which produces a narrow range of exportable commodities, to find new markets for a primary product the supply of which may exceed the demand in traditional markets.

In contrast to the developed, market economy countries, a number of developing countries have entered into bilateral payments agreements with the CMEA countries over the past decade, and at the end of 1967 more Fund member countries maintained more bilateral payments agreements with CMEA countries than in the mid-1950's, as indicated in Table 10.

Among the Fund member countries that had terminated a total of 68 agreements between April 1955 and the end of 1967 were some that had terminated all agreements (Argentina, France, Germany, Italy, and Paraguay) and some that had terminated all but one of their seven agreements, such as Belgium-Luxembourg, Denmark, the Netherlands, Norway, and Sweden.

The agreements entered into since April 1955 (117 altogether) were spread among 29 member countries, about half of which had become Fund members after 1954.

Fund member countries that maintained a bilateral trade and pay-

ments agreement with each of the Eastern European countries at the end of 1967 were Austria, Ceylon, Cyprus, Finland, Greece, Guinea, India, Mali, Tunisia, Turkey, the United Arab Republic, and Yugoslavia. Several other member countries maintained four or more agreements.

The data mentioned above should not be allowed to obscure one point of relevance to a consideration of trade between the CMEA countries and developing countries, namely, that a significant number of countries do not maintain either trade agreements or bilateral payments agreements with any of the CMEA countries, while some others maintain just one or two trade agreements.

The attitude toward bilateralism of the largest of the CMEA countries

TABLE 10. CMEA COUNTRIES: NUMBER OF BILATERAL PAYMENTS AGREEMENTS WITH FUND MEMBER COUNTRIES

Country	In Effect in April 1955		Terminated		Agreed Since April 1955		In Effect at End of December 1967
Bulgaria	15	—	9	+	15	=	21
Czechoslovakia	24	—	14	+	13	=	23
Germany, Eastern	19	—	6	+	14	=	27
Hungary	22	—	12	+	19	=	29
Poland	21	—	10	+	22	=	33
Rumania	17	—	10	+	16	=	23
U.S.S.R.	17	—	7	+	18	=	28
Total	135	—	68	+	117	=	184

was explained by the head of the U.S.S.R. delegation to the first UNCTAD session:

The trade of the Soviet Union with an increasing number of the developing countries is carried out on the sound basis of bilateral trade agreements providing for a steady growth of mutual deliveries of goods. We shall in the future seek to conclude such agreements also since we feel that the wider use of long-term agreements and contracts which ensure permanent marketing of the products of the developing countries will contribute to the stabilization of markets and prices.

Developing bilateral trade and economic relations with other countries we at the same time do not exclude multilateral agreements when they are considered economically expedient for all partners in trade. The opportunities for the realization of the multilateral forms of trade and payments relations with other countries will grow alongside with the process of further normalization and expansion of international trade.¹⁶

¹⁶ See *Proceedings of the United Nations Conference on Trade and Development: Volume II, Policy Statements* (Geneva, 1964), p. 387.

III. Some Problems in East-West Trade

There are various problems of an economic character in trading with the CMEA countries, some of which are common to most countries outside that group and some which are of particular concern to developing countries.

The payments position of the CMEA countries is one of the major constraints regarding their imports from the industrialized countries. The available information indicates that the CMEA countries are limited in expanding their imports that require payment in convertible currencies by their capacity to increase their exports—their aim of balancing trade bilaterally reflects not only planning considerations but also their reserve situations. Their efforts to expand exports and thus their earnings of convertible currencies have been facilitated in recent years by the (mainly) unilateral quota liberalization measures taken by the EEC member countries, by measures of open general licensing or quota liberalization by the United Kingdom and other EFTA members, and by a few agreements concerning convertible currency settlement in some bilateral clearing relations. According to the ECE, “Quota liberalization or open general licensing extends, as a rule, to 50–90 per cent of imports entering from the Soviet Union and eastern Europe into most of the major trading countries of western Europe”¹⁷ However, it is also pointed out that the remaining licensing and quota arrangements have a considerable effect in restricting trade, as they frequently limit imports of commodities that the CMEA countries can readily provide.

Besides the limitations imposed by the CMEA countries’ objective of ensuring a broad bilateral balance and by the remaining restrictions of the industrialized countries, exports by the former to the latter are impeded by deficiencies in marketing techniques. In this connection the following statement by Premier Alexei Kosygin in his report on the U.S.S.R.’s 1966–70 plan is of interest:

The time has come to reappraise the role of foreign trade. The staff of foreign trade organizations frequently secludes itself in its own sphere failing to consider that its entire activity ought to be subordinated to the task of raising the efficiency of the national economy as a whole. The long-term plan of foreign trade obviously cannot foresee all possible contingencies and changes that may occur in the world market. This makes it the more important for the foreign trade staff to acquire a thorough knowledge of the requirements of the national economy, and to display initiative in suggesting the most advantageous purchases and sales. The industrial staff, contrariwise,

¹⁷ United Nations, Economic Commission for Europe, *Economic Bulletin for Europe* (Geneva), Vol. 20 (November 1968), p. 52.

often regards foreign trade as something secondary. This completely wrong view must be changed radically and business-like contacts must be strengthened between industry and foreign trade.¹⁸

Other difficulties, which are mitigated by long-term trade agreements, are related to uncertainties as to whether trade in a particular commodity will not be abruptly changed and to the difficulties for export firms in industrialized countries of identifying market possibilities in an Eastern European country by applying market analysis techniques; generally the firms must deal with intermediaries, i.e., foreign trade organizations, rather than final users, a process that can be time consuming and perhaps disappointing in its results. Furthermore, the negotiation of a trade agreement and the publicizing of its features may not suffice to dispel businessmen's doubts and misconceptions about trading with a state organization whose decisions may be subject to unforeseen changes as a result of shifts in government policy. A difficulty on the other side is that an importer of goods from a CMEA country may help to develop a market for them only to find that owing to adjustments to the country's foreign trade plan, or difficulties in local production, results yielded are not proportionate to the market development efforts. The CMEA countries' pricing systems also severely complicate trade relations in connection with dumping charges made by domestic industries in other countries against CMEA imports.

As regards trade between developing countries and the CMEA countries, other difficulties also arise. As noted in a study by the UNCTAD secretariat,¹⁹ the growth of such trade is relatively recent and, so far, few countries have participated in its expansion. The study also refers to the fact that the necessary institutional arrangements for such trade are still limited to only a few developing countries. The fact that comparatively few of them have a substantial trade with the CMEA countries does not necessarily mean that more of these countries are not interested in such trade. However, a major obstacle, noted in the Final Act of the first session of UNCTAD, is "the paucity of knowledge among public and private organizations of trade partners in some developing countries, about the products and the trade policies and practices of the centrally planned economies."²⁰ Even where lack of detailed knowledge is not a major factor, difficulties in establishing necessary contact between trading organizations and enterprises and in arranging for financial

¹⁸ *Ibid.*, p. 44.

¹⁹ UNCTAD, *Promotion of Imports by the Socialist Countries of Eastern Europe of Manufactures and Semi-Manufactures from Developing Countries*, TD/B/C.2/21, January 16, 1967.

²⁰ See *Proceedings of the United Nations Conference on Trade and Development: Volume I, Final Act and Report* (Geneva, 1964), p. 7.

services and transport can constitute serious obstacles. In a report, *Latin America and International Trade Policy*, the Economic Commission for Latin America (ECLA) pointed out:

Experience shows that the greatest problems for the expansion of this trade occur in connexion with payments, from the creation on both sides of surpluses in currencies which can be used only slowly or with difficulty. This has often given rise to triangular or switch operations which subsequently resulted in a loss of import capacity.²¹

In the Charter of Algiers adopted by the Group of Seventy-Seven in November 1967 prior to the second UNCTAD session held early in 1968, the developing countries maintained that the CMEA countries (referred to in the Charter as the socialist countries) should grant concessions to the developing countries whose advantages would be at least equivalent to the effects of preferences that would be granted by the developed countries with market economies; also, that they should:

- (a) Adopt and implement measures designed to increase the rate of growth of the imports of manufactures and semi-manufactures from developing countries, and to diversify such imports in consonance with the latter's trade and development requirements;
- (b) Undertake to contribute to the maintenance of remunerative and stable prices for the exports of developing countries by the inclusion of suitable provisions in their trade agreements with these countries;
- (c) In drawing up their national and regional development plans take due account of the production and export potential in developing countries;
- (d) Abolish customs duties and other trade restrictions on goods imported from and originating in developing countries;
- (e) Eliminate the margin between the import price and the domestic selling price of the goods imported from developing countries;
- (f) Refrain from re-exporting the goods purchased from developing countries, unless it is with the consent of the developing countries concerned;
- (g) Encourage conclusion of industrial branch agreements for the supply of plant and equipment on credit to the developing countries, accepting repayment of such credits in particular with the goods manufactured by such plant in the developing countries concerned;
- (h) Multilateralize, to the extent possible, among the socialist countries of Eastern Europe, payments arrangements with developing countries to facilitate increase of imports from the latter;
- (i) Grant preferential access conditions for products originating from developing countries. These conditions should include the establishment, in their international purchasing policies, of margins of tolerance in favour of the developing countries with regard to prices and delivery terms;
- (j) Within the framework of UNCTAD to set up permanent consultative machinery through which socialist countries and developing countries may promote mutual trade and economic co-operation, and solve the problems and obstacles which may arise.²²

Among the numerous suggestions for fostering trade between the

²¹ See United Nations, Economic and Social Council, *Latin America and International Trade Policy*, E/CN.12/773, March 30, 1967, pp. 50-51.

²² UNCTAD, *Charter of Algiers*, TD/38, November 3, 1967, p. 12.

CMEA countries and the rest of the world that have been made in international forums and elsewhere are the following:

1. Continued efforts to unify and codify commercial terms, practices, and usages.

2. Measures to encourage direct contact between users (i.e., buyers) and sellers.

3. The suspension of quota and import licensing requirements.

4. The negotiation of trade agreements for three-year to five-year periods, subject to annual renewal.

5. Trading on the basis of settlements in convertible currency or, if this is not immediately practicable, the implementation of further steps to widen the scope for the transfer of clearing account balances.

6. The organization of or participation in commercial or industrial fairs by countries that have decided to take the initiative in seeking to develop trade with the CMEA countries—a technique that has been used by some industrialized countries in Western Europe.

In the report referred to above, ECLA stated that, in examining the prospects for an expansion of East-West trade and the recent experience of certain Latin American countries in this connection, aspects such as the following should be considered:

- (a) more flexible use of the credits and trade surpluses created, by the provision of a multilateral payments system, operating at least among the countries belonging to the COMECON;
- (b) improvement of the sales prospects in the private sector of products from the socialist countries, taking advantage of the new patterns which could result from alterations which these countries may make in their foreign trade policy (decentralization of the management of exporting enterprises);
- (c) study of investment prospects for the purchase of complete industrial plants paid for on credit, whose amortization would be related wholly or partly to the purchase by the supplying countries of processed and semi-processed products made in the plants;
- (d) inclusion in the socialist countries' annual purchasing programmes of concrete provisions for the import of Latin American processed and semi-processed products, which may or may not be related to a definite percentage of their sales of industrial products to the Latin American countries.²³

IV. Conclusions

1. One question raised in the introduction was how some countries found it possible to trade with Eastern European countries without entering into bilateral trade and payments agreements and whether their

²³ *Latin America and International Trade Policy* (cited in footnote 20), p. 51.

experience furnished lessons or guidance for other Fund member countries. A related question is whether bilateral payments agreements are essential for developing countries that wish to trade with the East. Categorical answers to these questions are not possible, largely for the reason that the individual circumstances of countries in either the East or the West differ so widely. As explained earlier, the trade relations between an industrialized Western European country and a CMEA country do not necessarily offer adequate guidance to a developing country seeking new outlets in Eastern Europe for one or two products on which it is heavily dependent for foreign exchange earnings. Examination of cases shows, however, that (with some exceptions) the termination of bilateral payments arrangements has not generally adversely affected the trade between the countries concerned; it also suggests that it might not be accurate to conclude that the remaining agreements maintained by some Western European countries reflect solely the reluctance of their CMEA partners to settle transactions in convertible currencies.

2. With few exceptions the Fund member countries that maintain bilateral payments agreements with one or more of the CMEA countries are developing countries: many of the agreements are comparatively new and it is thus too soon to assess whether they have been conducive to generating additional trade and to the economic development of the members concerned.

3. Inherent in bilateral payments arrangements is the risk of the accumulation of inconvertible credit balances and the consequent creation of pressures for the distortion of trade and payments flows into uneconomic channels. While the willingness of many developing countries to resort to bilateralism in dealing with the CMEA countries is attributable to their desire to ease the marketing of their primary commodity exports that face weak world markets, this consideration needs to be balanced against the potential difficulties arising from bilateralism.

4. The value and volume of East-West trade has grown substantially in recent years, but the proportion of such trade to most participants' total trade has not changed markedly. For many Fund member countries, trade with the CMEA countries is insignificant or is a small fraction of their total trade. This trade may, however, constitute a considerable proportion for particular export industries or firms.

5. There is evidence that attitudes toward trade with the CMEA countries are under review in many countries. On their part, the CMEA countries are experimenting with economic reforms that seem likely to widen opportunities in their markets and are displaying interest in many discussions and studies, in UNCTAD, the GATT, and the UN regional

commissions, concerned with the expansion of East-West trade. An important obstacle to a substantial growth in such trade is the capacity of the CMEA countries steadily to raise their earnings of convertible currencies. Apart from difficulties of market access attributable to quotas or discriminatory tariffs, there are also difficulties associated with the type of available goods, limitations of supply, marketing techniques, and the preferences of consumers for products more familiar to them. As a consequence of the pattern of their industrialization in the past, the CMEA countries are capable of exporting machinery and equipment, but their exports are faced with stiff competition from technologically dynamic producers in advanced industrial countries. Other obstacles are the lack of knowledge in some countries about trading with the CMEA countries (if not in official circles, then in business and other groups), the difficulty of identifying market possibilities in them, delays occasioned by negotiations with state organizations, a reluctance to commit substantial resources in industries geared to CMEA trade because of the uncertainty engendered by insufficient direct contacts with end-users in the CMEA countries, and the possibility that the access to their markets might be curtailed or otherwise adversely affected by actions of the authorities for reasons that could not be foreseen by the enterprises concerned.

APPENDIX

TABLE 11. CMEA COUNTRIES¹: EXPORTS AND WORLD EXPORTS, 1960 AND 1966

(Value in billions of U.S. dollars, f.o.b.)

Exports from	Year	Imports by					Total ²
		CMEA countries	Mainland China, etc.	Rest of the world			
				Developed areas	Developing areas		
CMEA countries							
Value	1960	8.1	1.4	3.4	2.5	0.8	13.0
	1966	12.6	0.8	7.2	4.9	2.3	20.9
Per cent	1960	62	11	26	19	6	100
	1966	60	4	34	23	11	100
Rate of increase ³		7.6	—8.9	13.3	11.9	19.2	8.2
Rest of the world ⁴							
Value	1960	3.5	0.7	105.7	78.5	27.2	112.4
	1966	6.6	1.5	171.4	133.8	37.6	180.4
Per cent	1960	3	1	94	70	24	100
	1966	4	1	95	74	21	100
Rate of increase ³		11.1	13.6	8.4	9.2	5.5	8.2
<i>Of which</i>							
Developed areas							
Value	1960	2.5	0.4	79.9	58.8	21.2	85.0
	1966	4.7	1.1	135.2	105.7	29.5	141.5
Per cent	1960	3	—	94	69	25	100
	1966	3	1	96	75	21	100
Rate of increase ³		11.1	18.4	9.1	10.3	5.6	8.8
Developing areas							
Value	1960	1.0	0.3	25.8	19.8	6.0	27.4
	1966	1.9	0.5	36.2	28.2	8.0	38.9
Per cent	1960	4	1	94	72	22	100
	1966	5	1	93	72	21	100
Rate of increase ³		11.3	8.9	5.8	6.0	4.9	6.0

Sources: United Nations, Statistical Office, *Monthly Bulletin of Statistics*, March 1966 and March 1968.¹ Including Albania.² Components may not add to totals owing to imperfect coverage of data and also to rounding.³ Annual compound percentage rate of increase of export value between 1960 and 1966.⁴ Excluding mainland China, etc.

TABLE 12. CMEA COUNTRIES: PREWAR AND POSTWAR COMMODITY COMPOSITION OF TRADE
(In per cent)

Country	Form of Trade	Year	Food and Tobacco	Raw Materials, Metals, and Fuels	Machinery and Equipment	Chemicals and Rubber	Other Consumer Goods and Items, n.i.e.	Total
Bulgaria	Exports	1938	90	4	—	2	4	100
		1965	36	23	25	2	14	100
	Imports	1938	2	31	26	11	30	100
		1965	7	38	44	6	5	100
Czechoslovakia	Exports	1937	10	37	6	2	45	100
		1965	5	27	49	4	15	100
	Imports	1937	13	37	9	8	33	100
		1965	16	41	30	8	5	100
Hungary	Exports	1938	49	14	11	1	25	100
		1965	22	20	33	4	21	100
	Imports	1938	7	38	9	9	37	100
		1965	10	47	28	10	5	100
Poland	Exports	1938	35	51	1	3	10	100
		1965	18	31	34	4	13	100
	Imports	1938	13	30	20	8	29	100
		1965	13	40	33	8	6	100
Rumania	Exports	1938	33	54	...	—	13	100
		1965	21	43	19	6	11	100
	Imports	1938	7	31	27	6	29	100
		1965	3	45	39	6	7	100
U.S.S.R.	Exports	1937	24	45	...	...	31	100
		1965	7	35	21	...	37	100
	Imports	1937	10	32	26	7	25	100
		1965	21	15	34	...	30	100

Sources: Based on data from League of Nations, Economic Intelligence Service, *International Trade Statistics*, 1938, and United Nations, Department of Economic and Social Affairs, *Yearbook of International Trade Statistics*, 1965.

TABLE 13. CMEA COUNTRIES ¹: EXPORTS BY AREAS OF DESTINATION AND COMMODITIES, 1960 AND 1966 ²

(In millions of U.S. dollars, f.o.b.)

Standard International Trade Classification	Year	Exports to					Total
		CMEA countries	Mainland China, etc.	Rest of the world			
				Total	Developed areas	Developing areas	
0 and 1 (Food, beverages, and tobacco)	1960	1,050	35	686	610	76	1,840
	1966	1,220	46	1,220	950	270	2,540
2 and 4 (Crude materials, excluding fuels; oils, and fats)	1960	1,040	53	664	600	64	1,760
	1966	1,330	86	1,235	1,080	155	2,670
3 (Mineral fuels)	1960	920	150	550	460	90	1,620
	1966	1,260	55	965	770	195	2,300
5 (Chemicals)	1960	350	37	217	160	57	620
	1966	610	47	400	265	135	1,050
7 (Machinery and transport equipment)	1960	2,440	740	505	205	300	3,730
	1966	4,440	350	1,365	425	940	6,230
6 and 8 (Other manufactures)	1960	2,210	320	725	480	245	3,280
	1966	3,630	155	1,840	1,280	560	5,610
0 through 9 (Total trade)	1960	8,080	1,380	3,360	2,530	830	12,970
	1966	12,550	760	7,120	4,850	2,270	20,910

Sources: United Nations, Statistical Office, *Monthly Bulletin of Statistics*, March 1966, March 1967, and March 1968.¹ Including Albania.² Totals do not necessarily add to the sum of the items.

TABLE 14. CMEA COUNTRIES: EXPORTS BY AREAS OF DESTINATION AND COMMODITIES
(Percentage increases between 1960 and 1966)

Standard International Trade Classification	Exports to					Total
	CMEA countries	Mainland China, etc.	Rest of the world			
			Developed areas	Developing areas		
0 and 1 (Food, beverages, and tobacco)	16	31	78	56	255	38
2 and 4 (Crude materials, excluding fuels; oils, and fats)	28	62	86	80	142	52
3 (Mineral fuels)	37	—63	75	67	117	42
5 (Chemicals)	74	27	84	66	137	69
7 (Machinery and transport equipment)	82	—53	170	107	213	67
6 and 8 (Other manufactures)	64	—52	154	167	129	71
0 through 9 (Total trade)	55	—45	112	92	174	61

Source: Table 13.

TABLE 15. CMEA COUNTRIES ¹: IMPORTS BY AREAS OF ORIGIN AND COMMODITIES, 1960 AND 1966 ²

(In millions of U.S. dollars, f.o.b.)

Standard International Trade Classification	Year	Imports from					
		CMEA countries	Mainland China, etc.	Rest of the world			Total
				Total	Developed areas	Developing areas	
0 and 1 (Food, beverages, and tobacco)	1960	1,050	320	635	330	305	2,000
	1966	1,220	150	1,740	890	850	3,120
2 and 4 (Crude materials, ex- cluding fuels; oils, and fats)	1960	1,040	470	965	385	580	2,480
	1966	1,330	180	1,340	540	800	2,850
3 (Mineral fuels)	1960	920	4	4	4	—	930
	1966	1,260	3	20	12	8	1,280
5 (Chemicals)	1960	350	21	194	190	4	560
	1966	610	3	536	510	26	1,150
7 (Machinery and transport equipment)	1960	2,440	4	710	710	—	3,150
	1966	4,440	2	1,493	1,490	3	5,940
6 and 8 (Other manufactures)	1960	2,210	550	941	880	61	3,700
	1966	3,630	185	1,410	1,200	210	5,220
0 through 9 (Total trade)	1960	8,080	1,360	3,470	2,520	950	12,910
	1966	12,550	520	6,570	4,670	1,900	19,650

Sources: United Nations, Statistical Office, *Monthly Bulletin of Statistics*, March 1966, March 1967, and March 1968.¹ Including Albania.² Totals do not necessarily add to the sum of the items.

TABLE 16. CMEA COUNTRIES: IMPORTS BY AREAS OF ORIGIN AND COMMODITIES
(Percentage increases between 1960 and 1966)

Standard International Trade Classification	Imports by					Total
	CMEA countries	Mainland China, etc.	Rest of the world			
			Total	Developed areas	Developing areas	
0 and 1 (Food, beverages, and tobacco)	16	—53	174	170	179	56
2 and 4 (Crude materials, excluding fuels; oils, and fats)	28	—62	39	40	38	15
3 (Mineral fuels)	37	—25	400	200	...	38
5 (Chemicals)	74	—86	176	168	550	105
7 (Machinery and transport equipment)	82	—50	110	110	...	89
6 and 8 (Other manufactures)	64	—66	50	36	244	41
0 through 9 (Total trade)	55	—62	89	85	100	52

Source: Table 15.

TABLE 17. INDIVIDUAL CMEA COUNTRIES: EXPORTS BY DESTINATION, 1960 AND 1966

(In percentages)

Exporting Country	Year	Imports by					Total
		CMEA Countries ¹	Mainland China, etc.	Rest of the world			
				Developed areas	Developing areas		
Bulgaria	1960	80.7	1.8	17.5	14.0	3.5	100.0
	1966	76.2		23.8	...	...	100.0
Czechoslovakia	1960	63.6	6.9	29.5	18.4	11.1	100.0
	1966	63.6	1.8	34.6	22.3	12.3	100.0
Germany, Eastern	1960	69.3	5.4	25.3	19.7	5.6	100.0
	1966	68.7	1.9	29.3	22.9	6.4	100.0
Hungary	1960	61.4	5.6	33.0	27.0	6.0	100.0
	1966	64.2	1.8	34.0	26.9	7.1	100.0
Poland	1960	54.9	4.6	40.5	32.0	8.5	100.0
	1966	55.8	2.1	42.1	33.8	8.3	100.0
Rumania	1960	65.9	6.0	28.1	22.4	5.7	100.0
	1966	55.9	4.0	40.1	32.0	8.1	100.0
U.S.S.R.	1960	55.2	17.3	27.5	19.4	8.1	100.0
	1966	53.1	5.5	41.4	22.6	18.8	100.0
All countries	1960	60.8	10.5	28.7	21.0	7.7	100.0
	1966	59.4	3.4	37.2	24.4	12.8	100.0

Sources: United Nations, Economic Commission for Europe, *Economic Bulletin for Europe* (Geneva), Vol. 18 (November 1966), and Vol. 19 (November 1967).

¹ Including Albania.

TABLE 18. INDIVIDUAL CMEA COUNTRIES: IMPORTS BY SOURCE, 1960 AND 1966

(In percentages)

Importing Country	Year	Exports from					Total
		CMEA Countries ¹	Mainland China, etc.	Rest of the world			
				Developed areas	Developing areas		
Bulgaria	1960	80.3	2.3	17.4	14.8	2.6	100.0
	1966	69.6		30.4	26.1	4.3	100.0
Czechoslovakia	1960	63.9	5.9	30.2	21.1	9.1	100.0
	1966	64.1	1.7	34.2	24.1	10.1	100.0
Germany, Eastern	1960	67.2	5.2	27.6	21.8	5.8	100.0
	1966	67.3	1.4	31.3	26.3	5.0	100.0
Hungary	1960	64.0	4.4	31.6	27.7	3.9	100.0
	1966	61.3	1.5	37.2	29.4	7.8	100.0
Poland	1960	58.1	3.7	38.2	30.9	7.3	100.0
	1966	60.0	1.4	38.6	31.0	7.6	100.0
Rumania	1960	67.8	4.5	27.7	24.3	3.4	100.0
	1966	52.7	3.0	44.3	39.7	4.6	100.0
U.S.S.R.	1960	50.1	17.8	32.1	20.8	11.3	100.0
	1966	56.4	4.1	39.5	25.1	14.4	100.0
All countries	1960	59.0	10.2	30.8	22.5	8.3	100.0
	1966	60.4	2.5	37.1	27.0	10.1	100.0

Sources: United Nations, Economic Commission for Europe, *Economic Bulletin for Europe* (Geneva), Vol. 18 (November 1966), and Vol. 19 (November 1967).

¹ Including Albania.

TABLE 19. FUND MEMBER COUNTRIES: TOTAL TRADE AND TRADE WITH CMEA COUNTRIES, 1966

(Value in millions of U.S. dollars)

Country	Exports			Imports		
	to CMEA countries			from CMEA countries		
	Total (1)	Total (2)	Percentage of total exports (3)	Total (4)	Total (5)	Percentage of total imports (6)
Afghanistan	75	27	36.0	77	...	...
Algeria	758	...	...	676	...	...
Argentina	1,593	143	9.0	1,125	34	3.0
Australia	3,172	69	2.2	3,245	17	0.5
Austria	1,683	259	15.4	2,327	223	9.6
Belgium-Luxembourg	6,829	115	1.7	7,174	136	1.9
Bolivia	150	—	—	138	2	1.4
Botswana ¹	...	...	...	...	...	...
Brazil	1,741	101	5.8	1,497	72	4.8
Burma	189	6	3.2	153	11	7.2
Burundi	20	...	...	16	...	...
Cameroon	123	...	...	123	...	...
Canada	9,552	359	3.8	9,128	50	0.5
Central African Republic	31	—	—	35	—	—
Ceylon	352	32	9.1	426	42	9.9
Chad	24	—	—	32	—	—
Chile	881	4	0.5	683	3	0.4
China, Republic of	531	...	...	616	...	...
Colombia	507	16	3.2	674	11	1.6
Congo, People's Rep. of the	43	...	...	69	...	...
Congo, Dem. Rep. of	514	...	...	276	...	...
Costa Rica	139	...	...	178	...	...
Cyprus	78	9	11.5	155	9	5.8
Dahomey	10	...	...	33	...	...
Denmark	2,454	91	3.7	3,002	127	4.2
Dominican Republic	138	—	—	160	—	—
Ecuador	224	—	—	176	—	—
El Salvador	192	—	—	220	—	—
Ethiopia	111	2	1.8	161	6	3.7
Finland	1,506	274	18.2	1,727	329	19.0
France	10,907	386	3.5	11,888	348	2.9
Gabon	101	...	...	66	—	—
Gambia, The ¹	16	...	...	15	...	...
Germany ²	20,156	695	3.4	18,168	693	3.8
Ghana	268	44	16.4	351	40	11.4
Greece	406	93	22.9	1,223	101	8.3
Guatemala	226	—	—	207	—	—
Guinea	51	...	...	44	...	...
Guyana	109	—	—	118	...	...
Haiti	40	—	—	39	—	—
Honduras	145	...	...	149	...	...
Iceland	140	16	11.4	159	18	11.3
India	1,605	296	18.4	2,748	281	10.2
Indonesia ¹	759	...	...	562	...	...
Iran	1,308	38	2.9	929	55	5.9
Iraq	935	5	0.5	491	68	13.8
Ireland	685	2	0.3	1,043	16	1.5
Israel	502	22	4.4	839	18	2.1
Italy	8,033	349	4.3	8,570	510	6.0
Ivory Coast	310	...	...	257	...	...
Jamaica	225	—	—	321	—	—
Japan	9,782	275	2.8	9,524	349	3.7
Jordan	36	1	2.8	186	15	8.1
Kenya	174	4	2.3	315	6	1.9
Korea	250	...	...	717	...	...
Kuwait	1,320	—	—	462	15	3.2
Laos	—	—	—	42	—	—

TABLE 19 (concluded). FUND MEMBER COUNTRIES: TOTAL TRADE AND TRADE WITH CMEA COUNTRIES, 1966

(Value in millions of U.S. dollars)

Country	Exports			Imports		
	to CMEA countries			from CMEA countries		
	Total (1)	Total (2)	Percentage of total exports (3)	Total (4)	Total (5)	Percentage of total imports (6)
Lebanon	134	...	...	547	...	...
Lesotho ¹	...	...	...	...	...	...
Liberia	212	...	...	507	...	...
Libya	995	—	—	405	22	5.4
Malagasy Republic	97	—	—	141	...	...
Malawi	37	...	...	31	...	...
Malaysia	1,977	...	...	733	...	...
Mali	13	—	—	36	5	13.9
Malta ¹	30	—	—	109	6	5.5
Mauritania	76	—	—	21	—	—
Mauritius ¹	72	—	—	68	—	—
Mexico	1,223	9	0.7	1,605	3	0.2
Morocco	429	47	11.0	478	26	5.4
Nepal	15	...	...	47	...	...
Netherlands	6,749	116	1.7	8,016	151	1.9
New Zealand	1,077	19	1.8	1,006	—	—
Nicaragua	142	...	...	182	...	...
Niger	35	—	—	45	—	—
Nigeria	792	11	1.4	716	16	2.2
Norway	1,562	49	3.1	2,402	71	3.0
Pakistan	599	43	7.2	899	47	5.2
Panama	79	—	—	215	...	...
Paraguay	50	...	...	50	...	...
Peru	765	21	2.7	817	3	0.4
Philippines	842	...	...	956	...	...
Portugal	627	6	1.0	1,011	9	0.9
Rwanda	4	...	...	12	...	...
Saudi Arabia	1,516	...	...	564	...	...
Senegal	166	—	—	156	—	—
Sierra Leone	83	—	—	100	5	5.0
Singapore	228	...	...	720	...	...
Somalia	28	—	—	30	—	—
South Africa	1,668	1	0.1	2,307	6	0.3
Spain	1,225	57	4.7	3,592	47	1.3
Sudan	202	22	10.9	218	23	10.6
Sweden	4,270	164	3.8	4,571	202	4.4
Syrian Arab Republic	170	40	23.5	294	67	22.8
Tanzania	237	6	2.5	180	4	2.2
Thailand	693	5	0.7	1,173	9	0.8
Togo	36	—	—	47	...	...
Trinidad and Tobago	426	—	—	457	—	—
Tunisia	141	14	9.9	250	23	9.2
Turkey	491	75	15.3	724	84	11.6
Uganda	188	...	...	120	...	...
United Arab Republic	605	232	38.3	1,070	228	21.3
United Kingdom	14,662	421	2.9	16,672	675	4.0
United States	30,450	198	0.7	25,629	179	0.7
Upper Volta	9	—	—	19	—	—
Uruguay	186	16	8.6	165	3	1.8
Venezuela	2,713	—	—	1,216	8	0.7
Viet-Nam	21	—	—	457	—	—
Yugoslavia	1,222	446	36.5	1,576	495	31.4
Zambia	691	14	2.0	344	1	0.3

Source: International Monetary Fund and International Bank for Reconstruction and Development, *Direction of Trade Annual*, 1962-66.

¹ Botswana joined the Fund on July 24, 1968; The Gambia joined on September 21, 1967; Indonesia resumed membership on February 21, 1967; Lesotho joined on July 25, 1968; Malta joined on September 11, 1968; and Mauritius joined on September 23, 1968.

² Excluding trade with Eastern Germany.

TABLE 20. FUND MEMBERS AND CMEA COUNTRIES: BILATERAL PAYMENTS AGREEMENTS, APRIL 1955 AND DECEMBER 1967

Fund Members	CMEA Countries													
	April 1955							December 1967						
	Bulgaria	Czecho- slovakia	Eastern Germany	Hungary	Poland	Rumania	U.S.S.R.	Bulgaria	Czecho- slovakia	Eastern Germany	Hungary	Poland	Rumania	U.S.S.R.
Afghanistan		x					x		x			x		x
Algeria								x	x		x	x	x	x
Argentina	x	x	x	x	x	x	x							
Austria	x	x	x	x	x	x		x	x	x	x	x	x	x
Belgium-Luxembourg	x	x	x	x	x	x	x							
Brazil		x		x	x			x		x	x	x	x	x
Ceylon								x	x	x	x	x	x	x
Colombia			x					x		x	x	x	x	x
Costa Rica												x		
Cyprus								x	x	x	x	x	x	x
Dahomey										x	x			
Denmark	x	x	x	x	x	x	x			x				
Ecuador														
Finland	x	x	x	x	x	x	x	x	x	x	x	x	x	x
France	x	x	x	x	x	x	x							
Germany, Fed. Rep.	x	x	x	x	x	x								
Ghana								x	x		x	x	x	x
Greece	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Guinea								x	x	x	x	x	x	x
Iceland		x	x	x	x	x	x							
India								x	x	x	x	x	x	x
Indonesia		x		x	x	x						x		
Iran		x		x	x			x	x		x	x	x	x

TABLE 20 (concluded). FUND MEMBERS AND CMEA COUNTRIES: BILATERAL PAYMENTS AGREEMENTS,
APRIL 1955 AND DECEMBER 1967

Fund Members	CMEA Countries													
	April 1955							December 1967						
	Bulgaria	Czecho- slovakia	Eastern Germany	Hungary	Poland	Rumania	U.S.S.R.	Bulgaria	Czecho- slovakia	Eastern Germany	Hungary	Poland	Rumania	U.S.S.R.
Israel	x			x	x	x		x			x	x ¹		
Italy	x	x	x	x	x	x	x							
Laos														x
Lebanon		x	x				x		x	x		x	x	x
Mali								x	x	x	x	x	x	x
Mexico		x									x	x		
Morocco								x	x	x	x	x		x
Nepal												x		x
Netherlands	x	x	x	x	x		x					x		x
Norway	x	x	x	x	x	x	x			x				
Pakistan														
Paraguay		x		x				x	x		x	x	x	x
Portugal														
Singapore									x	x	x	x	x	
Somalia											x	x		x
Spain								x	x	x	x	x	x	
Sudan									x	x	x	x		
Sweden	x	x	x	x	x	x	x			x				
Syrian Arab Republic										x	x	x	x	x
Tunisia								x	x	x	x	x	x	x
Turkey	x	x	x	x	x	x	x	x	x	x	x	x	x	x
United Arab Republic	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Uruguay		x	x	x	x	x	x		x	x	x	x	x	
Yugoslavia		x	x	x	x	x	x	x	x	x	x	x	x	x

¹ This agreement was terminated on October 1, 1968.

TABLE 21. FUND MEMBERS AND CMEA COUNTRIES: BILATERAL PAYMENTS AGREEMENTS ENTERED INTO SINCE APRIL 1955 AND STILL IN EFFECT AT THE END OF 1967

Fund Members	CMEA Countries						U.S.S.R.
	Bulgaria	Czecho-slovakia	Eastern Germany	Hungary	Poland	Rumania	
Afghanistan					x		
Algeria	x	x		x	x	x	x
Austria							x
Brazil	x		x			x	x
Ceylon	x	x	x	x	x	x	x
Colombia	x			x	x	x	x
Costa Rica					x		
Cyprus	x	x	x	x	x	x	x
Dahomey			x	x			
Ecuador			x	x	x		
Ghana	x	x		x	x	x	x
Guinea	x	x	x	x	x	x	x
India	x	x	x	x	x	x	x
Iran	x					x	x
Laos							x
Lebanon							
Mali	x	x	x	x	x	x	x
Mexico				x	x		
Morocco	x	x	x	x	x		x
Nepal					x		x
Pakistan	x	x		x	x	x	x
Portugal		x	x	x	x		
Singapore				x	x	x	
Somalia							x
Spain	x	x	x	x	x	x	
Sudan		x	x	x	x		
Syrian Arab Republic			x	x	x	x	x
Tunisia	x	x	x	x	x	x	x
Yugoslavia	x						

Source: Table 20.

TABLE 22. FUND MEMBERS AND CMEA COUNTRIES: BILATERAL PAYMENTS AGREEMENTS IN EFFECT IN APRIL 1955 BUT TERMINATED BY THE END OF 1967

Fund Members	CMEA Countries						U.S.S.R.
	Bulgaria	Czecho-slovakia	Eastern Germany	Hungary	Poland	Rumania	
Argentina	x	x	x	x	x	x	x
Belgium-Luxembourg	x	x	x	x	x	x	
Brazil		x					
Denmark	x	x		x	x	x	x
France	x	x	x	x	x	x	x
Germany, Fed. Rep.	x	x	x	x	x	x	
Iceland		x			x		
Indonesia		x		x		x	
Israel						x	
Italy	x	x	x	x	x	x	x
Mexico		x					
Netherlands	x	x	x	x	x		
Norway	x	x		x	x	x	x
Paraguay		x		x			
Sweden	x	x		x	x	x	x
Uruguay				x			x

Source: Table 20.

Les relations de commerce et de paiements entre l'Est et l'Ouest

Résumé

Cette étude des relations de commerce et de paiements entre l'Est et l'Ouest décrit les principales caractéristiques du commerce entre les sept Etats – Allemagne orientale, Bulgarie, Hongrie, Pologne, Roumanie, Tchécoslovaquie et URSS – membres du Conseil d'aide économique mutuelle (CAEM), examine l'influence que leurs mesures de réforme économique pourraient avoir sur leurs échanges commerciaux ainsi que les problèmes soulevés par le commerce entre l'Est et l'Ouest, sans oublier le rôle du bilatéralisme.

Au cours de la période 1960–66, le commerce extérieur total des Etats membres du CAEM s'est accru au même rythme annuel que celui du reste du monde (8 pour cent environ), et il représentait à la fin de cette période 10 pour cent du commerce mondial. Cependant, la répartition géographique du commerce de ces pays s'est modifiée depuis 1960, et leur commerce avec le reste du monde a augmenté plus rapidement que leur commerce total.

Les Etats membres du CAEM ont adopté des mesures destinées à augmenter leur participation au commerce mondial et à leur permettre de développer leurs exportations payées en monnaies convertibles. Ils continuent toutefois à accorder leur préférence au commerce bilatéral basé sur des accords qui comportent parfois des clauses de paiements bilatéraux. Cette préférence, qui est liée directement à leurs systèmes de planification et d'économie dirigée, tient aussi probablement aux contraintes inhérentes à leurs avoirs et à leurs recettes en monnaies convertibles. A la fin de 1967, les Etats membres du CAEM étaient parties à 184 accords de commerce et de paiements avec 42 Etats membres du Fonds, ainsi qu'à plus de 200 accords de commerce avec des membres du Fonds.

Les problèmes d'ordre économique que soulève encore le commerce entre l'Est et l'Ouest tiennent au fait que la capacité des pays du CAEM d'augmenter régulièrement leurs importations demeure limitée, que le commerce intéressant une marchandise donnée risque d'être brusquement modifié par une décision administrative prise dans l'un de ces pays, aux difficultés rencontrées dans la prospection des marchés et à la nécessité de traiter avec des intermédiaires – par exemple des organisations du commerce extérieur – plutôt qu'avec les utilisateurs finals. L'expérience démontre qu'en général l'abrogation des accords bilatéraux de paiements n'a pas eu de répercussions fâcheuses sur le commerce

entre les pays parties à ces accords et qu'il peut être erroné de conclure que les accords encore appliqués par certains pays d'Europe occidentale traduisent l'hésitation des Etats du CAEM à régler leurs transactions en monnaies convertibles. De nombreux pays sont en train de réexaminer leur attitude à l'égard du commerce avec les Etats membres du CAEM. Comme ces pays ont eux-mêmes manifesté un intérêt croissant envers une expansion du commerce entre l'Est et l'Ouest, il y a tout lieu de croire que les occasions de vendre sur leurs marchés auront tendance à se multiplier et non à diminuer.

Relaciones comerciales y de pagos entre el Este y el Oeste

Resumen

En el presente estudio sobre las relaciones comerciales y de pagos entre el Este y el Oeste, se describen las principales características del comercio de los siete países—Alemania Oriental, Bulgaria, Checoslovaquia, Hungría, Polonia, Rumania y la URSS—que forman parte del Consejo de Asistencia Económica Mutua (CAEM), y se examina tanto la posible influencia de las medidas de reforma económica de dichos países en sus relaciones comerciales, como los problemas conexos, entre otros, los que provienen del bilateralismo.

Durante el período 1960–1966, el total del comercio exterior de los países del CAEM registró la misma tasa de crecimiento anual (alrededor del 8 por ciento) que la del comercio del resto del mundo y, al final del período, representó el 10 por ciento del comercio mundial. Sin embargo, a partir de 1960 ha cambiado la distribución geográfica del comercio de dichos países y su comercio con el resto del mundo ha registrado un aumento más rápido que la totalidad del comercio que realizan.

Los países del CAEM han implantado medidas destinadas a aumentar su participación en el comercio internacional y a mejorar su capacidad de efectuar exportaciones pagaderas en monedas convertibles. Sin embargo, siguen dando preferencia al comercio bilateral basado en convenios que pueden incluir disposiciones sobre pagos bilaterales. Esta preferencia guarda relación directa con sus sistemas de planificación y de gestión económica y, probablemente, con las limitaciones que les imponen sus tenencias y los ingresos que perciben en monedas convertibles. A fines de 1967 eran 184 los convenios comerciales y de pagos que existían entre esos países y 42 países miembros del Fondo y, además,

participaban en más de 200 acuerdos comerciales con países miembros del Fondo.

Entre los problemas de carácter económico que todavía persisten en el comercio entre el Este y el Oeste, se encuentran: las limitaciones que confrontan los países del CAEM en su capacidad de aumentar en forma continuada sus importaciones, la posibilidad de que ocurra un cambio repentino en el comercio de un determinado artículo como resultado de decisiones administrativas adoptadas en uno de los países del CAEM, las dificultades en conocer con exactitud las perspectivas del mercado y la necesidad de tratar con intermediarios, es decir, con organismos encargados del comercio exterior en lugar de entenderse directamente con los usuarios finales. La experiencia recogida indica que, en general, el hecho de que los convenios bilaterales de pagos se hayan dado por terminados no ha afectado adversamente al comercio entre los países respectivos, y que quizá sea incorrecto aseverar que los convenios que todavía mantienen algunos países de la Europa occidental con los países del CAEM se deben únicamente a la renuencia de estos últimos a liquidar sus transacciones en monedas convertibles.

Muchos países están reexaminando su actitud hacia el comercio con los países del CAEM. Dado que éstos también han demostrado un creciente interés en la expansión de su comercio con el Oeste, se da por sentado que lo más probable es que las oportunidades de efectuar ventas en los mercados de dichos países habrán de aumentar en vez de disminuir.

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In statistical matter (except in the *résumés* and *resúmenes*) throughout this issue,

Dots (...) indicate that data are not available;

A dash (—) indicates that the figure is zero or less than half the final digit shown, or that the item does not exist;

A single dot (.) indicates decimals;

A comma (,) separates thousands and millions;

“Billion” means a thousand million;

A short dash (–) is used between years or months (e.g., 1955–58 or January–October) to indicate a total of the years or months inclusive of the beginning and ending years or months;

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